NEWARK
California

General Plan Tune Up Draft Program EIR

for the City of Newark

State Clearinghouse No. 2013012052

The Planning Center|DC&E

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Prepared by:

The Planning Center|DC&E

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Orange County • Northern California • Los Angeles / Downtown • Los Angeles / West • Inland Empire • San Diego

1625 Shattuck Avenue, Suite 300 | Berkeley, California 94709 | 510 848 3815 | 510 848 4315 (f) www.planningcenter.com

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1. *Executive Summary*

This Draft Environmental Impact Report (Draft EIR) addresses the environmental effects associated with the implementation of the proposed Newark General Plan Tune Up (proposed Plan). The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Environmental Impact Report is a public document designed to provide the public and local and state governmental agency decision-makers with an analysis of potential environmental consequences to support informed decision-making.

This Draft EIR has been prepared pursuant to the requirements of CEQA (California Public Resources Code, Division 13, Section 21000, et seq.) and the State CEQA Guidelines (Title 14 of the California Code of Regulations, Division 6, Chapter 3, Section 15000, et seq.) to determine if approval of the identified discretionary actions and related subsequent development could have a significant impact on the environment. The City of Newark, as the Lead Agency, has reviewed and revised as necessary all submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable City technical personnel and review of all technical subconsultant reports. Information for this Draft EIR was obtained from on-site field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data, and similar literature in the public domain; and specialized environmental assessments (e.g., air quality, hazards and hazardous materials, hydrology and water quality, noise, and transportation and traffic).

1.1 ENVIRONMENTAL PROCEDURES

This Draft EIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed Plan, as well as anticipated future discretionary actions and approvals. The six main objectives of this document as established by CEQA are:

- To disclose to decision-makers and the public the significant environmental effects of proposed activities.
- To identify ways to avoid or reduce environmental damage.
- To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
- To disclose to the public reasons for agency approval of projects with significant environmental effects.
- To foster interagency coordination in the review of projects.
- To enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation identified in the statuts and in the CEQA Guidelines. It provides the information needed to assess the environmental consequences of a proposed project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts. An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and must adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

REPORT ORGANIZATION

This EIR is organized into the following chapters:

- **Section 1. Executive Summary**: Summarizes the background and description of the proposed Plan, the format of this EIR, alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the Plan. A Summary Table describing recommended mitigation measures and indicates the level of significance of environmental impacts before and after mitigation is also included for clarity.
- **Section 2. Introduction**. Provides a preface and overview describing both the intended use of the document and the review and certification process of both the proposed Plan and the EIR.
- **Section 3. Project Description**. Describes the Draft General Plan Tune Up in detail, including a summary of the chapters of the Plan and a listing of proposed land use designation changes.
- **Section 4. Environmental Assessment**. Organized into 15 chapters corresponding to the environmental resource categories identified in Appendix G of the CEQA Guidelines, this section provides a description of the physical environmental conditions in the vicinity of the project as they existed at the time the Notice of Preparation was published, from both a local and regional perspective, as well as an analysis of the potential environmental impacts of the proposed Plan and recommended mitigation measures, if required, to reduce their significance. The environmental setting included in each chapter provides baseline physical conditions from which the lead agency determines the significance of environmental impacts resulting from the proposed Plan. Each chapter also includes a description of the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the Plan; and the potential cumulative impacts associated with the proposed Plan and other existing, approved, and proposed development in the area.
- **Section 5. Significant Unavoidable Adverse Impacts**: Describes the significant unavoidable adverse impacts of the proposed Plan.

- **Section 6. Alternatives to the Proposed Plan**. Considers three alternatives to the proposed Plan, including the CEQA-required "No Project Alternative," the Reduced Residential Alternative, and the Restricted Growth Alternative.
- **Section 7. CEQA-Mandated Sections**. Discusses growth inducement, cumulative impacts, unavoidable significant effects and significant irreversible changes as a result of the proposed Plan. Additionally, this section identifies environmental issues scoped out pursuant to CEQA Guidelines Section 15128.
- **Section 8. Organizations and Persons Consulted**: Lists the people and organizations that were contacted during the preparation of this EIR for the proposed Plan.
- **Appendices**.The appendices for this document (presented in PDF format on a CD attached to the back cover) contain the following supporting documents:
  - Appendix A: Notice of Preparation Comment Letters
  - Appendix B: Air Quality and Greenhouse Gas Emissions Data and Calculation Sheets
  - Appendix C: Noise Monitoring and Calculation Sheets
  - Appendix D: City of Newark General Plan Tune Up Traffic Study, Hexagon Transportation Consultants, June 7, 2013.

TYPE AND PURPOSE OF THIS DRAFT EIR

According to Section 15121(a) of the CEQA Guidelines, the purpose of an EIR is to:

> *Inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.*

Given the long-term horizon of the proposed Plan and the permitting, planning, and development actions that are related both geographically and as logical parts in the chain of contemplated actions for implementation, this Draft EIR has been prepared as a Program EIR for the General Plan Tune Up project, pursuant to Section 15168 of the CEQA Guidelines. As a Program EIR, it is not project-specific, and does not evaluate the impacts of specific projects that may be proposed under the Plan. Such subsequent projects will require a separate environmental review to secure the necessary development permits. While subsequent environmental review may be tiered off this EIR, this EIR is not intended to address impacts of individual projects.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine whether additional CEQA documentation needs to be prepared. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documents may not be required (CEQA Guidelines Section 15168[c]). When a Program EIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects not within the scope of the Program

EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis.

1.2 LOCATION AND BOUNDARIES OF THE PLAN AREA

The City of Newark is located in southern Alameda County, between Interstate 880 (I-880) and San Francisco Bay, south of State Route 84, as shown on Figure 3-1. The City of Newark is an enclave, surrounded on all sides by land within the limit of the City of Fremont. The Don Edwards San Francisco Bay National Wildlife Refuge is located along the western perimeter of Newark on the shore of San Francisco Bay. The City's sphere of influence (SOI), the planning boundary set by the Alameda County Local Agency Formation Commission to designate the City's future service area, is coterminous with the Newark City limit.

1.3 PLAN SUMMARY

The proposed Plan is a "tune up" of the 1992 City of Newark General Plan. The vision for the growth and development of the community outlined in the 1992 General Plan remains a valid reflection of community values and priorities today, and the land use designations and policies of the 1992 General Plan provide a solid base on which to build. The Plan proposes an updated policy framework and consolidated land use designations intended to guide future development and redevelopment in Newark. Future development would be concentrated primarily in the four focus areas: the Dumbarton TOD Focus Area, the Southwest Newark Residential and Recreational Focus Area, the Old Town Focus Area, and the Greater NewPark Focus Area. The proposed Plan is projected to result in approximately 60,510 residents, 19,699 housing units, and 22,609 jobs in Newark by 2035.

The proposed Plan has a long-term planning horizon, addressing a time frame extending to 2035, yet it brings deliberate, overall direction to the day-to-day decisions of the City Council, its commission, and City staff. The proposed Plan is described in more detail in Chapter 3 of this Draft EIR.

1.4 SUMMARY OF ALTERNATIVES TO THE PROPOSED PLAN

The CEQA Guidelines (Section 15126[a]) require the description and comparative analysis of a range of alternatives to the proposed Plan that could feasibly attain the objectives of the Plan, while avoiding or substantially lessening potential impacts. The alternatives were based on their potential ability to reduce or eliminate the following impacts determined to be significant and unavoidable for the proposed Plan:

- Aesthetics
- Air Quality
- Cultural Resources
- Greenhous Gas Emssions

- Noise
- Transportation and Traffic

As described in Chapter 6 of this Draft EIR, three alternatives were identified and analyzed for relative impacts as compared to the proposed Plan:

- No Project Alternative;
- Reduced Residential Alternative;
- Restricted Growth Alternative.

Please refer to Chapter 6 of this Draft EIR for a complete discussion of the relative impacts associated with each alternative. The following presents a summary of each of the alternatives analyzed in the Draft EIR.

- **No Project Alternative**. Under this alternative, the Newark General Plan Tune Up would not be adopted and future development in Newark would occur under the goals, policies, programs, and land use designations set forth in the existing General Plan. Existing plans and policies, including Dumbarton Transit-Oriented Development (TOD) Specific Plan, the Area 3 and 4 Specific Plan, the 2009-2014 Housing Element, and the Climate Action Plan would continue to be implemented. The No Project Alternative could result in up to 17,900 housing units in Newark by 2035, including approximately 10,950 single-family homes and 6,950 multi-family units, as well as approximately 20,600 jobs.

- **Reduced Residential Alternative**. Under the Reduced Residential Alternative, the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area would not be developed as envisioned in the respective specific plans for those sectors of the city and instead the 1992 General Plan land use designations would apply. Consequently, residential development would not be permitted in the Dumbarton TOD Focus Area and that area would allow general industrial uses through 2035. In the Southwest Newark Residential and Recreational Focus Area, low density housing at between 4 and 8 units per acre would be permitted in the larger sector formerly known as Area 4 as under the 1992 General Plan; however, residential development would not be permitted in Area 3, which would allow special industrial business park uses. Additionally, under this scenario, the land use designations in the vicinity of NewPark Mall would remain as under the 1992 General Plan and the diversification and intensification of uses in this area envisioned in the proposed Plan would not occur. Development in the Old Town Focus Area would occur as under the proposed Plan. The goals, policies, and actions contained in the proposed Plan would apply under this alternative as well, with the exception of goals, policies, and actions specific to the Dumbarton TOD Focus Area and the smaller noncontiguous sector of the Southwest Newark Residential and Recreational Focus Area that would not be developed as under the Plan. The Reduced Residential Alternative could result in up to 16,280 housing units by 2035, including 11,981 single-family homes and 4,299 multi-family homes. This alternative could result in up to 24,800, jobs in Newark, concentrated largely in the northwestern part of the city and in existing industrial areas along its western edge.

- **Restricted Growth Alternative**. Under this alternative, future growth in environmentally sensitive areas along the western edge of Newark would be restricted. Future growth would occur entirely on previously developed land in the urbanized portion of the city. Development in the Old Town Focus Area and the Greater NewPark Focus Area would take place as under the proposed Plan; however, the Dumbarton TOD Focus Area and the larger sector of the Southwest Newark Residential and Recreational Focus Area south of the Union Pacific

Railway Line would be designated as Open Space. The smaller sector formerly known as Area 3 would be developed with two- and three-story residential structures at an intensity of 18 dwelling units per acre, as well as an elementary school. Overall, this alternative could result in up to 16,995 housing units in Newark by 2035, including 9,635 single-family homes and 7,360 multi-family units, as well as up to 22,300 jobs. The goals, policies, and actions contained in the proposed Plan would apply under this alternative as well, with the exception of goals, policies, and actions specific to the Dumbarton TOD Focus Area and the smaller non-contiguous sector of the Southwest Newark Residential and Recreational Focus Area that would not be developed as under the proposed Plan.

1.5 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed Plan, the major issues to be resolved include decisions by the City of Newark, as lead agency, related to:

- Whether this Draft EIR adequately describes the environmental impacts of the Plan.
- Whether the benefits of the Plan override those environmental impacts that cannot be feasibly avoided or mitigated to a level of insignificance.
- Whether the proposed land use changes are compatible with the character of the existing area.
- Whether the identified goals, policies, or mitigation measures should be adopted or modified.
- Whether there are other mitigation measures that should be applied to the Plan besides those Mitigation Measures identified in the Draft EIR.
- Whether there are any alternatives to the Plan that would substantially lessen any of the significant impacts of the proposed Plan and achieve most of the basic objectives.

1.6 AREAS OF CONTROVERSY

The City of Newark issued a Notice of Preparation of an EIR on January 15, 2013 and held a scoping meeting on January 24, 2013. The scoping period for this EIR ran from January 15 through February 13, 2013, during which time responsible agencies and interested members of the public were invited to submit comments as to the scope and content of the EIR. The comments received focused primarily on the following issues:

- Water and Groundwater Quality
- Clean up of Contaminated Sites
- Sea Level Rise
- Conflicts with the San Francisco Bay Conservation and Development Commission's San Francisco Bay Plan
- Flood Hazards
- Fill of Jurisdictional Wetlands

- Biological Resources
- Vehicular Circulation

To the extent that these issues have environmental impacts and to the extent that analysis is required under CEQA, they are addressed in Sections 4 through 7 of this Draft EIR.

1.7 SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Table 1-1 summarizes the conclusions of the environmental analysis contained in this Draft EIR and presents a summary of impacts and mitigation measures identified. It is organized to correspond with the environmental issues discussed in Section 4, Chapter 4.0 through 4.14. The table is arranged in four columns: 1) environmental impacts; 2) significance prior to mitigation; 3) mitigation measures; and 4) significance after mitigation. For a complete description of potential impacts, please refer to the specific discussions in Section 4, Chapter 4.0 through 4.14.

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AESTHETICS			
AES-1: The proposed Plan would not have a substantial adverse effect on a scenic vista.	LTS	N/A	LTS
AES-2: The proposed Plan would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a State scenic highway.	LTS	N/A	LTS
AES-3: The proposed Plan would result in a significant impact to the visual character of the Southwest Newark Residential and Recreational Focus Area, as determined in previous environmental review.	S	AES-3: There is no feasible mitigation which would reduce impacts to a less-than-significant level.	SU
AES-4: The Plan would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LTS	N/A	LTS
AES-5: The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to aesthetics.	LTS	N/A	LTS
AIR QUALITY			
AIR-1: While the proposed Plan would support the primary goals of the 2010 Bay Area Clean Air Plan, buildout of the proposed Plan would not be consistent with the Clean Air Plan because the projected vehicle miles traveled (VMT) increase from buildout of the proposed Plan would be greater than the projected population increase.	S	AIR-1: Numerous goals, policies, and actions contained in the proposed Plan address future increase in VMT and criteria air pollutants under the Plan; however, the projected growth in VMT in the Plan Area would still exceed the rate of population growth. There are no additional measures that would reduce this impact.	SU
AIR-2: The Plan would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AIR-3: The proposed Plan would not result in a cumulatively considerable contribution related to an increase in criteria pollutants for which the San Francisco Bay Area Air Basin is designated a non-attainment area.	LTS	N/A	LTS
AIR-4: The proposed Plan would result in less-than-significant impacts with respect to the placement of sensitive receptors proximate to major sources of air pollution or the siting of new sources of air pollution proximate to sensitive receptors in the City.	LTS	N/A	LTS
AIR-5: The Plan would not create or expose a substantial number of people to objectionable odors.	LTS	N/A	LTS
BIOLOGICAL RESOURCES			
BIO-1: Buildout of the proposed Plan would result in less-than-significant impacts to special-status plant and animal species in the Plan Area.	LTS	N/A	LTS
BIO-2: Buildout of the proposed Plan would result in less-than-significant impact to wetlands, riparian habitat, and sensitive natural communities in the Plan Area.	LTS	N/A	LTS
BIO-3: Buildout of the proposed Plan would result in less-than-significant impact to as-yet undelineated waters of the US in the Plan Area.	LTS	N/A	LTS
BIO-4: The proposed Plan would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	LTS	N/A	LTS
BIO-5: The proposed Plan would not conflict with the City of Newark tree preservation ordinance.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-6: The proposed Plan would result in less-than-significant impacts related to conflicts with the Basin Plan and the Habitat Goals.	LTS	N/A	LTS
BIO-7: The proposed Plan would result in less-than-significant cumulative impacts related to biological resources.	LTS	N/A	LTS
CULTURAL RESOURCES			
CULT-1: The Plan would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.	LTS	N/A	LTS
CULT-2: Construction activities associated with buildout of the proposed Plan could cause a significant impact to archaeological resources in the Southwest Newark Residential and Recreational Focus Area by potentially damaging or disturbing as yet undiscovered archaeological deposits through the placement of fill and soil compression.	S	CULT-2: Regulatory compliance and implementation of proposed Plan policies would reduce but not eliminate the potential for damage or disturbance. No additional feasible mitigation exists to further reduce this impact.	SU
CULT-3: The Plan would not directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature.	LTS	N/A	LTS
CULT-4: Construction activities associated with buildout of the proposed Plan could cause a significant impact to a significant impact to Native American human remains in the Southwest Newark Residential and Recreational Focus Area by potentially damaging or disturbing as yet undiscovered Native American human remains through the placement of fill and soil compression.	S	CULT-4: While compliance with the provisions of SB18, California Health and Safety Code Section 7052 and 7050.5, and California Public Resources Code Section 5097 and 15064.5 together with implementation Mitigation Measure 4.4-1 from the 2009-2104 Housing Element EIR, and Mitigation Measures CUL-2.1 through CUL-2.4 from the Area 3 and 4 Specific Plan EIR, described above, would reduce the potential for accidental damage or disturbance of human remains during construction activities associated with buildout of the proposed Plan, damage or disturbance of human remains through the placement of fill and soil compression could still result during construction activities associated with buildout. No additional feasible mitigation exists to further reduce this impact.	SU

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
CULT-5: The Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to cultural resources.	LTS	N/A	LTS
GEOLOGY, SOILS, AND SEISMICITY			
GEO-1: The proposed Plan would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving surface rupture along a known active fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides.	LTS	N/A	LTS
GEO-2: Implementation of the proposed Plan would not result in substantial soil erosion or the loss of topsoil.	LTS	N/A	LTS
GEO-3: Development under the proposed Plan would not result in a significant impact related to development on unstable geologic units and soils or result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	LTS	N/A	LTS
GEO-4: Development under the proposed Plan would not create substantial risks to life or property as a result of its location on expansive soil, as defined in Table 18-1-b of the Uniform Building Code (1994).	LTS	NA	LTS
GEO-5: Implementation of the proposed Plan would not result in impacts associated with the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.	No Impact	N/A	No impact
GEO-6: The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to geology and soils.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
GREENHOUSE GAS EMISSIONS			
GHG-1: The proposed Plan would generate substantial GHG emissions in excess of the long-term 2050 GHG reduction target interpolated from Executive Order S-03-05.	S	GHG-1: To further reduce 2035 GHG emissions resulting from future development under the proposed Plan, the City shall require the following Uniformly Applicable Development Standards for new developments: ▪ Pedestrian and Bicycle Friendly Design/Bicycle Parking. Site plans submitted shall identify pedestrian and bicycle facilities on-site, including bicycle parking. ▪ Pedestrian and Bicycle Provisions within New Development. Circulation plans submitted shall identify pedestrian and bicycle routes. ▪ Source Reduction and Diversion for New Construction. Major new non-residential developments shall submit a plan that identifies solid waste source reduction and diversion measures (e.g. location of recycling bins on-site). ▪ Sustainable Design/Tree Planting in New Development/Minimizing Impervious Surface Coverage. Landscape plans submitted shall minimize impervious surfaces and identify features to reduce the heat island effect (e.g. tree coverage, permeable pavement, cool pavement). However, it should be noted that while CARB is currently updating the Scoping Plan to identify additional measures to achieve the long-term GHG reduction targets, at this time, there is no plan past 2020 that achieves the long-term GHG reduction goal established under Executive Order S-03-05. As identified by the California Council on Science and Technology, the State cannot meet the 2050 goal without major advancements in technology.	SU
GHG-2: The proposed plan would not conflict with an applicable plan, policy, or regulation for the purpose of reducing the emissions of GHGs.	LTS	N/A	LTS
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-1: The Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
HAZ-2: The Plan would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	LTS	N/A	LTS
HAZ-3: The proposed Plan would not result in significant impacts associated with hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school.	LTS	N/A	LTS
HAZ-4: Implementation of the Plan would not create a significant hazard to the public or the environment as a result of development on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.	LTS	N/A	LTS
HAZ-5: Implementation of the Plan would not result in a safety hazard for people residing or working in the Plan Area due to development within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport.	No Impact	N/A	No impact
HAZ-6: Implementation of the Plan would not result in a safety hazard for people residing or working in the Plan Area due to development in the vicinity of a private airstrip.	No Impact	N/A	No impact
HAZ-7: The proposed Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	N/A	LTS
HAZ-8: Implementation of the Plan would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
HAZ-9: The Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to hazards and hazardous materials.	LTS	N/A	LTS
HYDROLOGY AND WATER QUALITY			
HYDRO-1: The proposed Plan would not violate any water quality standards or waste discharge requirements.	LTS	N/A	LTS
HYDRO-2: The proposed Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	LTS	N/A	LTS
HYDRO-3: The proposed Plan would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation, or flooding on- or off-site.	LTS	N/A	LTS
HYDRO-4: The proposed Plan would not create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	LTS	N/A	LTS
HYDRO-5: The proposed Plan would not otherwise substantially degrade water quality.	LTS	N/A	LTS
HYDRO-6: The proposed Plan would not result in a significant impact with respect to the placement of housing or structures, which would impede or redirect flood flows within a 100-year flood hazard area as	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.			
HYDRO-7: The proposed Plan would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	LTS	N/A	LTS
HYDRO-8: The proposed Plan would not result in significant adverse effects related to inundation by seiche, tsunami, or mudflow.	LTS	N/A	LTS
HYDRO-9: The proposed Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to hydrology and water quality.	LTS	N/A	LTS
LAND USE AND PLANNING			
LU-1: The proposed Plan would not physically divide an established community.	LTS	N/A	LTS
LU-2: The proposed Plan would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	N/A	LTS
LU-3: The proposed Plan would result in less than significant conflicts with the Bay Plan and the Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan.	LTS	N/A	LTS
LU-4: The proposed Plan, in combination with past, present, and reasonably foreseeable development in the surrounding area, would result in less-than-significant-cumulative impacts with respect to land use and planning.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
NOISE			
NOISE-1: The proposed Plan would not expose people to or generate noise levels in excess of standards established in the General Plan or the Municipal Code, and/or the applicable standards of other agencies.	LTS	N/A	LTS
NOISE-2: The proposed Plan would not expose people to or generate excessive groundborne vibration or groundborne noise levels.	LTS	N/A	LTS
NOISE-3: Implementation of the proposed Plan would result in a substantial permanent increase in ambient noise levels in the Plan Area above levels existing without Plan implementation.	S	NOISE-3: Increases in vehicular traffic resulting from implementation of the proposed Plan in conjunction with regional growth would result in permanent increases to ambient noise levels that would exceed applicable standards along ten major roadway segments in the Plan Area. Proposed Plan policies and actions, including Policy EH-7.4, Action EH-6.D, Action EH-6.E, Action EH-6.H, and Action EH-7.B, described above, would reduce associated impacts; however, increases in noise in excess of the applicable standards could still occur. Although the most effective mitigations such as soundwalls or earthern berms may theoretically be capable of reducing increases to ambient noise to levels below the above standards, such reductions cannot be guaranteed; and, in many cases, other considerations will prevent the use of these noise-attenuating features. Therefore, there are no additional measures available to reduce the associated impacts to a less-than-significant level.	SU
NOISE-4: Construction activities associated with buildout of the proposed Plan would not result in substantial temporary or periodic increases in ambient noise levels in the Plan Area above existing levels.	LTS	N/A	LTS
NOISE-5: The proposed Plan would not result in exposure of people residing or working in the vicinity of the plan area to excessive aircraft noise levels, for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
NOISE-6: The proposed Plan would not result in exposure of people residing or working in the project area to excessive noise levels, for a project within the vicinity of a private airstrip.	LTS	N/A	LTS
NOISE-7: Implementation of the proposed Plan, in combination with past, present, and reasonably foreseeable projects, would not result in additional cumulatively considerable noise, or groundborne noise and vibration impacts.	LTS	N/A	LTS
POPULATION AND HOUSING			
POP-1: The Plan would not induce substantial unexpected population growth, or growth for which inadequate planning has occurred, either directly or indirectly.	LTS	N/A	LTS
POP-2: The Plan would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.	LTS	N/A	LTS
POP-3: The Plan would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.	LTS	N/A	LTS
POP-4: The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to population and housing.	LTS	N/A	LTS
PUBLIC SERVICES AND RECREATION			
PS-1: The proposed Plan would not result in the provision of or need for new or physically altered fire protection facilities, the construction or operation of which could cause significant environmental impacts.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
PS-2: The proposed Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to fire protection service.	LTS	N/A	LTS
PS-3: The proposed Plan would not result in a significant impact related to the construction or expansion of police facilities.	LTS	N/A	LTS
PS-4: The proposed Plan, in combination with past, present, and reasonably foreseeable growth, would result in less than significant cumulative impacts with respect to law enforcement services.	LTS	N/A	LTS
PS-5: The proposed Plan would not result in the provision of or need for new or physically altered school facilities, the construction or operation of which could cause significant environmental impacts.	LTS	N/A	LTS
PS-6: The proposed Plan, in combination with past, present, and reasonably foreseeable growth in the NUSD service area, would result in less than significant cumulative impacts with respect to schools.	LTS	N/A	LTS
PS-7: The proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreational facilities in order to maintain the City's adopted ratio of parkland per thousand residents.	LTS	N/A	LTS
PS-8: The proposed Plan would not increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur, or be accelerated.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
PS-9: The proposed Plan would not include or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	LTS	N/A	LTS
PS-10: The proposed Plan, in combination with past, present, and reasonably foreseeable growth, would result in less than significant cumulative impacts with respect to parks and recreational facilities.	LTS	N/A	LTS
PS-11: The proposed Plan would not result in the need for new or physically altered library facilities.	LTS	N/A	LTS
PS-12: The proposed Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to libraries.	LTS	N/A	LTS
TRANSPORTATION AND TRAFFIC			
TRANS-1: Implementation of the proposed Plan would cause intersection operation to degrade to unacceptable LOS F at the a) Ardenwood Boulevard and SR 84 westbound ramps intersection during the AM peak hour in 2035, b) the Newark Boulevard and SR 84 eastbound ramps intersection during the PM peak hour in 2035, and c) the Cherry Street/Boyce Road and Stevenson Boulevard intersection during the PM peak hour in 2035.	S	TRANS-1a: To mitigate this impact, the Ardenwood Boulevard and SR 84 westbound ramps intersection would require converting a through lane to a second left-turn lane on Ardenwood Boulevard, south of the Highway 84 westbound ramps. Re-striping of the northbound approach (i.e., Ardenwood Boulevard) would be necessary. LOS calculations show that with implementation of these improvements, the intersection would operate at an acceptable LOS C under proposed Plan conditions in 2035. However, because this mitigation measure is for an intersection under the jurisdiction of Caltrans and located in the City of Fremont, implementation is outside the jurisdiction of the City of Newark. The City of Newark will work with Caltrans and the City of Fremont to implement the mitigation measure and contribute on a fair-share basis; however until such time as there is an implementation plan in place and funding is secured, this impact is considered significant and unavoidable.	SU

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		TRANS-1b: To mitigate this impact, the Newark Boulevard and SR 84 eastbound ramps intersection would require adding a right turn lane in addition to the shared through-right lane on the Highway 84 eastbound off-ramp at Newark Boulevard. There is sufficient roadway right-of-way for this improvement, therefore the improvement could be implemented with re-striping of the off-ramp and roadway widening would not be necessary. LOS calculations show that with implementation of these improvements, the intersection would operate at an acceptable LOS D during the PM peak-hour under proposed Plan conditions in 2035. However, because this mitigation measure is for an intersection under the jurisdiction of Caltrans, implementation is outside the jurisdiction of the City of Newark. The City of Newark will work with Caltrans to implement the mitigation measure and contribute on a fair-share basis; however until such time as there is an implementation plan in place and funding is secured, this impact is considered significant and unavoidable.	
		TRANS-1c: To mitigate this impact, the Cherry Street/Boyce Road and Stevenson Boulevard intersection would require an additional through lane on the northbound approach (Boyce Road/Cherry Street is considered the north-south street for this intersection). There is potentially sufficient roadway right-of-way on Boyce Road/Cherry Street for this improvement; therefore, the improvement could be implemented with re-striping of Cherry Street. The northbound approach (e.g., south leg) of the intersection is located in Fremont. It would also require that the intersection be re-aligned. On the north side of Stevenson Boulevard, Cherry Street would need to be re-striped for approximately 800 feet. The implementation of these improvements would improve intersection LOS to an acceptable LOS D during the PM peak hour under proposed Plan conditions in 2035. Implementation of the above measure would improve conditions at the intersection to LOS D during the PM peak hour, which would be acceptable. However, because this mitigation measure is for an intersection located partly in the City of Fremont, full implementation is outside the jurisdiction of the City of Newark. The City of Newark will work with the City of Fremont to implement the mitigation measure and contribute on a fair-share basis; however until such time as there is an implementation plan in place and funding is secured, this impact is considered significant and unavoidable.	SU

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRANS-2: The proposed Plan would not conflict with the 2011 Alameda CTC Congestion Management Program.	LTS	N/A	LTS
TRANS-3: The proposed Plan would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	LTS	N/A	LTS
TRANS-4: The proposed Plan would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LTS	N/A	LTS
TRANS-5: Implementation of the proposed Plan would not result in inadequate emergency access.	LTS	N/A	LTS
TRANS-6: Implementation of the proposed Plan would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	LTS	N/A	LTS
TRANS-7: Implementation of the proposed Plan, in combination with past, present, and reasonably foreseeable projects, would not result in additional cumulatively considerable impacts.	LTS	N/A	LTS
UTILITIES AND SERVICE SYSTEMS			
UTIL-1: Implementation of the proposed Plan would increase Water Demand, however, sufficient water supplies are available to serve the project from existing entitlements and resources.	LTS	N/A	LTS
UTIL-2: The proposed Plan would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
UTIL-3: The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to water supply.	LTS	N/A	LTS
UTIL-4: The proposed Plan would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB).	LTS	N/A	LTS
UTIL-5: The proposed Plan would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LTS	N/A	LTS
UTIL-6: The proposed Plan would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	LTS	N/A	LTS
UTIL-7: The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to wastewater.	LTS	N/A	LTS
UTIL-8: The proposed Plan would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LTS	N/A	LTS
UTIL-9: The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to stormwater facilities.	LTS	N/A	LTS

Impact Criteria	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
UTIL-10: The proposed Plan would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	LTS	N/A	LTS
UTIL-11: The proposed Plan would comply with federal, State, and local statues and regulations related to solid waste.	LTS	N/A	LTS
UTIL-12: The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to solid waste.	LTS	N/A	LTS

2. Introduction

This Environmental Impact Report (EIR) provides an assessment of the potential environmental consequences of adoption and implementation of the proposed Newark General Plan Tune Up (proposed Plan). This assessment is intended to inform the City of Newark decision-makers, other responsible agencies, and the public at-large of the nature of the General Plan Tune Up and its potential effects on the environment. This EIR was prepared in accordance with and in fulfillment of California Environmental Quality Act (CEQA) requirements. The City of Newark is the Lead Agency under CEQA.

2.1 PROPOSED ACTION

The proposed Plan is a "tune up" of the 1992 City of Newark General Plan. The vision for the growth and development of the community outlined in the 1992 General Plan remains a valid reflection of community values and priorities today, and the land use designations and policies of the 1992 General Plan provide a solid base on which to build. The Plan proposes an updated policy framework and consolidated land use designations intended to guide future development and redevelopment in Newark. Future development would be concentrated primarily in the four focus areas: the Dumbarton TOD Focus Area, the Southwest Newark Residential and Recreational Focus Area, the Old Town Focus Area, and the Greater NewPark Focus Area.

The proposed Plan has a long-term planning horizon, addressing a time frame extending to 2035, yet it brings deliberate, overall direction to the day-to-day decisions of the City Council, its commission, and City staff. The proposed Plan is described in more detail in chapter 3 of this Draft EIR.

2.2 EIR SCOPE

This document is a Program EIR that analyzes potential environmental impacts of the adoption of the proposed General Plan Tune Up. As a Program EIR, it is not project-specific, and does not evaluate the impacts of specific projects that may be proposed under the Plan. Such subsequent projects will require a separate environmental review to secure the necessary development permits. While subsequent environmental review may be tiered off this EIR, this EIR is not intended to address impacts of individual projects.

The scope of this EIR was established by the City of Newark through the EIR scoping process.

2.2.1 POTENTIALLY SIGNIFICANT IMPACTS

Pursuant to CEQA Sections 15126.2 and 15126.4, the environmental issues addressed in this EIR include the following potentially significant adverse impacts:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation and Traffic
- Utilities and Service Systems

2.2.2 IMPACTS CONSIDERED LESS THAN SIGNIFICANT

CEQA Guidelines Section 15128 allows environmental issues for which there is no likelihood of significant impact to be "scoped out" and not analyzed further in the EIR. It was determined that the proposed Plan would not result in a significant impacts with respect to the following resource categories. A detailed discussion of the reasoning by which this determination was made is included in Chapter 7 of this Draft EIR.

- Agricultural and Forestry Resources
- Mineral Resources

2.2.3 INCORPORATION BY REFERENCE

The following documents are incorporated by reference in this Draft EIR, consistent with Section 15150 of the State CEQA Guidelines, and are available for review at the City of Newark Community Development Department:

- City of Newark General Plan (as amended)
- City of Newark municipal Code (as amended)
- City of Newark Zoning Ordinance (as amended)

- CEQA Guidelines (as amended)
- City of Newark Housing Element, February 2010
- City of Newark Housing Element Update & General Plan Amendments/Zoning Ordinance Amendments Final Program EIR SCH# 200912027, July 2009
- City of Newark Final Area 3 & 4 Specific Plan, September 2009
- City of Newark Final Area 3 & 4 Specific Plan EIR, SCH# 2007052065, April 2010
- City of Newark Dumbarton TOD Specific Plan, September 2010
- City of Newark Final Dumbarton Transit Oriented Development Specific Plan, SCH# 2010042012, July 2011
- City of Newark Climate Action Plan, January 2010
- Bay Area Air Quality Management District (BAAQMD), 2011, California Environmental Quality Act Air Quality Guidelines
- Alameda County Transportation Commission (CTC). 2012, June. Final 2012 Alameda Countywide Transportation Plan

This Draft EIR relies upon previously adopted regional and statewide plans and programs, agency standards, and background studies in its analysis, such as the City's General Plan, the Air Quality Management Plan, and the CEQA Air Quality Handbook. Whenever existing environmental documentation or previously-prepared documents and studies are used in the preparation of this Draft EIR, the information is summarized for the convenience of the reader and incorporated by reference. Chapters 4.0 through 4.14 of this Draft EIR provide a complete listing of references utilized in the preparation of this EIR.

2.3 REPORT ORGANIZATION

This EIR is organized into the following chapters:

- **Section 1. Executive Summary:** Summarizes the background and description of the proposed Plan, the format of this EIR, alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the Plan. A Summary Table describing recommended mitigation measures and indicates the level of significance of environmental impacts before and after mitigation is also included for clarity.
- **Section 2. Introduction.** Provides a preface and overview describing both the intended use of the document and the review and certification process of both the proposed Plan and the EIR.
- **Section 3. Project Description.** Describes the Draft General Plan Tune Up in detail, including a summary of the chapters of the Plan and a listing of proposed land use designation changes.
- **Section 4. Environmental Assessment.** Organized into 15 chapters corresponding to the environmental resource categories identified in Appendix G of the CEQA Guidelines, this section provides a description of

the physical environmental conditions in the vicinity of the project as they existed at the time the Notice of Preparation was published, from both a local and regional perspective, as well as an analysis of the potential environmental impacts of the proposed Plan and recommended mitigation measures, if required, to reduce their significance. The environmental setting included in each chapter provides baseline physical conditions from which the lead agency determines the significance of environmental impacts resulting from the proposed Plan. Each chapter also includes a description of the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the Plan; and the potential cumulative impacts associated with the proposed Plan and other existing, approved, and proposed development in the area.

- **Section 5. Significant Unavoidable Adverse Impacts:** Describes the significant unavoidable adverse impacts of the proposed Plan.
- **Section 6. Alternatives to the Proposed Plan**. Considers three alternatives to the proposed Plan, including the CEQA-required "No Project Alternative," the Reduced Residential Alternative, and the Restricted Growth Alternative.
- **Section 7. CEQA-Mandated Sections.** Discusses growth inducement, cumulative impacts, unavoidable significant effects and significant irreversible changes as a result of the proposed Plan. Additionally, this section identifies environmental issues scoped out pursuant to CEQA section 15128.
- **Section 8. Organizations and Persons Consulted:** Lists the people and organizations that were contacted during the preparation of this EIR for the proposed Plan.

2.4 ENVIRONMENTAL REVIEW PROCESS

2.4.1 DRAFT EIR

The Draft EIR will be available for review by the public and interested parties, agencies and organizations for a period of 45 days, as required by State law. Written comments on the Draft EIR are encouraged for incorporation into the Final EIR and should be submitted to:

Mr. Terrence Grindall
Community Development Director
City of Newark
37101 Newark Blvd.
Newark, CA 94560
Tel. (510) 578-4208
Email: terrence.grindall@newark.org

The Draft EIR will also be posted online on the City of Newark's Web site, www.newark.org.

2.4.2 FINAL EIR

Upon completion of the 45-day review period, the City of Newark will review all written comments received and prepare written responses for each comment. A Final EIR (FEIR) will then be prepared, incorporating all of the comments received, responses to the comments, and any changes to the Draft EIR that result from the comments received. The FEIR will then be presented to the City of Newark for potential certification as the environmental document for the Plan. All persons who commented on the Draft EIR will be notified of the availability of the FEIR and the date of the public hearing before the City.

All responses to comments submitted on the Draft EIR by agencies will be provided to those agencies at least 10 days prior to final action on the Plan. The City Council will make findings regarding the extent and nature of the impacts as presented in the FEIR. The FEIR will need to be certified as complete by the City prior to making a decision to approve or deny the Plan. Public input is encouraged at all public hearings before the City.

2.4.3 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that the lead agency adopt a monitoring or reporting program for any project for which it has made findings pursuant to Public Resources Code 21081 or adopted a Negative Declaration pursuant to Public Resources Code Section 21080(c). Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration. The Mitigation Monitoring Program for the proposed Plan will be completed as part of the FEIR and will be completed prior to consideration of the Plan by the Newark City Council.

3. *Project Description*

The Newark General Plan Tune Up Draft Environmental Impact Report (Draft EIR) provides an assessment of the environmental impacts associated with implementation of the proposed Newark General Plan (proposed Plan), released in Draft form for public review on August 12, 2013. The proposed Plan replaces the existing General Plan, originally adopted in June 1992 and amended through 2012, and is intended to guide investment, development, and conservation in Newark through 2035. In compliance with the California Environmental Quality Act (CEQA), this chapter provides a detailed description of the proposed Plan, including the location and boundaries of the Plan Area, the primary objectives and the principal characteristics of the proposed Plan, and the intended uses of the EIR.

3.1 LOCATION AND BOUNDARIES OF THE PLAN AREA

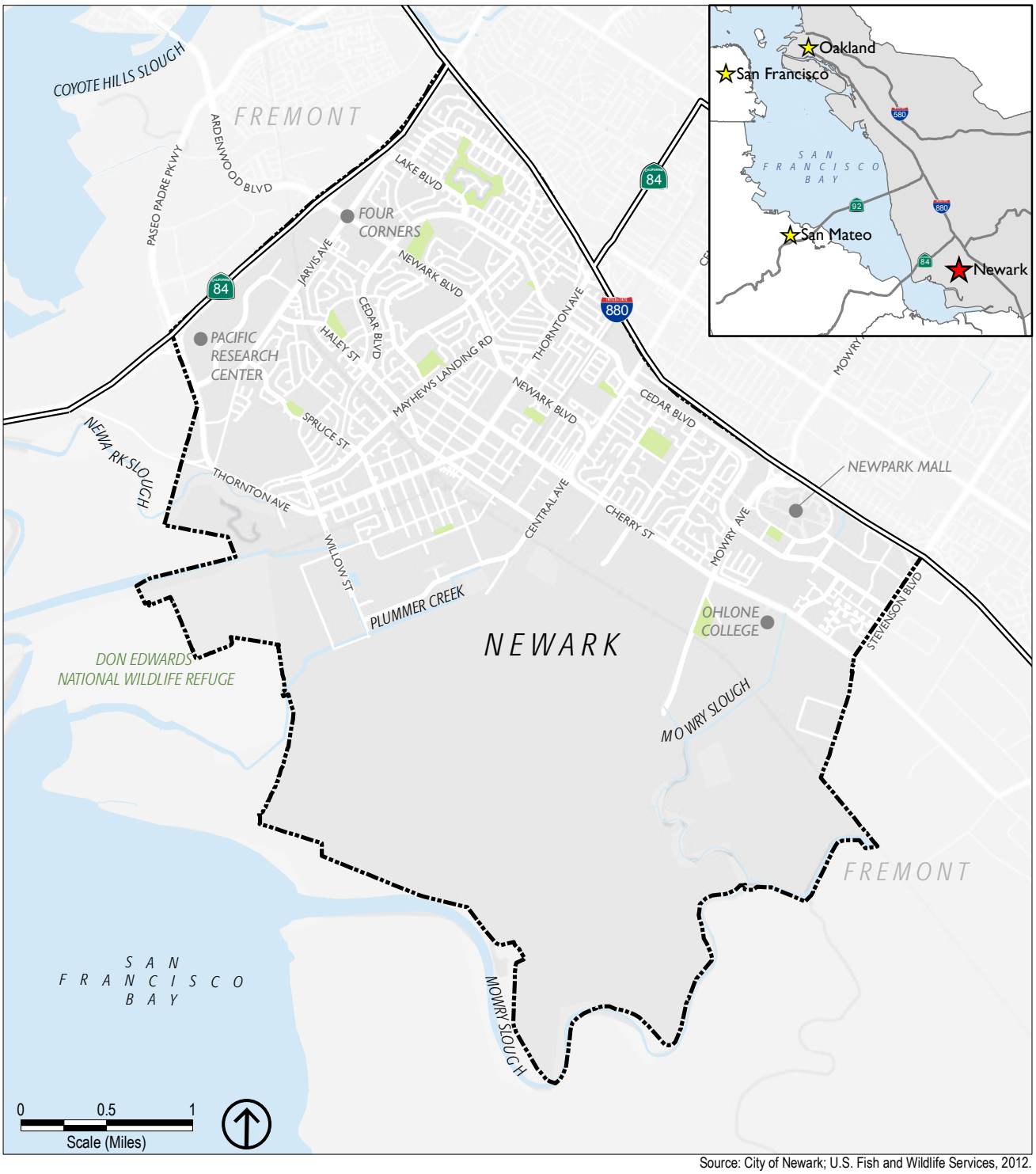
The City of Newark is located in southern Alameda County, between Interstate 880 (I-880) and San Francisco Bay, south of State Route 84, as shown on Figure 3-1. The City of Newark is an enclave, surrounded on all sides by land within the limit of the City of Fremont. The Don Edwards San Francisco Bay National Wildlife Refuge is located along the western perimeter of Newark on the shore of San Francisco Bay. The City's sphere of influence (SOI), the planning boundary set by the Alameda County Local Agency Formation Commission to designate the City's future service area, is coterminous with the Newark City limit.

3.2 STATEMENT OF OBJECTIVES

The vision for the growth and development of the community outlined in the 1992 Newark General Plan remains a valid reflection of community values and priorities today. This vision promotes a strong sense of community and neighborhood familiarity among residents; guides the timing and location of development so as to protect sensitive natural environments; and concentrates commercial and industrial land uses along the edges of the city to capitalize on freeway access and buffer more sensitive land uses. The primary purpose of the proposed Plan is to update the policy framework and land use designations that will guide future development in Newark to incorporate recent planning efforts undertaken by the City and satisfy new State and regional regulations that have come into force since the General Plan was last updated.

Additionally, City Council and the Planning Commission have identified the following objectives for the proposed Plan:

- Focus future growth in key areas of opportunity for development and redevelopment while preserving the character of existing residential neighborhoods.



Source: City of Newark; U.S. Fish and Wildlife Services, 2012.

City Limits

Figure 3-1
Location and Boundaries of the Plan Area

- Meet the regional need for housing, as defined in State Legislation and the Bay Area's Sustainable Community Strategy (SCS) and provide a wide range of housing opportunities for all housing types and income levels.
- Provide new, higher density housing options that address the needs of senior citizens and cater to the preferences of younger generations, while maintaining the single-family residential neighborhoods that Newark residents value.
- Continue to provide adequate and varied recreational opportunities
- Foster the creation of new high-quality recreational open spaces and the enhancement of existing recreational facilities and open spaces.
- Promote public health and safety.
- Develop a more sustainable and healthy community and promote walking and biking through focused Transit Oriented Development and focused high-density housing in proximity to commercial uses.
- Sustain NewPark Mall as a regional commercial attraction, while exploring opportunities for redevelopment of the surrounding area with civic and other uses supportive of the Mall.
- Redefine citywide transportation priorities to better balance the needs of all modes of travel.
- Facilitate clean-up of hazardous contamination sites in the City.
- Embrace Newark's bayfront location.

3.3 PLAN CHARACTERISTICS

Pursuant to the CEQA Guidelines, Chapter 14 California Code of Regulations, Section 15378[a], the proposed Plan is considered a "project" subject to environmental review as its implementation is "an action [undertaken by a public agency] which has the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment." This Draft EIR compares the buildout potential for the proposed Plan with the existing baseline condition, described in detail in each section of Chapter 4.0, Environmental Analysis.

3.3.1 PLAN BACKGROUND

This section describes the existing General Plan and recent major planning initiatives completed and adopted by the City of Newark.

3.3.1.1 EXISTING GENERAL PLAN

Originally adopted in 1992 and subsequently amended through 2012, the existing Newark General Plan contains a total of eight elements that cover the State-mandated topics of land use, circulation, housing, open space,

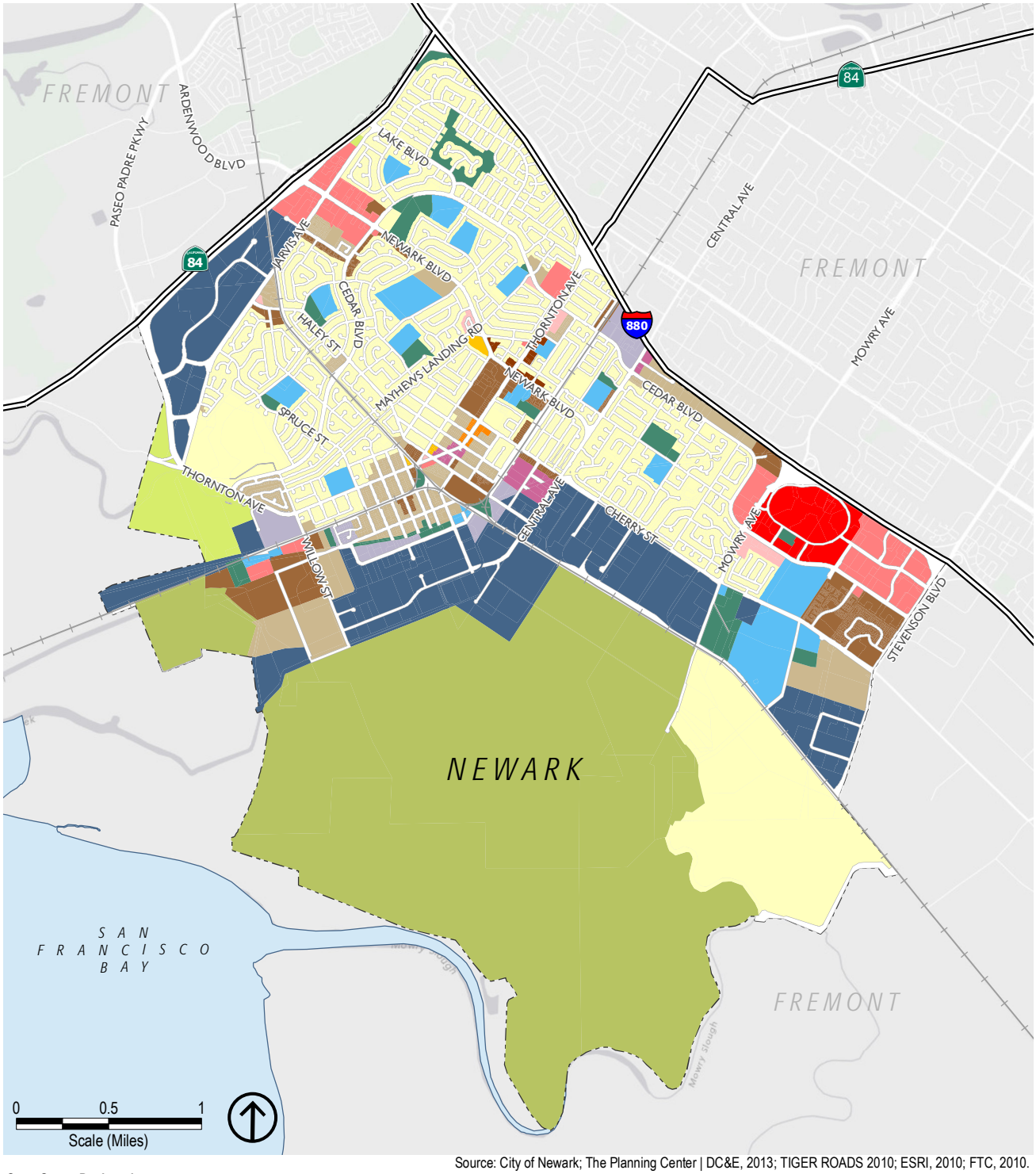
conservation, safety, and noise, as well as two optional topics: recreation; and community services and facilities. The Plan also includes an introductory section and various appendices.

In the existing General Plan, there are 17 different land use designations applied to land within the City limit, as shown in Figure 3-2. Table 3-1 presents a breakdown of current General Plan land uses in the city, accounting for amendments through 2012. As shown, residential land uses comprise the vast majority of developable area in Newark. Three designations regulate residential development at densities ranging from 4.2 to 8.5 dwelling units per acre (du/acre) up to 15 to 30 du/acre. Approximately 13 percent of the land in the city is designated for industrial uses, including a broad range of manufacturing, warehousing and distribution uses, as well as high tech development such as business parks and space for research and development of advanced technologies. Three designations regulate industrial uses at maximum development intensities of between 0.35:1 FAR and 0.5:1 FAR. Commercial development, including shopping centers, office space, and neighborhood and specialty commercial uses, is designated on roughly 5 percent of the land in Newark. Five designations regulate commercial development, at intensities ranging from a maximum floor area ration (FAR) of 0.3:1 for Neighborhood Commercial and Community Commercial uses, up to a maximum FAR of 1:1 for Office Commercial uses. Two Mixed Use designations apply to land in Old Town Newark, permitting a combination of retail, office, and residential uses. Residential development intensity is capped at 40 du/acre, while commercial and retail development limits are generally defined by zoning and include building heights (35 feet non-residential and 45 feet mixed-use) and residential densities (40 du/acre). The remainder of the developable area of the city, approximately 3.7 percent of the total area of Newark, is designated for public and institutional uses, such as schools, fire stations, civic administration facilities, and pumping stations.

In total, more than 43 percent of the land within the Newark City limit is designated as land for agricultural and salt production, parks and recreational facilities, or open space. Three designations regulate development on these lands. The Agriculture/Resource Production – Open Space designation applies to active agricultural, including salt production on land owned by Cargill Salt Company on the western boundary of the city. The Conservation – Open Space designation is intended to protect wildlife habitat and wetlands and is not intended for direct human habitation or work. The Public Parks Open Space designation identifies land for recreational and community purposes. Development is allowed, but building intensity is limited to 0.1:1 FAR maximum.

3.3.1.2 MAJOR RECENT PLANNING INITIATIVES

The existing General Plan described above includes several amendments to the 1992 General Plan Land Use Map made to enact major recent planning initiatives undertaken by the City, including the Area 3 and 4 Specific Plan, the 2009-2014 Housing Element, and the Dumbarton Transit Oriented Specific Plan. Additionally, the City has prepared and adopted a Climate Action Plan. Figure 3-3 shows the relative location of the planning areas of these major recent initiatives. A description of each of the major recent planning initiatives is provided below.



Source: City of Newark; The Planning Center | DC&E, 2013; TIGER ROADS 2010; ESRI, 2010; FTC, 2010.

Open Space Designations
- *Agriculture/Resource Production - Open Space*
- *Public Parks and Open Space*
- *Conservation - Open Space*

Industrial Designations
- *Limited Industrial*
- *Special Industrial*
- *General Industrial*

Residential Designations
- *Low Density Residential*
- *Medium Density Residential*
- *High-Density Residential*

Public - Insitutional Designations
- *Public-Institutional*

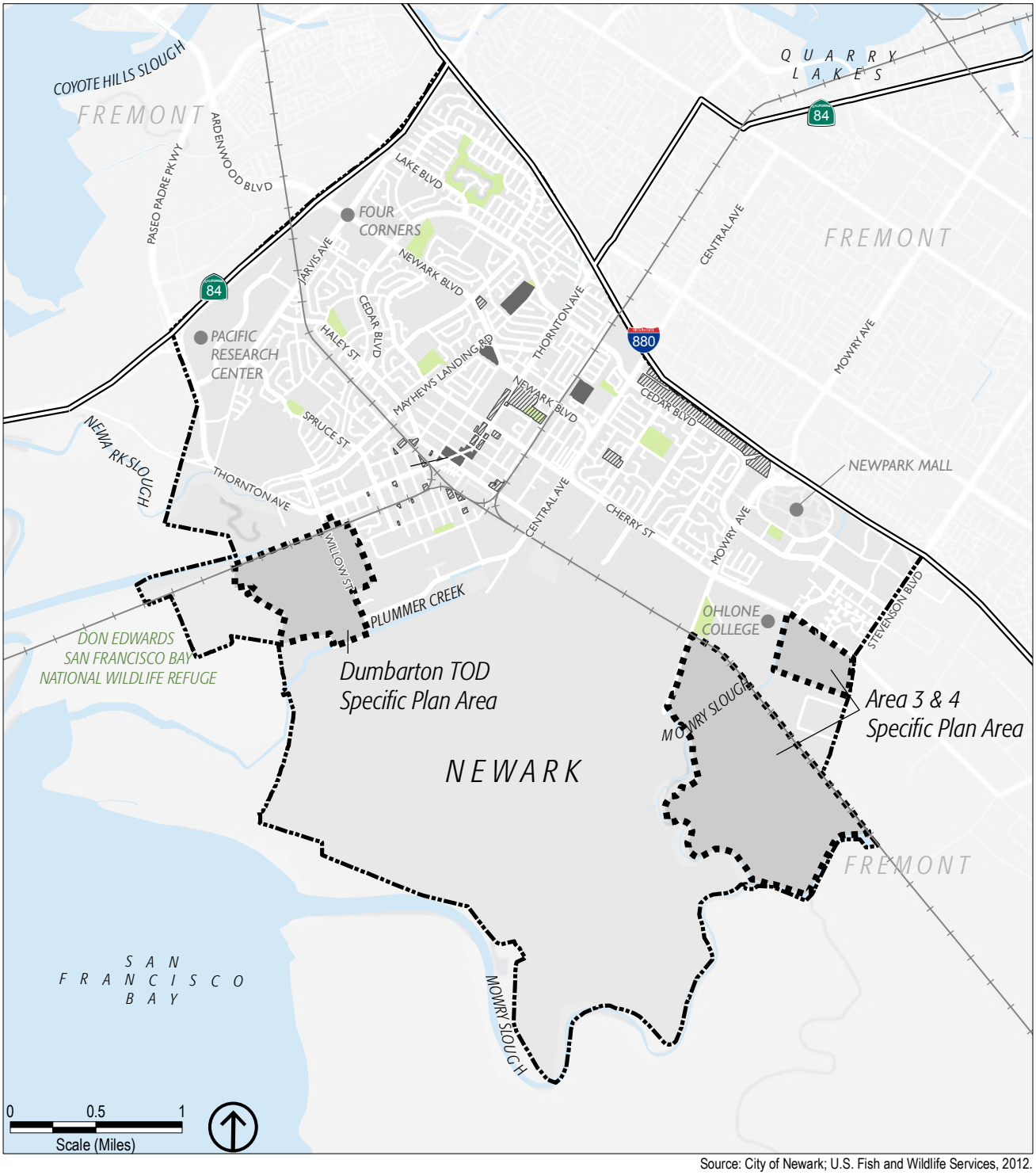
Commercial Designations
- *Neighborhood Commercial*
- *Community Commercial*
- *Commercial Mixed Use*
- *Commercial Mized Use (L)*
- *Regional Commercial*
- *Office Commercial*
- *Specialty Commercial*

Figure 3-2
Current General Plan Land Use

TABLE 3-1 BREAKDOWN OF EXISTING GENERAL PLAN LAND USES

Land Use Designations		Development Intensity	Acres	Percentage
Residential			2,737.1	34. 75%
Low Density Residential	LDR	4.2-8.5 dwelling units/acre; 13 to 27 people/net acre	2,102.7	26.69%
Medium-Density Residential	MDR	6.5-15 dwelling units/acre; 21 to 50 people/net acre	360.4	4.57%
High-Density Residential	HDR	15-30 dwelling units/acre; 21 to 50 people/net acre	274.00	3.48%
Commercial			393.6	5.00%
Neighborhood Commercial	NC	Maximum FAR is 0.3:1	26.17	0.33%
Community Commercial	CC	Maximum FAR is 0.3:1	211.13	2.68%
Office Commercial	OC	Maximum FAR is 1:1	10.37	0.13%
Regional Commercial	RC	Maximum FAR is 0.4:1	115.3	1.46%
Specialty Commercial	SC	Not defined	30.64	0.39%
Mixed Use			12.6	0.16%
Commercial Mixed Use	CMU	Maximum residential density is 40 du/acre	7.1	0.09%
Commercial Mixed Use (L)	CMU(L)	Maximum residential density is 40 du/acre	5.5	0.07%
Industrial			1,034.7	13.14%
General Industrial	GI	Maximum FAR is 0.5:1	635.29	8.07%
Limited Industrial	LI	Maximum FAR is 0.4:1	83.43	1.06%
Special Industrial	SI	Maximum FAR is 0.35:1	316.0	4.01%
Open Space			3,408.7	43.28%
Agriculture/Resource Production – Open Space	A/RP-OS	Encourages preservation of agricultural uses and natural resource production	3,093.2	39.27%
Conservation – Open Space	C-OS	FAR 0	149.40	1.90%
Public Parks Open Space	P-OS	Permits buildings for recreation and community purposes only. Maximum FAR is 0.1:1	166.1	2.11%
Other			289.7	3.68%
Public-Institutional	P-I	Maximum FAR for special facilities (e.g. fire station) is 0.25:1 and for offices is 1:1	289.7	3.68%
TOTAL			7,876.49	100.00%

Source: City of Newark, 2012.



Source: City of Newark; U.S. Fish and Wildlife Services, 2012.

City Limit
Landmarks
Railroads
Specific Plan Areas
Housing Element Site to Develop Before 2014
Housing Element Site to Develop After 2014

Figure 3-3
Recent Major Planning Initiatives in Newark

Climate Action Plan

On January 28, 2010, the City of Newark adopted the Climate Action Plan Initial Framework (CAP), which identifies and evaluates feasible and effective policies to reduce greenhouse gas (GHG) emissions through a combination of public and private sector policies and programs. Building on emissions reduction actions taken by the City since 2005, the CAP sets short, medium, and long term emission reduction goals for municipal operations, outlines actions that the citizens and businesses of Newark can take to help reduce emissions from non-municipal sources, and lays out long-range planning initiatives the City may consider with a view to reducing vehicle trips, a key source of GHG emissions. The CAP is described in further detail in Chapter 4.6, Greenhouse Gas Emissions, of this EIR.

2009-2014 Housing Element

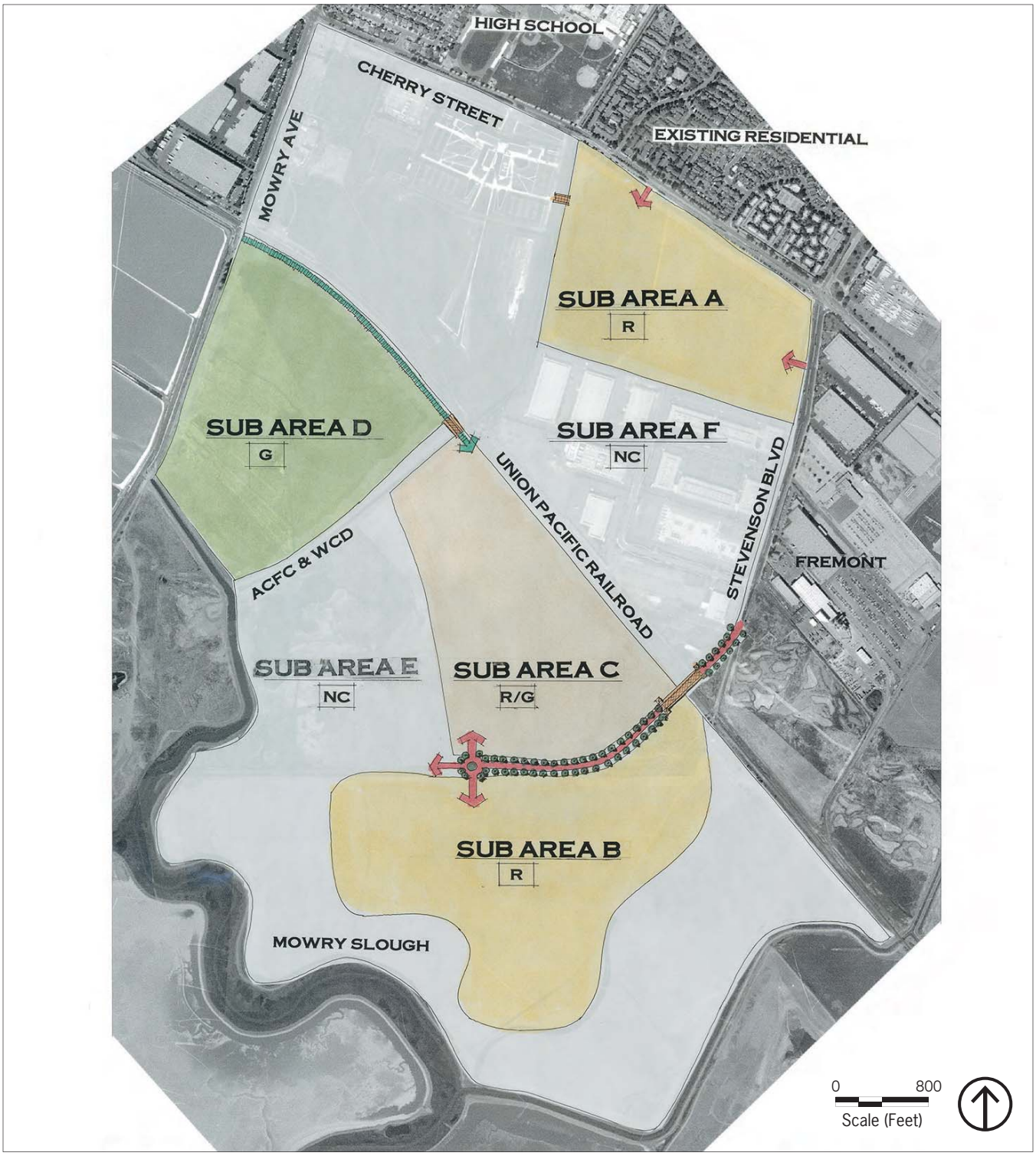
The City of Newark 2009-2014 Housing Element was adopted by City Council in February 2010 and was certified by the California Department of Housing and Community Development as meeting all State requirements. Pursuant to State law, the Housing Element lays out a rational plan to accommodate the City's future housing needs, including the City's share of the Regional Housing Needs Allocation. The Housing Element identified a total of 14 sites in Newark on which a total of 1,757 housing units could potentially be developed by 2014. Area 3 and Area 4 Specific Plan and the Dumbarton Transit-Oriented Development (TOD) Plan Area were included among the 14 sites, as shown in Figure 3-4. Additionally, the Housing Element identified four other sites in Newark expected to develop after 2014, and estimated a total of 368 new housing units on these sites, including 298 single-family homes and 70 multi-family units.

Adoption of the Housing Element necessitated amendments to the General Plan land use designations and zoning for ten of the 18 housing opportunity sites identified. Amendments enacted in parallel with Housing Element adoption are shown on Table 3-2. Additionally, two new land use designations were created to allow for a combination of retail, office, and residential land uses: Commercial Mixed Use (CMU) and Limited Commercial Mixed Use (LCMU), with the same maximum allowable residential development intensity as the CMU designation, but only less intensive commercial uses permitted, as defined in the zoning code. Several zoning overlay districts were also created in parallel with Housing Element adoption in order to permit property owners to maintain existing uses while also allowing future development to occur under residential or mixed-use provisions.

An EIR was prepared for the Draft Housing Element, identifying significant impacts and mitigation measures required to address them. The EIR was certified and a Statement of Overriding Considerations was adopted by Newark City Council in July 2009. The Housing Element, its EIR, and the associated Mitigation Monitoring and Reporting Program (MMRP) are incorporated by reference into this Draft EIR.

Area 3 and 4 Specific Plan

In June 2010, the City of Newark adopted the Area 3 and 4 Specific Plan to guide future development and conservation in a 856-acre sector of southwestern Newark. Areas 3 and 4, shown in Figure 3-4, were originally identified as opportunity sites with significant potential for change in the 1992 General Plan. A large portion of Area 3 had been developed prior to adoption of the Specific Plan; however, Area 4 is one of the last undeveloped



Source: City of Newark, 2010.

NC NO CHANGE IN EXISTING GENERAL PLAN OR ZONING
R RESIDENTIAL
R/G RESIDENTIAL AND/OR GOLF COURSE
G GOLF COURSE OR RECREATIONAL
TWO LANE ACCESS ROAD
NEW TWO LANE BRIDGE
NEW PED BRIDGE
ACCESS POINT
EVA/TRAIL
ROTARY

Figure 3-4
Adopted Area 3 and 4 Specific Plan Land Use

TABLE 3-2 GENERAL PLAN LAND USE DESIGNATIONS AND ZONING AMENDMENTS ENACTED WITH 2009-2014 HOUSING ELEMENT ADOPTION

Site	General Plan Designations (before 2010)		General Plan Designations (since 2010)	
A	P-I	Public Institutional	LR	Low Density Residential
B	P-I	Public Institutional	MR	Medium Density Residential
C	R-6000	Low Density Residential	LR	Low Density Residential
D	R-6000	Low Density Residential	LR	Low Density Residential
E	NC/MR Option	Neighborhood Commercial/Medium Density Residential Option	NC/MR Option	Neighborhood Commercial/Medium Density Residential Option
F	NC	Neighborhood Commercial	NC/LR Option & NC/CMU Option	Neighborhood Commercial with Low Density Residential & Mixed Use Option
G	P-I/O-C	Public Institutional & Office Commercial	HR LR	High Density Residential Low Density Residential
H	HR	High Density Residential	HR	High Density Residential
I	OC	Office Commercial	CMUL	Commercial Mixed Use Limited
J	SpC/MR	Specialty Commercial/Medium Density Residential	CMU	Commercial Mixed Use
K	HR	High Density Residential	CMUL	Commercial Mixed Use Limited
L	LR MR	Low Density Residential Medium Density Residential	LR MR	Low Density Residential Medium Density Residential
M	HR	High Density Residential	HR	High Density Residential
N	MR	Medium Density Residential	HR	High Density Residential
O	P-I	Public Institutional	LR	Low Density Residential
P	LR	Low Density Residential	LR	Low Density Residential
Q	HR LI	High Density Residential Limited Industrial	HR LI/HR Opt.	High Density Residential Limited Industrial with High Density Residential Option
R	LI/CC	Limited Industrial/Community Commercial	LI/CC w/HR Option	Limited Industrial/Community Commercial with High Density Residential Option

Source: City of Newark, Housing Element Update Draft EIR, April 2009.

sectors of the city and is largely in agricultural use today. The Area 3 and 4 Specific Plan amended 1992 General Plan Land Use designations to allow for development of up to 1,260 single- and multi-family housing units, a new elementary school capable of accommodating 600 students, a golf course, and additional recreational open space areas. The Specific Plan envisions the preservation of approximately 200 acres of open space in Area 4 and the, retention of existing light industrial and institutional uses in most of Area 3, Key components of the Area 3 and 4 Specific Plan, shown in Figure 3-4, include:

- A new 78-acre residential neighborhood in Subarea A composed of single-family detached homes and multi-family residential units, including up to 189 multi-family units at below market rate. (Note: Below-market-rate (BMR) housing units are priced to be affordable to households with moderate income or below.)
- Single-family detached homes in Subarea B and C;
- A new elementary school in Subarea A, capable of accommodating 600 students;
- An 18-hole golf course in either Subarea C or D, configured to optimize habitat areas and limit disturbance to wildlife and wetlands to the extent feasible;
- Improvements to the circulation network, including:
  - A public street extension of Stevenson Boulevard with a structural overpass providing vehicular and pedestrian access into Area 4 over the Union Pacific railroad tracks. Modifications to two Pacific Gas & Electric (PG&E) transmission towers to accommodate the overpass.
  - A new driveway providing access from Cherry Street into Subarea A. A new traffic signal and pedestrian crosswalk are planned at this intersection;
  - A new driveway providing access to Subarea A from Stevenson Boulevard, midway between Cherry Street and the existing industrial uses;
  - A paved trail and pedestrian bridge over the flood control channel in Area 3, providing connection between the new residential neighborhood, Ohlone College, and the George M. Silliman Recreation Complex;
  - A multi-use trail at Mowry Avenue in Area 4, providing east-west access for emergency vehicles, pedestrians, and cyclists; and
- Utilities infrastructure, including a new public water distribution system within the residential streets of Area 4, new sewer mains within public residential streets in Area 3, and a new pump station to discharge wastewater generated by new uses in Area 4.

After certification of the EIR, a lawsuit was filed challenging the adequacy of the EIR (Alameda Co. Sup. Ct. # RG10-530015). An order was issued in November 2012 suspending the City resolutions certifying the EIR and adopting the Area 3 and 4 Specific Plan Project and the related General Plan Amendment, pending further order or resolution of the litigation. As of August 12, 2013, that litigation remains pending and that suspension remains in effect, however, the information and analysis in the Area 3 and 4 Specific Plan, EIR and associated mitigation measures are assumed as part of the background condition for purposes of analysis in this EIR.

Furthermore, the only land use designation change addressed in the Area 3 and 4 Specific Plan EIR was the change of 78 acres in Area 3 to Medium Density Residential from Special Industrial. At a program EIR level of detail, these uses have substantially similar impacts on the environment. (This is documented in section 6: Alternatives). Therefore, regardless of whether the Area 3 and 4 EIR is upheld or not, this Program EIR fully addresses the environmental impacts of the proposed General Plan.

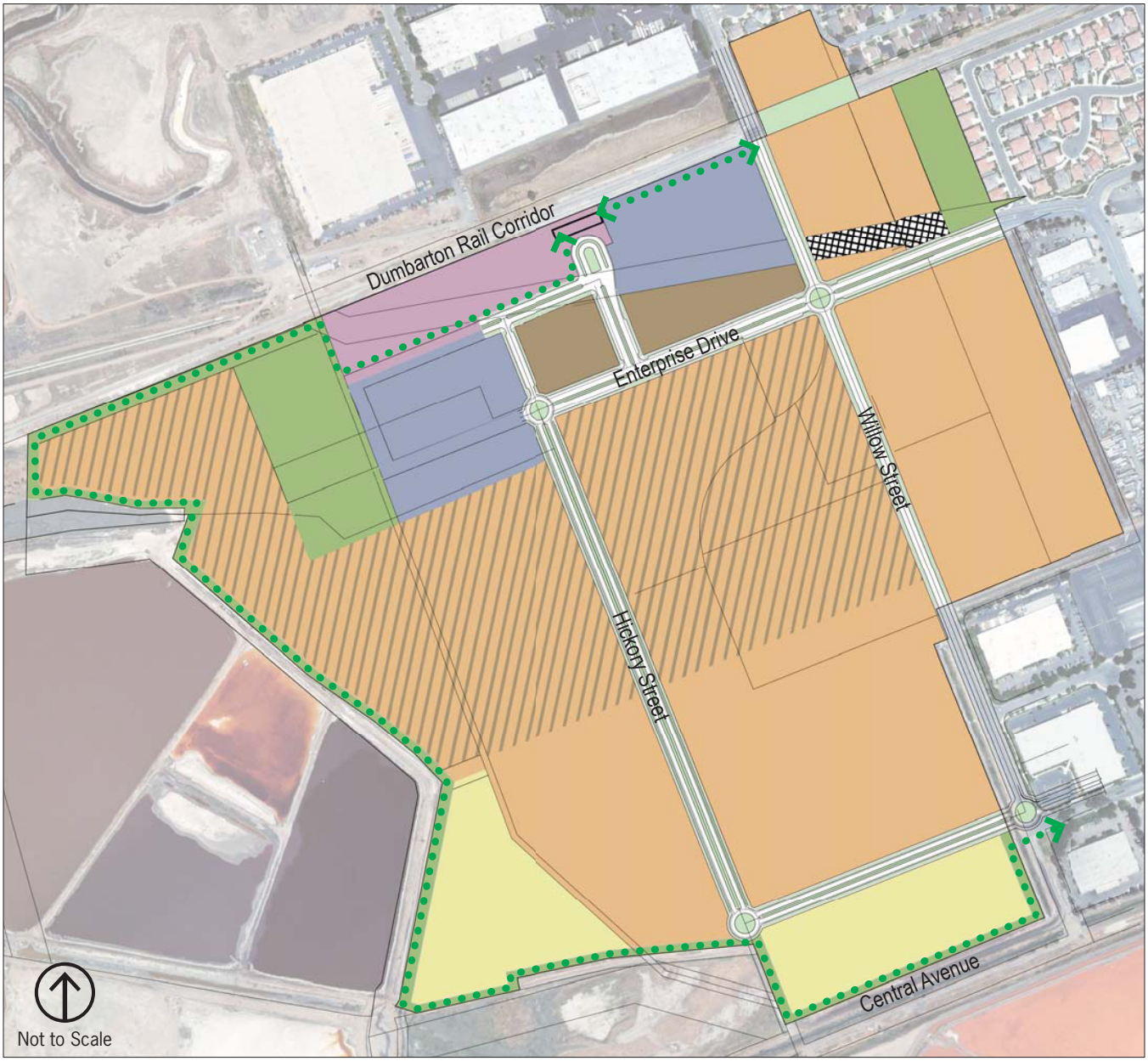
Dumbarton TOD Area Specific Plan

The Dumbarton TOD Area Specific Plan (TOD Plan), adopted by the City of Newark on September 8, 2010, lays out a vision for a contemporary, walkable new neighborhood on a 205-acre site adjacent to a planned commuter rail station in western Newark. A portion of the TOD Plan Area, previously referred to as Area 2, was identified as an area with significant potential for change in the 1992 General Plan. In conjunction with adoption of the TOD Plan, the City amended General Plan land use designations and zoning for this former industrial area to allow for development of 2,500 new homes, 195,000 square feet of professional office and other commercial uses, 35,000 square feet of new retail uses, and 16.3 acres of parkland, including a connection to the San Francisco Bay Trail.

Key features of the TOD Plan, shown in Figure 3-5, include:

- A neighborhood center near the planned transit station with retail to serve the daily needs of residents and transit users, high-density housing with an allowable density of between 25 and 60 du/acre, and 195,000 square feet of professional office and commercial uses;
- Surrounding residential uses throughout the rest of the TOD Plan Area, with townhomes and medium density housing within a ½-mile radius of the planned transit station, and single-family homes beyond that to the south;
- Three new parks, including a 6.5-acre community park directly west of the planned transit station, a 3.92-acre linear park connecting to the San Francisco Bay Trail, and additional private and public open space throughout the specific plan area;
- A circulation plan consisting of an interconnected network of new streets and improved connections to other parts of the city. Main access to the specific plan area will be via Enterprise Drive, Central Avenue, Willow Street, and Hickory Street, with roundabouts instead of traditional intersections on Enterprise Drive, Central Avenue, and Hickory Street as well as on residential streets in the specific plan area. All new streets will have sidewalks for pedestrians, and designated bicycle lanes will be striped on Enterprise Drive, Willow Street, and Hickory Street;
- Utilities infrastructure including: a westerly extension of the existing looped water service system in Central Avenue and Enterprise Drive as well as future development of distribution mains within the new street network; connections to the existing City of Newark drainage facilities; and improvements to the 36-inch Willow Street gravity sewer main and the 42-inch gravity sewer main beneath the Union Pacific Railroad Road.

An EIR was prepared for the TOD Plan, identifying significant impacts and mitigation measures required to address them. The EIR was certified by Newark City Council and a Statement of Overriding Considerations was



Source: City of Newark, 2010.

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Medium/High Density Res.
- Commercial/Retail
- Transit Station
- Parks & Recreational Open Space
- Misc. Areas
- Restricted Use Areas

Figure 3-5
Adopted Dumbarton Transit Oriented Development Plan Land Use

adopted in July 2011. The TOD Plan, its EIR, and the associated MMRP are incorporated by reference into this Draft EIR.

3.3.2 DESCRIPTION OF THE PROPOSED PLAN

The proposed Plan updates the existing General Plan, including the policies and information intended to guide future development and redevelopment in Newark through the horizon year of 2035. The principal components of the proposed Plan and the process by which it has been developed are summarized below.

3.3.2.1 PROPOSED PLAN ORGANIZATION

The organizational structure of the existing General Plan has been preserved; however, the proposed Plan involves some reorganization of the elements. Additionally, the proposed Plan adds three new optional elements not in the existing General Plan. The proposed Plan includes five elements that address the State-mandated general plan topics of land use, circulation, housing, open space, conservation, safety, and noise, supplemented with four optional elements addressing topics of particular importance to the Newark community: economic development, health, recreation (combined with the mandated open space element), and community services and facilities. Table 3-3 summarizes the contents of the proposed Plan.

Each element begins with a discussion of baseline and projected conditions in Newark, organized under topical headings, and then presents a series of numbered goals, policies, and actions, organized by topical subheadings matching the preceding narrative discussion. Goals describe an overall and ultimate end state toward which the City directs its efforts. Policies are specific statements that guide decision-making as the City works to achieve a goal. Actions are carried out to implement policies. Actions may be ongoing operating procedures or one-time measures. Policies and actions are at the same level of importance, and both are intended to implement goals.

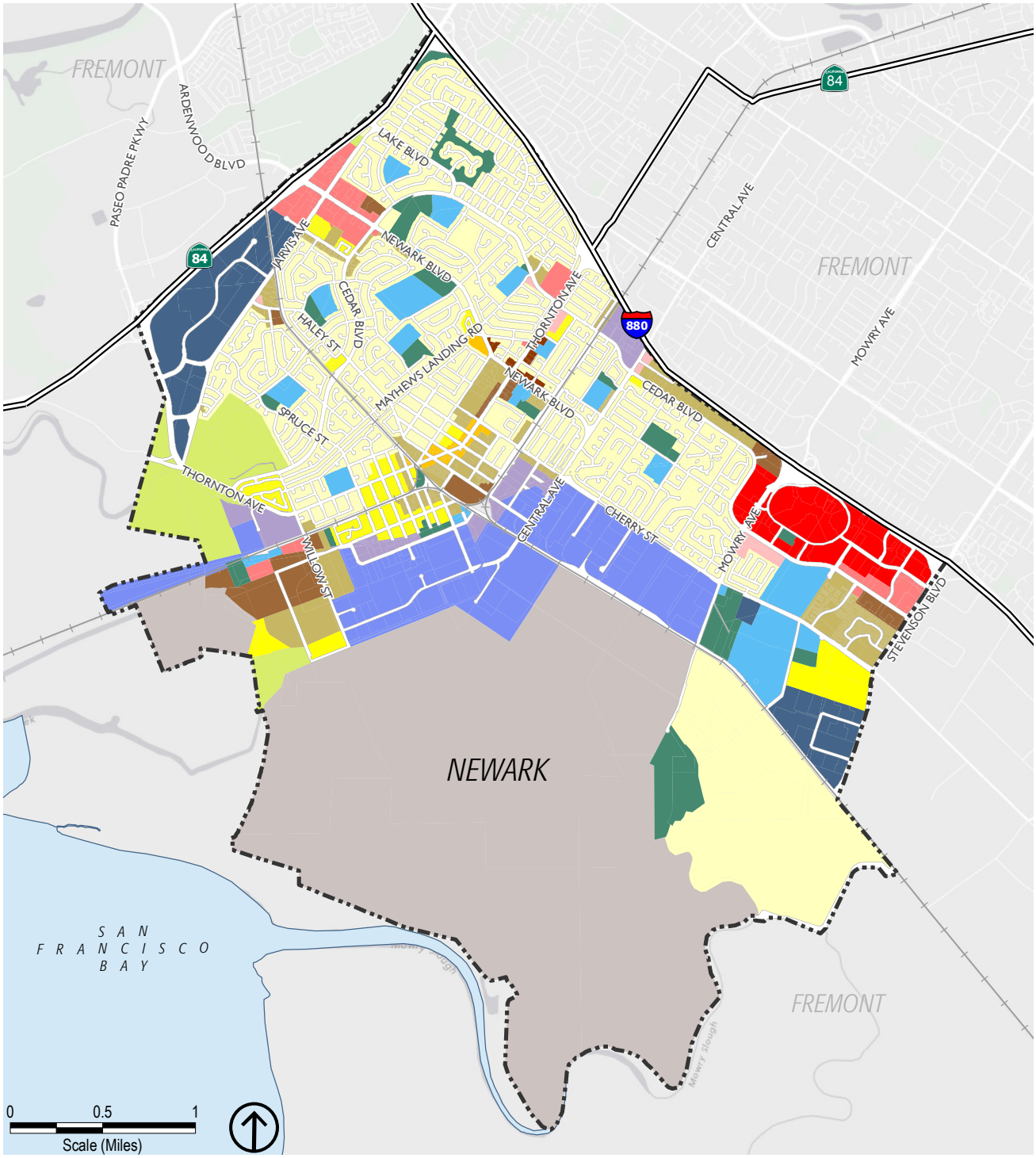
3.3.2.2 PROPOSED LAND USE

The proposed Plan includes a total of 16 different land use designations applied to land within the City limit, as shown in Figure 3-6. This represents three fewer categories than in the existing General Plan, because the proposed Plan has consolidated some existing General Plan designations. The Commercial Mixed Use category has been consolidated from two designations into one, with the caveat that zoning will be used to distinguish limited mixed-use areas from other mixed-use areas.. The Specialty Commercial category has been eliminated since it had already been largely replaced by the two Commercial Mixed Use categories, which were not defined by the 1992 Plan.

A recalibration of the residential categories is proposed, to better reflect existing and proposed housing densities in the city. The Low Density Residential category now includes neighborhoods developed from 1.0 to 8.5 units per net acre. The Medium Density category has been retitled Low Medium Density. The density range has not changed and continues to be 8.5 to 15 units per net acre. The Low Medium category is intended for small lot subdivisions and zero lot line type development. The High density category has been retitled Medium. The density range has

TABLE 3-3 PROPOSED PLAN ORGANIZATION AND CONTENT

Chapter	Description
1. Introduction	This chapter describes the purpose of the General Plan, the legal foundation for planning, and the process used to develop the Plan.
2. Planning Framework	This chapter includes basic information about the history of Newark, its regional setting, its land use and demographic characteristics, major trends shaping the city, and its vision for the future. The intent of this chapter is to provide the framework for the rest of the proposed Plan.
3. Land Use Element	A State-mandated Element, this chapter addresses the character and distribution of land uses in the city, defines the General Plan Map land use categories, and presents policies and actions addressing land use issues. In addition to providing citywide direction, this Element also addresses the future of key areas in the city expected to change in the future, which are identified as "Focus Areas." The Land Use Element also addresses urban design, historic preservation, aesthetics, and public realm issues.
4. Transportation Element	A State-mandated Element, this chapter addresses roads, traffic management and safety issues, public transportation, bicycle and pedestrian circulation, transportation demand management measures, and parking. It includes "complete streets" policies, and policies to reduce vehicle miles traveled, coordinate land use and transportation planning, and create a more multi-modal transportation system.
5. Housing Element Summary	This chapter is a short executive summary of the Newark 2009-2014 Housing Element, adopted by the City in 2010. The Element itself will continue to stand on its own as a separate document, due to its length and the very prescriptive requirements for its content. The executive summary in this chapter directs the reader to the separate 2009-2014 Housing Element document for more information.
6. Economic Development Element	Newly added as part of the proposed Plan, this optional element presents Newark's economic development strategy. The Element encourages economic balance and diversity, supports a strong retail base with a growing retail capture rate, promotes a favorable fiscal climate, and includes other policies which keep Newark a business-friendly, economically competitive community.
7. Conservation and Sustainability Element	This chapter combines the State-mandated topic of conservation with the optional topic of sustainability to create a new Element. Conservation issues, including wetlands management, vegetation and wildlife, waterways and water quality, salt production, and urban forestry are addressed. Additionally, the Conservation and Sustainability Element includes strategies to curb non-renewable resource consumption, reduce greenhouse gas emissions, encourage recycling, promote green building and renewable energy, and implement other measures which make Newark a more sustainable city.
8. Parks, Recreation, and Open Space Element	This is an existing Element of the Newark Plan that will be carried forward. The chapter will address Newark's parks and recreational services. It will include an overview of park facilities, including the different types of parks in the city and the ratio of acres per 1,000 residents. It will also address opportunities for new parks in the future. State requirements for an open space element are also covered in this chapter.
9. Environmental Hazards Element	This chapter combines the State-mandated topics of Safety and Noise into a single element that addresses hazard reduction issues, including seismic hazards and flooding. The Element also addresses related issues such as emergency preparedness and hazardous materials handling and disposal. It includes existing and future noise contour diagrams, as required by State law.
10. Health and Wellness Element	Newly added as part of the proposed Plan, this optional Element includes directives intended to keep Newark a healthy place to live, including policies encouraging walking and bicycling, access to healthy foods, reduced exposure to air pollution, and access to health care facilities and services.
11. Community Services and Facilities Element	This optional Element addresses water, sewer, storm drainage, solid waste management, and gas and electric utilities. This element also addresses civic facilities such as City Hall and the Corporation Yard, and the City's school, childcare, and senior services.



Source Data: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010.

Open Space Designations
- *Parks and Recreational Facilities*
- *Conservation - Open Space*

Industrial Designations
- *Limited Industrial*
- *Special Industrial*
- *General Industrial*

Residential Designations
- *Low-Medium Density Residentail*
- *Medium Density Residentail*
- *Low Density Residential*
- *High-Density Residential*

Public - Institutional Designations
- *Public-Institutional*

Commercial Designations
- *Neighborhood Commercial*
- *Community Commerical*
- *Commercial Mixed Use*
- *Regional Commercial*
- *Office Commercial*
- *City Limits*

Resource Production Designations
- *Salt Harvesting*

Figure 3-6
Proposed General Plan Land Uses

not changed and continues to be 15 to 30 units per net acre. A new high density category has been added for housing in the 30 to 60 units per acre range. Adjustments have been made to the land use map so that developed multi-family parcels have been placed in the category which best reflects their actual densities.

The commercial and industrial categories in the 1992 General Plan have been modified to provide a range of typical floor area ratios, with recognition that the actual intensity on a given parcel will vary based on zoning standards affecting building height, setbacks, parking, and other standards. In each case, the top end of the range stated in the proposed Plan is higher than the limits set by the 1992 Plan.

Table 3-4 presents a breakdown of proposed Plan land use, showing citywide acreage for each designation and percentage of total area within the City limit. For the purpose of comparison with the existing General Plan, the change in acres and total percentage of land within the City limit is shown in the right hand columns. Overall, the proposed Plan generally maintains the land use pattern of the existing General Plan. As with the existing General Plan, residential land uses make up the vast majority of developable land within the City limit. Commercial development, including shopping centers, office spaces, and neighborhood-serving retail spaces, is designated on slightly less than 5 percent of the land in Newark. Four designations regulate commercial development at intensities in ranges of 0.2 to 1.0 FAR up to 0.2 to 4.0 FAR. A Commercial Mixed Use designation primarily applies in Old Town Newark in recognition of the historic scale and context of this district. The Commercial Mixed Use designation supports a combination of office, residential, and retail use, with an emphasis on specialty commercial uses such as antique stores, boutiques, galleries, cafes, and restaurants at a development intensity in the range of 0.5 to 2.0 FAR. Approximately 13 percent of land in the city is designated for industrial and light industrial uses, including a broad range of light manufacturing, manufacturing, warehousing, wholesaling, and distribution uses, as well as high tech development such as business parks and space for research and development of advanced technologies. Three designations regulate industrial uses at intensities in range between 0.2 to 1.5 FAR for Limited Industrial, up to 0.2 to 3.0 FAR for Special Industrial. The Public-Institutional designation identifies existing and proposed public facilities, such as fire stations, City offices, libraries, corporation yards, pumping stations, and schools and colleges. This designation applies to approximately 3.5 percent of the land within the City limit, regulating development intensity generally within a range of 0.2 to 1.0 FAR.

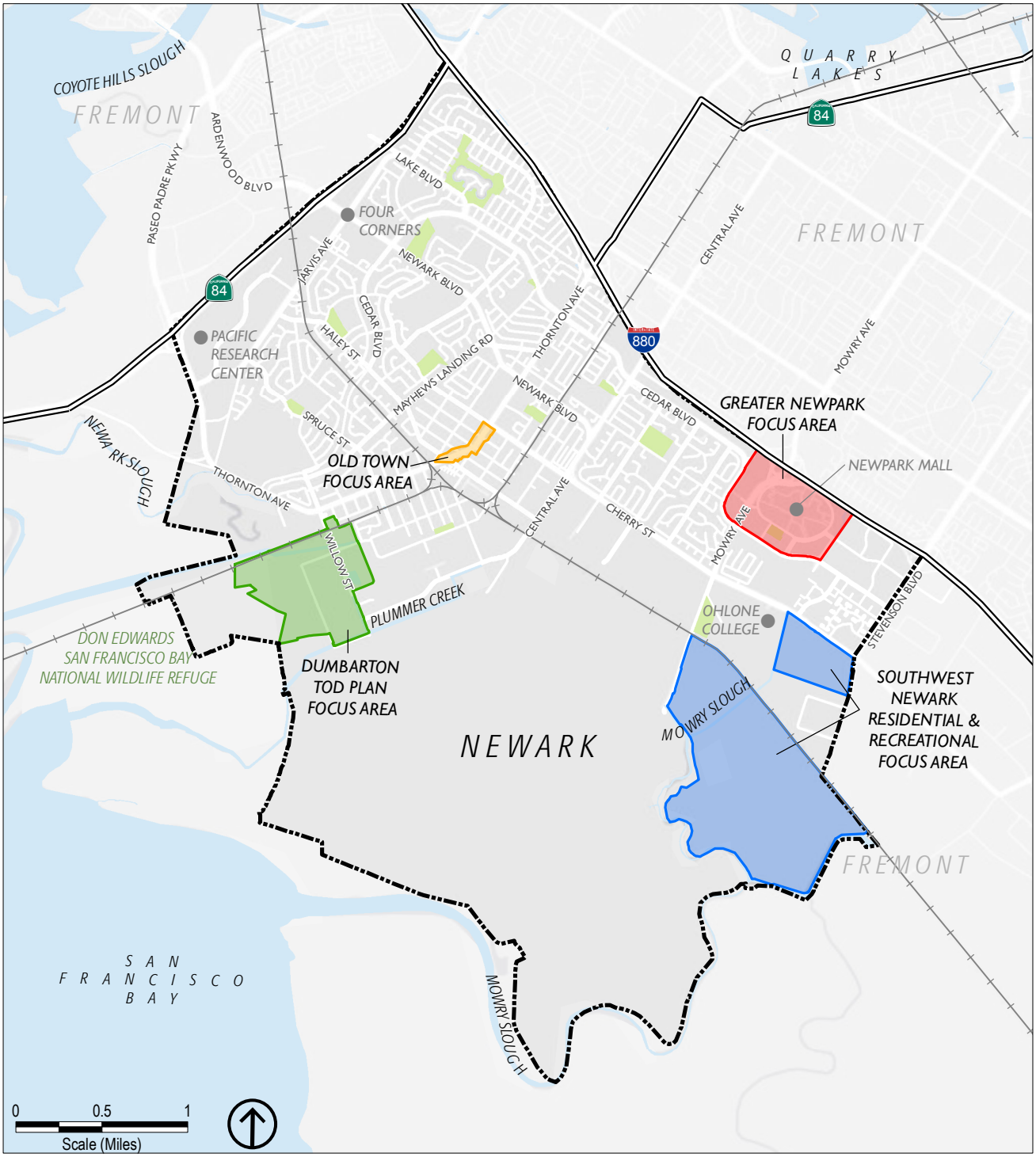
The Plan also proposes a reorganization of agricultural and open space designations. The Agriculture/Resource Production designation is renamed Salt Harvesting in order to more accurately reflect the nature of activities taking place on land to which it applies. This designation applies to approximately 3,000 acres of privately owned properties used for salt harvesting, including the land holdings of the Cargill Salt Company on the western side of the city. The Public Parks and Open Space designation has also been renames and is now called Parks and Recreational Facilities. It establishes land primarily for active recreational activity, such as tennis courts, playgrounds, picnic areas, and sports fields. Buildings for recreation and community purposes are allowed under this designation. Finally, the Conservation – Open Space designation is maintained in the proposed Plan, intended to protect wildlife habitat and wetlands and is not intended for direct human habitation or work.

3.3.2.3 FOCUS AREAS

As the developable area of Newark is largely built out today, the proposed Plan outlines a vision for the future growth of Newark that involves new neighborhoods on vacant land along the southern and western edges of the

TABLE 3-4 BREAKDOWN OF PROPOSED PLAN LAND USES

Land Use Designations		Development Intensity	Acres	Percentage	Change from Existing (Acres)
Residential			2,639	33.52%	-98.1
Low-Density Residential	LDR	Less than 8.7 units per net acre	2,003.5	25.44%	
Low-Medium Density Residential	LMDR	8.7 to 15 units per net acre	195.2	2.48%	
Medium-Density Residential	MDR	15 to 30 units per net acre	305.3	3.88%	
High-Density Residential	HDR	30 to 60 units per net acre	134.98	1.71%	
Commercial			362.30	4.60%	-34.64
Neighborhood Commercial	NC	FARs are generally in the range of 0.2 to 1.0	25.34	0.32%	
Community Commercial	CC	FARs are generally in the range of 0.2 to 2.0	128.69	1.63%	
Office Commercial	OC	FARs are generally in the range of 0.5 to 1.5	10.30	0.13%	
Regional Commercial	RC	FARs are generally in the range of 0.2 to 4.0	197.97	2.51%	
Mixed Use			20.13	0.26%	7.50
Commercial Mixed Use	CMU	FARs are generally in the range of 0.5 to 2.0	20.13	0.26%	
Industrial			1,029.55	13.07%	-5.2
General Industrial	GI	FARs are generally in the range of 0.2 to 2.5	605.41	7.69%	
Limited Industrial	LI	FARs are generally in the range of 0.2 to 1.5	108.16	1.37%	
Special Industrial	SI	FARs are generally in the range of 0.2 to 3.0	315.99	4.01%	
Resource Production and Open Space			3,545	45%	136.3
Salt Harvesting	SH	A standard of development intensity does not apply, as buildings are generally not appropriate in these areas	3,023.81	38.39%	
Conservation – Open Space	C-OS	A standard of development intensity does not apply, as buildings are generally not appropriate in these areas	281.96	3.58%	
Parks and Recreational Facilities	P-RF	Buildings for recreation and community purposes are allowed.	158.85	2.02%	
Other			283.8	3.55%	-5.9
Public-Institutional	P-I	FARs are generally in the range of 0.2 to 1.0	283.8	3.55%	
TOTAL			7,876.49	100.00%	



Source: City of Newark; U.S. Fish and Wildlife Services, 2012

City Limit
Landmarks
Railroads
Dumbarton TOD Plan Focus Area
Greater NewPark Focus Area
Old Town Focus Area
Southwest Newark Residential and Recreational Focus Area

Figure 3-7
Focus Areas

city, and infill development in transit-served areas such as Old Town and the Greater NewPark Mall Area. It is anticipated that future development and redevelopment in the city will occur principally in four focus areas, shown in Figure 3-7 and described below.

Dumbarton Transit-Oriented Development Focus Area

The boundaries of the Dumbarton TOD (DTOD) Focus Area articulated in the proposed Plan are the same as those of the new neighborhood envisioned in the TOD Plan. The vision for the DTOD Focus Area is also the same, and the proposed Plan incorporates the TOD Plan without proposing additional land use changes over and above those already incorporated into the existing General Plan at the time the TOD Plan was adopted by Newark City Council in 2010. The DTOD Focus Area is envisioned as a sustainable, transit-oriented neighborhood comprised of residential, retail, office, park, and open space uses around the site of the planned Dumbarton Rail Station. Proposed Plan land use designations would allow for development of 2,500 new homes, 195,000 square feet of professional office and other commercial uses, 35,000 square feet of new retail uses, and 16.3 acres of parkland in this focus area, including a connection to the San Francisco Bay Trail. Additionally, the proposed Plan emphasizes the application of green building and sustainable development principles in the design of buildings, streetscapes, and landscapes throughout the focus area.

Southwest Newark Residential and Recreational Focus Area

The Southwest Newark Residential and Recreational Focus Area is made up of two non-contiguous sectors in the southwest of the city, as shown in Figure 3-7. Together, these two sectors cover an area of 637 acres. The boundaries of the larger of the two sectors correspond to the boundaries of Area 4, as delineated in the Area 3 and 4 Specific Plan adopted by the City in 2010 and described earlier in this chapter. The boundaries of the smaller sector correspond to the vacant, undeveloped portion of Area 3, bounded by Ohlone College to the north, Cherry Street to the west, Stevenson Boulevard to the south, and the Stevenson Point Technology Park to the west. The vision for the Southwest Newark Residential and Recreational Focus Area contained in the proposed Plan is consistent with the vision outlined in the Area 3 and 4 Specific Plan. The proposed Plan does not include any additional land use changes over and above those already incorporated into the existing General Plan at the time the Area 3 and 4 Specific Plan was adopted by Newark City Council in 2010. At the time the Specific Plan was adopted the land use designation in the 78-acre portion of the focus area formerly known as Area 3 was changed from Special Industrial to Medium Density Residential. The land use designation for the larger portion formerly known as Area 4 was already Low Density Residential in the 1992 General Plan and no changes were made at the time the Specific Plan was adopted.

As described in the proposed Plan, the Southwest Newark Residential and Recreational Focus Area is envisioned as one of Silicon Valley's premier new neighborhoods, with executive housing and high quality recreational opportunities. Proposed Plan land use designations applicable to this Focus Area would allow for the development of 1,260 single and multi-family housing units, a new elementary school capable of accommodating 600 students, a golf course, and additional recreational open space areas as envisioned in the Area 3 and 4 Specific Plan. Additionally, the proposed Plan contains policies that support development envisioned in the Area 3 and 4 Specific Plan, including the 1,260 housing units, the golf course, an interior street and path network, and an overpass

crossing the Union Pacific Railroad tracks at Stevenson Boulevard. The proposed Plan also includes policies intended to protect and enhance sensitive natural resources in the Southwest Newark Residential and Recreational focus area, including wetland and aquatic habitat, natural hydrological features, and other biological resources.

Old Town Focus Area

The Old Town Focus Area is generally located along Thornton Avenue on both sides of the street, south from Cherry Street to the Union Pacific railroad tracks, as shown in Figure 3-7. The proposed Plan lays out a vision for the Old Town Focus Area as a vibrant, cohesive mixed use district that honors Newark's history while embracing its future. The Plan incorporates the two mixed use designations created with adoption of the 2009-2014 Housing Element, consolidating them into a single Commercial Mixed Use designation intended to maintain the fine-grain land use pattern of Old Town Newark, accommodate infill, and encourage the development of housing and retail. Under this designation, developments that are 100 percent commercial would be permitted, as would projects that are 100 percent residential, and vertical mixed use projects with commercial at street level and residential above. The Commercial Mixed Use designation proposed in the Old Town Focus Area is consistent with the current General Plan land use designations applicable to this area of the city and would support development of development of opportunity sites along Thornton Avenue identified in the 2009-2014 Housing Element. Existing zoning limits for height, setbacks, and densities in the corresponding Commercial Mixed Use zone would remain the same, and would not be changed by General Plan adoption. The proposed Plan also includes policies intended to foster walkability in Old Town and support its traditional "Main Street" character.

Greater NewPark Focus Area

The Greater NewPark Focus Area is located in the southeastern portion of the city, adjacent to I-880, encompassing the NewPark Mall and its vicinity, as shown in Figure 3-7. The proposed Plan articulates a vision for this 120-acre focus area that involves strengthening NewPark Mall and its environs to enhance its role as a community showcase and a quality environment for shopping, working, and living. The Plan proposes modifying the Regional Commercial land use designation applicable to much of the Greater NewPark Focus Area so as to allow high density residential, office, and hotel uses to the extent that they support the area's regional retail focus. The City estimates that the proposed Plan would allow for approximately 1,800 new housing units, 700 new hotel rooms, 200,000 square feet of net new retail space, and 500,000 square feet of net new office space in this focus area.

3.3.2.4 GENERAL PLAN TUNE UP PROCESS

The Newark General Plan Tune Up process began in November 2011 and is scheduled to be completed with adoption of the proposed Plan in the fall of 2013. This section describes the phases of the project and the opportunities for community input.

Community Meetings

Between November 2011 and February 2012, the City of Newark conducted a series of three community meetings with the assistance of graduate students from Cal Poly San Luis Obispo. The purpose of these meetings was to identify community priorities and desires with regard to the future development of Newark. Each of the three meetings was well attended, drawing between 54 to 78 community members, including students, seniors, long-term residents, and members of the local business community. Community feedback was summarized in a report that included three alternative growth scenarios and suggested goals, policies, and actions for the proposed Plan.

Policy Audit

This phase involved a comprehensive audit of policy recommendations from the community meetings, as well as from a range of planning documents and reports prepared by the City. Documents audited included;

- 1992 General Plan
- Dumbarton TOD Specific Plan
- Area 3 and 4 Specific Plan
- 2010 Housing Element
- Cal Poly San Luis Obispo Policy Report (Newark Community Plan)
- Newark Climate Action Plan
- 1999 Old Town Economic Development Plan
- 1990 Historic Newark Plan
- 1990 Historic Newark Study

The two principal objectives of the policy audit were to systematically review the existing General Plan to determine which policies and programs to carry forward, edit, or delete; and to identify from other planning documents and reports new directives for land use, transportation, urban design, hazard reduction, resource preservation, and community services to be incorporated into the proposed Plan.

Blue Ribbon Economic Development Panel

The City convened a blue ribbon panel of economic development advisors from the business community to provide input and direction for the General Plan Tune Up. The Panel met in December 2012 to provide input on orientations for the Economic Development Element of the proposed Plan, and then again in March 2013 to provide feedback on draft goals, policies, and actions. Panel members also provided feedback in writing on the Draft Economic Development Element in May 2013.

Study Sessions with the Newark City Council and Planning Commission

Between March 2013 and May 2013, three joint study sessions with the Newark City Council and Planning Commission to discuss key policy issues; review draft goals, policies, and actions; and receive guidance and

direction for the proposed Plan. These study session were public meetings open to the community and at each session time was provided on the agenda for public comment.

Public Review Period and Plan Adoption

Between February 2013 and May 2013, in parallel with the Joint City Council and Planning Commission study sessions, a Discussion Draft of the proposed Plan was prepared and then refined to produce a Public Review Draft. As required by State law, the Public Review Draft General Plan will be circulated for public review in parallel with this Draft EIR for a period of 45 days. During this time the public will be invited to submit additional comments which will be taken into consideration during the preparation of the Final General Plan. It is anticipated that Newark City Council will adopt the Final General Plan in the summer of 2013.

3.3.2.5 BUILDOUT PROJECTIONS

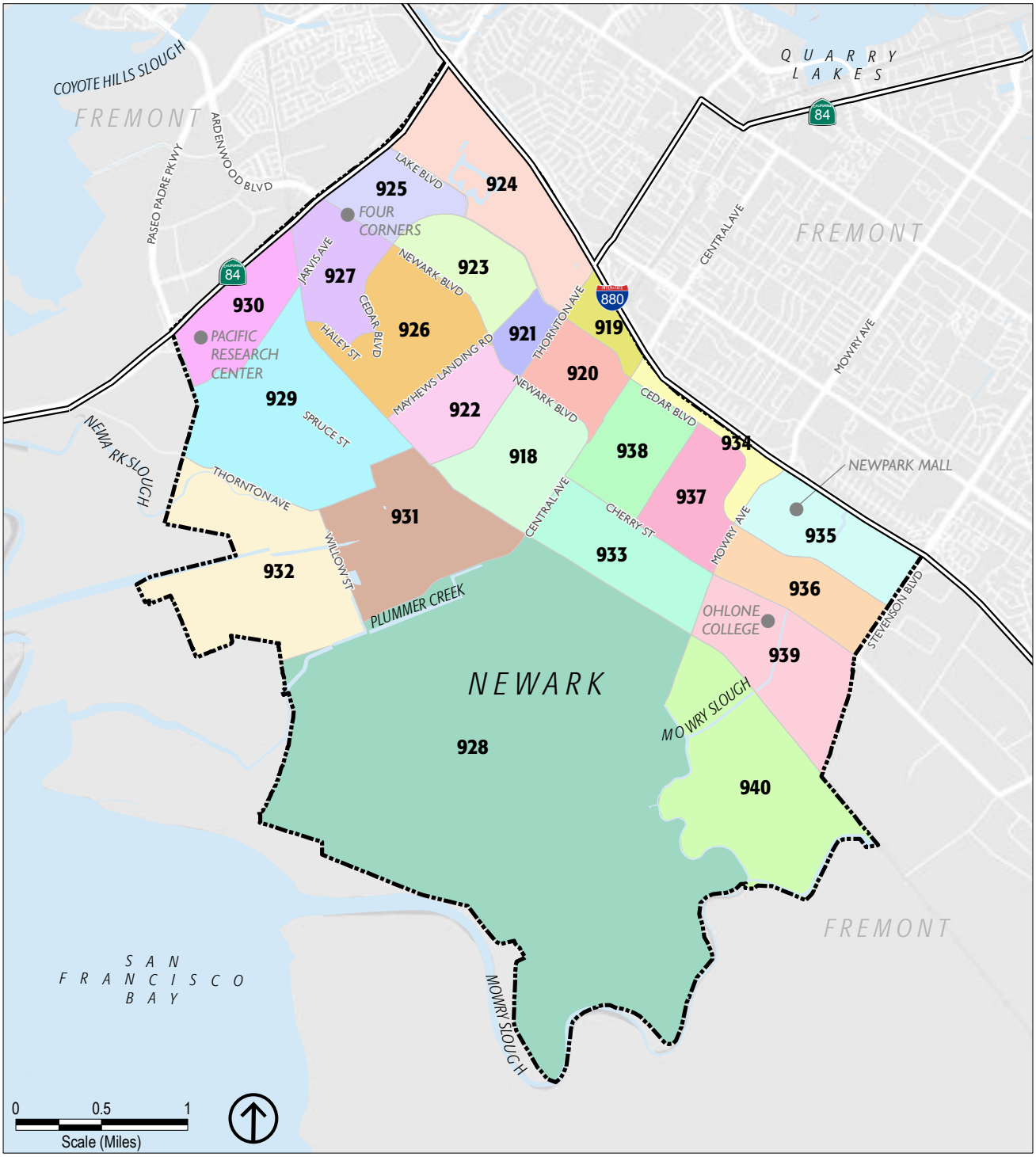
This section provides a quantification of the future population, housing units, and jobs that could result from buildout of the proposed Plan. Buildout projections have been developed in order to allow for an evaluation of the "reasonably foreseeable" direct and indirect impacts of the proposed Plan, as required under CEQA. This section includes a discussion of baseline data, horizon year buildout projections, and maximum theoretical buildout of the proposed Plan.

Baseline Population, Housing, and Employment Data

Baseline population and employment for the City of Newark was derived from the land use assumptions from the Alameda County Travel Demand Forecast (TDF) model. TDF model assumptions are by Traffic Analysis Zone (TAZ), shown on Figure 3-8. City staff reviewed the land use assumptions and adjusted resident, household, and employment characteristics to ensure an accurate representation of existing conditions in 2012, based on their knowledge of existing conditions in the city.

Horizon Year Buildout Projections

The horizon year of the revised General Plan is 2035. As described above, it is anticipated that development and redevelopment in Newark over this period will be concentrated primarily in the following focus areas: DTOD Focus Area, the Southwest Newark Residential and Recreational Focus Area, the Old Town Focus Area, and the Greater NewPark Focus Area. Additionally, outside of the focus areas, it is anticipated that there will be residential growth on opportunity sites identified in the 2009-2014 Housing Element, as well as commercial and industrial growth on vacant and underutilized parcels within the city limit. The specific methodology and assumptions used to estimate citywide buildout of the proposed Plan is detailed below.



Source: City of Newark; Alameda County Congestion Management Agency, 2011

City Limit
Landmarks

Figure 3-8
Alameda County Traffic Analysis Zones in Newark

Dumbarton Transit-Oriented Development Focus Area

Growth projections from the Dumbarton TOD Specific Plan EIR were added to the base year totals to project 2035 buildout. The Dumbarton TOD Focus Area is located in TAZs 931 and 932 and growth projections from the TOD Specific Plan EIR were divided between these TAZs in accordance with the land use designations proposed in the proposed Plan. It was assumed that Medium Density Residential (MDR) would develop at an intensity of 22 du/acre[1] and that High density Residential (HDR) would develop at an intensity of 45 du/acre. On this basis, 375 of the 2,600 total units that are likely to be built under the TOD Specific Plan were assigned to TAZ 931 and the balance was assigned to TAZ 932. Based on the proposed land use designations in TAZ 931, it was assumed that 135 of the 375 units would be multi-family units and 240 units would be single-family units. In TAZ 932, it was assumed that 1,530 of the 2,225 units would be multi-family and 695 units would be single-family, based on the proposed land use designations.

The 2012 US Census identifies the average household size for owner-occupied units in Newark as 3.3 and the average household size for renter-occupied units as 3.0. To account for the fact that multi-family units are likely to have a smaller average household size than single-family units, in determining 2035 projected population an average household size of 3.3 was assumed for single-family units and an average household size of 3.0 was assumed for multi-family units. Additionally, a residential vacancy rate of three percent was assumed in determining 2035 buildout population.

To estimate the number of jobs per square foot of commercial and retail space, reference was made to comparable California communities. It was assumed that there would be approximately one job per 420 square feet of commercial space which is the average of light manufacturing and low rise office employment densities cited in a 2001 study of employment densities in California communities. An employment density of one job per 325 square feet of retail space was assumed, as cited in the same study. In order to break out commercial jobs into the categories required for traffic analysis, the following distribution assumed in other Bay Area communities was used: service (41 percent), manufacturing (46 percent), wholesale (5 percent), other (8 percent).

Southwest Newark Residential and Recreational Focus Area

Growth projections from the Area 3 and 4 Specific Plan EIR were added to the base year totals to project 2035 buildout. The Southwest Newark Residential and Recreational Focus Area is located in TAZs 939 and 940 and growth projections from the Specific Plan EIR were divided between these TAZs in accordance with the land use designations in the proposed Plan. It was assumed that Low-Medium Density Residential (LMR) would develop at an intensity of 12 du/acre and that Medium Density Residential (MDR) would develop at an intensity of 22du/acre. On this basis, 789 units of the total 1,260 units that are likely to be built under the Area 3 and 4 Specific Plan were assigned to TAZ 939, and 471 units were assigned to TAZ 940. It was assumed that all housing likely to develop would be single-family units. Projected 2035 population was calculated assuming an average household size of 3.3 for single-family units, an average household size of 3.0 for multi-family units, and a residential vacancy rate of 3 percent in 2035.

[1] For the purpose of this analysis, density references are made in net acreages in order to account for required setbacks.

It was assumed that there would be approximately one job per 558 square feet of commercial space, in accordance with the employment density for light manufacturing cited in the 2001 employment density study. The golf course that would be located in TAZ 940 was assumed to have an employment density of 1.37 jobs per acre, as cited in the same study. In order to break out commercial jobs into the categories required for traffic analysis, the following distribution assumed in other Bay Area communities was used: service (41 percent), manufacturing (46 percent), wholesale (5 percent), other (8 percent).

Old Town Focus Area

The Association of Bay Area Government's (ABAG) SCS identifies Old Town as a Priority Development Area (PDA) and projects a total of 372 new dwelling units and 210 new jobs by 2040. This projected development was added to the base year totals for TAZs 918 and 922, which each contain approximately half of the area in the Old Town PDA. Based on the land use designations included in the proposed Plan, it was assumed that all the dwelling units would be multi-family units and that the jobs would be equally divided between service and retail employment categories. It was assumed that all the growth projected in the SCS would occur by 2035, which allows for a conservative analysis of environmental impacts from buildout of the proposed Plan in this EIR. Projected 2035 population was calculated assuming an average household size of 3.3 for single-family units, an average household size of 3.0 for multi-family units, and a residential vacancy rate of 3 percent in 2035.

Greater NewPark Focus Area

As described above, the proposed Plan envisions 200,000 square feet of net new retail space, 500,000 square feet of new office space, 1,800 new housing units, and 700 new hotel rooms in the Greater NewPark Focus Area by 2035 to supplement existing development in the area. This growth, all of which would be consistent with the Regional Commercial Land Use Designation included in the proposed Plan, was added to the base year totals for TAZs 934 and 935. Approximately 75 percent of the Greater NewPark Focus Area is in TAZ 935 and 25 percent of the land in TAZ 934, so the growth allocations were made accordingly. Additional assumptions used are as follows:

- All dwelling units were assumed to be multi-family units.
- Projected 2035 population was calculated assuming an average household size of 3.3 for single-family units, an average household size of 3.0 for multi-family units, and a residential vacancy rate of 3 percent in 2035.
- An employment density of one job per 704 square feet of regional retail space was assumed, as cited in the 2001 study of employment densities.
- For hotels, 438 gross square feet was assumed per room (net 350 square feet per room + 25 percent lobby and circulation) and an average employment density of 35 jobs per acre, as cited in the 2001 study of employment densities.
- The following assumption was used in order to break hotel jobs into the categories required for traffic analysis: service (50 percent), other (50 percent).

- To break out commercial jobs into the categories required for traffic analysis, the following distribution assumed in other Bay Area communities was used: service (41 percent), manufacturing (46 percent), wholesale (5 percent), other (8 percent).

Additional Residential Development

Outside of the focus areas discussed above, available land in Newark is largely developed and additional residential development will generally be limited to redevelopment of previously developed parcels, such as the opportunity sites identified in the City's 2009-2014 Housing Element. Housing Element sites located in Old Town were assumed to be included in the growth projections for that focus area; however, for sites outside Old Town, units identified in the Housing Element were added to the base year totals for TAZs 918, 920, 922, 923, 926, 931, and 938 to account for construction of units foreseen in the Housing Element through 2035. Projected 2035 population was calculated assuming an average household size of 3.3 for single-family units, an average household size of 3.0 for multi-family units, and a residential vacancy rate of 3 percent in 2035.

Additional Non-Residential Development

A windshield survey of commercial and industrial sites in Newark was conducted in order to establish an average industrial FAR for the city. On the basis of this survey an average industrial FAR of 0.427 was established and then applied to vacant and unoccupied commercial, light industrial, and warehouse/distribution space outside of the focus areas. Next, the average employment density for industrial parcels in Newark was used to project the number of additional jobs that would likely result from implementation of the proposed Plan through 2035, and those jobs were added to the base year totals for TAZs 930, 931, and 933. It was assumed that the additional jobs would be distributed among TDF model employment categories as follows: service (30 percent), manufacturing (30 percent), wholesale (30 percent), and other (10 percent).

Citywide Summary

As shown in Table 3-5, buildout of the proposed Plan is projected to result in approximately 60,510 residents, 19,699 housing units, and 22,609 jobs in Newark by 2035. Horizon year buildout projections for the proposed Plan are based on the best available information and represent a best estimate of reasonably foreseeable development under the proposed Plan. These projections serve as the basis for the evaluation of environmental impacts that could result from buildout of the proposed Plan; however, they do not preclude or limit growth in the city nor do they guarantee that growth will occur to the level projected.

TABLE 3-5 PROPOSED PLAN HORIZON YEAR BUILDOUT PROJECTIONS (2035)

	Population	Housing Units	Jobs
2012	43,930	13,491	19,727
2035	60,510	19,699	22,609
Increase	16,580	6,208	2,882

Source: The Planning Center | DC&E, 2013.

3.4 INTENDED USES OF THE EIR

This EIR examines the potential environmental impacts of implementing the proposed Plan and identifies mitigation measures required to address significant impacts, as necessary. As no specific developments are proposed as part of the Plan, this EIR is a programmatic EIR and does not evaluate the potential environmental impacts of specific, individual development proposals that may be allowed under the proposed Plan subsequent to its adoption. Subsequent projects will be reviewed by the City for consistency with the proposed Plan and this EIR, and adequate project-level environmental review will be conducted as required under CEQA.

This EIR serves as the environmental document for all discretionary actions associated with development of the proposed Project. This EIR is intended to be the primary reference document in the formulation and implementation of a MMRP for the proposed Plan. This EIR is also intended to assist other responsible agencies in making approvals that may be required for development under the proposed Plan. Federal, State, regional, and local government agencies that may have jurisdiction over development proposals in the Plan Area include:

- U.S. Army Corps of Engineers (Corps)
- Federal Emergency Management Agency (FEMA)
- California Department of Fish and Wildlife (CDFW)
- California Department of Transportation (CalTrans)
- Bay Area Air Quality Management District (BAAQMD)
- San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB)
- San Francisco Bay Conservation and Development Commission (San Francisco Bay CDC)
- Alameda County Water District (ACWD)

The proposed Plan would require the following approvals and discretionary and ministerial actions by the City of Newark:

Planning Commission	Recommendation to adopt the proposed Plan
	Recommendation to certify the General Plan Tune Up EIR pursuant to CEQA
City Council	Adoption of the proposed Plan
	Certification of the General Plan Tune Up EIR pursuant to CEQA
	Adoption of ordinances, guidelines, programs, and other mechanisms for implementation of the proposed Plan
Other City Boards and Commissions	Adoption of programs or other actions that implement the proposed Plan

The proposed Plan would also require discretionary and ministerial actions by the following responsible agencies:

Alameda County Transportation Commission	Revisions of regional models related to growth and development projections
Association of Bay Area Governments	Revisions of regional models related to growth and development projections
Metropolitan Transportation Commission	Revisions of regional models related to growth and development projections

4. *Environmental Analysis*

This section consists of 14 chapters that evaluate the environmental impacts of the proposed Plan. In accordance with Appendix G of the CEQA Guidelines, the potential environmental effects of the Draft Plan are analyzed for the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation and Traffic
- Utilities and Service Systems

4.0.1 FORMAT OF THE ENVIRONMENTAL ANALYSIS

Each chapter in 4.0, Environmental Analysis, generally follows the same format and consists of the following subsections:

- The **Environmental Setting** subsection contains an overview of the federal, State, and local laws and regulations applicable to each environmental review topic, together with a description of the existing environmental conditions for the environmental factor reviewed.
- The **Standards of Significance** subsection tells how an impact is judged to be significant in this EIR. These standards are based on the CEQA Guidelines and other regulatory criteria where noted.
- The **Impact Discussion** subsection gives an overview of potential impacts of the Draft Plan and explains why impacts were found to be significant or less than significant prior to mitigation. This subsection also includes a discussion of cumulative impacts of the proposed Plan.

- The **Summary of Significant Impacts and Mitigation Measures** subsection lists significant impacts identified in the Impact Discussion subsection and suggested measures that would mitigate each impact, where such measures are available.

In Chapters 4.1 through 4.14, each numbered impact is considered significant prior to mitigation. Mitigation measures have been suggested that would reduce significant impacts to less-than-significant levels. Following an identified mitigation measure, there is a statement whether the mitigation would reduce the impact to a less-than-significant, or whether it would remain significant and unavoidable.

4.0.2 CUMULATIVE IMPACT ANALYSIS

Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. A cumulative impact consists of an impact created as a result of the combination of the project evaluated in the EIR together with other reasonably foreseeable projects causing related impacts. In the case of an area-wide planning document such as a General Plan, cumulative effects occur from development under the General Pan within the city combined with effects of development on lands around the city and region. By definition, development within the General Pan area would be considered part of the cumulative impacts as would projected growth in other cities in the region.

Where the incremental effect of a project is not "cumulatively considerable," a lead agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. The cumulative impacts analyses in Chapters 4.1 to 4.14 are included in the Impact Discussion in each chapter.

4.0.2.1 GEOGRAPHIC AREA FOR CUMULATIVE ANALYSIS

Individual cumulative impacts may occur over different geographic areas. The cumulative discussions in Chapters 4.1 through 4.14 explain the geographic scope of the area affected by each cumulative effect (e.g. watershed or air basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing air quality impacts, all development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions are the best tool for determining the cumulative effect. For most resource issues, the cumulative context evaluated in this EIR includes projected growth for other cities in Alameda County.

4.0.2.2 CUMULATIVE PROJECTS CONSIDERED

The CEQA Guidelines provide two approaches to analyzing cumulative impacts. The first is the “list approach,” which requires a listing of past, present and reasonably anticipated future projects producing related or cumulative impacts. The second is the summary approach, wherein the relevant projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area wide conditions are summarized. A reasonable combination of the two approaches may also be used.

In Chapters 4.1 through 4.14, the cumulative impacts of the proposed Plan take into account growth projected by the Draft Plan for theCity of Newark, in combination with impacts from projected growth in the rest of Alameda County and the surrounding region. In Chapters 4.1 through 4.14, the cumulative impacts discussion is based on the cumulative development described in Chapter 7 of this Draft EIR.

4.1 AESTHETICS

This chapter discusses the existing aesthetic character of the Plan Area and its surrounding area, evaluating the potential impacts to aesthetics associated with development of the proposed Plan. The following evaluation assesses visual character, scenic vistas, scenic highways, light, and glare.

4.1.1 ENVIRONMENTAL SETTING

4.1.1.1 REGULATORY FRAMEWORK

This section summarizes State and local regulations and programs related to aesthetics in the Plan Area. There are no federal regulations pertaining to aesthetics that apply to the proposed Plan.

State Regulations

California Scenic Highway Program

The California Scenic Highway Program, maintained by the California Department of Transportation (Caltrans), protects scenic State highway corridors from changes which would diminish the aesthetic value of lands adjacent to the highways. Caltrans has not designated any highway within Newark as a scenic highway.[1]

Local Regulations

City of Newark Municipal Code

Contained in Title 17 of Newark's Municipal Code (Code), the City's zoning ordinance identifies specific zoning districts within the city and describes the development standards which apply to each district (e.g. height limits, setbacks, etc.). Section 17.16.206 (Single-Family Residential Design Review) provides guidance for single-family residential development design review. The zoning ordinance also contains Chapter 17.39 (Historical Resources) which includes provisions to protect places, structures, and objects "having a special character or a special historical or aesthetic interest or value." Additionally, Chapter 17.48 (General Regulations and Exceptions) defines permitted uses as those uses, which, among other things, do not create glare or unsightliness in excess of the normal amount permitted in the district. Chapter 17.60 (Off-Street Parking and Loading) requires lighting in parking areas to be deflected away from abutting streets and residences to avoid causing glare. Chapter 17.28 (A Agricultural Districts) prohibits uses within agricultural districts which are found to create objectionable illumination and glare. Chapter 17.48 only allows the addition of a permitted use if the planning commission can make certain findings, including that the use will not create more light or glare than other permitted uses in the

[1] California Department of Transportation California Scenic Highways Program, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed on April 20, 2013.

district. Chapter 17.20 (Commercial Districts) describes site plan and architectural review in a commercial district as including review of location, exterior design and appearance, colors, lighting, and landscaping.

Design Guidelines

The Areas 3 and 4 Specific Plan contains siting standards and architectural design guidelines which apply to the Southwest Newark Residential and Recreational Focus Area. The standards and guidelines provide guidance on heights, setbacks, lot coverage, architectural theme, street design, and landscaping. The Dumbarton Transit-Oriented Development (TOD) Specific Plan includes architectural design guidelines, neighborhood center and transit area design guidelines, residential design guidelines, circulation guidelines, and office guidelines which apply to the Dumbarton TOD Focus Area. These guidelines provide guidance on architectural character, site design, street furnishings, landscaping, lighting, the relationship between buildings, building form, building materials, and off-street parking.

4.1.1.2 EXISTING CONDITIONS

This section describes the existing visual character of the Plan Area and its vicinity, the scenic resources present in the surrounding area, and the light, glare, and shadow conditions in the Plan Area and immediately adjacent properties.

Typical Views

The topography of Newark is primarily flat and features neighborhoods consisting of predominantly single-story residential structures with a variety of architectural styles, from Victorian to modern ranch-style design. There are also several commercial areas, spanning a gamut from those featuring a Mission-style aesthetic with adobe walls and red-tiled roofs and to others with a boxy, single-story mid-century strip-mall style. The industrial areas are comprised of low-slung, utilitarian buildings with little architectural detail. There is a large campus style office park and modern technology parks.

There are no officially designated scenic vistas or view corridors in Newark. However, views of the undeveloped Coyote Hills to the northwest, of Mission Peak to the east, and of the East Bay Hills to the east and southeast are available from open spaces within the city. Additionally, views of low-lying wetlands fronting San Francisco Bay are available from vantage points along the western perimeter of Newark, as are panoramic views of the surrounding hills. Typical views of these scenic resources are shown in Figure 4.1-1.

Scenic Highways

Neither of the two highways in the immediate vicinity of Newark, Highway 84, and Interstate 880 are State-designated scenic highways.[2] The nearest segment of an officially designated State Scenic Highway is Interstate 680

[2] California Department of Transportation California Scenic Highways Program, http://www.dot.ca.gov/hq/LandArch/scenic_highways/, accessed on April 20, 2013.

4.1-1a Hills

4.1-1b Seasonal Wetlands

Source: City of Newark and The Planning Center | DC&E, 2013.

Figure 4.1-1
Typical Views

from Mission Boulevard in Fremont to the Contra Costa County line. At its nearest point, this segment is located approximately 2.3 miles east of Newark.

Visual Character

The City of Newark contains a diverse variety of neighborhoods, districts, including a range of established and planned residential neighborhoods, several commercial districts, business parks, industrial and light industrial facilities, and the Don Edwards National Wildlife Refuge. The visual character is typical of surrounding communities in southern Alameda County and views of the Coyote Hills to the northeast, of Mission Peak to the east, and of the East Bay Hills to the east and southeast are available from open spaces within the Plan Area. Additionally, views of low-lying wetland areas fronting San Francisco Bay are available from vantage points along the western perimeter of Newark. The following discussion describes the existing visual character of the aforementioned focus areas of Newark and provides images of those areas, typifying their existing visual character.

Dumbarton Transit-Oriented District Focus Area

The Dumbarton TOD Focus Area covers approximately 205 acres of formerly industrial land in the northwestern portion of Newark. It is bounded by the Union Pacific railroad tracks to the north, to existing industrial and residential uses to the east, Plummer Creek to the south, and Cargill salt production facilities to the west. The topography is relatively flat, and contains only a few utilitarian buildings with little architectural detail supporting industrial type uses, including a chemical blending and distribution facility, a storage area for construction trailers, a dog training facility, and a police firing range. Much of the Dumbarton TOD Focus Area is vacant, with little vegetation. Existing vegetation primarily consists of ruderal, vacant fields, scattered marshes, and seasonal wetland areas interspersed with fencing and the vestiges of former industrial development.

Greater NewPark Focus Area

The Greater NewPark focus area is located in the north eastern portion of Newark, bounded by I-880 to the north, Balentine Drive to the east, Cedar Boulevard to the south, and Mowry Avenue to the west. The NewPark Mall, built in 1980, is a suburban-style, enclosed regional shopping mall.[3] NewPark Mall is surrounded by large surface parking on all sides and some satellite commercial uses not connected to the enclosed mall area. Along the perimeter of the NewPark Mall Focus Area there are some older commercial structures dating from the 1970s, including multi-story buildings painted in neutral beiges and browns with simple architecture details and single and multi-story Mission-style buildings with white-washed adobe walls and tile roofs, as well as Shirley Sisk Grove Park. The 2-acre Shirley Sisk Grove Park has a stand of trees covering half its expanse, with the rest of the area covered with landscaping and grass.[4]

[3] De Benedetti, Chris, 2012, "As longtime multiplex closes, Newark looks to revitalize NewPark Mall," *Silicon Valley Mercury News.com,* http://www.mercurynews.com/breaking-news/ci_21249772/longtime-multiplex-closes-newark-looks-revitalize-newpark-mall, accessed April 10, 2013; NewPark Mall, "About Us," http://newparkmall.com/about-us, accessed April 10, 2013.

[4] City of Newark, Parks, http://www.newark.org/departments/recereation-and-community-services/parks, accessed April 10, 2013.

Old Town Focus Area

The Old Town Focus Area encompasses several blocks along Thornton Avenue from Cherry Street in the north to Ash Street in the south that date from the establishment of Newark's first commercial district at this location. Many of the buildings are situated on small parcels and date from the first half of the twentieth century. Building style varies widely, but includes several Mission-style commercial buildings with whitewashed adobe walls and tile roofs. Many structures along the commercial portion of Thornton Avenue are situated near the street, with minimal setbacks. Further south along Thornton, there are fewer commercial structures and more residences and setbacks begin to vary. While residential buildings are scattered throughout the commercial portion of the Old Town Focus Area, they are primarily located along its perimeter. The surrounding residential area is the original town site, with a grid street pattern and an eclectic mix of housing types, densities, and styles. Front yards in the residential area primarily contain lawns, street trees, shrubs, and decorative landscaping. Towards the southern edge of the residential area, buildings and uses become quasi-industrial.

Southwest Newark Residential and Recreational Focus Area

The Southwest Newark Residential and Recreational Focus Area covers an area of approximately 637 acres. Its western portion largely consists of vacant fields, although there is some existing industrial and light industrial development. Newark Fire Station No. 3 is located at the intersection of Mowry Avenue and Cherry Street. This structure is a single-story cream-colored building with a flat brown roof, an attached two-stall fire engine garage, a surface parking lot surrounding the back and sides of the station, and a three-story training structure located to the west of the main building. Just west of the fire station is the George M. Sullivan Recreation Complex, which has a horizontal parking strip fronting a long building, two adjacent large surface parking lots, and a baseball diamond. South of the fire station is Sportsfield Park, which has a horizontal parking lot separated by a narrow landscaped strip along Cherry Street, a small structure adjacent to the parking lot and a large grassy field, with trees located along the field's perimeter. A panoramic view of the East Bay Hills to the southeast and south is available from vantage points in the vicinity of the fields. The back and sides of the complex are surrounded by a grassy field, planted with trees along its perimeter and along Eureka Drive and Stevenson Boulevard. Further to the south along Cherry Street is the Ohlone College Center for Health Science and Technology, a modern building with sleek, horizontal architectural details, surrounded by some surface parking (mostly not visible from the public thoroughfare), trees, grassy strips, and landscaped islands. At the intersection of Eureka Drive and Stevenson Boulevard is the Stevenson Point Tech Park, a higher-end business park with a series of large low-slung buildings and some large-plate structures surrounded by surface parking and narrow landscaped areas containing grass, trees, shrubs, and decorative plantings. Further west along Mowry Avenue there is a Pick-and-Pull, a large lot with used vehicles, fronted by a narrow parking lot and small white commercial building and completely enclosed by a white fence. Most of the western portion of the Southwest Newark Residential and Recreational Area is flat, vacant land with little vegetation, excepting some emergent wetland areas, particularly near the Mowry Slough which runs through a portion of the focus area and along its western boundary.

Light and Glare

The urbanized portion of Newark between the freeways and along major arterial roads is developed with a mix of commercial, industrial, and residential uses. Existing sources of light and glare in the Plan Area are similar to those

found in any urbanized area, and include streetlamps, parking-lot lighting, storefront and signage lighting, and car headlamps.

Light pollution refers to all forms of unwanted light in the night sky, including glare, light trespass, sky glow, and over-lighting. Existing sources of nighttime light in Newark include those common to urban areas, such as streetlights, parking lot lights, building lighting, vehicle headlamps, and interior lighting visible through windows. These lights primarily operate half an hour before sundown, and half an hour after dawn on a daily basis. For undeveloped parcels, including open space and land in salt production, there is minimal light and glare under present conditions. Light in parking lots remain on continually during nighttime hours. Existing sources of glare may include reflective coated windows in office buildings, as well as light reflecting off the windshields of vehicles in parking lots, and on surrounding roadways and freeways.

4.1.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would result in a significant aesthetic impact if it would:

1. Have a substantial adverse effect on a scenic vista.
2. Substantially degrade scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway.
3. Substantially degrade the existing visual character or quality of the site and its surroundings.
4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to aesthetics.

AES-1	The proposed Plan would not have a substantial adverse effect on a scenic vista.

There are no officially designated scenic vistas or view corridors in Newark, and the proposed Plan does not identify any specific vistas or views for special protection in the future. However, views of the Coyote Hills to the northeast, of Mission Peak to the east, and of the East Bay Hills to the east and southeast are available from open spaces within the Plan Area. Additionally, views of low-lying wetland areas fronting San Francisco Bay are available from vantage points along the western perimeter of Newark. Buildout of the proposed Plan could potentially affect these scenic vistas.

Future development under the proposed Plan would be subject to local laws and regulations that serve to protect scenic vistas in the Plan Area. The City's Zoning Ordinance, contained in Title 17 of the Municipal Code, includes provisions that regulate building height and placement and establish standards for lot coverage and usable open

space. For example, the height of residential structures is limited to a maximum of 30 feet in low-density areas, 76 feet in medium density areas, and 100 feet in high-density areas. Additionally, design guidelines contained in Chapter 17.16.220 (Design Guidelines) and applicable to multi-family residential units emphasize that particular attention should be given to height and massing of the structures so that building facades have offsets and step-backs. Continued implementation of these provisions, among others, would help protect scenic vistas in Newark.

The proposed Plan also includes several policies relevant to the protection of scenic vistas. Proposed policies and actions in the Land Use Element include:

- Policy LU-4.13: Bayfront Identity. Reinforce Newark's identity as a bayfront city by orienting new development on the western and southern edges of the city toward the bay and shoreline areas. Future projects in these areas should enhance views to the water and wetlands and be compatible with the area's scenic and recreational qualities. The bayfront identity should be emphasized in gateways and public art as well.
- Policy LU-4.14: View Protection. Protect and enhance panoramic views and vistas of horizon features such as Coyote Hills, Mission Peak, the East Bay and Peninsula Hills, and San Francisco Bay.

The Parks, Recreation, and Open Space Element also contains an additional proposed policy related to the protection of scenic vistas:

- Policy POS-1.6: Hillside Vistas. Support efforts by Fremont and Union City to limit hillside development so that Newark's views of the East Bay Hills are preserved to the greatest extent possible.

These policies would reduce the potential for substantial adverse effects on views of the surrounding hills and the wetlands. As such, impacts to scenic vistas from buildout of the proposed Plan would be less than significant.

Applicable Regulations

As described above, compliance with the following local laws and regulations would minimize potential impacts to scenic vistas available in Newark:

- City of Newark Municipal Code, Chapter 17.16.220 Design Guidelines

Significance Before Mitigation: Less than significant.

AES-2	The proposed Plan would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a State scenic highway.

As described above, there are no State-designated scenic highways in or adjacent to Newark. The closest State-designated scenic highway segment is located approximately 2.3 miles from the eastern edge of the Newark City Limit and is entirely screened by intervening development in the City of Fremont. As such, buildout of the proposed Plan would have no impact on scenic resources within a State scenic highway.

Significance Before Mitigation: No impact.

AES-3	The proposed Plan would result in a significant impact to the visual character of the Southwest Newark Residential and Recreational Focus Area, as determined in previous environmental review.

The proposed Plan would have a significant environmental impact if it would considerably diminish the existing visual character of a neighborhood, district, or area within the Plan Area. For example, the visual character could be diminished through a change in the form and appearance of new development within existing neighborhoods. As described more fully in Chapter 3, Project Description, the proposed Plan anticipates that future development and redevelopment in the city will be citywide, but concentrated primarily in four focus areas. Throughout the city, zoning provisions of the Municipal Code (Code) would apply, ensuring that future development is consistent with community standards. As detailed in Section 4.1.1.1, Regulatory Framework, Title 17 contains regulations which would ensure that new development compiles with community-approved standards for features such as building height, setbacks, and lighting. In particular, Section 17.16.206 (Single-Family Residential Design Review) establishes standards for single-family residential development design review, which would ensure that new single-family homes have an appearance which reflects the preferences of the community. Similarly, Chapter 17.20.120 (Special Conditions) establishes standards for site plan and architectural review for commercial districts, which would ensure that features of new development such as location, exterior design and appearance, colors, lighting, and landscaping are in keeping with community preferences. Future development under the proposed Plan would need to comply with Chapter 17.39 (Historical Resources) of the Code, which contains provisions to protect that the special character or aesthetic value of places and structures in the city. Additionally, the Code includes Chapters 17.28 (A Agricultural Districts), 17.48 (General Regulations and Exceptions), and 17.20 (Commercial Districts) which detail standards to ensure that new development does not contribute glare or objectionable lighting. Together, the above provisions of the Code would ensure that new development allowed under the proposed Plan result in a less-than-significant impact because it would be consistent with established community standards for visual character in Newark.

Also, the proposed Plan contains goals and policies which would further reduce potential impacts to visual character. from development allowed under the proposed Plan. For instance, the Land Use Element includes:

- Goal LU-1: Maintain a desirable quality of life in Newark by preserving a small town, neighborhood-oriented atmosphere and sustaining a balanced mix of land uses.
- Policy LU-2.1: Neighborhood Conservation. Protect single-family neighborhoods from substantial increases in density and new land uses which would adversely affect the character of the neighborhood.
- Policy LU-2.2: Context-Sensitive Design. Require that new structures, additions, and major renovations are aesthetically compatible with existing structures and the surrounding context, and contribute positively to the visual quality of neighborhoods.

The above goal and policies would help to further reduce an already less-than-significant impact to the existing visual character of urbanized sectors of the city.

Dumbarton Transit-Oriented District Focus Area

The proposed Plan could affect the visual character and quality of the Dumbarton TOD, as it would allow development of up to 2,600 residential units, a neighborhood center containing retail shops, a grocery store and associated visitor-serving and residential uses, new infrastructure supportive of the new development, and parks on what is now primarily vacant land with few structures on it. At buildout, this development would transform the area from one with relatively low-slung, utilitarian buildings with little architectural detail and a minimal street network to a brand new neighborhood featuring a variety of primarily residential structures in a cohesive blend of architectural styles with additional streets, sidewalks, landscaping, and street lighting, and more buildings.

However, the City of Newark Municipal Code's zoning ordinance (Title 17) as described in detail above would ensure that new development allowed under the proposed Plan would result in a less-than-significant impact because it would be consistent with community standards and not represent a diminishment of the visual character of the City. Further, as also described above, the proposed Plan includes goals and policies which would help to further reduce an already less-than-significant impact to the existing visual character of the Dumbarton TOD Focus Area. The relevant goal and policies include:

- Goal LU-1: Maintain a desirable quality of life in Newark by preserving a small town, neighborhood-oriented atmosphere and sustaining a balanced mix of land uses.
- Policy LU-2.1: Neighborhood Conservation. Protect single-family neighborhoods from substantial increases in density and new land uses which would adversely affect the character of the neighborhood.
- Policy LU-2.2: Context-Sensitive Design. Require that new structures, additions, and major renovations are aesthetically compatible with existing structures and the surrounding context, and contribute positively to the visual quality of neighborhoods.

Finally, the Dumbarton TOD Specific Plan contains design guidelines, as described in Section 4.1.1.1, Regulatory Framework, which would further ensure that any development within the Dumbarton TOD Focus Area would be consistent with established community standards and thus would not degrade the area's visual character.

Compliance with the above ordinances and policies would reduce the impacts to visual character associated with the Dumbarton TOD Focus Area to less than significant.

Greater NewPark Mall Focus Area

The proposed Plan envisions the development of additional uses in the Greater NewPark Focus Area to complement the area's existing retail focus and enhance the success of existing businesses. Potential uses envisioned could include a convention center, an event center, and new mixed-use development with higher density housing. With buildout of the proposed Plan, the Greater NewPark Focus Area is anticipated to become more a walkable sector of the city, with an emphasis on multi-story construction, high quality architecture, a mixture of land uses, and improved connectivity between properties. The Plan calls for signage and lighting to complement the area's architecture, and landscaping to unify the area, soften structures and large, bare walls, enhancing the overall visual quality of the Focus Area.

As detailed earlier, the City of Newark Municipal Code's zoning ordinance (Title 17) would ensure that new development allowed under the proposed Plan would be consistent with community standards, thus minimizing potential impacts to visual character. Additionally, the proposed Plan contains a goal and policies, which would help to further reduce an already less-than-significant impact to the existing visual character of the Greater NewPark Focus Area. The relevant goal and policies include:

- Goal LU-1: Maintain a desirable quality of life in Newark by preserving a small town, neighborhood-oriented atmosphere and sustaining a balanced mix of land uses.
- Policy LU-2.1: Neighborhood Conservation. Protect single-family neighborhoods from substantial increases in density and new land uses which would adversely affect the character of the neighborhood.
- Policy LU-2.2: Context-Sensitive Design. Require that new structures, additions, and major renovations are aesthetically compatible with existing structures and the surrounding context, and contribute positively to the visual quality of neighborhoods.

Compliance with the above regulations and implementation of the proposed policies would reduce the impacts to visual character associated with the Greater NewPark Focus Area to a less-than-significant level.

Old Town Focus Area

An urban, pedestrian-oriented mixed-use area with retail, office, civic, and higher density housing uses would be encouraged in Old Town under the proposed Plan. With development allowed under the proposed Plan, the Old Town Focus Area would be transformed from a neighborhood containing some areas with sidewalks and two- and three-story buildings sited facing and near to the street, some areas with single-story ranch-style homes and front yards, and some areas with parking lots in front of single-story utilitarian buildings with little architectural detail to a neighborhood containing sidewalks, landscaping, and a variety of building types incorporating architectural details and having minimal setbacks.

However, the City of Newark Municipal Code's zoning ordinance (Title 17), as described previously, would ensure that new development allowed under the proposed Plan would conform to community standards, therefore minimizing potential impacts to visual character. Additionally, the proposed Plan contains a goal and policies which would help to further reduce an already less-than-significant impact to the existing visual character of the Old Town Focus Area. The relevant goal and policies include:

- Goal LU-1: Maintain a desirable quality of life in Newark by preserving a small town, neighborhood-oriented atmosphere and sustaining a balanced mix of land uses.
- Policy LU-2.1: Neighborhood Conservation. Protect single-family neighborhoods from substantial increases in density and new land uses which would adversely affect the character of the neighborhood.
- Policy LU-2.2: Context-Sensitive Design. Require that new structures, additions, and major renovations are aesthetically compatible with existing structures and the surrounding context, and contribute positively to the visual quality of neighborhoods.
- Policy LU-9.2: Main Street Character. Strengthen the blocks of Thornton Avenue between Olive Street and the UP Railroad as Newark's traditional "Main Street." Establish zoning and design standards for properties

facing Thornton Avenue which strive for continuous active ground floor uses, pedestrian amenities (such as transparent storefronts, wide sidewalks, and benches), and preservation of existing historic buildings.

- Policy LU-9.4: Old Town Architectural Design. Encourage architectural design in Old Town which is compatible with the prevailing styles of the area's older buildings, and if possible, which incorporates architectural elements that were prevalent in Newark in the early 20th Century.

Compliance with the above ordinances and policies would reduce the impacts to visual character associated with the Old Town Focus Area to less than significant.

Southwest Newark Residential and Recreational Focus Area

The Southwest Newark Residential and Recreational Focus Area contains the largest undeveloped areas in Newark. As envisioned in the Area 3 and 4 Specific Plan, a vacant sector approximately 77-acres in size to the south of Ohlone College and to the east of the Stevenson Point Business Park is anticipated for development as a new residential neighborhood, composed of single-family lots ranging in size from 3,150 square feet to 4,800 square feet. A new elementary school is anticipated on an adjacent portion of this area facing Cherry Street. Development in this sector of the Focus Area under the proposed Plan would result in an intensification and diversification of uses on currently vacant land, surrounded by institutional and existing business park uses.

To the west of the Union Pacific Railroad tracks that bisect the Focus Area on land that is currently undeveloped, another single-family residential neighborhood of similarly sized lots is anticipated as envisioned in the Area 3 and 4 Specific Plan, along with an 18-hole golf course. Fill would be required to accommodate residential development in this sector, and the current elevation would be raised by between 10 to 14 feet. Additionally, as envisioned in the Area 3 and 4 Specific Plan, an overpass across the railroad tracks would be constructed along Stevenson Boulevard. The remaining portion of the Focus Area west of the railway tracks, representing almost half of the land in this sector of the Southwest Newark Residential and Recreational Focus Area, is intended for conservation as open space. With buildout of the proposed Plan, this sector of the Focus Area would be transformed from an area of low-intensity agriculture and open space to an area featuring active and passive recreational open space and a new single-family neighborhood.

As detailed above, compliance with the provisions contained in the zoning ordinance (Title 17) would ensure that new development allowed under the proposed Plan would conform to community standards, therefore minimizing potential impacts to visual character. Additionally, the proposed Plan contains a goal and policies which would help to further reduce an already less-than-significant impact to the existing visual character of the Southwest Newark Residential and Recreational Focus Area. The relevant goal and policies include:

- Goal LU-1: Maintain a desirable quality of life in Newark by preserving a small town, neighborhood-oriented atmosphere and sustaining a balanced mix of land uses.
- Policy LU-2.1: Neighborhood Conservation. Protect single-family neighborhoods from substantial increases in density and new land uses which would adversely affect the character of the neighborhood.
- Policy LU-2.2: Context-Sensitive Design. Require that new structures, additions, and major renovations are aesthetically compatible with existing structures and the surrounding context, and contribute positively to the visual quality of neighborhoods.

- Policy LU-7.2: Wetland Enhancement. Create or enhance wetland habitat areas within non-developed portions of the Southwest Newark project area to offset loss of wetlands and aquatic habitat and provide additional habitat opportunities for rare plant and wildlife species.

Finally, the Area 3 and 4 Specific Plan contains design guidelines, as described in Section 4.1.1.1, Regulatory Framework, which would further ensure that any development within the Southwest Newark Residential and Recreational Focus Area would be consistent with established community standards for visual character.

Nevertheless, the Area 3 and 4 Specific Plan EIR concluded that raising the existing elevation 10 to 14 feet for residential development, and adding residences, streets, and landscaping as well as a golf course and an overpass to the primarily agricultural, open landscape west of the Union Pacific railway tracks would constitute a significant and unavoidable impacts to the visual character of this portion of the Focus Area.[5] Additionally, the Housing Element EIR determined that the conversion of vacant sites to urban uses with the construction of new housing throughout the Focus Area, even if such development included on-site open space and landscaping, would change the open, undeveloped character of the area in a manner that could not be mitigated to a less-than-significant level.[6] In both cases, previous environmental review determined that there is no mitigation available to reduce these impacts to less-than-significant levels.

Applicable Regulations

- City of Newark Municipal Code, Chapter 17.39 Historical Resources
- City of Newark Municipal Code, Chapter 17.28 A Agricultural Districts
- City of Newark Municipal Code, Chapter 17.48 General Regulations and Exceptions
- City of Newark Municipal Code, Chapter 17.20 Commercial Districts
- Dumbarton TOD Specific Plan Design Guidelines
- Areas 3 and 4 Specific Plan Design Guidelines

Significance Before Mitigation: Significant.

AES-4	The Plan would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The City of Newark is located in a highly urbanized context. Surrounded on three sides by urban development in the City of Fremont, Newark is itself part of the ring of urban and suburban development that skirts San Francisco Bay. Future development under the proposed Plan would create new sources of light and glare; however, in the urbanized context of Newark this increase would not substantially and adversely affect daytime or nighttime views.

The Newark Municipal Code contains provisions intended to limit adverse light and glare impacts. Chapter 17.48 (General Regulations and Exceptions) allows the addition of a permitted use only if the planning commission can make certain findings, including that the use will not create more light or glare than other permitted uses in the

[5] City of Newark, December 2009, Newark Areas 3 and 4 Specific Plan Project Volume I – Draft EIR Text, ages 240 to 241.
[6] City of Newark, April 2009, Housing Element Update Draft EIR, page 19.

district; Chapter 17.20 (Commercial Districts) prescribes site plan and architectural review in commercial districts, including review of lighting; and Chapter 17.60 (Off-Street Parking and Loading) requires ambient lighting in parking areas to avoid causing reflective nighttime glare from windshields and metallic surfaces.

The proposed Plan also includes several policies designed to minimize light and glare impacts from development and redevelopment in the city:

- Policy LU-4.7: Lighting. Manage exterior lighting to reduce potential light and glare impacts, improve public safety, and enhance the character of the streetscape.
- Policy PROS-3.5: Mitigating Off-Site Impacts. Manage parks to reduce and mitigate the potential for adverse effects on surrounding neighborhoods, such as evening light, noise, and parking.

Furthermore, there are provisions in place to address light impacts from development located at the northwestern edge of the urbanized portion of Newark, where such impacts could potentially be most pronounced. Mitigation Measure 4.1-1 from the Newark Housing Element EIR requires that lighting plans containing specific measures to reduce the adverse impacts of additional light sources to less-than-significant levels for development in areas adjacent to the Don Edwards National Wildlife Refuge. Additionally, the proposed Plan incorporates a policy from the Dumbarton TOD Specific Plan requiring the incorporation of types of lighting and illumination that reduce glare and over-lighting impacts in the vicinity of the Dumbarton TOD Focus Area.

Applicable Regulations

Overall, compliance with the following local regulations and conditions of approval, together with implementation of the proposed Plan policies described above, would ensure that light and glare impacts resulting from development under the proposed Plan would be minimized to the maximum extent practicable:

- City of Newark Municipal Code, Chapter 17.48 General Regulations and Exceptions
- City of Newark Municipal Code, Chapter 17.20 Commercial Districts
- City of Newark Municipal Code, Chapter 17.60 Off-Street Parking and Loading

Significance Before Mitigation: Less than significant.

4.1.4 CUMULATIVE IMPACTS

AES-5	The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to aesthetics.

In combination with other past, present and reasonably foreseeable development, the proposed Plan would result in a less-than-significant impact with respect to aesthetics. The City of Newark is physically separated from surrounding communities to the north and east by elevated freeways. As such, the geographic scope of this analysis is taken as the Plan Area, the portion of Don Edwards National Wildlife Refuge to the west of the City limit, and adjacent areas of Fremont to the South of Stevenson Boulevard. A cumulative aesthetic impact would be considered significant if, together with past, present, and reasonably foreseeable development within the

geographic scope of this analysis, it would result in a substantial adverse effect on a designated scenic vista, a degradation of the view from a scenic highway, exposure of people on- or off-site to substantial light or glare, or if it would result in a substantial degradation of the visual quality or character of the Plan Area and adjacent areas in the area of cumulative effect.

As described above, there are no State-designated scenic highways in the Plan Area or the area of cumulative effect that could be affected by buildout of the proposed Plan in combination with cumulative development. As such, cumulative impacts to scenic highways would be less than significant. Also, as described above, compliance with applicable regulations from the Newark Municipal Code and implementation of proposed Plan policies would reduce light and glare impacts. These policies include:

- Policy LU-4.7: Lighting. Manage exterior lighting to reduce potential light and glare impacts, improve public safety, and enhance the character of the streetscape.
- Policy LU-6.6: Dumbarton TOD Lighting. Use lighting and illumination which compliments architectural styles, reduces glare and over-lighting impacts, ensures pedestrian safety, and highlights special design elements within the community.
- PROS-3.5: Mitigating Off-Site Impacts. Manage parks to reduce and mitigate the potential for adverse effects on surrounding neighborhoods, such as evening light, noise, and parking.

Given that light and glare impacts are generally localized, associated cumulative impacts would be less-than-significant as a result.

As described in Section 4.1.1.2, Existing Conditions, and in AES-1 above, there are no officially designated scenic vistas in Newark; however, the Fremont General Plan identifies Stevenson Boulevard, a portion of which forms the southern limit of the Plan Area, as a scenic resource for the purpose of prioritizing roadway and landscape treatments as well as for consideration of broader views of the surrounding natural landscape. Future development in the Southwest Newark Residential and Recreational Focus Area and in the Greater NewPark Focus Area could affect views from Stevenson Boulevard; however, regulations from the Newark Municipal Code pertaining to building height, massing, form, setbacks, stepbacks, and landscaping would apply and compliance with these regulations would minimize potential impacts to views from Stevenson Boulevard. Additionally, implementation of the following relevant proposed Plan policies would further ensure that cumulative impacts to scenic vistas would be less than significant:

- POS-5.1: Bay Trail. Encourage completion of the Bay Trail along the Newark shoreline, in support of the long-term vision of creating a continuous shoreline trail around San Francisco Bay. Pursue trails that are separated from motor vehicle traffic and pursue pedestrian crossings of railroad rights of way to allow for connections to regional open spaces without conflicts with motorized vehicles.
- POS-5.2: Spur Trails. Provide spur trails which link the Newark section of the Bay Trail to the network of bicycle lanes and sidewalks serving the rest of the city.
- POS-5.3: Shoreline Access. Where feasible, align new sections of the Bay Trail as close as possible to the shoreline. Where shoreline locations are not feasible, encourage alignments that provide views to wetlands or other bay features.

- POS-5.4: Trail Safety. Strive for trail designs which minimize grade level street and rail crossings, and which ensure the safety and comfort of users.
- POS-5.5: Staging Areas. Develop strategically located parking and staging areas which provide trail access and encourage trail use.
- POS-5.6: Land Uses Along Trails. Consider adjacent land uses, existing operations, security, and potential operational conflicts in the alignment and design of the city's trails. Trail design should be coordinated with adjacent landowners.
- POS-5.7: Trail Sustainability. Consider long-term sustainability issues, such as projected sea level rise, surface durability, and the condition of levees, in the design of shoreline and wetland trail facilities.
- POS-5.8: Trail Design and the Environment. Design trails and public access features to minimize impacts on wetlands and other sensitive habitats, including habitat fragmentation. If necessary, identify secondary alignments in the event a trail must be seasonally closed for habitat protection purposes.
- Action POS-1.A: Don Edwards National Wildlife Refuge Expansion. Work with property owners, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the California Coastal Conservancy in the expansion of Don Edwards San Francisco Bay National Wildlife Refuge and the conservation and restoration of salt marsh open spaces along San Francisco Bay.

With respect to cumulative impacts on the visual character in the area of cumulative effect, compliance with regulations from the Newark Municipal Code pertaining to building height, massing, form, setbacks, stepbacks, and landscaping would help ensure that future development is compatible with its surroundings. Additionally, implementation of proposed Plan Policies PR-5.1 through 5.8, listed directly above, buffer and protect scenic resources in Don Edwards National Wildlife Refuge. Therefore, overall, cumulative aesthetic impacts from buildout of the proposed Plan in combination with other past, present and reasonably foreseeable development would be less than significant.

Applicable Regulations

- City of Newark Municipal Code, Chapter 17.16.220 Design Guidelines
- City of Newark Municipal Code, Chapter 17.39 Historical Resources
- City of Newark Municipal Code, Chapter 17.28 A Agricultural Districts
- City of Newark Municipal Code, Chapter 17.48 General Regulations and Exceptions
- City of Newark Municipal Code, Chapter 17.20 Commercial Districts
- City of Newark Municipal Code, Chapter 17.60 Off-Street Parking and Loading

Significance Before Mitigation: Less than significant.

4.1.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would result in significant Plan-specific and cumulative impacts to aesthetics as summarized below.

AES-3	The proposed Plan would result in a significant impact to the visual character of the Southwest Newark Residential and Recreational Focus Area, as determined in previous environmental review.

Mitigation Measure AES-3: There is no feasible mitigation which would reduce impacts to a less-than-significant level.

Significance After Mitigation: Significant and unavoidable.

4.2 AIR QUALITY

This chapter describes the existing air quality setting and examines the air quality impacts associated with potential land uses changes within the City of Newark with adoption of the proposed Plan. This chapter is based on the methodology recommended by the Bay Area Air Quality Management District (BAAQMD) for plan-level review. The analysis contained herein focuses on air pollution from regional emissions and localized pollutant concentrations. "Emission" refers to the actual quantity of pollutant, measured in pounds per day. "Concentration" refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). The analysis is in this section is based on the population and employment projections anticipated in the City of Newark at buildout of the proposed Plan in 2035. Emissions from the transportation sector are based on vehicle miles traveled (VMT) data provided by Hexagon Transportation Consultants, as modeled using Alameda Congestion Transportation Commission's (CTC) regional transportation demand model.

4.2.1 ENVIRONMENTAL SETTING

4.2.1.1 REGULATORY FRAMEWORK

Ambient air quality standards (AAQS) have been adopted at State and federal levels for criteria air pollutants. In addition, both the State and federal government regulate the release of toxic air contaminants (TACs). The City of Newark is in the San Francisco Bay Area Air Basin (SFBAAB) and is subject to the rules and regulations imposed by the BAAQMD, as well as the California AAQS adopted by the California Air Resources Board (CARB) and national AAQS adopted by the United States Environmental Protection Agency (EPA). Federal, State, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed Plan are summarized below.

Federal and State Laws

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS based on even greater health and welfare concerns.

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 4.2-1, Ambient Air Quality Standards for Criteria Pollutants. These pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and State law. Air pollutants are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_x), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that AAQS have been established for them. ROG and NO_2 are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

- **Carbon Monoxide** (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little or no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, motor vehicles operating at slow speeds are the primary source of CO in the SFBAAB. Emissions are highest during cold starts, hard acceleration, stop-and-go driving, and when a vehicle is moving at low speeds. New findings indicate that CO emissions per mile are lowest at about 45 miles per hour (mph) for the average light-duty motor vehicle and begin to increase again at higher speeds. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces its oxygen-carrying capacity. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses. Even healthy people exposed to high CO concentrations can

TABLE 4.2-1 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	*[a]	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	*[a]	
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Respirable Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	15 µg/m^3[3, b]	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarterly	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)	24 hours	25 µg/m^3	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

TABLE 4.2-1 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Notes: ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
[a] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked.
[b] On December 14, 2012, EPA lowered the federal primary $PM_{2.5}$ annual standard from 15.0 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The new annual standard will become effective 60 days after publication in the Federal Register. EPA made no changes to the primary 24-hour $PM_{2.5}$ standard or to the secondary $PM_{2.5}$ standards.
Source: California Air Resources Board (CARB), 2012. Ambient Air Quality Standards, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

experience headaches, dizziness, fatigue, unconsciousness, and even death.[1] The SFBAAB is designated under the California and National AAQS as being in attainment of CO criteria levels.[2]

- **Reactive Organic Gases** (ROGs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as O_3. There are no AAQS established for ROGs. However, because they contribute to the formation of O_3, the BAAQMD has established a significance threshold for this pollutant.

- **Nitrogen Oxides** (NO_X) are a byproduct of fuel combustion and contribute to the formation of O_3, PM_{10}, and $PM_{2.5}$. The two major components of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). The principal component of NOx produced by combustion is NO, but NO reacts with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 acts as an acute irritant and in equal concentrations is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3

[1] Bay Area Air Quality Management District (BAAQMD), 2011. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting.

[2] California Air Resources Board (CARB), 2011. Area Designations: Activities and Maps, http://www.arb.ca.gov/desig/adm/adm.htm, accessed on February 16, 2012.

ppm. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The SFBAAB is designated an attainment area for NO_2 under the National AAQS and California AAQS.[3]

- **Sulfur Dioxide** (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. When SO_2 forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SOx). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue.[4] The SFBAAB is designated an attainment area for SO_2 under the California and National AAQS.[5]

- **Suspended Particulate Matter** (PM_{10} and $PM_{2.5}$) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e. 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns or less (i.e. 2.5 millionths of a meter or 0.0001 inch).

  Some particulate matter, such as pollen, occurs naturally. In the SFBAAB most particulate matter is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM_{10} is of concern because it bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. The EPA and the state of California revised their PM standards several years ago to apply only to these fine particles. $PM_{2.5}$ poses an increased health risk because the particles can deposit deep in the lungs and contain substances that are particularly harmful to human health. Motor vehicles are currently responsible for about half of particulates in the SFBAAB. Wood burning in fireplaces and stoves is another large source of fine particulates.[6]

  Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individual with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms.[7] Diesel particulate

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[3] California Air Resources Board (CARB), 2011. Area Designations: Activities and Maps, http://www.arb.ca.gov/desig/adm/adm.htm, accessed on February 16, 2012.

[4] Bay Area Air Quality Management District (BAAQMD), 2011, California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting.

[5] California Air Resources Board (CARB), 2011, Area Designations: Activities and Maps, http://www.arb.ca.gov/desig/adm/adm.htm, accessed on February 16, 2012.

[6] Bay Area Air Quality Management District (BAAQMD), 2011, California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting.

[7] South Coast Air Quality Management District, 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*.

matter (DPM) is classified a carcinogen by CARB. The SFBAAB is designated nonattainment under the California AAQS for PM_{10} and nonattainment under both the California and National AAQS for $PM_{2.5}$.[8]

- **Ozone** (O_3) is commonly referred to as "smog" and is a gas that is formed when ROGs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions to the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. O_3 levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. O_3 can also damage plants and trees and materials such as rubber and fabrics.[9] The SFBAAB is designated nonattainment of the 1-hour California AAQS and 8-hour California and National AAQS for O_3.[10]

- **Lead** (Pb) is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

  Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the EPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The EPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.[11] The SFBAAB is designated in attainment of the California and National AAQS for lead.[12] Because emissions of lead are found only in projects that are permitted by BAAQMD, lead is not an air quality of concern for the proposed Project.

Toxic Air Contaminants

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code define a TAC as "an air pollutant which may

[8] California Air Resources Board (CARB), 2011. Area Designations: Activities and Maps, http://www.arb.ca.gov/desig/adm/adm.htm, accessed on February 16, 2012.

[9] Bay Area Air Quality Management District (BAAQMD), 2011. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting.

[10] California Air Resources Board (CARB), 2011. Area Designations: Activities and Maps, http://www.arb.ca.gov/desig/adm/adm.htm, accessed on February 16, 2012.

[11] Bay Area Air Quality Management District (BAAQMD), 2011. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting.

[12] California Air Resources Board (CARB), 2011. Area Designations: Activities and Maps, http://www.arb.ca.gov/desig/adm/adm.htm, accessed on February 16, 2012.

cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 U.S. Code Section 7412[b]) is a toxic air contaminant. Under State law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e. a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA), and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs.[13] Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

In 1998, CARB identified DPM as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

The BAAQMD's Community Air Risk Evaluation program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area. Based on the annual emissions inventory of TACs for the SFBAAB, DPM was found to account for approximately 80 percent of the cancer risk from airborne toxics. The highest DPM concentrations occur in the urban core areas of eastern San Francisco, western Alameda, and northwestern Santa Clara counties. BAAQMD has identified six impacted communities in the Bay Area: Concord, eastern San Francisco, western Alameda County, Redwood City/East Palo Alto, Richmond/San Pablo, and San Jose. The City of Newark is not one of these six impacted communities. The major contributor to acute and chronic non-cancer health effects in the SFBAAB is acrolein (C_3H_4O). Major sources of acrolein include on-road

[13] CARB, 1999. California Air Resources Board (CARB). Final Staff Report: Update to the Toxic Air Contaminant List.

mobile sources and aircraft near freeways and commercial and military airports.[14] Currently CARB does not have certified emission factors or an analytical test method for acrolein. Since the appropriate tools needed to implement and enforce acrolein emission limits are not available, the BAAQMD does not conduct health risk screening analysis for acrolein emissions.[15]

Bay Area Air Quality Management District

BAAQMD is the agency responsible for assuring that the National and California AAQS are attained and maintained in the SFBAAB. BAAQMD is responsible for:

- Adopting and enforcing rules and regulations concerning air pollutant sources.
- Issuing permits for stationary sources of air pollutants.
- Inspecting stationary sources of air pollutants.
- Responding to citizen complaints.
- Monitoring ambient air quality and meteorological conditions.
- Awarding grants to reduce motor vehicle emissions.
- Conducting public education campaigns.

Air Quality Management Planning

Air quality conditions in the SFBAAB have improved significantly since the BAAQMD was created in 1955.[16] The BAAQMD prepares air quality management plans (AQMPs) to attain ambient air quality standards in the SFBAAB. The BAAQMD prepares ozone attainment plans (OAPs) for the National O_3 standard and clean air plans for the California O_3 standard. The BAAQMD prepares these AQMPs in coordination with Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). The most recent adopted comprehensive plan is the 2010 Bay Area Clean Air Plan, which was adopted on September 15, 2010, and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools.

BAAQMD 2010 Bay Area Clean Air Plan

The purpose of the 2010 Bay Area Clean Air Plan is to: 1) update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement all feasible measures to reduce O_3; 2) consider the impacts of O_3 control measures on PM, TAC, and greenhouse gases (GHGs) in a single, integrated plan; 3) review progress in improving air quality in recent years; and 4) establish emission control measures in the 2009 to 2012 timeframe. The 2010 Bay Area Clean Air Plan also provides the framework for SFBAAB to achieve attainment of the California AAQS. Areas that meet AAQS are classified attainment areas, while areas that do not

[14] Bay Area Air Quality Management District (BAAQMD), 2006. Community Air Risk Evaluation Program, Phase I Findings and Policy Recommendations Related to Toxic Air Contaminants in the San Francisco Bay Area.

[15] Bay Area Air Quality Management District (BAAQMD), 2010. Air Toxics NSR Program, Health Risk Screening Analysis Guidelines.

[16] Bay Area Air Quality Management District (BAAQMD), 2011. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting.

meet these standards are classified nonattainment areas. Severity classifications for O_3 range from marginal, moderate, and serious to severe and extreme. The attainment status for the SFBAAB is shown in Table 4.2-2. The SFBAAB is currently designated a nonattainment area for California and National O_3, California and National $PM_{2.5}$, and California PM_{10} AAQS.

TABLE 4.2-2 ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SAN FRANCISCO AIR BASIN

Pollutant	State	Federal
Ozone – 1-hour	Nonattainment	Nonattainment
Ozone – 8-hour	Nonattainment (serious)	Classification revoked (2005)
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	Attainment	Unclassified
All others	Unclassified	Unclassified

Source: California Air Resources Board (CARBP), 2011. Area Designations: Activities and Maps, http://www.arb.ca.gov/desig/adm/adm.htm.

Alameda County Transportation Commission

The Alameda CTC is a countywide transportation agency resulting from a merger of the Alameda County Congestion Management Agency and the Alameda County Transportation Improvement Authority. The Alameda CTC plans, funds, and develops transportation projects and programs to enhance mobility in Alameda County.

2012 Countywide Transportation Plan

The Alameda CTC developed the 2012 Countywide Transportation Plan (CWTP), which evaluates the performance of the county's transportation system. The 2012 CWTP places increased emphasis on the connection between land use planning, transportation improvements, and sustainability consistent with Assembly Bill 32, the Global Warming Solutions Act (2006), and Senate Bill 375, the Sustainable Communities and Climate Protection Act (2008). In response to these new mandates, the MTC and the ABAG, in collaboration with the Alameda CTC and jurisdictions throughout the county, have been examining the diverse land use policies established by different communities in the Bay Area and the relationships between housing, job locations, and transportation infrastructure. The outcome will be the region's first Sustainable Communities Strategy, a coordinated regional land

use vision, as part of this update of the Regional Transportation Plan (RTP) known as *Plan Bay Area*. Preparation of the CWTP was closely coordinated with preparation of *Plan Bay Area* and includes goals and performance measures to ensure land use is considered. Objectives identified in the CWTP include:

- Encourage a land use pattern that provides a variety of destinations within walking and bicycling distance.
- Encourage a built environment that provides an interesting and vibrant street environment, including interest and comfort for pedestrians and bicyclists as well as "eyes on the street" for improved safety.
- Encourage a pattern of major employment centers and employment in general with convenient transit access and nearby mixed use and residential areas.
- Support walkable residential neighborhoods in proximity to schools.
- Support the creation and maintenance of housing, affordable to a range of households, with PDAs and other transit-oriented development (TOD) opportunities.
- Encourage preservation of valuable agricultural lands in the county to provide produce and other agricultural products within proximity of urban development.
- Encourage the creation of a connected street network providing multiple and convenient routes for all modes within and between neighborhoods and centers, and for the regional transportation system.

The Alameda County Draft Land Use Scenario Concept was used in the travel demand model evaluation to identify future travel conditions in Alameda County. The Alameda CTC worked with city planning staff throughout the county to identify growth opportunity areas (GOAs) in the county and to adjust allocations and locations of housing and job growth to best reflect local conditions. The Alameda County Draft Land Use Scenario Concept includes two priority development areas (PDAs), which are included in MTC's *Plan Bay Area,* and two additional GOAs in Newark

- Dumbarton Transit Area (PDA)
- Old Town (PDA)
- Cedar Boulevard Transit (GOA)
- Civic Center Re-Use Transit (GOA)

Projects in the 2012 CWTP are eligible to receive local, regional, and federal funding through 2040.[17]

4.2.1.2 EXISTING CONDITIONS

This section describes existing conditions related to air quality in the Plan Area.

[17] Alameda County Transportation Commission (CTC). 2012, June. Final 2012 Alameda Countywide Transportation Plan.

San Francisco Air Basin

The BAAQMD is the regional air quality agency for the SFBAAB, which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the southern portion of Sonoma County; and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.[18]

Meteorology

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range splits, resulting in a western coast gap, Golden Gate, and an eastern coast gap, Carquinez Strait, which allow air to flow in and out of the SFBAAB and the Central Valley.

The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

Wind Patterns

During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more directly from the west as they stream through the Golden Gate. This channeling of wind through the Golden Gate produces a jet that sweeps eastward and splits off to the northwest toward Richmond and to the southwest toward San Jose when it meets the East Bay hills.

Wind speeds may be strong locally in areas where air is channeled through a narrow opening, such as the Carquinez Strait, the Golden Gate, or the San Bruno gap. For example, the average wind speed at San Francisco International Airport in July is about 17 knots (from 3:00 p.m. to 4:00 p.m.), compared with only seven knots at San Jose and less than 6 knots at the Farallon Islands.

The air flowing in from the coast to the Central Valley, called the sea breeze, begins developing at or near ground level along the coast in late morning or early afternoon. As the day progresses, the sea breeze layer deepens and increases in velocity while spreading inland. The depth of the sea breeze depends in large part upon the height and

[18] Bay Area Air Quality Management District (BAAQMD), 2011. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting.

strength of the inversion. If the inversion is low and strong, and hence stable, the flow of the sea breeze will be inhibited and stagnant conditions are likely to result.

In the winter, the SFBAAB frequently experiences stormy conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes are characterized by nighttime drainage flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley toward the coast and back down toward the Bay from the smaller valleys within the SFBAAB.

Temperature

Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold water from the ocean bottom along the coast. On summer afternoons the temperatures at the coast can be 35 degrees Fahrenheit (ºF) cooler than temperatures 15 to 20 miles inland. At night this contrast usually decreases to less than 10ºF.

In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

Precipitation

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains (November through March) account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys.

During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing are usually high, and thus pollution levels tend to be low. However, frequent dry periods do occur during the winter where mixing and ventilation are low and pollutant levels build up.

Wind Circulation

Low wind speed contributes to the buildup of air pollution because it allows more pollutants to be emitted into the air mass per unit of time. Light winds occur most frequently during periods of low sun (fall and winter, and early morning) and at night. These are also periods when air pollutant emissions from some sources are at their peak, namely, commuter traffic (early morning) and wood-burning appliances (nighttime). The problem can be compounded in valleys, when weak flows carry the pollutants up-valley during the day, and cold air drainage flows move the air mass down-valley at night. Such restricted movement of trapped air provides little opportunity for ventilation and leads to buildup of pollutants to potentially unhealthful levels.

Inversions

An inversion is a layer of warmer air over a layer of cooler air. Inversions affect air quality conditions significantly because they influence the mixing depth, i.e. the vertical depth in the atmosphere available for diluting air contaminants near the ground. There are two types of inversions that occur regularly in the SFBAAB. Elevation inversions are more common in the summer and fall, and radiation inversions are more common during the winter. The highest air pollutant concentrations in the SFBAAB generally occur during inversions.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the Plan Area are best documented by measurements made by the BAAQMD. The air quality monitoring station closest to the City is the Hayward Monitoring Station. Data from this station are summarized in Table 4.2-3. However, this station only monitors O_3, so data was obtained from the San Jose Monitoring Station for the other criteria air pollutants. The data show occasional violations of the State and federal O_3 standards, state PM_{10} standard, and federal $PM_{2.5}$ standard. The State and federal CO, SO_2, and NO_2 standards have not been exceeded in the last five years in the vicinity of Newark.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools.

Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, since the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

TABLE 4.2-3 AMBIENT AIR QUALITY MONITORING SUMMARY

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels During Such Violations				
	2007	2008	2009	2010	2011
Ozone (O_3)[a]					
State 1-Hour ≥ 0.09 ppm	0	1	4	NA	0
State 8-hour ≥ 0.07 ppm	0	3	4	NA	0
Federal 8-Hour > 0.075 ppm	0	1	3	NA	0
Maximum 1-Hour Conc. (ppm)	0.075	0.114	0.107	NA	0.088
Maximum 8-Hour Conc. (ppm)	0.065	0.087	0.081	NA	0.070
Carbon Monoxide (CO)[b]					
State 8-Hour > 9.0 ppm	0	0	0	0	0
Federal 8-Hour ≥ 9.0 ppm	0	0	0	0	0
Maximum 8-Hour Conc. (ppm)	2.71	2.48	2.50	2.19	2.18
Nitrogen Dioxide (NO_2)[b]					
State 1-Hour ≥ 0.18 (ppm	0	0	0	0	0
Maximum 1-Hour Conc. (ppm)	0.065	0.090	0.069	0.064	0.061
Sulfur Dioxide (SO_2)[b]					
State 24-Hour ≥ 0.04 ppm	NA	NA	0	0	0
Maximum 24-Hour Conc. (ppm)	NA	NA	0.001	0.002	0.003
Coarse Particulates (PM_{10})[b]					
State 24-Hour > 50 µg/m^3	3	1	0	0	0
Federal 24-Hour > 150 µg/m^3	0	0	0	0	0
Maximum 24-Hour Conc. (µg/^{m3})	69.1	57.3	43.3	46.8	44.3
Fine Particulates ($PM_{2.5}$)[b]					
Federal 24-Hour > 35 µg/m^3	9	5	0	3	3
Maximum 24-Hour Conc. (µg/m^3)	57.5	41.9	35.0	41.5	50.5

Notes: ppm: parts per million; µg/m^3: or micrograms per cubic meter
* = insufficient data
NA = Not Available

[a] O_3 obtained from the Hayward Monitoring Station.

[b] CO, NO_2, SO_2, PM_{10} and $PM_{2.5}$ data from the San Jose Jackson Street Monitoring Station.

Source: California Air Resources Board (CARB), 2013. Air Pollution Data Monitoring Cards (2007, 2008, 2009, 2010, and 2011), http://www.arb.ca.gov/adam/index.html.

4.2.2 STANDARDS OF SIGNIFICANCE

4.2.2.1 CEQA THRESHOLDS

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant effect on the environment with respect to air quality if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
4. Expose sensitive receptors to substantial pollutant concentrations.
5. Create objectionable odors affecting a substantial number of people.

The City notes that the purpose of this Draft EIR is to identify the significant effects of the Project (proposed Plan) on the environment, not the significant effects of the environment on the Project. (*South Orange County Wastewater Authority v. City of Dana Point (2011) 196 Cal.App.4th 1604, 1614-1618; City of Long Beach v. Los Angeles Unified School Dist. (2009) 176 Cal.App.4th 889, 905.)* While identifying the environmental effects of attracting development and people to an area is consistent with CEQA's legislative purpose and statutory requirements, identifying the effects on the Project and its users of locating the Project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes.

Appendix G of the Guidelines is a sample checklist form that is suggested for use in preparing an initial study, and which the City has employed to assist in the preparation of this Draft EIR (see *Guidelines, § 15063, subd. (f)*). However, a few of the questions on the form concern the exposure of people or structures to environmental hazards and could be construed to refer to not only the Project's exacerbation of environmental hazards but also the effects on users of the Project and structures in the Project of preexisting environmental hazards. To the extent that such questions may encompass the latter effects, the questions do not relate to environmental impacts under CEQA and cannot support an argument that the effects of the environment on the Project must be analyzed in a Draft EIR. (*Bellona Wetlands Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473-474.)

Accordingly, while the City provides the following informational analysis of threshold d taken from Appendix G of the CEQA Guidelines, that the Guidelines language in thresholds d and e, as they relate to the placement of sensitive receptors under the proposed Plan, above are not examples of an environmental effect caused by development, but instead is an example of an effect on the Project caused by the environment.

4.2.2.2 BAAQMD PLAN-LEVEL THRESHOLDS

The BAAQMD adopted CEQA Guidelines in June 2010, which were revised in May 2011.[19] The BAAQMD CEQA Guidelines include methodology and thresholds for criteria air pollutant impacts and community health risk for plan-level and project-level analyses. The proposed Plan qualifies as a plan-level project under BAAQMD's criteria. The BAAQMD's Guidelines include plan-level significance criteria that would be applicable to the Plan.

Criteria Air Pollutants and Precursors

BAAQMD does not require an inventory of project-related criteria air pollutant emissions under its plan-level review, but an analysis of the following:

- A consistency evaluation of the project with its current air quality plan control measures. The current AQMP is the 2010 Bay Area Clean Air Plan. BAAQMD considers the project consistent with the AQMP in accordance with the following:
  - Does the project support the primary goals of the AQMP?
  - Does the project include applicable control measures from the AQMP?
  - Does the project disrupt or hinder implementation of any AQMP control measures?
- A comparison that the project VMT or vehicle trip increase is less than or equal to the projected population increase.
- In addition, under the plan-level review, BAAQMD does not require an evaluation of CO hotspots.[20] With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology, the SFBAAB is in attainment of the California and National AAQS, and CO concentrations in the SFBAAB have steadily declined. Because CO concentrations have improved, intersection volumes during the peak hour in the SFBAAB would not typically reach the level required to result in a CO hotspot.[21]

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[19] A revised version of BAAQMD CEQA Guidelines was posted without the screening and significance thresholds tables in 2012 after a court ruling. On March 5, 2012, the court issued a ruling in *California Building Industry Association v. Bay Area Air Quality Management District* (Superior Court Case No. RG10548693). Pursuant to the ruling, the court found that the adoption of the BAAQMD's CEQA Guidelines, which comprise the BAAQMD's GHG significance criteria, is a "project" requiring CEQA review. Since no CEQA review was conducted for the Guidelines prior to their adoption, the court set aside adoption of the Guidelines for determining the significance of air quality and GHG emissions, and ordered BAAQMD to take no further action to disseminate the thresholds until CEQA review is complete. While adoption of the thresholds was set aside, the thresholds are supported by appropriate studies and analysis (see http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx). Accordingly, pursuant to its discretion under State CEQA Guidelines section 15064 (b) ("lead agencies may exercise their discretion on what criteria to use"), and the recent ruling in *Citizen for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 335-336, ("[t]he determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data."), the City has decided to apply the BAAQMD CEQA thresholds to the proposed Plan.

[20] Congested intersections have the potential to create elevated concentrations of CO, referred to as CO hotspots.

[21] Bay Area Air Quality Management District (BAAQMD), 2011 (Revised). California Environmental Quality Act Air Quality Guidelines.

Community Risk and Hazards

The BAAQMD's significance thresholds for local community risk and hazard impacts apply to both the siting of a new source and to the siting of a new receptor. The City notes that the purpose of this EIR is to identify the significant effects of the Plan on the environment, not the significant effects of the environment on the Project.[22]

Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. The City of Newark is not in one of the six impacted communities identified in BAAQMD's CARE program. The City of Newark and Alameda County do not have a qualified risk reduction plan for this area. For assessing community risk and hazards, sources within a 1,000-foot radius are considered. Sources are defined as freeways, high volume roadways (with volume of 10,000 vehicles or more per day or 1,000 trucks per day), and permitted sources.[23] For a plan-level analysis, BAAQMD requires:

- Overlay zones around existing and planned sources of TACs,
- Overlay zones of at least 500 feet from all freeways and high volume roads.

For a plan-level analysis, a project must also identify goals, policies, and objectives to minimize potential impacts and create overlay zones for sources of TACs and receptors.[24]

Odors

BAAQMD's thresholds for odors are qualitative. BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills

[22] *South Orange County Wastewater Authority v. City of Dana Point* (2011) 196 Cal.App.4th 1604, 1614-1618; *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 905. Although identifying the environmental effects of attracting development and people to an area is consistent with CEQA's legislative purpose and statutory requirements, identifying the effects on the Project and its users of locating the Project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes. Appendix G of the Guidelines is a sample checklist form that is suggested for use in preparing an initial study, and which the City has employed to assist in the preparation of this Draft EIR (see Guidelines, § 15063, subd. (f)). However, a few of the questions on the form concern the exposure of people or structures to environmental hazards and could be construed to refer to not only the Project's exacerbation of environmental hazards but also the effects on users of the Project and structures in the Project of preexisting environmental hazards. To the extent that such questions may encompass the latter effects, the questions do not relate to environmental impacts under CEQA and cannot support an argument that the effects of the environment on the Project must be analyzed in a Draft EIR. (*Ballona Wetlands Trust v. City of Los Angeles* [2011] 201 Cal.App.4th 455, 473-474.) Accordingly, although the City provides the following informational analysis of threshold 4 taken from Appendix G of the CEQA Guidelines, and includes proposed mitigation measures consistent with that analysis, the Guidelines language in threshold 4 above is not an example of an environmental effect caused by development, but of an effect on the Project caused by the environment. Analysis of this information is provided for informational purposes and for full disclosure, but is not required under CEQA.

[23] Bay Area Air Quality Management District (BAAQMD), 2011 (Revised). California Environmental Quality Act Air Quality Guidelines.

[24] Bay Area Air Quality Management District (BAAQMD), 2011 (Revised). California Environmental Quality Act Air Quality Guidelines.

or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants.[25] For a plan-level analysis, BAAQMD requires:

- Potential existing and planned location of odors sources to be identified.
- Policies to reduce odors.

4.2.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to air quality.

AIR-1	**While the proposed Plan would support the primary goals of the 2010 Bay Area Clean Air Plan, buildout of the proposed Plan would not be consistent with the Clean Air Plan because the projected vehicle miles traveled (VMT) increase from buildout of the proposed Plan would be greater than the projected population increase.**

2010 Bay Area Clean Air Plan

The current AQMP is the 2010 Bay Area Clean Air Plan. The primary goals of the 2010 Bay Area Clean Air Plan are to attain air quality standards, reduce population exposure and protect public health in the Bay Area, and reduce GHG emissions and protect the climate. BAAQMD considers the Plan consistent with the AQMP in accordance with the following:

Attain Air Quality Standards

The SFBAAB is currently designated a nonattainment area for O_3, $PM_{2.5}$, and PM_{10} (state AAQS only). The growth projections for the City of Newark are consistent with the population and employment projections identified by ABAG (see Section 4.11, Population and Housing). Consequently, emissions within the City of Newark are included in BAAQMD's projections, and future development in the City of Newark through the General Plan horizon year 2035 would not hinder BAAQMD's ability to attain the California or National AAQS. Accordingly, impacts would be less than significant.

Reduce Population Exposure and Protect Public Health

The City of Newark is already largely developed. Future growth under the proposed Plan would be accommodated in infill sites and redevelopment of existing sites. As identified in the discussion of community risk and hazards (see AIR-4 below), new sensitive land uses could be proximate to major sources of TACs, and new industrial/commercial land uses could generate an increase in TACs. Adherence to BAAQMD regulations would ensure new sources of TACs do not expose populations to significant health risk; however, siting of land uses proximate to major sources of air pollution is outside the control of BAAQMD. These impacts are addressed

[25] Bay Area Air Quality Management District (BAAQMD), 2011 (Revised). California Environmental Quality Act Air Quality Guidelines.

under AIR-4, below. Implementation of proposed Plan goals, policies, and programs, including Policy EH-1.6 and Action EH-1.C, described below, would ensure these impacts are less than significant.

Reduce GHG Emissions and Protect the Climate

GHG emissions impacts of the proposed Plan are discussed in Chapter 4.6, *Greenhouse Gas Emissions*. To reduce community-wide GHG emissions, the City of Newark has prepared and approved a CAP.[26] The City's CAP identifies GHG reduction measures for municipal and community-wide operations. The City's CAP is consistent with the goals of the 2010 Bay Area Clean Air Plan to reduce GHG emissions and protect the climate. As identified above, the proposed Plan would support the goals of the 2010 Bay Area Clean Air Plan. New policies would be introduced as part of the proposed Plan to minimize impacts. With the additional measures proposed in the City's CAP, impacts would be less than significant.

Does the Project include applicable control measures from the AQMP?

Table 4.2-4 identifies the control measures included in the 2010 Bay Area Clean Air Plan, and, as shown, implementation of the proposed Plan goals, policies and actions in Table 4.2-4 would ensure that the proposed Plan would be consistent with the 2010 Bay Area Clean Air Plan and that the impacts due to inconsistency would be less than significant.

Does the Project Disrupt or Hinder Implementation of any Air Quality Management Plan Control Measures?

Table 4.2-4 identifies the control measures included in the 2010 Bay Area Clean Air Plan. As identified in the table, the proposed Plan would not hinder BAAQMD from implementing the control measures in the 2010 Bay Area Clean Air Plan. Impacts are less than significant.

Regional Growth Projections for VMT and Population and Employment

Development under the proposed Plan would result in additional sources of criteria air pollutants. Growth accommodated within the City would occur over a 20-year or longer time horizon. As a result, BAAQMD's approach to evaluating impacts from criteria air pollutants generated by long-term growth associated with a plan is done in comparison to BAAQMD's AQMP rather than a comparison of emissions to project-level significance thresholds. This is because BAAQMD's AQMP plans for growth within the SFBAAB are based on regional population and employment projections identified by ABAG and growth in VMT identified by Alameda CTC. Changes in regional, community-wide emissions within Newark could affect the ability of BAAQMD to achieve the air quality goals identified in the AQMP. Consequently, air quality impacts for a plan-level analysis are based on the consistency with the regional growth projections.

[26] Newark, City of.. 2010, January. City of Newark Climate Action Plan.

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
Stationary and Area Sources Control Measures	▪ SSM 1 – Metal Melting Facilities ▪ SSM 2 – Digital Printing ▪ SSM 3 – Livestock Waste ▪ SSM 4 – Natural Gas Processing and Distribution ▪ SSM 5 – Vacuum Trucks ▪ SSM 6 – General Particulate Matter Weight Rate Limitations ▪ SSM 7 – Open Burning ▪ SSM 8 – Cole Calcining ▪ SSM 9 – Cement Kilns ▪ SSM 10 – Refinery Boilers and Heaters ▪ SSM 11 – Residential Fan Type Furnaces ▪ SSM 12 – Space Heating ▪ SSM 13 – Dryers, Ovens, Kilns ▪ SSM 14 – Glass Furnaces ▪ SSM 15 – Greenhouse Gases in Permitting Energy Efficiency ▪ SSM 16 – Revise Regulation 2, Rule 2: New Source Review ▪ SSM 17 – Revise Regulation 2, Rule 5 New Source Review for Air Toxics ▪ SSM 18 – Revise Air Toxics "Hot Spot" Program	Stationary and area source control measures are sources regulated directly by BAAQMD. To implement the stationary and area source control measures, BAAQMD adopts/revises rules or regulations to implement the control measures and reduce emissions from stationary and area sources. Because BAAQMD is the implementing agency, new and existing sources of stationary and area sources within the City would be required to comply with these control measures in the 2010 Bay Area Clean Air Plan.
Mobile Source Control Measures	▪ MSM A-1 – Promote Clean, fuel Efficient Light & Medium-Duty Vehicles ▪ MSM A-2 – Zero Emission Vehicle and Plug-in Hybrids ▪ MSM A-3 – Green Fleets (Light Medium & Heavy-Duty Vehicles) ▪ MSM A-4 – Replacement or Repair of High Emitting Vehicles ▪ MSM B-1 – HDV Fleet Modernization ▪ MSM B-2 – Low NO_x Retrofits for In-Use Engines ▪ MSM B-3 – Efficient Drive Trains ▪ MSM C-1 – Construction and Farming Equipment ▪ MSM C-2 – Lawn & Garden Equipment ▪ MSM C-3 – Recreational Vessels	Mobile Source Control Measures that would reduce emissions by accelerating the replacement of older, dirtier vehicles and equipment through programs such as the BAAQMD's Vehicle Buy-Back and Smoking Vehicle Programs, and promoting advanced technology vehicles that reduce emissions. The implementation of these measures rely heavily upon incentive programs, such as the Carl Moyer Program and the Transportation Fund for Clean Air, to achieve voluntary emission reductions in advance of, or in addition to, CARB requirements. CARB has new regulations that require the replacement or retrofit of on-road trucks, construction equipment, and other specific equipment that is diesel powered. The proposed Plan would not hinder the ability of BAAQMD to implement these regional programs.

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
Transportation Control Measures	▪ TCM A-1 – Improve Local and Regional Rail Service ▪ TCM A-2 – Improve Local and Regional Rail Service ▪ TCM B-1 – Implement Freeway Performance Initiative ▪ TCM B-2 – Improve Transit Efficiency and Use ▪ TCM B-3 – Bay Area Express Land Network ▪ TCM B-4 – Goods Movement Improvements and Emission Reduction Strategies ▪ TCM C-1 – Support Voluntary Employer-Based Trip Reduction Program ▪ TCM C-2 – Implement Safe Routes to Schools and Safe Routes to Transit ▪ TCM C-3 – Promote Rideshare Service and Incentives ▪ TCM C-4 – Conduct Public Outreach and Education ▪ TCM C-5 – Promote Smart Driving/Speed Moderation ▪ TCM D-1 – Improve Bicycle Access and Facilities ▪ TCM D-2 – Improve Pedestrian Access and Facilities ▪ TCM D-3 – Support Local Land Use Strategies ▪ TCM E-1 – Value Pricing Strategies ▪ TCM E-2 Parking Pricing and Management ▪ TCM E-3 – Implement Transportation Pricing Reform	Transportation Control Measures (TCM) are strategies to reduce vehicle trips, vehicle use, VMT, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions. While most of the TCMs are implemented at the regional level—that is, by the Metropolitan Transportation Commission (MTC) or Caltrans—there are measures for which the 2010 Bay Area Clean Air Plan relies upon local communities to assist with implementation. The proposed Plan includes goals and policies related to transportation and land use that would assist BAAQMD in meeting the regional goals of the 2010 Bay Area Clean Air Plan, including: ▪ Policy T-1.1: Improving Travel Mobility for All. Create and maintain "complete" streets that provide safe, comfortable and convenient travel for all categories of users, including pedestrians, bicyclists, transit riders, and motorists; and persons of all physical capabilities, including children, youth, seniors, and persons with disabilities. ▪ Policy T-1.3: Incorporating Complete Streets Elements in Transportation Projects. Incorporate complete streets elements in the planning, funding, design, approval and implementation of all transportation projects. Any construction, reconstruction, retrofit, maintenance, operations, alteration, or major repair of the street network should consider ways to make streets safer for all users. ▪ Policy T-1.6: Traffic Calming. Use traffic design features and traffic calming techniques to improve safety and maintain the quality of life in Newark neighborhoods. Traffic calming should be incorporated into urban design and streetscape plans so that a safer environment is provided for bicyclists and pedestrians. ▪ Action T-1.A: Interdepartmental Cooperation. Require that all relevant City departments work cooperatively toward making complete streets practices a routine part of their daily operations. City departments should approach every transportation-related project and program as an opportunity to improve mobility for all categories of users. ▪ Action T-1.B: Best Practices in Street Design. Follow the City's adopted standards for the design of streets. As appropriate, update the City's street classification and engineering design standards to ensure that the roadway system accommodates all users.

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		▪ Action T-1.C: Complete Streets Procedures. Take the following steps to implement the city's Complete Streets policy: (a) Maintain, plan, and design future transportation projects so that they are consistent with all adopted local plans; and (b) Develop or clearly define a process to allow for early stakeholder involvement in the design of new transportation projects. ▪ Policy T-2.1: Promoting Bicycling and Walking. Promote bicycling and walking as viable modes of transportation for everyday trips as well as for recreation. ▪ Policy T-2.2: Pedestrian Facilities. Develop curbs, gutters, and sidewalks on all Newark streets to encourage safe, convenient pedestrian travel. Where appropriate, include marked crosswalks at intersections to facilitate safe pedestrian movement across City streets. ▪ Policy T-2.3: Bike Trail Network. Maintain and expand an interconnected network of bicycle trails and pedestrian paths, serving the city's neighborhoods, shopping districts, workplaces, and park and open space areas. The existing bicycle network should be extended to provide connections to developing areas, including the Dumbarton TOD, the Southwest Residential and Recreational Project, Old Town Newark, and the NewPark Mall vicinity ▪ Policy T-2.4: Connecting to the Region. Develop bicycle and pedestrian facilities that connect across city boundaries and integrate with the larger regional bikeway and public transportation systems. ▪ Policy T-2.5: Pedestrian and Bicycle Provisions within New Development. Ensure safe and convenient pedestrian and bicycle access to and through new public and private developments. The City will use the development review process to ensure—and where appropriate to require—provisions for pedestrians and bicycles in new development areas. ▪ Policy T-2.6: Bicycle Parking. Provide secure, adequate, and easily accessible bicycle parking at key destinations throughout the city, including municipal facilities, schools, and within new development. The style and design of bike racks should contribute to overall neighborhood and architectural aesthetics. ▪ Policy: T-2.7: Trails along Railroads and Utilities. Consider the use of railroad, flood control, and utility rights-of-way for

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		jogging, biking, and walking trails, provided that safety and operational issues can be fully addressed. ▪ Policy T-2.9: Railroad Crossings. Ensure that any future grade-separated railroad crossings include sidewalks and a designated lane for bicycles. ▪ Policy T-2.10: Improving Sidewalk Connectivity. Work to close gaps in the pedestrian network and improve sidewalk connectivity between residential and commercial areas. ▪ Policy T-2.11: Recreational Trails. Develop and maintain trails in park and open space areas, and between Newark neighborhoods and the city's open spaces. ▪ Action T-2.A: Pedestrian and Bicycle Master Plan. Adopt the Draft Newark Pedestrian and Bicycle Master Plan, and proceed with implementation of its priority projects. Periodically update the list of projects as capital improvements are completed. ▪ Action T-2.B: Cedar Boulevard Pedestrian and Bicycle Trail. Convert the linear tract of land formerly reserved for a southerly extension of Cedar Boulevard between Haley St. and Willow St. into a bicycle and pedestrian parkway, including a bicycle and pedestrian bridge over the Union Pacific Railroad. ▪ Action T-2.C: Safe Routes to School. Apply for grant funding to prepare a comprehensive Safe Routes to School program. Such a program should be developed collaboratively with the Newark Unified School District. ▪ Action T-2.F: Priority Areas for Pedestrian Improvements. Pursue pedestrian and bicycle access improvements in the NewPark Mall vicinity, and between the Mall area and Newark neighborhoods. The City should identify prospective capital improvements which would facilitate walking and cycling within this area. ▪ Action T-2.G: Wayfinding Signage. Implement a bicycle signage and wayfinding program, including directional signs to indicate major destinations. ▪ Action T-2.H: Bicycle Parking Requirements. Consider adopting bicycle parking requirements for residential and commercial projects. ▪ Policy T-3.1: Improving Transit Services. Work collaboratively with BART, AC Transit, other agencies, and the private sector to provide an improved transit system serving persons who live in Newark, work in Newark, and

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		visit Newark. ▪ Policy T-3.2: Transit Diversity. Support a variety of transit types within the city, including local bus service within Newark, express bus service linking Newark to regional destinations, and future shuttle or circulator service to BART, ACE, and other rail transit facilities. ▪ Policy T-3.3: Connecting to BART. Encourage improved transit connections between Newark and the BART stations in Fremont and Union City. A variety of strategies leveraging public and private resources should be explored to establish more frequent, reliable connections to BART. ▪ Policy T-3.4: Transbay Service. Support expanded transit service between Newark and the Peninsula, including bus service across the Dumbarton Bridge and eventual rail service between the East Bay and the Peninsula, with a station on the west side of Newark. ▪ Policy T-3.7: Transit Stops. Coordinate with regional transit providers to maintain a safe, clean, comfortable, and well-lit waiting environment at all transit stops and bus shelters within the city. ▪ Policy T-3.8: Improving Transit Reliability and Speed. Work with transit providers to incorporate features such as traffic signal priorities, queue jumps, exclusive transit lanes, real-time information on bus arrival and departures, and other measures which make using transit faster and more reliable. ▪ Policy T-3.9: Schedule Integration. Support efforts to synchronize transit schedules to reduce waiting and transfer times, particularly between AC Transit and BART. ▪ Action T-3.A: BART Shuttle. Study the feasibility of a private, public-private, or AC Transit shuttle that connects Newark's major employment centers, major shopping destinations, and other destinations (such as Ohlone College) with the BART stations in Fremont and/or Union City. ▪ Action T-3.B: Dumbarton Rail Design and Funding. Continue planning, design, and financing studies for the Dumbarton Rail between the Union City BART station and the Peninsula. The City supports phased implementation of the project, with Newark to the Peninsula as the first phase. ▪ Action T-3.C: Consultation with AC Transit. Work with AC Transit to align transit routes in Newark in a way that better

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		achieves the goals of the proposed Plan. This should include better connections between Newark's neighborhoods and shopping centers, including New Park Mall, Old Town Newark, and the Four Corners area. ▪ Policy T-7.5: Shared Parking. Encourage the use of shared parking for uses with different demand characteristics as a way to reduce the total land area devoted to parking and maximize the efficient use of parking resources. In the event that parking structures are developed, encourage joint use agreements which enable multiple users to use such structures. ▪ Policy T-7.7: Sustainable Design. Encourage parking lot designs which contribute to the city's environmental quality goals. This could include the use of permeable pavement to reduce the amount of runoff entering surface waterways and reduce the "heat island" effect of new development. ▪ Actions T-7.A: Parking Reduction Strategies. Consider strategies to ensure that new development does not provide excessive amounts of parking or provide parking in a way that impedes the City's goals of promoting alternate modes of travel. These strategies could include the use of parking maximums in transit served areas, allowing greater parking exemptions for small establishments or reuse of existing structures, allowing credit for on-street parking spaces, and similar measures. ▪ Action T-7.B: Revisiting Parking Regulations. Revisit the parking requirements established through the City's zoning regulations to identify opportunities for parking reductions, shared parking, compact spaces, and other amendments which reduce the land area dedicated to parking in the city while still meeting economic development and convenience goals. ▪ Policy CS-5.2: Pedestrian and Bicycle Friendly Design. Ensure that new development is planned and designed to facilitate walking and bicycling as well as driving. This can potentially reduce the number of vehicle trips and related greenhouse gas emissions. ▪ Policy CS-5.3: Alternative Fuel Vehicles. Encourage the use of alternative fuel vehicle and development of the necessary infrastructure for such vehicles to be viable in Newark. ▪ Policy CS-5.4: Reducing Non-Residential Transportation Emissions. Encourage the participation of the business

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		sector in efforts to reduce greenhouse gases. This could include commuter benefit and transit pass programs which encourage employees to use transit rather than driving to work. This also includes efforts by local employers to encourage ridesharing, carpooling, BART shuttles, telecommuting, and other programs which provide alternatives to driving alone. ▪ Policy CS-5.5: Consideration of Climate in Transportation Planning. Consider potential greenhouse gas emissions impacts when making changes to the transportation system. Give preference to solutions that reduce auto dependency and minimize emissions. ▪ Action CS-5.C: Reducing Vehicle Miles Traveled. Implement the land and use and transportation strategies identified in the Climate Action Plan aimed at reducing greenhouse gas emissions related to motor vehicles. ▪ Action CS-5.D: Cleaner Fuel Municipal Vehicles. As funds allow, convert the City's vehicle fleet to more energy efficient vehicles. This should begin with compressed natural gas (CNG) vehicles and eventually progress to electric vehicles. ▪ Action CS-5.E: Living Near Work. Work with local employers to explore programs and incentives for employees to purchase homes in Newark, thereby reducing their commute lengths and related greenhouse gas emissions.
Land Use and Local Impact Control Measures	▪ LUM 1 – Goods Movement ▪ LUM 2 – Indirect Source Review ▪ LUM 3 – Enhanced CEQA Program ▪ LUM 4 – Land Use Guidelines ▪ LUM 5 – Reduce Risk in Impacted Communities ▪ LUM 6 – Enhanced Air Quality Monitoring	The 2010 Bay Area Clean Air Plan also includes land use measures to reduce air quality emissions and/or air quality exposure in the SFBAAB. The following proposed Plan policies support these land use measures: Policy LU-1.1: Balance of Uses. Maintain a reasonable balance of land uses in the city so that residents can live close to where they work and satisfy their shopping, educational, personal, health, entertainment, and recreational needs close to home Policy LU-1.2: Growth Focus Areas. Achieve a future growth pattern which includes new neighborhoods on vacant land along the southern and western edges of the city, and infill development in transit-served areas such as Old Town and the Greater NewPark Mall Area. Zoning and development review decisions should recognize these areas as the priority locations for growth and change over the next 20 years. Policy LU-1.3: Jobs-Housing Balance. Seek to balance

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		housing and job growth. The City should strive to have a roughly equal number of jobs and employed residents, with a mix of housing types that meets the needs of the local workforce. Policy LU-1.4: Coordinating Land Use and Transportation Decisions. Coordinate land use and development decisions with the capacity of the transportation system and plans for future transportation improvements. Policy LU-4.2: Connectivity. Improve connectivity between neighborhoods and commercial districts so that the city's shopping areas function as neighborhood gathering places and focal points. Over time, shopping centers which are oriented exclusively to auto traffic should be redesigned so they are more pedestrian friendly and better integrated with the uses around them. Policy CS-5.1: Linking Land Use and Transportation. Encourage land use and transportation patterns which reduce dependence on automobiles. This includes siting well-designed higher-density, mixed use development near the proposed Dumbarton Rail station and in other areas with frequent transit service. Action CS-5.E: Living Near Work. Work with local employers to explore programs and incentives for employees to purchase homes in Newark, thereby reducing their commute lengths and related greenhouse gas emissions. Policy T-4.1: Coordinating Land Use and Transportation. Support land use choices and transportation investments which result in a community that is more walkable and serviceable by public transportation. Land use and development decisions should reflect the existing and planned capacity of Newark's transportation system. Policy T-4.2: Transit Oriented Development. Require that the densities and intensities of development in the vicinity of major transit hubs are high enough to capitalize on the investment that has been made in transit and to encourage and support transit use. Policy T-4.3: Co-Location of Housing and Services. Locate higher density housing and senior housing close to shopping, medical facilities, senior centers, and public transportation as a way of reducing trip lengths and increasing transportation option for residents of such developments. Policy T-4.4: Mixed Use Development. Encourage mixed use development (such as housing over retail uses) as a way of making it easier to live, work, and shop without owning a car, and as a strategy for reducing the number and length of

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		vehicle trips. Policy T-4.5: Home Businesses. Encourage home-based businesses, home occupations, live-work development, and space for shared offices and office support uses as a way to make it easier for Newark residents to work from home or from local facilities, rather than commuting to distant employment centers. Policy T-4.6: Transportation Systems Management. Require new commercial and office development to implement Transportation System Management (TSM) measures to reduce trip generation and/or pay for traffic improvements through impact fees or assessment district financing. Policy T-4.7: Car Sharing and Bike Sharing. Promote car sharing and bike sharing as a viable means of transportation and an alternative to private auto and bike ownership. Policy T-4.8: Ridesharing. Provide incentives for employees to carpool, vanpool, or use transit when traveling to work. These incentives could include preferential parking for carpools, employee rideshare and vanpool programs, bike parking areas, and shuttles to transit. It could also include the creation of additional park and ride lots in and around Newark. Policy T-4.9: Telecommuting and Flextime. Encourage Newark employers to reduce peak hour commute volumes by offering flexible work schedules and telecommute options for employees, and by providing facilities such as showers and locker rooms which make it more feasible for employees to bike to work. Action T-4.A: Car Sharing Programs. Work with private car share vendors to explore the feasibility of incorporating car sharing programs and providing preferential car share spaces in business parks, major shopping centers, and higher density residential developments. Action T-4.B: Regional Bike Share Program. Partner with ABAG, MTC, ACTC, and other entities to implement a regional bike share system. Action T-4.C: 511.org Program. Continue to support the "511.org" program and other regional initiatives that help residents and workers find carpools, rides home from work, and other alternatives to driving alone. Action T-4.D: City Employee Trip Reduction Program. Evaluate ways to reduce driving by City employees, including alternative schedules, work from home programs, and incentives for walking or biking to work. Action T-4.E: Commuter Benefits Programs. Encourage Newark businesses to develop and implement commuter

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		benefit programs, such as transit passes and pre-tax transit benefits. In addition, the following measures are included to ensure that the City is able to adapt to changes in sea level rise associated with global climate change: Policy CS-5.8: Planning for Sea Level Rise. Require developments below 10' above mean sea level to include an assessment of possible impacts related to sea level rise. Action CS-5.F: Adaptation Planning. Collaborate with surrounding cities, the Bay Conservation and Development Commission, and appropriate state and federal agencies to conduct a vulnerability assessment and strategic plan for long-term climate change adaptation. Policy S-3.9: Sea Level Rise. Consider the effects of rising sea level on the potential for flooding in low-lying areas, and participate in regional adaptation efforts for these areas.
Energy and Climate Control Measures	▪ ECM 1 – Energy Efficiency ▪ ECM 2 – Renewable Energy ▪ ECM 3 – Urban Heat Island Mitigation ▪ ECM 4 – Tree Planting	The 2010 Bay Area Clean Air Plan also includes measures to reduce energy use, water use, and waste generation. The following proposed Plan policies support these energy efficiency and other sustainability measures: ▪ Policy CS-6.1: Municipal Green Building. Lead by example by incorporating green design methods and materials in new City projects, including the design of new municipal buildings and the renovation of existing buildings. Long-term planning for a new Newark City Hall should take into consideration such factors as energy and water conservation, design for reclaimed water use, incorporation of recycled materials, and other green building components. ▪ Policy CS-6.2: Encouraging Greener Construction. Encourage greener construction methods and greater use of recycled-content materials in new residential, commercial, and industrial construction projects. ▪ Policy CS-6.3: Green Retrofits. Encourage and support Newark property owners seeking to retrofit their buildings to make them greener, more water-efficient, and more energy-efficient. ▪ Policy CS-6.4: Green Roofs. Encourage the use of green roofs and cool roofs as a way of reducing heating and cooling costs, and reducing stormwater runoff. ▪ Policy CS-6.5: Minimizing Impervious Surface Coverage. Minimize impervious surface coverage and related stormwater runoff in new development areas by allowing narrower roads and shared driveways, and by encouraging

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		the use of pervious materials on driveways and parking areas. Other means of reducing urban runoff, such as rain barrels and bioswales, also should be encouraged. ▪ Policy CS-6.6: Cool Pavements. Encourage the use of cool (light colored) pavements to mitigate the heat island effect of development. ▪ Action CS-6.A: Code Updates. Periodically update the City's Building Codes to incorporate the latest State of California green building requirements. ▪ Action CS-6.B: Green Building Incentives. Implement green building programs as called for by the Newark Climate Action Plan, including use of the Green Points certification program and the Multi-family Green Retrofit Fund. ▪ Action CS-6.C: Green Building Information. Make information on green building practices and programs available to Newark homeowners, builders, contractors, business owners, and developers. ▪ Action CS-6.D: Green Certifications. Provide resources and checklists to builders and contractors seeking to obtain green certifications through the City's Building Department. ▪ Policy CS-7.1: Reducing Energy Use. Support measures to reduce energy consumption and increase energy efficiency in residential, commercial, industrial, and public buildings. ▪ Policy CS-7.2: Renewable Energy Sources. Support the expanded use of renewable energy sources such as wind and solar by Newark residents and businesses, the City of Newark, and other government agencies. ▪ Policy CS-7.3: Designing for Energy Efficiency. Support building design, site planning, and subdivision design methods which reduce heating and cooling costs and achieve greater energy efficiency. ▪ Policy CS-7.4: Conservation Practices. Advocate for increased energy conservation by Newark residents and businesses, including basic conservation practices (such as shutting off lights and using lower wattage bulbs) and switching to more energy efficient appliances. The City itself should be a role model in this regard, through the retrofitting of its facilities and its operation and maintenance practices. ▪ Policy CS-7.5: Solar Access. Preserve solar access rights in a way that is consistent with state law and encourages the use of photovoltaic energy systems in new construction and rehabilitation projects.

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		▪ Action CS-7.A: Energy Efficiency Programs. Work with PG&E, stopwaste.org, and other organizations and agencies to provide energy assessments, audits, and educational programs, and to assist residents with undertaking energy efficiency and weatherization programs in their homes. ▪ Action CS-7.B: Links to Energy-Related Information. Provide links from the City's website to information on alternative energy opportunities and energy efficient practices. ▪ Action CS-7.C: Title 24. Enforce Title 24 and other energy efficiency and conservation standards when reviewing development and building permit applications. ▪ Action CS-7.D: Energy Efficient Street Lighting. Continue to research energy reduction options for street lighting and parking lot lighting, including switching to light emitting diodes (LEDs). As funding allows, work with PG&E to replace streetlights with more energy efficient alternatives. ▪ Action CS-7.E: Climate Action Plan Programs. Implement Newark Climate Action Plan programs intended to reduce energy use, including conservation plans for City buildings, installation of more energy-efficient heating and cooling systems, insulation, solar lighting plans, and increased use of renewable energy. ▪ Action CS-7.F: California First. Participate in the California First Program, a state-wide program to provide another financing option for homeowners to install energy efficiency measures on their homes. ▪ Policy CS-3.2: Water Conservation Standards. Promote water conservation through development standards, building requirements, irrigation requirements, landscape design guidelines, and other applicable City policies and programs. ▪ Policy CS-3.3: ACWD Conservation Incentives. Support Alameda County Water District (ACWD) incentives which encourage Newark residents and businesses to conserve water. ▪ Policy CS-3.9: Reclaimed Water. Plan for the eventual use of reclaimed water to supplement the local water supply and reduce the necessity of using potable water for landscaping, irrigation, and non-domestic purposes. ▪ Action CS-3.B: Development Review. Use the development

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		review process to ensure that water conservation measures are incorporated in new projects. ▪ Action CS-3.C: ACWD Coordination: Coordinate with ACWD on the review of proposed development, and the identification of necessary measures to mitigate potential impacts on groundwater and water supply. ▪ Action CS-3.D: Low-Flow Plumbing and Irrigation. Strongly encourage—and where appropriate, require—the use of low flow plumbing fixtures, low volume irrigation systems, and drought-tolerant plant palettes as a way to conserve water. ▪ Action CS-3.E: Water Efficient Landscaping. Continue to implement State Department of Water Resources guidelines for water-efficient landscaping, including low water use plants and more efficient irrigation systems. Adopt more stringent outdoor water use policies for individual development proposals where feasible. ▪ Action CS-3.F: Retrofitting Water Infrastructure. As funding allows, retrofit water infrastructure and landscaping on municipal property to reduce public water use. ▪ Policy CS-8.1: Recycling Program. Actively promote recycling, composting, and waste reduction in order to minimize the amount of waste requiring disposal in landfills. Provide for residential recycling and green waste containers and weekly curbside recycling pickup, to make it as easy and convenient as possible for residents to reduce the volume of trash requiring landfill disposal. ▪ Policy CS-8.2: Interagency Coordination in Waste Reduction. Promote inter-jurisdictional cooperation, coordination, and planning in the development of recycling and waste management programs. ▪ Policy CS-8.3: Maximizing Reuse. Manage solid waste in a way that maximizes the reclamation and reuse of resources. The City encourages the use of salvaged and recycled materials, rather than the disposal of such materials in landfills. ▪ Policy CS-8.4: Increasing Commercial, Industrial, and Multi-Family Recycling. Increase recycling rates by the commercial, industrial, and multi-family residential sectors, including apartment buildings, offices, restaurants, hotels, retail stores, and other businesses. Retail centers and multifamily residential development should be required to

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
		provide on-site shared collection bins for recyclable waste. ▪ Action CS-8.A: Reduction Targets. In collaboration with stopwaste.org, implement programs to achieve a 75% waste diversion rate by 2015, and to achieve an ultimate target of zero waste. ▪ Action CS-8.B: Waste Reduction Program. Maintain a solid waste reduction and management program that is coordinated with and consistent with the Countywide Stopwaste.org program. The program should include regularly scheduled trash collection, compost and recycling collection, bulk waste and e-waste collection events, household hazardous materials disposal provisions, education and outreach to promote waste diversion, and other components which minimize landfilled waste. ▪ Action CS-8.C: Source Reduction and Diversion for New Construction. As part of the development review process, require major new projects to prepare solid waste source reduction and diversion programs before building permits are issued. ▪ Action CS-8.D: Construction and Demolition Debris. Reduce the amount of construction and demolition debris being disposed in landfills through mandatory construction and demolition recycling requirements. ▪ Action CS-8.E: Recycling Receptacles in Public Spaces. As funding allows, provide recycling receptacles in parks and public spaces, in addition to trash receptacles.
Further Study Control Measures	▪ FSM 1 – Adhesives and Sealants ▪ FSM 2 – Reactivity in Coating and Solvents ▪ FSM 3 – Solvent Cleaning and Degreasing Operations ▪ FSM 4 – Emissions from Cooling Towers ▪ FSM 5 – Equipment Leaks ▪ FSM 6 – Wastewater from Coke Cutting ▪ FSM 7 – SO_2 from Refinery Processes ▪ FSM 8 – Reduce Emission from LPG, Propane, Butane, and other Pressurized Gases ▪ FSM 9 – Greenhouse Gas Mitigation in BACT and TBACT Determinations ▪ FSM 10 Further Reductions from Commercial Cooking Equipment ▪ FSM 11 – Magnet Source Rule	The majority of the Further Study control measures apply to sources regulated directly by BAAQMD. Because BAAQMD is the implementing agency, new and existing sources of stationary and area sources within the City would be required to comply with these additional further study control measures in the 2010 Bay Area Clean Air Plan.

TABLE 4.2-4 CONTROL MEASURES FROM THE 2010 BAY AREA CLEAN AIR PLAN

Type	Measure Number / Title	Consistency
	▪ FSM 12 – Wood Smoke ▪ FSM 13 – Energy Efficiency and Renewable Energy ▪ FSM 14 – Winery Fermentation ▪ FSM 15 – Composting Operations ▪ FSM 16 – Vanishing Oils and Rust Inhibitors ▪ FSM 17 – Ferry System Expansion ▪ FSM 18 – Greenhouse Gas Fee	

Source: Bay Area Air Quality Management District (BAAQMD), September 2010, 2010 Bay Area Clean Air Plan.

As described in Chapter 3, Project Description, of this Draft EIR, buildout of the proposed Plan is anticipated to result in 60,510 residents, 19,699 housing units, and 22,609 jobs by 2035. Further, as described in Chapter 4.11 of this Draft EIR, buildout of the Plan could result in as many as 3,072 more housing units in 2035 than the SCS projects in 2040, and as many as 389 more jobs in Newark in 2035 than the under the SCS scenario.[27][28] SCS does not include population projections for Newark. Although growth under the proposed Plan would come incrementally over a period of approximately 25 years and would be guided by a policy framework in the proposed Plan that is generally consistent with many of the principal goals and objectives established in regional planning initiatives for the Bay Area, growth under the proposed Plan would exceed regional projections for the Plan Area.

Citywide VMT estimates derived from assumed 2035 land use under the proposed Plan were calculated by Hexagon Transportation Consultants, using the Alameda CTC model. Land uses in the City would generate 1,309,656 VMT per day (20.57 miles per service population per day in 2012). Based on the future estimates of VMT per person for Newark as projected by the Alameda CTC model for year 2035, 1,743,170 VMT per day (20.97 miles per service population per day in 2035) would be generated in the City. Table 4.2-5 compares the projected increase in service population with the projected increase in VMT. As shown in this table, daily VMT in the Plan Area would increase at a greater rate (33 percent) between 2012 and 2035 than would the service population of the Plan Area (31 percent). However, BAAQMD's AQMP requires that the VMT increase be less than or equal to the projected population increase. The projected growth in VMT in the Plan Area could lead to a regional VMT increase beyond that anticipated in BAAQMD's clean air planning efforts. As a result, buildout of the proposed Plan would contribute to ongoing air quality issues in the SFAAB, including non-attainment of ambient air quality standards. Consequently, impacts for the City of Newark would be significant.

[27] The SCS forecasts 16,627 housing units in Newark by 2040, whereas buildout projections for the proposed Plan project 19,699 units by 2035. Therefore, the Plan could result in as many as 3,072 more housing units in Newark in 2035 than the SCS forecasts for the city in 2040.

[28] The number of jobs in Newark in 2035 interpolated from the SCS projections is 22,220 based on the following calculation (5,220 new jobs / 30 years x 25 years = 22,220). The difference is calculated as 22,609 - 22,220 = 389.

TABLE 4.2-5 COMPARISON OF THE CHANGE IN SERVICE POPULATION AND VMT IN THE CITY OF NEWARK

Category	2012	2035	Change	Percent Change
Population	43,930	60,510	16,580	38%
Employment	19,727	22,609	2,882	15%
Total Service Population	63,657	83,119	19,462	31%
VMT/Day	1,309,656	1,743,170	433,514	33%

Notes: VMT is calculated using a VMT per service population provided by Hexagon based on the Alameda CTC model.

Applicable Regulations:

- None

Significance Before Mitigation: Significant.

AIR-2 The Plan would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

BAAQMD has identified thresholds of significance for criteria pollutant emissions and criteria air pollutant precursors including, ROG, NO, PM_{10} and $PM_{2.5}$. Development projects below the BAAQMD significance thresholds are not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Operational Emissions

BAAQMD's CEQA Air Quality Guidelines do not require an evaluation of emissions from program-level planning activities such as the proposed Plan. Given the programmatic nature of the proposed Plan, specific operational information individual projects that would operate under the Plan is not known, and furthermore, subsequent environmental review of development projects would be required to assess potential impacts under BAAQMD's project-level thresholds. Nevertheless, operational emissions associated with buildout of the proposed Plan would generate an increase in criteria air pollutants in the Plan Area, and the proposed Plan includes the following policies that would reduce criteria air pollutants from development projects:

- Policy CS-5.1: Linking Land Use and Transportation. Encourage land use and transportation patterns which reduce dependence on automobiles. This includes siting well-designed higher-density, mixed use development near the proposed Dumbarton Rail station and in other areas with frequent transit service.
- Policy CS-5.2: Pedestrian and Bicycle Friendly Design. Ensure that new development is planned and designed to facilitate walking and bicycling as well as driving. This can potentially reduce the number of vehicle trips and related greenhouse gas emissions.

- Policy CS-5.3: Alternative Fuel Vehicles. Encourage the use of alternative fuel vehicle and development of the necessary infrastructure for such vehicles to be viable in Newark.
- Policy CS-5.4: Reducing Non-Residential Transportation Emissions. Encourage the participation of the business sector in efforts to reduce greenhouse gases. This could include commuter benefit and transit pass programs which encourage employees to use transit rather than driving to work. This also includes efforts by local employers to encourage ridesharing, carpooling, BART shuttles, telecommuting, and other programs which provide alternatives to driving alone.
- Policy CS-5.5: Consideration of Climate in Transportation Planning. Consider potential greenhouse gas emissions impacts when making changes to the transportation system. Give preference to solutions that reduce auto dependency and minimize emissions.
- Policy T-1.1: Improving Travel Mobility for All. Create and maintain "complete" streets that provide safe, comfortable and convenient travel for all categories of users, including pedestrians, bicyclists, transit riders, and motorists; and persons of all physical capabilities, including children, youth, seniors, and persons with disabilities.
- Policy T-1.3: Incorporating Complete Streets Elements in Transportation Projects. Incorporate complete streets elements in the planning, funding, design, approval, and implementation of all transportation projects. Any construction, reconstruction, retrofit, maintenance, operations, alteration, or major repair of the street network should consider ways to make streets safer for all users.
- Policy T-1.6: Traffic Calming. Use traffic design features and traffic calming techniques to improve safety and maintain the quality of life in Newark neighborhoods. Traffic calming should be incorporated into urban design and streetscape plans so that a safer environment is provided for bicyclists and pedestrians.
- Policy T-2.1: Promoting Bicycling and Walking. Promote bicycling and walking as viable modes of transportation for everyday trips as well as for recreation.
- Policy T-2.2: Pedestrian Facilities. Develop curbs, gutters, and sidewalks on all Newark streets to encourage safe, convenient pedestrian travel. Where appropriate, include marked crosswalks at intersections to facilitate safe pedestrian movement across City streets.
- Policy T-2.3: Bike Trail Network. Maintain and expand an interconnected network of bicycle trails and pedestrian paths, serving the city's neighborhoods, shopping districts, workplaces, and park and open space areas. The existing bicycle network should be extended to provide connections to developing areas, including the Dumbarton TOD, the Southwest Residential and Recreational Project, Old Town Newark, and the NewPark Mall vicinity
- Policy T-2.4: Connecting to the Region. Develop bicycle and pedestrian facilities that connect across city boundaries and integrate with the larger regional bikeway and public transportation systems.
- Policy T-2.5: Pedestrian and Bicycle Provisions within New Development. Ensure safe and convenient pedestrian and bicycle access to and through new public and private developments. The City will use the development review process to ensure—and where appropriate to require—provisions for pedestrians and bicycles in new development areas.

- Policy T-2.6: Bicycle Parking. Provide secure, adequate, and easily accessible bicycle parking at key destinations throughout the city, including municipal facilities, schools, and within new development. The style and design of bike racks should contribute to overall neighborhood and architectural aesthetics.
- Policy: T-2.7: Trails Along Railroads and Utilities. Consider the use of railroad, flood control, and utility rights of way for jogging, biking, and walking trails, provided that safety and operational issues can be fully addressed.
- Policy T-2.9: Railroad Crossings. Ensure that any future grade separated railroad crossings include sidewalks and a designated lane for bicycles.
- Policy T-2.10: Improving Sidewalk Connectivity. Work to close gaps in the pedestrian network and improve sidewalk connectivity between residential and commercial areas.
- Policy T-2.11: Recreational Trails. Develop and maintain trails in park and open space areas, and between Newark neighborhoods and the city's open spaces.
- Policy T-3.1: Improving Transit Services. Work collaboratively with BART, AC Transit, other agencies, and the private sector to provide an improved transit system serving persons who live in Newark, work in Newark, and visit Newark.
- Policy T-3.2: Transit Diversity. Support a variety of transit types within the city, including local bus service within Newark, express bus service linking Newark to regional destinations, and future shuttle or circulator service to BART, ACE, and other rail transit facilities.
- Policy T-3.3: Connecting to BART. Encourage improved transit connections between Newark and the BART stations in Fremont and Union City. A variety of strategies leveraging public and private resources should be explored to establish more frequent, reliable connections to BART.
- Policy T-3.4: Transbay Service. Support expanded transit service between Newark and the Peninsula, including bus service across the Dumbarton Bridge and eventual rail service between the East Bay and the Peninsula, with a station on the west side of Newark.
- Policy T-3.7: Transit Stops. Coordinate with regional transit providers to maintain a safe, clean, comfortable, and well-lit waiting environment at all transit stops and bus shelters within the city.
- Policy T-3.8: Improving Transit Reliability and Speed. Work with transit providers to incorporate features such as traffic signal priorities, queue jumps, exclusive transit lanes, real-time information on bus arrival and departures, and other measures which make using transit faster and more reliable.
- Policy T-3.9: Schedule Integration. Support efforts to synchronize transit schedules to reduce waiting and transfer times, particularly between AC Transit and BART.
- Policy T-4.1: Coordinating Land Use and Transportation. Support land use choices and transportation investments which result in a community that is more walkable and serviceable by public transportation. Land use and development decisions should reflect the existing and planned capacity of Newark's transportation system.

- Policy T-4.2: Transit Oriented Development. Require that the densities and intensities of development in the vicinity of major transit hubs are high enough to capitalize on the investment that has been made in transit and to encourage and support transit use.
- Policy T-4.4: Mixed Use Development. Encourage mixed use development (such as housing over retail uses) as a way of making it easier to live, work, and shop without owning a car, and as a strategy for reducing the number and length of vehicle trips.
- Policy T-4.5: Home Businesses. Encourage home-based businesses, home occupations, live-work development, and space for shared offices and office support uses as a way to make it easier for Newark residents to work from home or from local facilities, rather than commuting to distant employment centers.
- Policy T-4.6: Transportation Systems Management. Require new commercial and office development to implement Transportation System Management (TSM) measures to reduce trip generation and/or pay for traffic improvements through impact fees or assessment district financing.
- Policy T-4.7: Car Sharing and Bike Sharing. Promote car sharing and bike sharing as a viable means of transportation and an alternative to private auto and bike ownership.
- Policy T-4.8: Ridesharing. Provide incentives for employees to carpool, vanpool, or use transit when traveling to work. These incentives could include preferential parking for carpools, employee rideshare and vanpool programs, bike parking areas, and shuttles to transit. It could also include the creation of additional park and ride lots in and around Newark.
- Policy T-4.9: Telecommuting and Flextime. Encourage Newark employers to reduce peak hour commute volumes by offering flexible work schedules and telecommute options for employees, and by providing facilities such as showers and locker rooms which make it more feasible for employees to bike to work.
- Policy LU-1.1: Balance of Uses. Maintain a reasonable balance of land uses in the city so that residents can live close to where they work and satisfy their shopping, educational, personal, health, entertainment, and recreational needs close to home
- Policy LU-1.2: Growth Focus Areas. Achieve a future growth pattern which includes new neighborhoods on vacant land along the southern and western edges of the city, and infill development in transit-served areas such as Old Town and the Greater NewPark Mall Area. Zoning and development review decisions should recognize these areas as the priority locations for growth and change over the next 20 years.
- Policy LU-1.3: Jobs-Housing Balance. Seek to balance housing and job growth. The City should strive to have a roughly equal number of jobs and employed residents, with a mix of housing types that meets the needs of the local workforce.
- Policy LU-1.4: Coordinating Land Use and Transportation Decisions. Coordinate land use and development decisions with the capacity of the transportation system and plans for future transportation improvements.
- Policy LU-4.2: Connectivity. Improve connectivity between neighborhoods and commercial districts so that the city's shopping areas function as neighborhood gathering places and focal points. Over time, shopping centers which are oriented exclusively to auto traffic should be redesigned so they are more pedestrian friendly and better integrated with the uses around them.

Implementation of the above-listed policies would reduce operational emissions from development projects under the proposed Plan to the maximum extent practicable. Additionally, as noted above, future development projects under the proposed Plan would be subject to subsequent environmental review pursuant to CEQA and would be required to assess potential impacts under BAAQMD's project-level thresholds. Therefore, impacts associated with operational emissions of criteria air pollutant from the proposed Plan would be less than significant.

Construction Emissions

BAAQMD's plan-level guidelines do not require an evaluation of construction emissions for plan-level projects. Nevertheless, construction emissions associated with individual development projects under the proposed Plan would generate an increase in criteria air pollutants. BAAQMD has developed project-level thresholds for construction activities. Subsequent environmental review of future development projects would be required to assess potential impacts under BAAQMD's project-level thresholds. Construction emissions from buildout of future projects within the City of Newark would primarily be 1) exhaust emissions from off-road diesel-powered construction equipment; 2) dust generated by demolition, grading, earthmoving, and other construction activities; 3) exhaust emissions from on-road vehicles and 4) off-gas emissions of ROGs from application of asphalt, paints, and coatings.

Construction activities associated with the proposed Plan would also be required to include BAAQMD's "Basic Control Measures" for fugitive dust control pursuant to Action HW-1.G.

- Action HW-1.G: Construction-Related Pollutants. Require that construction contractors implement basic control measures consistent with BAAQMD recommendations to limit emissions of construction-related criteria pollutants, including fugitive dust..

Additionally, exhaust emissions generated during construction of projects under the proposed Plan would also result in construction emissions; however, Action HW-1.I would require that project applicants implement measures to reduce emissions to the maximum extent feasible.

- Action HW-1.I: Standard Conditions of Approval. Update the City's Standard Conditions of Approval to require measures which reduce particulate emissions (PM10) from construction and reduce construction-related emissions if project-level environmental review determines that BAAQMD thresholds for criteria pollutants may be exceeded. Mitigation measures for construction impacts could include using construction equipment rated by the EPA as complying with current emission limits, ensuring construction equipment is serviced and maintained to the manufacturer's standards, and limiting non-essential construction equipment idling to no more than five minutes..

Compliance with BAAQMD Basic Control Measures and implementation of the policies and actions from the proposed Plan described above would reduce construction emissions from development under the proposed Plan to the maximum extent practicable. Further, future development under the proposed Plan would be subject to separate environmental review pursuant to CEQA in order to identify and mitigate potential air quality impacts. As such impacts from construction emissions under the proposed Plan would be *less than significant*.

Applicable Regulations:

- BAAQMD Regulation 6, Rule 1, General Requirements
- BAAQMD Regulation 6, Rule 2, Commercial Cooking Equipment
- BAAQMD Regulation 6, Rule 3, Wood-Burning Devices
- BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing

Existing federal, State, and local regulations and policies described throughout this chapter protect local and regional air quality. Continued compliance with these regulations and implementation of existing policies, including applicable proposed Plan policies and actions, would reduce impacts to the maximum extent practicable. Therefore, overall impacts from the proposed Plan related to air quality standard violations would be less than significant.

Significance Before Mitigation: Less than significant.

AIR-3	The proposed Plan would not result in a cumulatively considerable contribution related to an increase in criteria pollutants for which the San Francisco Bay Area Air Basin is designated a non-attainment area.

The San Francisco Air Basin is currently designated a nonattainment area for California and National O_3, California and National $PM_{2.5}$, and California PM_{10} ambient air quality standards. Impacts related to increases of criteria air pollutants for which the San Francisco Air Basin is in non-attainment were discussed previously under AIR-2. The analysis under was based on 2035 traffic data in the Alameda County Travel Demand Forecast model, which incorporate cumulative development anticipated in the county and the region through 2035 as projected by ABAG. As such, cumulative impacts from the proposed Plan related to criteria air pollutant increases would be the same as the Plan-specific impacts discussed previously in this chapter.

As described above, compliance with BAAQMD Basic Control Measures and implementation of the policies and actions from the proposed Plan cited under AIR-2 would reduce construction emissions of criteria pollutants from development under the proposed Plan to the maximum extent practicable. Further, future development under the proposed Plan would be subject to separate environmental review pursuant to CEQA in order to identify and mitigate potential air quality impacts. Similarly, implementation of the proposed Plan policies cited under AIR-2 would reduce operational emissions of criteria air pollutants from development projects under the proposed Plan to the maximum extent practicable. As such, impacts from construction and operational emissions of criteria air pollutants generated with buildout of the proposed Plan would be less than significant.

Applicable Regulations:

- BAAQMD Regulation 6, Rule 1, General Requirements
- BAAQMD Regulation 6, Rule 2, Commercial Cooking Equipment
- BAAQMD Regulation 6, Rule 3, Wood-Burning Devices
- BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing

Significance Before Mitigation: Less than significant.

AIR-4	The proposed Plan would result in less-than-significant impacts with respect to the placement of sensitive receptors proximate to major sources of air pollution or the siting of new sources of air pollution proximate to sensitive receptors in the City.

Placement of New Sensitive Receptors

Because placement of sensitive land uses falls outside CARB jurisdiction, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. BAAQMD's thresholds were created in response to the CARB document to further define what constitutes an impact for placement of sensitive land uses near major sources of air pollution.

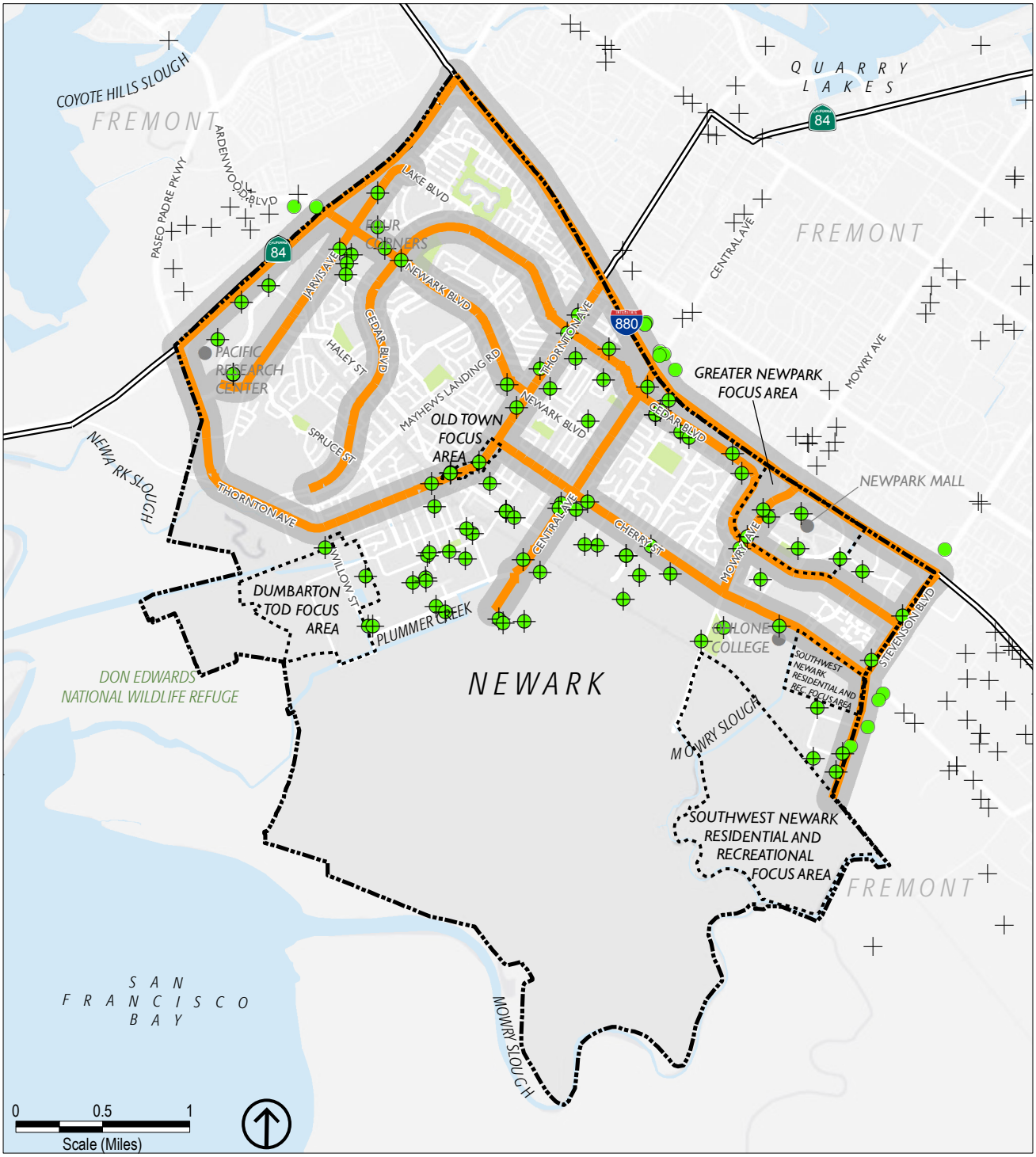
CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects ensuing from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic: diesel particulate matter (DPM) from trucks and benzene and 1,3 butadiene from passenger vehicles. Table 4.2-6 shows a summary of CARB recommendations for siting new sensitive land uses within the vicinity of air-pollutant sources. Recommendations in Table 4.2-6 are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

TAC sources within the City of Newark include: stationary sources permitted by BAAQMD, roadways with more than 10,000 annual average daily traffic (AADT), and highways or freeways.

Stationary sources in Newark were identified using BAAQMD's Stationary Source Screening Analysis Tool. Figure 4.2-1 identifies approximately 90 potential stationary sources in or near the City of Newark. Of these sources, approximately 30 are industrial uses, 19 emergency diesel generators, 18 auto body repair and refinishing facilities, 7 gas stations, 6 dry cleaners, and 10 miscellaneous sources (e.g., technology companies, printing shops, furniture refinishing, etc.).

High-volume roadways with over 10,000 vehicles per day were also mapped. A total of 10 high volume roadways were identified within 1,000 feet of the City including Highways 880 and 84-Decoto Road. Figure 4.2-1 also identifies a 500-foot buffer around high-volume roadways. Because these are screening distances, refined analysis of the effects from many of the high volume roadways would likely show much lower potential TAC exposure and smaller buffer zones. A refined analysis or site-specific health risk assessment should be conducted for all new sensitive sources that are sited within the buffer zone to determine the actual health impact.

Figure 4.2-1 identifies several major areas of the City that have the potential to expose sensitive receptors to substantial pollutant concentrations within 1,000 feet of the sources identified. Future residential development



Source: City of Newark; The Planning Center | DC&E, 2013; ESRI 2010; Bay Area Air Quality Mngt. District, 2012.

Stationary Air Emission Sources

- Contained by City Boundary
- Within 1000ft of City Boundary
- Beyond 1000ft of of City Boundary

- High Volume Roadways
- 500ft High Volume Roadway Screening Buffer
- City Limit

Figure 4.2-1

Sources of Toxic Air Contaminants in the City of Newark

TABLE 4.2-6 CARB RECOMMENDATIONS FOR SITING NEW SENSITIVE LAND USES

Source/Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within 1 mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

Source: California Air Resources Board (CARB), May 2005, Air Quality and Land Use Handbook: A Community Health Perspective.

permitted under the proposed Plan is proximate to these areas and would require subsequent analysis in this regard.

Implementation of the following proposed Plan policies would ensure that review of air quality compatibility would be conducted when siting receptors near major sources.

- Policy LU-2.4: Buffering from Transportation Facilities. Ensure that the design of new residential development near rail lines, truck routes, freeways, or major thoroughfares includes setbacks, landscape screening, and other provisions to minimize exposure to negative impacts such as noise and air pollution.
- Action LU-2.C: Conditional Use Permits. Use conditional use permits to improve compatibility between uses and to establish limitations on activities which could create potential adverse effects.
- Action HW-1.F: Health Risk Assessments. Require submittal of a Health Risk Assessment (HRA) for applicants proposing major development or redevelopment within 1,000 feet of the I-880 or SR 84 freeways. For projects where the incremental cancer risk exceeds ten in one million, $PM_{2.5}$ concentrations exceed 0.3 $\mu g/m^3$, or the appropriate non-cancer hazard index exceeds 1.0, the HRA shall identify mitigation measures capable of reducing potential risks to acceptable levels. HRAs shall be done in accordance with the latest State Office of Environmental Health Hazard Assessment and Bay Area Air Quality Management District

(BAAQMD) guidelines, and shall mitigate impacts to levels deemed acceptable by these agencies. The City shall modify its standard conditions of approval to implement this action.

With implementation of Action HW-1.F, placement of sensitive receptors proximate to major sources of air pollution would be required to mitigate to achieve BAAQMD's performance standards and to satisfy CARB recommendations. Therefore, impacts under the proposed Plan would be less than significant.

Placement of New Sources of Air Toxics

Various industrial and commercial processes (e.g. manufacturing, dry cleaning) allowed under the existing General Plan would be expected to release TACs. TAC emissions generated by stationary and point sources of emissions within the SFBAAB are regulated and controlled by BAAQMD. However, emissions of TAC from mobile sources when operating at a property (e.g., truck idling) are regulated by statewide rules and regulations, not by BAAQMD, and have the potential to generate substantial concentrations of air pollutants.

Existing land uses that have the potential to generate substantial stationary sources of emissions that would require a permit from BAAQMD for emissions of TACs include industrial land uses, such as chemical processing facilities, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. Emissions of TACs would be controlled by BAAQMD through permitting and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits under BAAQMD Regulation 2, Rule 2, New Source Review, and Rule 5, New Source Review of Toxic Air Contaminants. The exact nature of these emissions would be subject to further regulation and permitting and are not further addressed in this analysis.

Mobile sources of TACs are not regulated by BAAQMD. The primary mobile source of TACs within the City of Newark is truck idling and use of off-road equipment at warehousing operations. Warehousing operations could generate a substantial amount of DPM emissions from off-road equipment use and truck idling. In addition, some warehousing and industrial facilities may include use of transport refrigeration units (TRUs) for cold storage. New land uses in the City of Newark that are permitted under the proposed Plan that use trucks, including trucks with TRUs, could generate an increase in DPM that would contribute to cancer and non-cancer health risk in the SFBAAB. As identified in Table 4.2-6, impacts could occur at facilities that permit 100 or more truck trips per day or 40 or more trucks with TRUs within 1,000 feet of a sensitive land use. These new land uses could be near existing sensitive receptors within and outside the City of Newark. In addition, trucks would travel on regional transportation routes through the SFBAAB contributing to near-roadway DPM concentrations.

To reduce community risk and hazards from placement of new sources of air toxics, implementation of the following proposed Plan actions would reduce impacts:

- Action HW-1.F: Health Risk Assessments. Require submittal of a Health Risk Assessment (HRA) for applicants proposing major development or redevelopment within 1,000 feet of the I-880 or SR 84 freeways. For projects where the incremental cancer risk exceeds ten in one million, $PM_{2.5}$ concentrations exceed 0.3 $\mu g/m^3$, or the appropriate non-cancer hazard index exceeds 1.0, the HRA shall identify mitigation measures capable of reducing potential risks to acceptable levels. HRAs shall be done in accordance with the latest State Office of Environmental Health Hazard Assessment and Bay Area Air Quality Management District

(BAAQMD) guidelines, and shall mitigate impacts to levels deemed acceptable by these agencies. The City shall modify its standard conditions of approval to implement this action.

- Action LU-2.C: Conditional Use Permits. Use conditional use permits to improve compatibility between uses and to establish limitations on activities which could create potential adverse effects.

Action HW-1.F, would require that sensitive receptors placed proximate to major sources of air pollution mitigate to achieve BAAQMD's performance standards for community risk and hazard impacts and that projects that generate new sources of TACs would be required to reduce emissions to the BAAQMD's performance levels for community risk and hazard impacts. Impacts would be *less than significant*.

Applicable Regulations:

- BAAQMD Regulation 2, Rule 2, New Source Review
- BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- CARB Rule 2485 (13 CCR Chapter 10, Section 2485), Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- CARB Rule 2480 (13 CCR Chapter 10, Section 2480), Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- CARB Rule 2477 (13 CCR Section 2477 and Article 8), Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

Existing federal, State, and local regulations and policies described throughout this chapter protect local and regional air quality. Continued compliance with these regulations and implementation of existing policies, including applicable General Plan policies and actions, would reduce impacts. With implementation of Action EH-1.C, projects that would generate new sources of TACs would be required to reduce emissions to the BAAQMD's performance levels. Impacts would be less than significant.

Significance Before Mitigation: Less than significant.

AIR-5 The Plan would not create or expose a substantial number of people to objectionable odors.

Major sources of nuisance odors may occur within the City. There are two types of odor impacts: 1) siting sensitive receptors near nuisance odors, and 2) siting new sources of nuisance odors near sensitive receptors. Table 4.2-7 identifies screening distances from potential sources of objectionable odors within the SFBAAB. Odors from these types of land uses are regulated under BAAQMD Regulation 7, Odorous Substances.[29]

[29] It should be noted that while restaurants can generate odors, these sources are not identified by BAAQMD as nuisance odors since they typically do not generate significant odors that affect a substantial number people. Larger restaurants that employ five or more people are subject to BAAQMD Regulation 7, Odorous Substances.

TABLE 4.2-7 BAAQMD ODOR SCREENING DISTANCES

Land Use/Type of Operation	Screening Distance
Wastewater Treatment Plan	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plan	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/ Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Metal Smelting Plants	2 miles

Source: Bay Area Air Quality Management District (BAAQMD), 2011, California Environmental Quality Act Air Quality Guidelines, Table 3-3, Odor Screening Distances, and Appendix D.

Siting Receptors Proximate to Odor Sources

Sensitive receptors, such as the residential uses associated with planned development under the Proposed Plan, may be placed within the distances to these sources specified in Table 4.2-7. Additionally, sensitive receptors could be located in the vicinity of the salt ponds operated by Cargill Corporation, which produce odors due to the natural decay of organic matter such as algae that they contain. In general, the City's land use plan designates residential areas and commercial/industrial areas of the City to prevent potential mixing of incompatible land use types, with the exception of mixed-use areas that combine commercial with residential. BAAQMD Regulation 7, Odorous Substances, requires abatement of any nuisance generated by an odor complaint. Because existing sources of odors are required to comply with BAAQMD Regulation 7, impacts to siting of new sensitive land uses would be *less then significant*.

Siting New Odor Sources

While not all sources in Table 4.2-7 are likely in the City (e.g. rendering plants, confined animal facilities), commercial and industrial areas in the City of Newark have the potential to include land uses that generate nuisance odors. Buildout permitted under the Proposed Plan could include new sources of odors, such as composting, greenwaste and recycling operations, food processing, chemical manufacturing, and painting/coating operations, since these are permitted uses in the commercial and/or industrial areas in the City. Future environmental review could be required for industrial projects listed in Table 4.2-7 to ensure that sensitive land uses are not exposed to nuisance odors. BAAQMD Regulation 7, Odorous Substances, requires abatement of any nuisance generating an odor complaint. Typical abatement includes passing air through a drying agent followed by two successive beds of activated carbon to generate odor-free air. Facilities listed in Table 4.2-7 would need to consider measures to reduce odors as part of their CEQA review. Consequently, review of projects using BAAQMD's odor screening distances is necessary to ensure that odor impacts are minimized. Policy EH-8 would require project that emit nuisance odors beyond the property line prepare an odor management plan to ensure odors are reduced:

- Action HW-1.H: Nuisance Odors. Evaluate the potential for proposed projects to emit nuisance odors beyond the property line and require that property owners submit odor management plans consistent with BAAQMD regulations.

Implementation of this Policy would ensure that odor impacts are minimized and are *less than significant*.

Applicable Regulations and Conditions of Approval

- BAAQMD Regulation 7, Odorous Substances

Existing federal, State, and local regulations and policies described throughout this chapter protect local and regional air quality. Continued compliance with these regulations and implementation of existing policies, including applicable proposed Plan policies and actions, would reduce impacts. Overall, compliance with BAAQMD Regulation 7 would ensure that placement of sensitive receptors proximate to existing sources of odor are less than significant. Projects listed in Table 4.2-7 have the potential to generate substantial odors if located within the sensitive receptor screening distances. Pursuant to Action HW-1.H, above, projects that have the potential to generate nuisance odors would be required to prepare and submit an odor management plan to ensure compliance with BAAQMD Regulation 7. Therefore odor impacts would be less than significant.

Significance Before Mitigation: Less than significant.

4.2.4 CUMULATIVE IMPACTS

AIR-6	Cumulative air quality impacts from the proposed Plan would be the same as the Plan-specific impacts discussed previously in this chapter.

Cumulative air quality impacts have been considered in the Plan-specific analysis above. The Plan-specific analysis above is based on 2035 traffic data in the Alameda County Travel Demand Forecast model, which incorporate cumulative development anticipated in the county and the region through 2035 as projected by ABAG. As such, cumulative air quality impacts from the proposed Plan would be the same as the Plan-specific impacts discussed previously in this chapter.

4.2.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

AIR-1	While the proposed Plan would support the primary goals of the 2010 Bay Area Clean Air Plan, buildout of the proposed Plan would not be consistent with the Clean Air Plan because the projected VMT increase from buildout of the proposed Plan would be greater than the projected population increase.

Mitigation Measure AIR-1: Numerous goals, policies, and actions contained in the proposed Plan address future increase in VMT and criteria air pollutants under the Plan; however, the projected growth in VMT in the Plan Area would still exceed the rate of population growth. There are no additional measures that would reduce this impact.

Significance After Mitigation: Significant and unavoidable.

4.3 BIOLOGICAL RESOURCES

This chapter provides information on biological resources found within and in the immediate vicinity of the Plan area. An evaluation of the potential impacts that the proposed Plan may have on the biological resources in the Plan Area is provided. Furthermore, a summary of the regulatory framework, which provides for the protection and conservation of important biological resources, is also included.

4.3.1 ENVIRONMENTAL SETTING

4.3.1.1 REGULATORY FRAMEWORK

This section describes the federal, State, and local regulations that provide for the protection and management of sensitive biological resources.

Federal Laws

The federal laws that regulate the treatment of biological resources include the Endangered Species Act, the Clean Water Act, and the Migratory Bird Treaty Act. The following sections outline the relevant principles of each.

Federal Endangered Species Act (FESA)

The U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) is responsible for implementation of the Federal Endangered Species Act (FESA) (16 U.S.C. Section 1531 *et seq.*). The Act protects fish and wildlife species that are listed as threatened or endangered, and their habitats. "Endangered" species, subspecies, or distinct population segments are those that are in danger of extinction through all or a significant portion of their range, and "threatened" species, subspecies, or distinct population segments are likely to become endangered in the near future.

Section 7 of the FESA mandates that all federal agencies consult with USFWS and NOAA Fisheries if they determine that a proposed project may affect a listed species or its habitat. The purpose of consultation with USFWS and NOAA Fisheries is to ensure that the federal agencies' actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species.

Section 9 of the FESA prohibits the take of any fish or wildlife species listed as endangered, including the destruction of habitat that prevents the species' recovery. Take is defined as an action or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species. Section 9 prohibitions also apply to threatened species unless a special rule has been defined with regard to take at the time of listing.

Under Section 9 of the FESA, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the unlawful removal and reduction to possession, or malicious damage or destruction, of any endangered plant from federal land. Section 9 prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in nonfederal areas in knowing violation of any state law or in the course of criminal

trespass. Candidate species and species that are proposed or under petition for listing receive no protection under Section 9.

Federal Clean Water Act (FCWA)

The Federal Clean Water Act (FCWA) is administered by the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps). The Corps is responsible for regulating the discharge of fill material into waters of the United States, including lakes, rivers, streams and their tributaries, as well as wetlands. Wetlands are defined for regulatory purposes as areas "inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances support a prevalence of vegetation typically adapted for life in saturated soil conditions."

The discharge of dredged or fill material into waters of the United States is subject to permitting under Section 404 (Discharges of Dredge or Fill Material). Section 401 (Certification) specifies additional requirements for permit review, particularly at the state level. Project proponents must obtain a permit from the Corps for all discharges of dredged or fill material into waters of the United States, including wetlands, before proceeding with a proposed action. Corps permits must be certified by the State Water Resources Control Board in order to be valid. Thus, certification from the Board should be requested at the same time an application is filed with the Corps.

Certification from the California Regional Water Quality Control Board is also required when a proposed activity may result in discharge into navigable waters, pursuant to Section 401 of the Clean Water Act and EPA 404(b)(1) Guidelines.

Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.)

The Migratory Bird Treaty Act (MTBA) governs the taking, killing, possession, transportation and importation of migratory birds, their eggs, parts, and nests. Moreover, the MBTA prohibits the take, possession, import, exports, transport, selling, purchase, barter, or offering for sale, purchase or barter, any migratory bird, their eggs, parts, nests, except as authorized under a valid permit (50 CFR 21.11).

Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan

The USFWS released the Comprehensive Conservation Plan (CCP) for the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) in April 2013. The Refuge protects and restores almost 30,000 acres of some of the last remaining tidal marsh, mudflat, open bay, vernal pool, grassland, and upland habitats in the South Bay. The CCP contains goals, objectives, and policies to guide management of the Refuge for the next 15 years.

The San Francisco Bay National Wildlife Refuge was established by the United States Congress in 1972 for a total not to exceed 23,000 acres. The Refuge was one of the first urban National Wildlife Refuge established in the United States. The first lands were acquired for the Refuge in 1974. In 1988, the USFWS's acquisition authority

was increased from 23,000 to 43,000 acres.[1] In 1990, the USFWS issued the Final Environmental Assessment for the Refuge boundary expansion, which identified 24,500 acres as potential additions because not all lands would be added to the Refuge. The potential addition areas identified by the USFWS are recognized through USFWS policy as the approved acquisition boundary for the Refuge. The USFWS does not have jurisdiction over the lands within the acquisition boundary, and the lands are not part of the Refuge unless they are purchased or placed under an agreement that provides for management under the Refuge System.[2] In 1995, the Refuge was renamed as the Don Edwards San Francisco Bay National Wildlife Refuge in 1995 to honor Congressman Don Edwards' efforts to create the refuge.[3] The Refuge was created with three main purposes: to preserve natural resources, including habitat for migratory birds, harbor seals, and threatened and endangered species; to provide environmental education and wildlife interpretation opportunities; and to preserve open space and wildlife-oriented recreation.[4]

The Refuge and approved acquisition boundary are shown in Figure 4.3-1. As of April 2013, the USFWS managed approximately 30,000 acres under the approved acquisition boundary.[5] As shown in Figure 4.3-1, none of the focus areas contain lands within the Refuge. However, Area 4 includes lands within the approved acquisition boundary.

State Regulations

The most relevant State laws regulating biological resources are the California Endangered Species Act, the California Fish and Game Code, the California Native Plant Protection Act, and the Marine Life Protection Act, each of which is described below.

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Section 2050 *et seq.*) establishes State policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would affect a species that is on the federal and State lists, compliance with the FESA satisfies the CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species that is only State listed, the project proponent must apply for a take permit under Section 2081(b).

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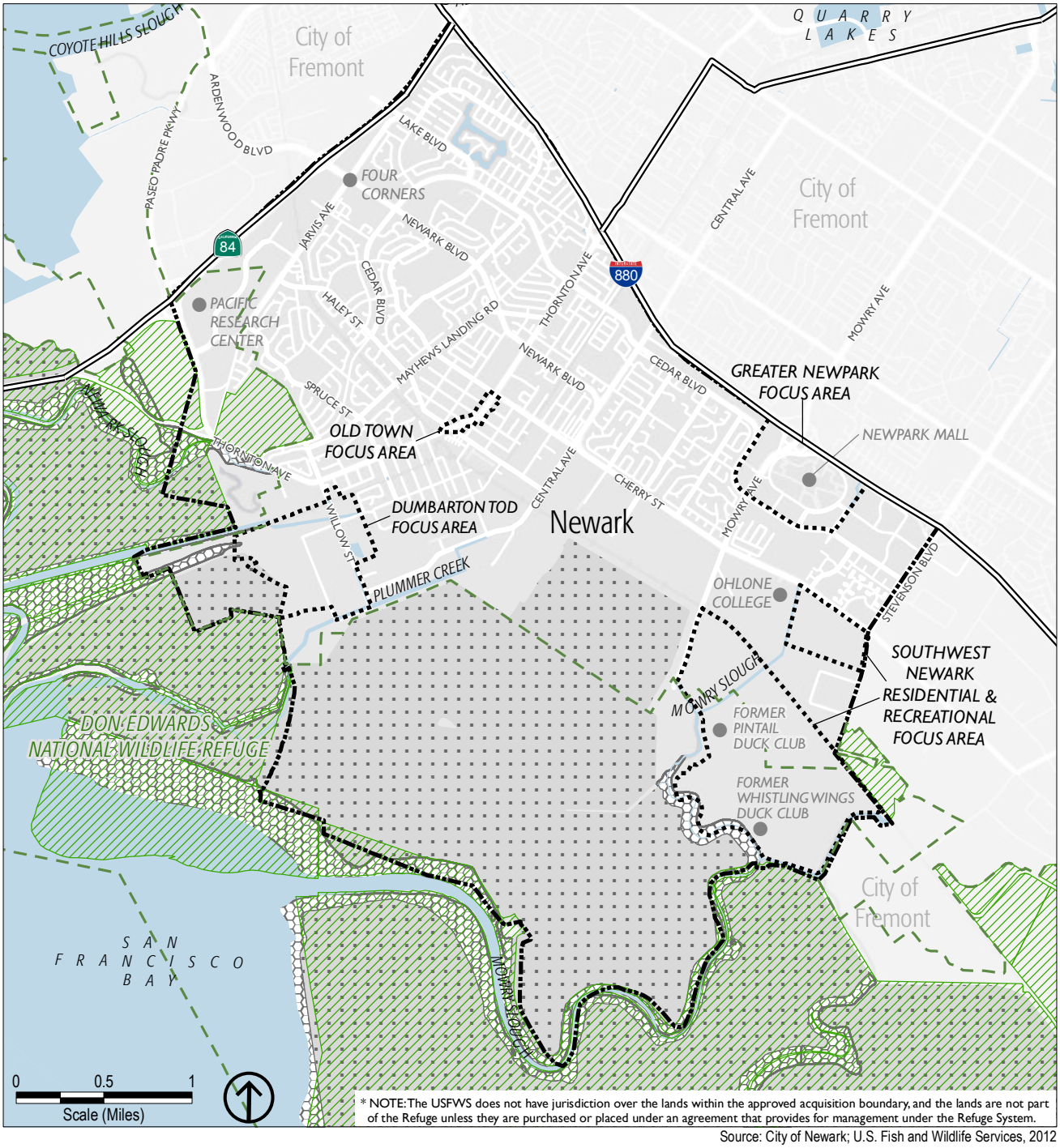
[1] U.S. Fish and Wildlife Service, 2013, *Don Edwards San Francisco Bay National Wildlife Refuge Final Comprehensive Conservation Plan,* pages 8 to 9.

[2] U.S. Fish and Wildlife Service, 2013, *Don Edwards San Francisco Bay National Wildlife Refuge Final Comprehensive Conservation Plan,* pages 9 to 10.

[3] Don Edwards San Francisco Bay National Wildlife Refuge, About the Refuge, http://www.fws.gov/refuge/Don_Edwards_San_Fransisco_Bay/about.html, accessed on March 18, 2013.

[4] Don Edwards San Francisco Bay National Wildlife Refuge, Conservation, http://www.fws.gov/refuge/Don_Edwards_San_Francisco_Bay/conservation.html, accessed on March 18, 2013.

[5] U.S. Fish and Wildlife Service, 2013, *Don Edwards San Francisco Bay National Wildlife Refuge Final Comprehensive Conservation Plan,* page 10.



Source: City of Newark; U.S. Fish and Wildlife Services, 2012

City Limit
Landmarks
Railroads
Don Edwards San Francisco Bay National Wildlife Refuge
Don Edwards San Francisco Bay National Wildlife Refuge Approved Acquisition Boundary*
Focus Area
Tidal Marsh
Managed Wetlands/Salt Pond

Figure 4.3-1
Don Edwards SF Bay National Wildlife Refuge and Managed Wetlands in Newark

California Fish and Game Code

Under the California Fish and Game Code, the CDFW provides protection from "take" for a variety of species. The CDFW also protects streams, water bodies, and riparian corridors through the Streambed Alteration Agreement process under Section 1601 to 1606 of the California Fish and Game Code. The California Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying the Department, incorporating necessary mitigation, and obtaining a Streambed Alteration Agreement. CDFW's jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

California Fish and Game Code Sections 1600 through 1616 regulate development to avoid and mitigate impacts or modification to rivers, streams, or lakes. Modification is defined as diverting or obstructing the natural flow of, or substantially changing or using any material from the bed, channel, or bank of, any river, stream or lake.

California Fish and Game Code Section 3503.5 prohibits "take," possession, or destruction of any raptor (bird of prey species in the orders Falconiformes and Strigiformes), including their nests or eggs. Violations of this law include destruction of active raptor nests as a result of tree removal and disturbance to nesting pairs by nearby human activity that causes nest abandonment and reproductive failure.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 prohibits importation of rare and endangered plants into California, "take" of rare and endangered plants, and sale of rare and endangered plants. The CESA defers to the California Native Plant Protection Act, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to CEQA. In this case, plants listed as rare under the California Native Plant Protection Act are not protected under the CESA but rather under CEQA.

California Native Plant Society (CNPS) is a non-governmental conservation organization that has developed a list of plants of special concern in California. The following explains the designations for each plant species:[6]

- List 1A – Considered to be extinct
- List 1B – Considered rare, threatened, or endangered in California and elsewhere
- List 2 – Considered rare, threatened, or endangered in California, but is more common elsewhere
- List 3 – CNPS lacks necessary information to determine if it should be assigned to a list
- List 4 – Limited distribution in California

Marine Life Protection Act (MLPA)

The Marine Life Protection Act (MLPA) requires reevaluation and redesign of California's marine protected areas for increased coherence and effectiveness in protecting the State's marine life and habitats, marine ecosystems, and marine natural heritage, and additionally to improve recreational, educational, and study opportunities provided by

[6] California Native Plant Society, 2010, The CNPS Ranking System, http://www.cnps.org/cnps/rareplants/ranking.php accessed January 12, 2012.

marine ecosystems subject to minimal human disturbance. The MLPA also requires the best readily available science be used in the redesign process, as well as the advice and assistance of scientists, resource managers, experts, stakeholders, and members of the public.

Porter-Cologne Water Quality Control Act

This Act authorizes the Regional Water Quality Control Board (RWQCB) to regulate the discharge of waste that could affect the quality of the State's waters. Projects that do not require a federal permit may still require review and approval by the RWQCB. The RWQCB focuses on ensuring that projects do not adversely affect the "beneficial uses" associated with waters of the State. In most cases, the RWQCB requires the integration of water quality control measures into projects that will require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction Best Management Practices (BMPs).

McAteer-Petris Act

The McAteer-Petris Act provides for fill in the San Francisco Bay (Bay) for water-oriented uses and requires that proposed projects include the maximum feasible public access consistent with the project to the Bay and its shoreline. Additionally, the McAteer-Petris Act established the San Francisco Bay Conservation and Development Commission (BCDC) as the agency charged with planning for and regulating long term use of the Bay.[7]

Local Regulations

San Francisco Bay Conservation and Development Commission (BCDC)

In 1969, the McAteer-Petris Act designated the San Francisco Bay Conservation and Development Commission (BCDC) as the agency responsible for the protection of the San Francisco Bay and its natural resources. BCDC fulfills this mission through the implementation of the San Francisco Bay Plan (Bay Plan), an enforceable plan that guides the future protection and use of San Francisco Bay and its shoreline. The Bay Plan includes a range of policies on public access, water quality, fill, and project design, and designates shoreline areas that should be reserved for water-related purposes like ports, industry, and public recreation, airports, and wildlife areas.

As a permitting authority along the San Francisco Bay shoreline, BCDC is responsible for granting or denying permits for any proposed fill, extraction of materials, or change is use of any water, land, or structure within the Commission's jurisdiction. BCDC has jurisdiction for Mowry Slough ending at the culvert at the Mowry Avenue bridge crossing, at the bend of the channel near Plummer Creek, and jurisdiction over managed wetlands in the

Southwest Newark Residential and Recreational Focus Area, to the extent they are present. Figure 4.3-2 illustrates areas relevant to BCDC's jurisdiction, including the tidal marshes within Plummer Creek and Mowry Slough. Projects in BCDC jurisdiction that involve Bay fill must be consistent with the Bay Plan policies on the safety of fills and shoreline protection.

[7] California Wetlands Information System, McAteer-Petris Act, http://www.ceres.ca.gov/wetlands/permitting/McAteer_Petris_summary.html, accessed February 27, 2013.

San Francisco Bay Basin Water Quality Control Plan (Basin Plan)

The San Francisco Bay RWQCB adopted a Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan, which includes wetlands in and near the Plan Area.[8] The most recent amendments were incorporated into the Basin Plan as of December 31, 2011.

San Francisco Bay Area Wetlands Ecosystem Goals Project

The Baylands Ecosystem Habitat Goals (Habitat Goals) report, prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project, describes the history and existing conditions of the baylands (i.e. the shallow water habitats surrounding the Bay), details key Bay habitats, lists habitat goals, and suggests future actions.

A companion document to the Habitat Goals report, the Baylands Ecosystem Species and Community Profiles (Profiles), similarly acts as a regional habitat conservation plan for the Bay Area.[9] The Profiles contain life histories and environmental requirements for key Bay plants, fish, and wildlife.

City of Newark Municipal Code

Title 8, Health and Safety

Municipal Code Chapter 8.16, Preservation of Trees on Private Property, of Title 8, Health and Safety, requires a permit for the removal of any tree with a trunk diameter of six inches or greater, measured at four feet above the ground.

Municipal Code Chapter 8.36, Stormwater Management and Discharge Control, of Title 8, Health and Safety, prohibits discharge of non-stormwater discharges to the City storm sewer system. Any non-stormwater discharge must be in compliance with a National Pollutant Discharge Elimination System (NPDES) permit.

Title 17, Zoning

Municipal Code Chapter 17.36, Open Space Districts, of Title 17, Zoning, sets forth regulations applicable to the open space district (O). Section 17.36.090 prohibits the removal of trees of five inches or more in diameter at the base in the open space district. The section makes an exception for the approval of a park superintendent or with the granting of a use permit or, in the case of a public park or public wildlife sanctuary not owned by the City, with the approval of authorized agents.

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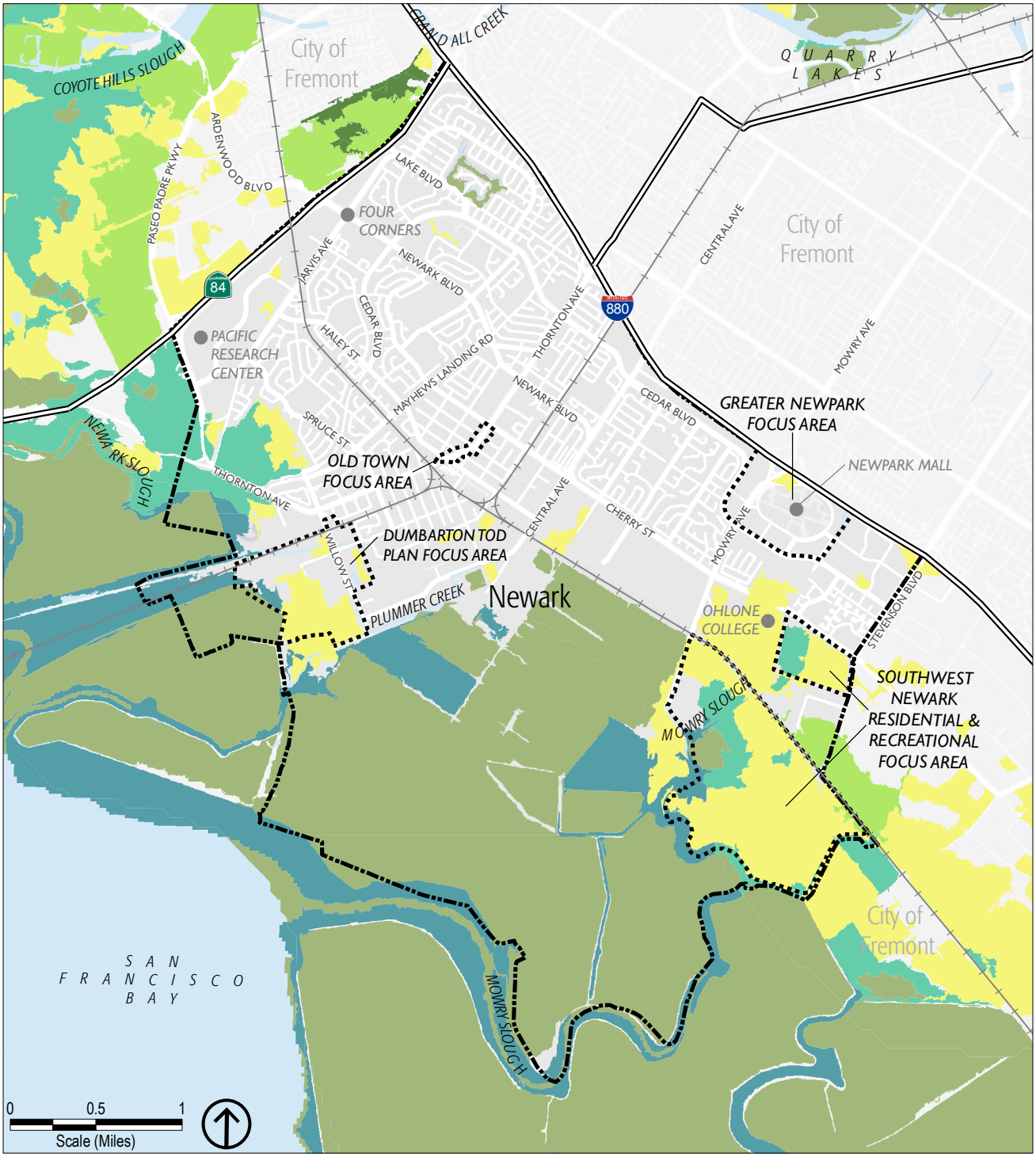
[8] San Francisco Bay RWQCB, 2007, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, http://www.swrcb.ca.gov/rwqcb2/basin_planning.shtml, accessed on February 1, 2013.

[9] San Francisco Bay Area Wetlands Ecosystem Goals Project, 2000, *Baylands Ecosystem Species and Community Profiles*.



Source: City of Newark, 2012; U.S. Department of Agriculture Forest Service, 2007.

City Limit
Landmarks
Railroads
Focus Area
Annual Grass
Cropland
Valley Oak Woodland
Lacustrine
Fresh Emergent Wetland
Saline Emergent Wetland

Figure 4.3-2
Vegetation and Habitat Types

4.3.1.2 EXISTING CONDITIONS

This section discusses the wildlife and plant communities and special-status species that are known to occur or have potential to occur in the Plan Area. As described in chapter 3.0 of this Draft EIR, the majority of land in the Plan Area is urbanized and developed; however, a large area of land along the western perimeter of Newark is occupied by the Cargill Corporation salt evaporation ponds. Additionally, a portion of the Don Edwards San Francisco Bay National Wildlife Refuge is adjacent to the Plan Area outside the City limit. Both these areas provide habitat for biological resources occurring or potentially occurring in Newark.

Vegetation, Habitat Types, and Wetlands

Habitat types, as classified by the United State Department of Agriculture Forest Service, are shown in Figure 4.3-2. The distribution of habitat areas in Newark is closely associated with topography and hydrology, with habitat types associated with wetlands primarily located adjacent to the San Francisco Bay and grasslands and croplands located inland. Some wetland areas are scattered throughout the inland portion of Newark. The majority of inland Newark consists of urban lands. Each of these areas is described below:

- **Lacustrine** habitats are the predominant non-urban habitat type in Newark and include the salt ponds, which are described in further detail below. These habitats are inland depressions or dammed riverine channels that contain standing water and vary from small ponds to large areas. Lacustrine habitats are used by several bird, mammal, reptile, and amphibian species for reproduction, food, water, and cover.[10] Within Newark, approximately 2,500 acres are classified as lacustrine habitat.[11]

  Annual grasslands are located throughout Newark. Annual grasslands are open grasslands primarily comprised of annual plant species that occur mostly on flat plains or gently rolling foothills. Many species use annual grasslands for foraging and breeding, including birds, mammals, and reptiles.[12] Within Newark, approximately 850 acres are classified as annual grasslands.[13]

- **Saline emergent wetlands** are located along the San Francisco Bay. These wetlands are salt or brackish marshes occurring above intertidal sand and mud flats and below upland communities not subject to tidal action. Saline emergent wetlands provide food, cover, and nesting and roosting habitat for bird, mammal,

[10] State of California, Resources Agency, Department of Fish and Game, *A Guide to Wildlife Habitats of California*, Lacustrine, http://www.dfg.ca.gov/biogeodata/cwhr/pdfs/LAC.pdf, accessed on March 26, 2013.

[11] United State Department of Agriculture Forest Service, 2012, Classification and Assessment with Lands of Visible Ecological Groupings (CALVEG).

[12] State of California, Resources Agency, Department of Fish and Game, *A Guide to Wildlife Habitats of California*, Annual Grasslands, http://www.dfg.ca.gov/biogeodata/cwhr/pdfs/AGS.pdf, accessed on March 26, 2013.

[13] United State Department of Agriculture Forest Service, 2012, Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG).

reptile, and amphibian species.[14] Within Newark, approximately 450 acres are classified as saline emergent wetlands.[15]

- **Fresh emergent wetlands** are located along Newark's shore and inland. These wetlands may occur in association with terrestrial or aquatic habitats. The upland limit of fresh emergent wetlands is the boundary between hydric and non-hydric soils. These wetlands are among the most productive wildlife habitats in the State, providing food, cover, and water for numerous bird, mammal, reptile, and amphibian species.[16] Within Newark, approximately 350 acres are classified as fresh emergent wetlands.[17]
- An area of **cropland** is located in southern Newark along the border with Fremont. Cropland vegetation can take a variety of sizes, shapes, and growing patterns, and its habitat stages are controlled by growing cycles. Croplands are generally located on flat to rolling terrain, and soils often dictate the types of crops that are grown. Many species of rodents and birds in California have adapted to croplands and are controlled by fencing, trapping, and poisoning.[18] Within Newark, approximately 35 acres are classified as cropland.[19]
- **Urban** lands comprise the majority of inland Newark. As a vegetation classification, urban lands include tree groves, street strips, shade trees, lawns, and shrub cover.[20] Within Newark, approximately 4,750 acres are classified as annual grasslands.[21]

As discussed previously, the Corps and CDFW generally exercise authority over the various wetland habitat types. A detailed wetland delineation and verification by the Corps would be required to determine the extent of jurisdictional wetlands on a project-specific basis. Wetlands associated with ponds and lakes (lacustrine wetlands), and some of the wetlands associated with streams and drainages may not meet all three technical criteria used by the Corps in determining jurisdiction. Riparian wetland areas are generally defined by the "ordinary high water mark" rather than the band of adjacent riparian vegetation, thereby limiting Corps jurisdiction where dense willow riparian scrub and forest extend a considerable distance from the channel bank. Similarly, authority of the CDFW under the Streambed Alteration Agreement process is technically limited to the confines of a channel bank and bed, but the CDFW typically requests that all associated riparian vegetation be protected and that a setback be

[14] State of California, Resources Agency, Department of Fish and Game, *A Guide to Wildlife Habitats of California*, Saline Emergent Wetland, http://www.dfg.ca.gov/biogeodata/cwhr/pdfs/SEW.pdf, accessed on March 26, 2013.

[15] United State Department of Agriculture Forest Service, 2012, Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG).

[16] State of California, Resources Agency, Department of Fish and Game, *A Guide to Wildlife Habitats of California*, Fresh Emergent Wetlands, http://www.dfg.ca.gov/biogeodata/cwhr/pdfs/FEW.pdf, accessed on March 26, 2013.

[17] United State Department of Agriculture Forest Service, 2012, Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG).

[18] State of California, Resources Agency, Department of Fish and Game, *A Guide to Wildlife Habitats of California*, Cropland, http://www.dfg.ca.gov/biogeodata/cwhr/pdfs/CRP.pdf, accessed on March 26, 2013.

[19] United State Department of Agriculture Forest Service, 2012, Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG).

[20] State of California, Resources Agency, Department of Fish and Game, *A Guide to Wildlife Habitats of California*, Urban, http://www.dfg.ca.gov/biogeodata/cwhr/pdfs/URB.pdf, accessed on March 26, 2013.

[21] United State Department of Agriculture Forest Service, 2012, Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG).

established to protect the wildlife habitat provided by riparian corridors as part of environmental review for specific development plans.

Salt Ponds

The commercial salt ponds are large, open water areas ranging in salinity from similar to sea water at 32 parts per million to 135 parts per million, or more than four times more salty than sea water.[22] These ranges of salinities allow for certain macro- and micro-organisms to thrive, resulting in brightly colored water.

Salt ponds provide important habitat for a wide variety of bird species. Much of this use occurs as foraging habitat along the shorelines of ponds, but there is particularly high value of nesting and roosting habitat provided by remote or undisturbed locations along dikes between ponds and on islands. At least 19 different species of shorebirds use the Bay's commercial salt ponds for feeding, roosting, and breeding. These include long-billed curlew, Wilson's phalarope, American avocet, and black-necked stilt.[23] Additionally, the area provides perches for raptors, which have special status, including peregrine falcon, northern harrier, and merlin.[24]

Threatened and endangered species using salt ponds include sites include the federally threatened snowy plover, federally endangered California clapper rail, and federally endangered California least tern.[25]

Special-Status Species

A variety of wildlife and plant communities are present in Newark, including sensitive species. Newark is located on the edge of San Francisco Bay, which is recognized for its biological importance as a host for over one million shorebirds annually.[26] The Coyote Hills Regional Open Space, just north of city limits, also provides important habitat.

Based on a review of the California Natural Diversity Data Base (CNDDB), a number of State and federally listed plant and animal species could potentially exist in Newark, as shown in Figures 4.3-3 and 4.3-4. These are listed in Tables 4.3-1 and 4.3-2, respectively, along with species that have been identified through past planning projects in the city.

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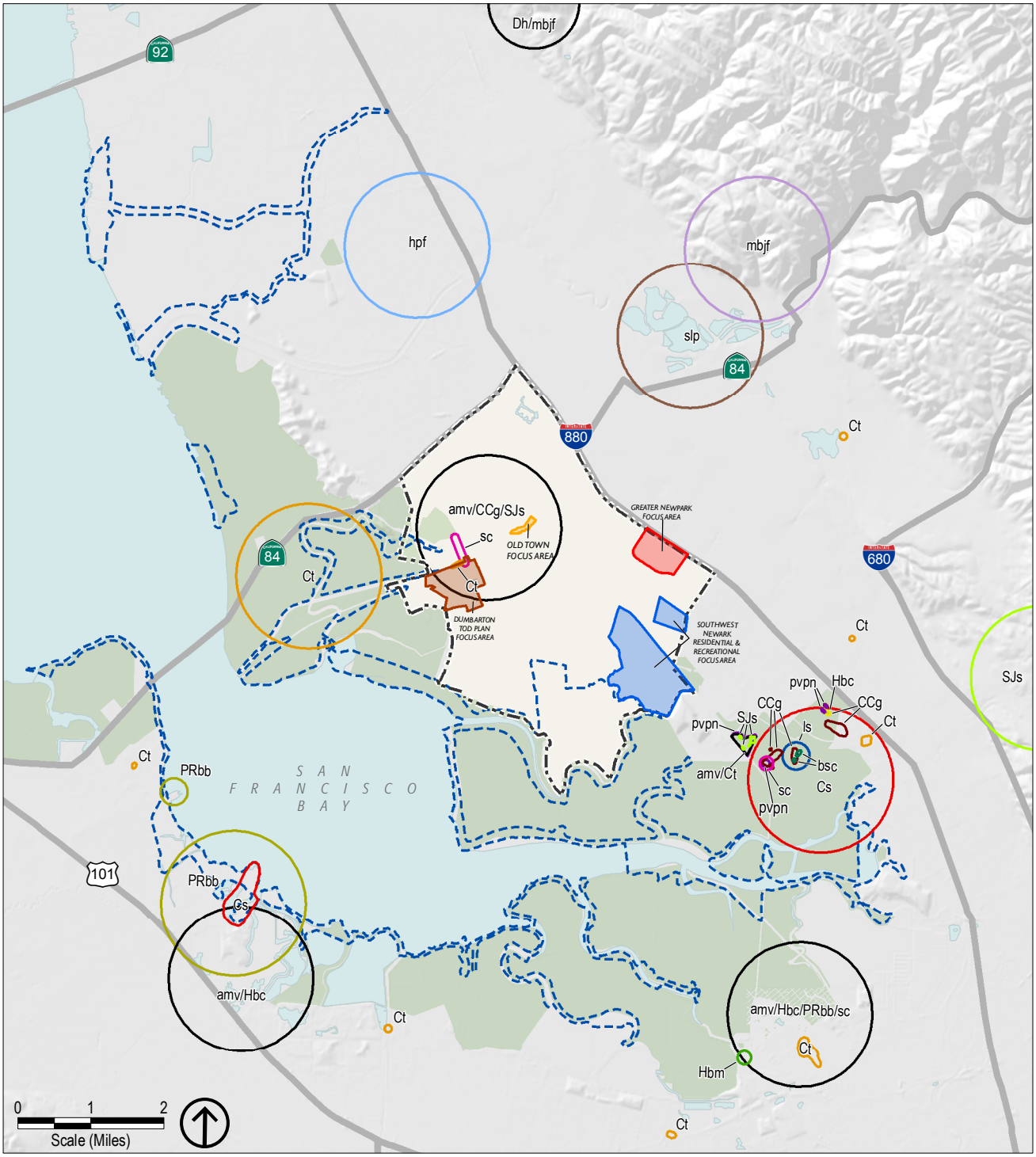
[22] U.S. Fish and Wildlife Service, 2003, Notice of Intent to Prepare a Joint Environmental Impact Statement/Environmental Impact Report for the South Bay Salt Ponds Initial Stewardship Project, http://www.southbayrestoration.org/NOI.html, accessed December 15, 2012.

[23] U.S. Fish and Wildlife Service, 2012. Species Profile for Western Snowy Plover, http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B07C, accessed December 12, 2012.

[24] South Bay Salt Pond Restoration Projection, 2000, Cogswell, H.L., http://dev.sfei.org/SouthBaySaltPond/BiblioSearch?view=19&search_type=viewrec&sel_questionid=2, accessed December 11, 2012.

[25] Bay Conservation and Development Commission, 2005. Staff report, Salt Ponds, http://www.bcdc.ca.gov/pdf/planning/reports/salt_ponds.pdf, accessed December 12, 2012.

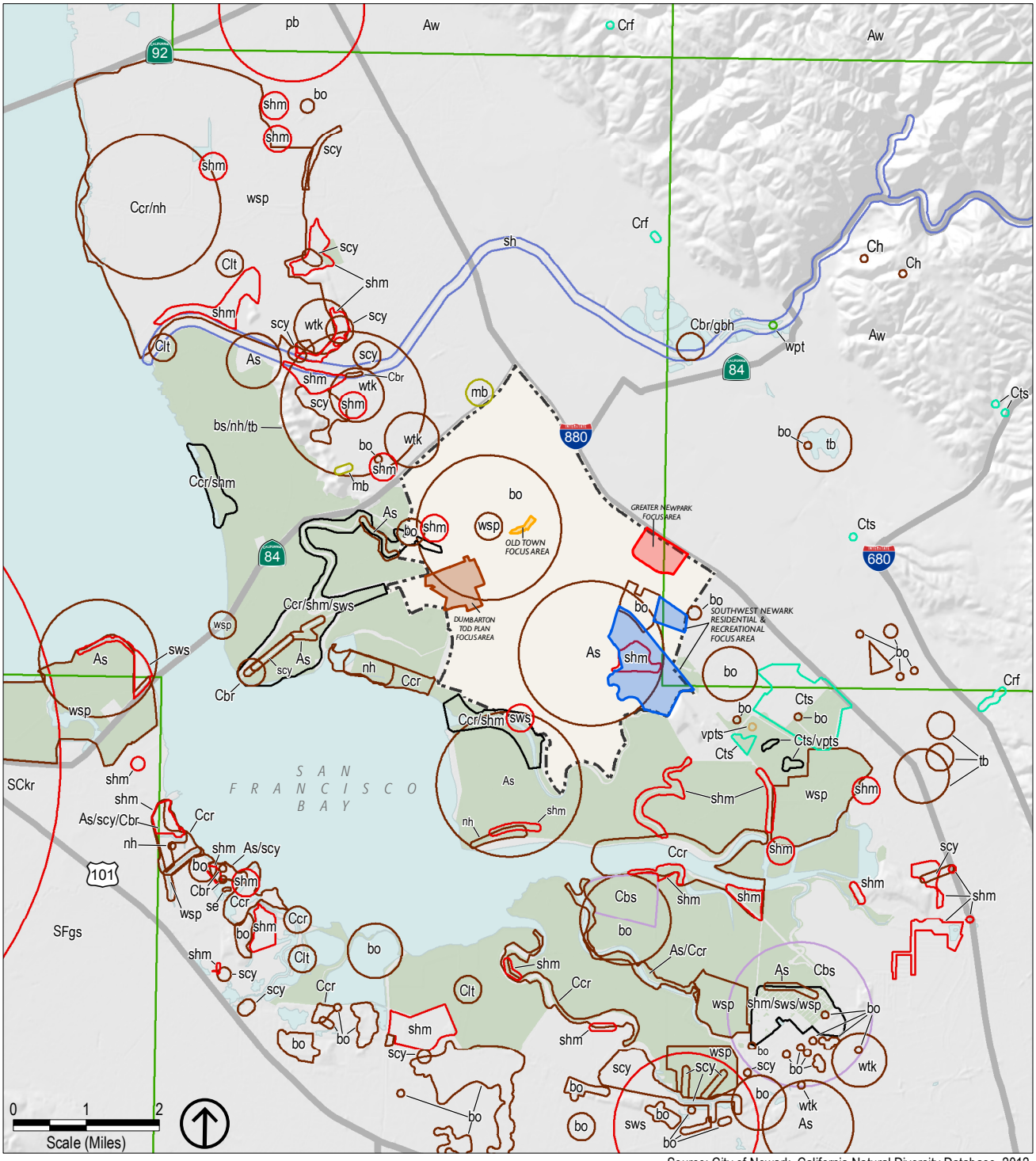
[26] Bay Conservation and Development Commission, 2005, Staff Report: Salt Ponds, http://www.bcdc.ca.gov/pdf/planning/reports/salt_ponds.pdf, page 25, accessed December 11, 2012.



Source: City of Newark, California Natural Diversity Database, 2012.

- CCg - Contra Costa goldfields
- Cs - California seablite
- Ct - Congdon's tarplan
- Hbc- Hoover's button-celery
- Hbm - Hall's bush-mallow
- PRbb - Point Reyes bird's-beak
- SJs - San Joanquin spearscale
- bsc - brittlescale
- hpf - hairless popcorn-flower
- ls - lesser saltscale
- mbjf - most beautiful jewel-flower
- pvpn - prostrate vernal pool navarretia
- sc - saline clover
- slp - slender-leaved pondweed
- Multiple occurences
  - amv - alkali milk-veetch
  - Dh - Diablo helianthella
  - SJs - San Joaquin spearscale
- Northern Coastal Salt Marsh Terrestrial Community
- Don Edwards SF Bay National Wildlife Refuge

Figure 4.3-3
Special Status Plant Species and Sensitive Natural Communities



Source: City of Newark, California Natural Diversity Database, 2012.

- Amphibian
- Avian
- Crustacean
- Fish
- Insect
- Mammal
- Mollusc
- Reptile
- Multiple
- Don Edwards SF Bay National Wildlife Refuge

As	Alameda song sparrow
Aw	Alameda whipsnake
bo	burrowing owl
bs	bank swallow
Cbr	California black rail
Cbs	California brackishwater snail
Ccr	California clapper rail
Ch	Cooper's hawk
Clt	California least tern
Crf	California red-legged frog
Cts	California tiger salamander
gbh	great blue heron
mb	monarch butterfly
nh	northern harrier
pb	pallid bat
SCkr	Santa Cruz kangaroo rat
scy	saltmarsh common yellowthroat
se	snowy egret
SFgs	San Francisco garter snake
sh	steelhead - central California coast DPS
shm	salt-marsh harvest mouse
sws	salt-marsh wandering shrew
tb	tricolored blackbird
vpts	vernal pool tadpole shrimp
wpt	western pond turtle
wsp	western snowy plover
wtk	white-tailed kite

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Figure 4.3-4
Special Status Animal Species

TABLE 4.3-1 SPECIAL-STATUS PLANT SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State/CNPS)	Rarity, Threat, and Trend Factors (Global and State)[c]	Potential for Occurrence	Habitat and Blooming Period[d]
Alkali milk-vetch *Astragalus tener var. tener* [1,2,3,4]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	May occur in Areas 2, 3, and 4 described by the Housing Element. Potentially suitable habitat was identified on Housing Element Areas 3 and 4; however, surveys confirmed absence from impact areas, and further surveys for the area were deemed to be unwarranted for impact assessment. Most recent observation occurred within 5 miles of Dumbarton TOD project site, with historical observations having occurred elsewhere in the vicinity of Newark.	Playas, valley and foothill grassland, and vernal pools at elevations up to 60 meters. Blooms: March – June.
Arcuate bush mallow *Malacothamnus arcuatus*[3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Chaparral, cismontane woodland. Blooms: April – September
Big-scale balsamroot *Balsamorhiza macrolepis var. macrolepis*[3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Chaparral, cismontane woodland, valley and foothill grassland. Blooms: March – June
Brittlescale *Atriplex depressa*[2,3,4]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	May occur in Areas 2, 3, and 4 described by the Housing Element. Potentially suitable habitat was identified on Housing Element Areas 3 and 4; however, surveys confirmed absence from impact areas, and further surveys for the area were deemed to be unwarranted for impact assessment.	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Blooms: April – October
California seablite *Suaeda californica*[3]	FE/- -/Rank 1B.1	Global: Critically imperiled State: Critically imperiled	1986 occurrence documented within estimated 5 miles of Newark areas. Surveys of suitable habitat areas recommended before any grading or construction work.	Marshes and swamps (coastal salt) Blooms: July – October
Caper-fruited tropidocarpum *Tropidocarpum capparideum*[3]	- -/- -/Rank 1B.1	Global: Critically imperiled State: Critically imperiled	Only two known occurrences, neither in the vicinity of Newark. However, given possible habitat, survey for this plant should be considered in development areas.	Valley and foothill grassland (alkaline hills). Blooms: March – April

TABLE 4.3-1 SPECIAL-STATUS PLANT SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State/CNPS)	Rarity, Threat, and Trend Factors (Global and State)[c]	Potential for Occurrence	Habitat and Blooming Period[d]
Chaparral harebell *Campanula exigua*[3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Chaparral (rocky, usually serpentinite). Blooms: May – June
Congdon's tarplant *Centromadia parryi ssp. condonii*[1,2,3,4]	- -/- -/Rank 1B.2	Global: Apparently secure species, imperiled subspecies State: Imperiled	Species has been observed in bayshore areas of Newark. Pre-development surveys should be conducted in areas supporting salt or brackish marsh habitat to determine occurrence. May occur in Areas 2, 3, and 4 described by the Housing Element. Potentially suitable habitat was identified on Housing Element Areas 3 and 4; however, surveys confirmed absence from impact areas, and further surveys for the area were deemed to be unwarranted for impact assessment.	Valley and foothill grassland at elevations up to 230 meters. Blooms: May – October/November.
Contra Costa goldfields *Lasthenia conjugens*[1,2,3,4]	FE/- -/Rank 1B.1	Global: Critically imperiled State: Critically imperiled	Suitable habitat in Areas 2 and 4 described by the Housing Element. Presence was investigated in Housing Element Areas 3 and 4. Although Area 4 had suitable habitat, surveys confirmed absence from impact areas, and further surveys for the area were deemed to be unwarranted for impact assessment. Recent occurrences within 5 miles of Newark have been documented; however, since this species only occurs in vernal pool habitats, surveys would only be required for those areas.	Cismontane woodland, playas, valley and foothill grassland, and vernal pools at elevations up to 470 meters. Blooms: March – June.
Delta woolly-marbles *Psilocarphus brevissimus* Nutt. var. *multiflorus Cronq.*[2,4]	- -/- -/Rank 4.2	Global: Apparently secure species, vulnerable subspecies State: Vulnerable	May be present in Areas 2, 3, and 4 described by the Housing Element. Potentially suitable habitat was identified on Housing Element Areas 3 and 4; however, surveys confirmed absence from impact areas, and further surveys for the area were deemed to be unwarranted for impact assessment.	Vernal pools Blooms: May – June

TABLE 4.3-1 SPECIAL-STATUS PLANT SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State/CNPS)	Rarity, Threat, and Trend Factors (Global and State)[c]	Potential for Occurrence	Habitat and Blooming Period[d]
Diablo helianthella *Helianthella castanea*[3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Blooms: March – June
Fountain thistle *Cirsium fontinale var. fontinale*[3]	FE/CE/Rank 1B.1	Global: Species and sub-species imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Chaparral (openings), cismontane woodland, valley and foothill grassland. Blooms: May – October
Fragrant fritillary *Fritillaria liliacea*[3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Often serpentinite, cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Blooms: February – April
Franciscan onion *Allium peninsulare var. Franciscanum*[3]	- -/- -/Rank 1B.2	Global: Secure species, vulnerable subspecies	*Inadequate information exists to rank the occurrence.*	Clay, volcanic, often serpentinite, cismontane woodland, valley and foothill grassland. Blooms: May – June
Hairless popcornflower *Plagiobothrys glaber*[3]	- -/- -/Rank 1A	Global: All sites are historical State: All California sites are historical	Historic occurrence in vicinity of Newark is believed to have been long extirpated.	Meadows and seeps (alkaline), marshes and swamps (coastal salt). Blooms: March – May

TABLE 4.3-1 SPECIAL-STATUS PLANT SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State/CNPS)	Rarity, Threat, and Trend Factors (Global and State)[c]	Potential for Occurrence	Habitat and Blooming Period[d]
Hoover's Button-celery *Eryngium aristulatum var. hooveri*[2,3,4]	- -/- -/Rank 1B.1	Global: Secure species, imperiled subspecies State: Imperiled	Not observed on any site and likely not present. Previously believed extirpated but observed on Dumbarton site in 2009. Additional, blooming-period surveys recommended to identify occurrences. Potentially suitable, but degraded, habitat was identified on Housing Element Areas 3 and 4; however, surveys confirmed absence from impact areas, and further surveys for the area were deemed to be unwarranted for impact assessment.	Vernal pools Blooms: July – August
Kings Mountain manzanita *Arctostaphylos regismontana*[3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Granitic or sandstone, broadleafed upland forest, chaparral, North Coast coniferous forest. Blooms: January – April
Marin western flax *Hesperolinon congestum*[3]	FT/CT/Rank 1B.1	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Serpentinite, chaparral, valley and foothill grassland. Blooms: April – July
Mount Diablo cottonweed *Stylocline amphibola Micropus amphibolus*[3]	- -/- -/Rank 3.2	Global: Vulnerable State: Vulnerable	*Inadequate information exists to rank the occurrence.*	Rocky, broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland. Blooms: March – May
Pincushion navarretia *Navarretia myersii ssp. myersii*[3]	- -/- -/Rank 1B.1	Global: Critically imperiled State: Critically imperiled	*Inadequate information exists to rank the occurrence.*	Often acidic, vernal pools. Blooms: April – May
Point Reyes bird's-beak *Cordylanthus maritimus ssp. palustris*[3]	- -/- -/Rank 1B.2	Global: Apparently secure species, imperiled subspecies State: Imperiled	Since plant could occur in marginally suitable salt marsh habitats within Newark, blooming-period surveys should be considered prior to any development.	Marshes and swamps (coastal salt). Blooms: June – October

TABLE 4.3-1 SPECIAL-STATUS PLANT SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State/CNPS)	Rarity, Threat, and Trend Factors (Global and State)[c]	Potential for Occurrence	Habitat and Blooming Period[d]
Royal polemonium *Polemonium carneum*[3]	- -/- -/Rank 2.2	Global: Apparently secure State: Critically imperiled	*Inadequate information exists to rank the occurrence.*	Coastal prairie, coastal scrub, lower montane coniferous forest. Blooms: April – September
Prostrate vernal pool navarretia *Navarretia prostrate*[2,3,4]	- -/- -/Rank 1B.1	Global: Imperiled State: Imperiled	Has been observed in close proximity to Newark and may be present in appropriate habitats, such as vernal pools. May be present in Areas 2, 3, and 4 described by the Housing Element. Potentially suitable habitat was identified on Housing Element Areas 3 and 4; however, surveys confirmed absence from impact areas, and further surveys for the area were deemed to be unwarranted for impact assessment.	Coastal scrub, meadows and seeps, playas, valley and foothill grassland (alkaline), vernal pools. Blooms: April – July
Saline clover *Trifolium hydrophilum*[1,3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	Blooming-period surveys would be necessary to determine presence in potentially supportive brackish marsh and salt marsh habitats.	Marshes and swamps, valley and foothill grassland, and vernal pools at elevations up to 300 meters. Blooms: April – June.
San Antonio Hills monardella *Monardella antonina antonina*[3]	- -/- -/Rank 3	Global: Apparently secure species, vulnerable subspecies State: Vulnerable	*Inadequate information exists to rank the occurrence.*	Chaparral, cismontane woodland. Blooms: June – August
San Francisco collinsia *Collinsia multicolor*[3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Sometimes serpentinite, closed-cone coniferous forest, coastal scrub. Blooms: March – May

TABLE 4.3-1 SPECIAL-STATUS PLANT SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State/CNPS)	Rarity, Threat, and Trend Factors (Global and State)[c]	Potential for Occurrence	Habitat and Blooming Period[d]
San Joaquin spearscale *Atriplex joaquinana*[1,2,3,4]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	May be present on one or more sites. Potentially suitable habitat was identified on Housing Element Areas 3 and 4; however, surveys confirmed absence from impact areas, and further surveys for the area were deemed to be unwarranted for impact assessment. Detailed surveys of brackish marsh community areas would be needed to determine occurrence.	Chenopod scrub, meadows and seeps, playas, and valley and foothill grassland at elevations up to 835 meters. Blooms: April – October.
San Mateo thorn-mint *Acanthomintha duttonii ssp. duttonii*[3]	FE/CE/Rank 1B.1	Global: Critically imperiled State: Critically imperiled	*Inadequate information exists to rank the occurrence.*	Serpentinite, chaparral, valley and foothill grassland. Blooms: April – June
Santa Cruz manzanita *Arctostaphylos andersonii*[3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Openings, edges, broadleafed upland forest, chaparral, North Coast coniferous forest. Blooms: November – May
Santa Cruz tarplant *Holocarpha macradenia*[3]	FT/CE/1B.1	Global: Critically imperiled State: Critically imperiled	*Inadequate information exists to rank the occurrence.*	Often clay/sandy, coastal prairie, coastal scrub, valley and foothill grassland. Blooms: June – October
Slender-leaved pondweed *Stuckenia filiformis*[3]	- -/- -/Rank 2.2	Global: Apparently secure State: Critically imperiled	Occurrences have been noted in the vicinity of Newark in the past (1977); however, Newark generally lacks appropriate freshwater habitat, therefore the presence of this species is deemed unlikely.	Marshes and swamps (assorted shallow freshwater). Blooms: May – July
Uncommon jewelflower *Streptanthus albidus ssp. peramoenus*[3]	- -/- -/Rank 1B.2	Global: Species and sub-species imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Serpentinite, chaparral, cismontane woodland, valley and foothill grassland. Blooms: March – October

TABLE 4.3-1 SPECIAL-STATUS PLANT SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State/CNPS)	Rarity, Threat, and Trend Factors (Global and State)[c]	Potential for Occurrence	Habitat and Blooming Period[d]
Western leatherwood *Dirca occidentalis*[3]	- -/- -/Rank 1B.2	Global: Imperiled State: Imperiled	*Inadequate information exists to rank the occurrence.*	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland. Blooms: January – April
Woolly-headed lessingia *Lessingia hololeuca*[3]	- -/- -/Rank 3	Global: Vulnerable State: Vulnerable	*Inadequate information exists to rank the occurrence.*	Clay, serpentinite, broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Blooms: June – October

Notes:
[a] Footnote after each scientific name indicates source of occurrence information; multiple footnotes indicate multiple sources:
[1] California Natural Diversity Database, 2012.
[2] City of Newark, 2009, Housing Element Update & General Plan Amendments/Zoning Ordinance Amendments Draft Program EIR, pages 39 through 41.
[3] City of Newark, 2011, Dumbarton Transit Oriented Development Specific Plan Draft EIR, pages 3-16 through 4.3-23.
[4] City of Newark, Newark Areas 3 and 4 Specific Plan Project Draft EIR, December 2009, pages 125 through 130.
[b] Status explanations:
FE = Listed as endangered by the federal government
FT = Listed as threatened by the federal government
CE = Listed as endangered by the State of California
CT = Listed as threatened by the State of California
CNPS = California Native Plant Society Rare Plant Rank
Rank 1A: Plants presumed extinct in California
Rank 1B.1: Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
Rank 1B.2: Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
Rank 1B.3: Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California
Rank 2.1: Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
Rank 2.2: Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
Rank 2.3: Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California
Rank 3.1: Plants about which more information is needed; seriously threatened in California
Rank 3.2: Plants about which more information is needed; fairly threatened in California
Rank 3.3: Plants about which more information is needed; not very threatened in California
Rank 4.1: Plants of limited distribution; seriously threatened in California
Rank 4.2: Plants of limited distribution; fairly threatened in California
Rank 4.3: Plants of limited distribution; not very threatened in California
[c] Global and State ranks are a reflection of the overall condition and imperilment of the species through its global and State range, respectively. Global rank is assigned by NatureServe. State rank is assigned by California heritage biologists.
[d] California Native Plant Society, Inventory of Rare and Endangered Plants, http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Search?search=, Last accessed March 28, 2013.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
Invertebrates				
Monarch butterfly *Danaus plexippus*[1,3]	- -/- - - -/- -	Global: Imperiled State: Vulnerable	Population in very good condition and fairly large for this taxon AND habitat in reasonably good condition. Some disturbances may exist, but none so severe as to seriously impair species' ability to persist over at least the next 25 years.	Herbaceous wetland, scrub-shrub wetland, cropland/hedgerow, forest (conifer), grassland/herbaceous habitat, old field, sand/dune, savanna, shrubland/chaparral, suburban/orchard habitat, and woodland (conifer, hardwood, and mixed).
Vernal pool tadpole shrimp *Lepidurus packardi*[2,3,4]	FE/- - - -/- -	Global: Apparently secure State: Imperiled or vulnerable	Potentially suitable habitat in Areas 2 and 4. Known to occur on the Warm Springs unit of the San Francisco Bay NWR, and introduced into created vernal pools at Pacific Commons Preserve immediately adjacent to the site, east of the Stevenson Boulevard, crossing of the Southern Pacific railroad tracks. Surveys did not detect any evidence; determined to be absent.	Vernal pools and swales containing clear to highly turbid water.
Fishes				
Fall Run chinook salmon – Central Valley ESU *Oncorhynchus tshawytscha*[2,4]	- -/SSC - -/SSC	Global: Secure species, imperiled subspecies State: Imperiled species (inexact rank)	May occur in Mowry Slough.	Cool rivers and large streams that reach the ocean and have shallow, partly shaded pools, riffles, and runs.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
Green sturgeon – Southern DPS *Acipenser medirostris* [2,4]	FT/- - - -/SSC	Global: Vulnerable State: Critically imperiled or imperiled	Occur in the South Bay very rarely as a nonbreeding visitor. May occur in lower Mowry Slough. Unlikely to occur on or immediately adjacent to Areas 3 and 4 due to lack of spawning habitat upstream, the shallow/narrow nature of channels, and low water quality.	Known to occur in nearshore oceanic water, bays, and estuaries.
Longfin smelt *Spirinchus thaleichthys* [2,4]	FPE/CCE - -/SCC	Global: Secure State: Critically imperiled	Unlikely to occur due to lack of suitable spawning habitat, shallow/narrow nature of channels, and low water quality. Not known to occur in Mowry Slough, though occurrence cannot be ruled out.	Spawning occurs in fresh or slightly brackish water.
Steelhead – Central California Coast *Oncorhynchus mykiss*[2,3,4]	FT/- - - -/- -	Global: Secure species, imperiled subspecies State: Imperiled	Unlikely to occur, but may occur in Mowry Slough.	Cool streams with suitable spawning habitat and conditions allowing migration.
Amphibians				
California tiger salamander *Ambystoma californiense*[2,3,4]	FT/CT - -/SSC	Global: Imperiled or vulnerable State: Imperiled or vulnerable	Possible occurrence in Areas 2, 3, and 4. Potentially suitable habitat is present in a few seasonal wetland pools in southeastern corner of Areas 3 and 4, but most seasonal pools are too saline. Protocol-level larval surveys conducted in suitable habitat in Areas 3 and 4 did not detect any California tiger salamanders.	Vernal or temporary pools in annual grasslands or open woodlands.
California red-legged frog *Rana draytonii*[2,3,4]	FT/- - - -/SSC	Global: Imperiled or vulnerable State: Imperiled or vulnerable	Unlikely to occur due to marginal habitat present in Areas 2, 3, and 4. Determined to be absent in Areas 3 and 4 due to lack of a hydrological connection to known populations, distance to nearest record, and long history of ground disturbance from on-site farming.	Streams, freshwater pools, and ponds with emergent or overhanging vegetation.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
Reptiles				
Alameda whipsnake *Masticophis lateralis euryxanthus*[1,3]	FT/CT - -/ - -	Global: Apparently secure species, imperiled subspecies State: Imperiled	The occurrence of the Alameda whipsnake is considered to be sensitive, and therefore all location-specific data is restricted. In some areas in the northeast of Newark, population large and healthy for this taxon AND habitat in excellent condition. Habitat may show some minor disturbances. Population expected to be viable at this site for over 50 years, assuming nothing changes. In other areas in the northeast of Newark, population in very good condition and fairly large for this taxon AND habitat in reasonably good condition. Some disturbances may exist, but none so severe as to seriously impair species' ability to persist over at least the next 25 years.	Riparian habitat, grassland/herbaceous habitat, shrubland/chaparral, and woodland (hardwood and mixed).
San Francisco garter snake *Thamnophis sirtalis tetrataenia*[3]	FE/CE CP/- -	Global: Secure species, imperiled subspecies State: Imperiled	Possible occurrence in the city of Palo Alto.	Riparian habitat, herbaceous habitat, grassland/herbaceous, savanna, shrubland/chaparral, and woodland (hardwood).
Birds				
Alameda song sparrow *Melospiza melodia pusillula*[1,2,3,4]	- -/- - - -/SSC	Global: Secure species, imperiled subspecies State: Imperiled	At the northwestern edge of the city limit near Marshlands Road, population in very good condition and fairly large for this taxon AND habitat in reasonably good condition. Some disturbances may exist, but none so severe as to seriously impair species' ability to persist	Nests in salt marsh, primarily in marsh gumplant and cordgrass along channels.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
			over at least the next 25 years. May be present in Mowry Slough and in Area 4. Likely nests along the reach of Mowry Slough adjacent to Areas 3 and 4 and may nest in the diked salt marsh habitat in Area 4. The racial identity of breeding song sparrows is unknown.	
American peregrine falcon *Falco peregrinus anatum*[2,4]	- - /CE SP/- -	Global: Apparently secure State: Imperiled	May forage in Area 2. Occasionally forages in Areas 3 and 4, but does not nest in the vicinity. Potential nest sites for future use may occur on power line towers on or adjacent to Areas 3 and 4.	Forages in many habitats. Requires cliffs for nesting.
American white pelican *Pelecanus erythrorhnchos*[2,4]	- -/ - - - -/SSC	Global: Apparently secure State: Critically imperiled	May occur in or adjacent to Area 4. Due to the abundance of higher-quality foraging habitat in other areas in the South Bay, there is a low probability of occurrence in Area 4. Not observed in Area 4.	Forages on fish found in freshwater lakes and rivers. Nests on islands in lakes.
Bank swallow *Riparia riparia*[2,3,4]	- -/CT - -/- -	Global: Secure State: Imperiled or vulnerable	May occur in Areas 2, 3, and 4. May occur as a rare forager during migration, but not regularly or for long duration. No suitable nesting habitat in or near Areas 3 and 4. Not observed in Areas 3 and 4.	Colonial nester on vertical banks or cliffs with fine-textured soils near water.
Black tern *Chlidonias niger*[2,4]	- -/- - - -/SSC	Global: Apparently secure State: Imperiled	May visit aquatic habitat in Area 4. Potential visitor to wetlands in Area 4 in fall. Does not nest in Area 4 and not observed in Area 4.	Nests in freshwater marshes, foragers over marshes, ponds, lakes, and moist meadows.
Bryant's savannah sparrow *Passerculus sandwichensis alaudinus*[2,4]	- -/- - - -/SSC	Global: Secure species, imperiled subspecies State: Imperiled or vulnerable	Nests and forages in the diked and muted salt marsh in Area 4. May attempt nesting in agricultural fields in Area 4, but such attempts typically unsuccessful because mowing occurs before young fledge.	Nests in pickleweed dominant salt marsh and adjacent ruderal habitat.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
Burrowing owl *Athene cunicularia*[1,2]	- -/- - - -/SSC	Global: Apparently secure State: Imperiled	In the eastern area of Newark, near Cherry Street, population in very good condition and fairly large for this taxon AND habitat in reasonably good condition. Some disturbances may exist, but none so severe as to seriously impair species' ability to persist over at least the next 25 years. In the northern area of Newark, occurrence is no longer at this site. May be present in Areas 2, 3, and 4 as well as other urbanized sites. Several pairs known in nest in ruderal habitat, primarily along levees and along railroad tracks, in Areas 3 and 4. Expected to forage in a variety of habitats in Areas 3 and 4.	Desert, grassland/herbaceous, and savanna. Species burrows in or uses soil.
California black rail *Laterallus jamaicensis coturniculus*[2,3]	- -/CT SP/- -	Global: Apparently secure species, critically imperiled subspecies State: Critically imperiled	May be present along Mowry Slough.	Breeds in fresh, brackish, and tidal salt marsh.
California brown pelican *Pelecanus occidentalis californicus* [2,4]	- -/- - SP/- -	Global: Apparently secure species, vulnerable subspecies State: Critically imperiled or imperiled	No suitable habitat on any housing site evaluated in the Housing Element EIR. Determined to be absent in Areas 3 and 4.	Nests on islands without mammalian predators. Roosts in river mouths with sand bars, jetties, and breakwater along San Francisco Bay. Feeds on fish.
California clapper rail *Rallus longirostris obsoletus*[1,2,3,4]	FE/CE SP/- -	Global: Secure species, critically imperiled subspecies State: Critically imperiled	Population large and healthy for this taxon AND habitat in excellent condition. Habitat may show some minor disturbances. Population expected to be viable for over 50 years, assuming nothing changes. Marginal habitat within Mowry Slough	Salt marsh habitat dominated by common pickleweed and cordgrass. Herbaceous wetland.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
			adjacent to Area 4. May be present along Mowry Slough. Not observed in Area 4, and not expected to occur in or adjacent to Area 4.	
California least tern *Sterna antillarum brownii*[2,3,4]	FE/CE SP/- -	Global: Apparently secure species, imperiled subspecies State: Imperiled or vulnerable	May be present in Area 4 and along Mowry Slough. Occurrence is unlikely due to the availability of higher-quality foraging habitat closer to the Bay and lack of records from similar habitats in the South Bay. No nesting habitat exists in Area 4, and California least tern has not been observed on site.	Nests along the coast on bare or sparsely vegetated, flat substrates.
Golden eagle *Aquila chrysaetos*[2]	- - /- - SP/- -	Global: Secure State: Vulnerable	May forage in or near Areas 2 and 4.	Arctic, alpine, desert, grassland/herbaceous, savanna, tundra, sparse woodland (conifer, hardwood, and mixed), and barren areas.
Grasshopper sparrow *Ammodramus savannarum*[2,4]	- - /- - - -/SSC	Global: Secure State: Imperiled	No nesting habitat present, although migrating birds may be present. Not observed in Areas 3 or 4.	Nests in moderately open grasslands with scattered shrubs.
Great blue heron *Ardea herodias*[3]	- - /- - - -/- -	Global: Secure State: Apparently secure	May be present near Quarry Lakes Regional Recreation Area. No nesting habitat present in Newark.	Nests in trees near marshes, lakes, rivers, bays, lagoons, or shorelines.
Loggerhead shrike *Lanius ludovicianus*[2,4]	- - /- - - -/SSC	Global: Apparently secure State: Apparently secure	May be present in Areas 2, 3, and 4. Suitable nesting and foraging habitat for several pairs in Areas 3 and 4. Observed in Area 4.	Nests in tall shrubs and dense trees, forages in grasslands, marshes, and ruderal habitats.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
Northern harrier *Circus cyaneus*[2,3,4]	- - /- - - -/SSC	Global: Secure State: Vulnerable	May occur in Areas 2 and 4. Wetland vegetation in area 4, particularly in the diked salt marsh, provides suitable nesting habitat, and one or two pairs could potentially nest along Mowry Slough, but likely to occur primarily as a forager during winter and migration.	Nests in marshes and moist fields, forages over open areas.
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*[3]	- -/- - - -/SSC	Global: Secure species, imperiled subspecies State: Imperiled	Along Coyote Hills Slough, north of Newark and along Newark Slough, approximately two miles from the Dumbarton TOD Plan Focus Area.	Swamps, marshes, and thick herbaceous vegetation,
San Francisco common yellowthreat *Geothlypis trichas sinuosa*[2,4]	- -/- - - -/SSC	Global: Secure species, imperiled subspecies State: Data unavailable	May be present in Areas 2, 3, and 4. Nests in dense vegetation in wetlands in Area 4, and possibly in the stormwater wetland in the southeastern corner of Area 3.	Nests in tall, emergent, herbaceous wetlands.
Snowy egret *Egretta thula*[3]	- -/- - - -/- -	Global: Secure State: Apparently secure	May be present in Charleston Slough.	Swamps, marshes, shorelines, lakes, ponds, and lagoons.
Tricolored blackbird *Agelaius tricolor*[2,3,4]	- -/- - - -/SSC	Global: Imperiled or vulnerable State: Imperiled	May be present in Areas 2, 3, and 4. Dense cattails and bulrushes in the diked salt marsh in Area 4, and possibly the southeastern corner of Area 3, provide potential nesting habitat. Species has not been recorded nesting in or near Areas 3 and 4. Species observed foraging in Areas 3 or 4.	Nests near freshwater in dense emergent vegetation.
Vaux's swift *Chaetura vauxi*[2,4]	- -/- - - -/SSC	Global: Secure State: Vulnerable	Occasional migrant, possible nesting.	Nests in north coast or montane forests.
Western burrowing owl *Athene cunicularia hypugaea*[3]	- -/- - - -/SSC	Global: Apparently secure State: Unranked	No known occurrence in the vicinity of Newark.	Open grassland like prairie, plains, and savanna, or vacant lots and man-made structures.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
Western snowy plover *Charadrius alexandrinus nivosus*[1,2,3,4]	FT/- - - -/SSC	Global: Apparently secure species, vulnerable subspecies State: Imperiled	Marginal habitat in wetland areas. Marginal foraging habitat is on flats in the diked salt marsh, around the aquatic habitat within the diked salt marsh, and in seasonably moist areas within the more saline agricultural fields in the southern portion of Area 4. Due to the limited and marginal nature of the foraging habitat within Area 4, as well as the abundance of much higher-quality habitat in salt ponds in the South Bay, snowy plovers are expected to occur in Area 4 rarely, if at all, and are not expected to nest in Area 4. Snowy plovers have not been observed in Area 4.	Sandy beaches on marine and estuarine shores. Tidal flat/shore, riparian habitat, playa/salt flat and sand/dune.
white-tailed kite *Elanus leucurus*[1,2,3]	- -/- - SP/- -	Global: Secure State: Vulnerable	May be present in Areas 2, 3, and 4.	Herbaceous wetland, riparian habitat, cropland/hedgerow, grassland/herbaceous habitat, savanna, and woodland (hardwood).
Willow flycatcher *Empidonax traillii*[2,4]	FE/CE - -/ - -	Global: Secure State: Imperiled or vulnerable	May forage in Areas 3 and 4, but no individuals are expected to occur. Determined to be absent.	Breeds locally in riparian habitats in Central Valley and mountains.
Yellow-breasted chat *Icteria virens*[2,4]	- -/- - - -/SSC	Global: Secure State: Vulnerable	No suitable habitat present. Determined to be absent in Areas 3 and 4.	Nests in riparian habitat, primarily that dominated by willows with a dense shrub understory.
Yellow warbler *Dendroica petechia*[2,4]	- -/ - - - -/SSC	Global: Secure State: Unranked	Unsuitable habitat for presence. Forages in Areas 3 and 4 during migration.	Nests in riparian woodland.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
Mammals				
American badger *Taxidea taxus*[2,4]	- -/- - - -/SSC	Global: Secure State: Apparently secure	No suitable habitat on any of the sites evaluated in the Housing Element EIR. Determined to be absent in Areas 3 and 4.	Burrows in grasslands.
Pacific Harbor seal *Phoca vitulina richardii* [2]	- -/- - - -/ - -	Global: Secure State: N/A	May be present in Mowry Slough, approximately four miles from Area 4.	Shallow areas of bay, lagoon, river mouth, tidal river, and tidal shore.
Pallid bat *Antrozous pallidus*[2,4]	- -/- - - -/SSC	Global: Secure State: Vulnerable	Marginal breeding habitat on sites and low probability of occurrence. Marginal breeding habitat exists in structure on and adjacent to Areas 3 or 4. Low probability of occurrence. Not observed in Areas 3 or 4.	Forages over many habitats. Requires caves for roosting.
Salt-marsh harvest mouse *Reithrodontomys raviventris*[1,2,3,4]	FE/CE SP/ - -	Global: Critically imperiled species, imperiled subspecies State: Critically imperiled species, imperiled subspecies	In some areas in the northwest of Newark, population large and healthy for this taxon AND habitat in excellent condition. Habitat may show some minor disturbances. Population expected to be viable for over 50 years, assuming nothing changes. In other areas in the northwest of Newark, population in very good condition and fairly large for this taxon AND habitat in reasonably good condition. Some disturbances may exist, but none so severe as to seriously impair species' ability to persist over at least the next 25 years. May occur in Areas 2 and 4 near wetlands. In southern areas of Newark, inadequate information exists to rank the occurrence.	Salt marsh habitat dominated by common pickleweed. Herbaceous wetland and tidal flat/shore.

TABLE 4.3-2 SPECIAL-STATUS ANIMAL SPECIES IN THE NEWARK VICINITY

Species[a]	Status[b] (Federal/State Endangered/ Threatened State Protected/ Species of Special Concern)[c]	Rarity, Threat, and Trend Factors (Global and State)[d]	Potential for Occurrence	Habitat[b]
Salt-marsh wandering shrew *Sorex vagrans halicoetes*[1,2,3,4]	- -/- - - -/SSC	Global: Secure species, critically imperiled subspecies State: Critically imperiled	Pickleweed-dominated habitats in Area 4 provide potential habitat. May be in diked and muted salt marsh in Area 4. Not recorded in Area 4.	Medium high marsh 6 to 8 feet above sea level with abundant driftwood and common pickleweed.
Townsend's big-eared bat *Corynorhinus townsendii*[2,4]	- -/- - - -/SSC	Global: Apparently secure State: Imperiled or vulnerable	No suitable roosting habitat. Determined to be absent in Areas 3 and 4.	Roosts in caves and mine tunnels in a variety of habitats.
Western red bat *Lasiurus blossevilli*[2,4]	- -/- - - -/SSC	Global: Secure State: Vulnerable	May be present in Areas 2 and 4 but does not breed in the area. May occur in low numbers as an occasional forager during migration and in winter, possibly roosting in eucalyptus trees in Area 4.	Roosts in forest or woodlands, especially in or near riparian habitat.
Yuma myotis *Myotis yumanensis* [2]	- -/- - - -/ - -	Global: Secure State: Apparently secure	Suitable roosting habitat in Area 4.	Upland and lowland habitats near open water, including riparian, desert scrub, woodlands, and forests. Roosts in buildings, caves, mines, cliffs, and bridges.

[a] Footnote after each scientific name indicates source of occurrence information; multiple footnotes indicate multiple sources:
[1] California Natural Diversity Database, 2012.
[2] City of Newark, 2009, Housing Element Update & General Plan Amendments/Zoning Ordinance Amendments Draft Program EIR, pages 39 through 41.
[3] City of Newark, 2011, Dumbarton Transit Oriented Development Specific Plan Draft EIR, pages 3-16 through 4.3-23.
[4] City of Newark, Newark Areas 3 and 4 Specific Plan Project Draft EIR, December 2009, pages 125 through 130.
[b] California Natural Diversity Database, 2012; and City of Newark, Newark Areas 3 and 4 Specific Plan Project Draft EIR, December 2009, pages 125 through 130.
[c] Status explanations:
FE = Listed as endangered by the federal government
FPE = Proposed for listing as endangered by the federal government
FT = Listed as threatened by the federal government
CE = Listed as endangered by the State of California
CCE = Candidate for listing as endangered by the State of California
CT = Listed as threatened by the State of California
SSC = Listed as a Species of Special Concern by the State of California
CP = Listed as a Fully Protected species by the State of California
[d] Global and State ranks are a reflection of the overall condition and imperilment of the species through its global and State range, respectively. Global rank is assigned by NatureServe. State rank is assigned by California heritage biologists. NatureServe Explorer, http://www.natureserve.org/explorer/servlet/NatureServe, accessed March 25, 2013. CNDDB, 2013, http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf.

Plant Species

As shown in Table 4.3-1 and Figure 4.3-3, 34 special-status plant species are known or suspected to occur in Newark. Some of these species are listed as endangered or threatened by the federal government or State of California. Such species include California seablite (*Suaeda californica*), Contra Costa goldfields (*Lasthenia conjugens*), fountain thistle (*Cirsium fontinale var.fontinale*), Marin western flax (*Hesperolinon congestum),* San Mateo thorn-mint (*Acanthomintha duttonii ssp. Duttonii*), and Santa Cruz tarplant (*Holocarpha macradenia*).

The likelihood of most of these species occurring in Newark is low or is not able to be determined, as described in Table 4.3-1. A small or non-viable population of Congdon's tarplant is documented near Willow Street that is not expected to remain for another five years.

Animal Species

As shown in Table 4.3-2 and Figure 4.3-4, there are 47 special-status wildlife species that could be potentially found in the vicinity of Newark. Half of the special-status species known or expected to occur in Newark are birds. Some of these species are listed as endangered or threatened by the federal government or State of California. Such species include Vernal pool tadpole shrimp (*Lepidurus packardi*), green sturgeon – Southern DPS, (*Acipenser medirostris),* longfin smelt (*Spirinchus thaleichthys),* steelhead – Central California Coast (*Oncorhynchus mykiss),* California tiger salamander (*Ambystoma californiense),* California red-legged frog (*Rana draytonii),* Alameda whipsnake (*Masticophis lateralis euryxanthus*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia),* American peregrine falcon (*Falco peregrinus anatum),* bank swallow *(Riparia riparia),* California black rail *(Laterallus jamaicensis coturniculus),* California brown pelican *(Pelecanus occidentalis californicus),* California clapper rail (*Rallus longirostris obsoletus*), California least tern *(Sterna antillarum brownie),* western snowy plover (*Charadrius alexandrinus nivosus*), salt-marsh harvest mouse (*Reithrodontomys raviventris*), and Willow Flycatcher (*Empidonax traillii).* All species listed in Table 4.3-2 are considered to be imperiled or vulnerable through the global or State range, or both.

Sensitive Natural Communities

As shown in Figure 4.3-2, the only natural community mapped by the CNDDB in Newark is the Northern Coastal Salt Marsh, which is considered a sensitive natural community.[27]

Wildlife Corridors

Potential development areas located within the urbanized portion of Newark are typically surrounded by adjacent buildings, fencing, flood control channels, major roadways, or other similar improvements. All of these improvements substantially block land-based wildlife migration corridors.

[27] Steve Rottenborn, H.T. Harvey & Associates, email communication with The Planning Center | DC&E, April 4, 2013.

4.3.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would result in a significant cultural resources impact if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game, or U.S. Fish and Wildlife Service;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service;
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
5. Conflict with any local policies or ordinances protecting biological resources; or
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

4.3.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to biological resources. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

BIO-1	Buildout of the proposed Plan would result in less-than-significant impacts to special-status plant and animal species in the Plan Area.

In general, the urbanized portions of the Plan Area are considered to have low habitat value for biological resources, given the urbanized context of the Plan Area and the extent of existing development in Newark. However, while buildout of the proposed Plan would primarily take the form of redevelopment of previously developed sites in urbanized areas of the city, future development under the Plan could potentially result in impacts on special-status plant and animal species known or suspected to occur within the Plan Area. Direct impacts could result if buildout of the Plan would cause the direct loss of individuals or localized populations, the elimination or degradation of essential habitat, or the isolation of subpopulations due to habitat fragmentation. Additionally, the conversion of existing natural habitat to urban development and infrastructure improvements could result in the elimination of populations of special-status species where present within the limits of proposed grading and development. Indirect impacts could result if buildout of the Plan causes disruption of critical functions affecting reproductive success, degradation of habitat quality to such an extent that occupied habitat is no longer suitable for individual survival, and other influences.

Figure 4.3-3 shows the locations within the Plan Area where special status plant species are known or suspected to occur, based on CNDDB records. As shown, San Joaquin spearscale, Contra Costa goldfields, and alkali milk-vetch are known or suspected to occur in and adjacent to the Old Town Focus Area and the Dumbarton TOD Focus Area; salino clover, and Congdon's tarplant are known or suspected to occur in and adjacent to the Dumbarton TOD Focus Area; and there is a Northern Coastal Salt Marsh community adjacent to the western portion of the Southwest Newark Residential and Recreational Focus Area (formerly known as Area 4).

Figure 4.3-4 shows the locations within the Plan Area where special status animal species are known or suspected to oocur, based on CNDDB records. As shown, burrowing owl, salt-marsh harvest mouse, western snowy plover, Alameda song sparrow, and Alameda whipsnake are known or suspected to occur in urbanized portions of the Plan Area where development and redevelopment under the Plan would occur. Additionally, according to the Area 3 and 4 Specific Plan EIR, the American Peregrine Falcon (a State endangered and State Protected species) occasionally forages in the western portion of the Southwest Newark Residential and Recreational Focus Area (Area 4); the Golden Eagle (a State Protected species) may forage near Area 4; the Loggerhead Shrike and Tricolored blackbird (Species of Special Concern) have been observed in Area 4; the San Francisco Common Yellowthroat (a Species of Special Concern) nests in Area 4; and the white-tailed kite (a State Protected species) and Western Red Bat (a Species of Special Concern) may be present in Area 4.

CNDDB records are an important source of information about the location of special-status plant and animal species; however, the records are not in and of themselves sufficient for determining the extent to which future development and land use activities in the Plan Area could affect special-status species if they are present within the limits of grading and development. In most instances, surveys and further detailed assessment would be necessary to confirm presence or absence o\f special-status species occurrences on development sites within the city.

The federal, State, and local regulations described in Section 4.3.1.1 of this chapter would protect special-status species present or potentially present within the Plan Area and compliance with these regulations would minimize potential impacts. The federal and California Endangered Species Acts, Migratory Bird Treaty Act, Fish and Game Code, and California Native Plant Protect Act all serve to prevent the potential "take" of State, federally, or CNPS (1B) listed plant species may occur, which could require additional mitigation and possibly authorization from the USFWS, CDFW, and NOAA Fisheries.

Additionally, previous environmental review conducted for the Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, and the 2009-2014 Housing Element identified the following mitigation measures to address potential impacts to special-status plant and animal species. The Dumbarton TOD EIR identifies Impacts 4.3-1 through 4.3-5 associated with impacts to the salt marsh harvest mouse, nesting raptors, the western burrowing owl, the tricolored blackbird, saltmarsh common yellowthroat, and other nesting passerine birds, as well as special-status plant species. These impacts would be mitigated to less-than-significant levels through the implementation of various assessment, survey, avoidance, buffer, preservation, and protection, and replacement measures specified in Mitigation Measures 4.3-1 and 4.3-5 from the Dumbarton TOD Specific Plan EIR.

The Area 3 and 4 Specific Plan EIR identifies Impacts BIO-1 through BIO-11 associated with impacts to wetland/marsh/aquatic habitat, wetland habitat, salt marsh habitat, burrowing owl, peregrine falcons, tricolored blackbirds, pallid bats, Yuma myotis bats, salt marsh harvest mouse, salt marsh wandering shrew, and foraging and

roosting waterbirds, as well as impacts to other sensitive habitats and species due to the spread of non-native, invasive plant species. These impacts would be mitigated to less-than-significant levels through the implementation of various planning, replacement, pest management, site design, survey, avoidance, buffer, monitoring, preservation, and protection measures specified in Mitigation Measures BIO-1 through BIO-11.2 from the Area 3 and 4 Specific Plan EIR.

The 2009-2014 Housing Element EIR identifies Impact 4.3-1, Impacts to Protected Plant and Animal Species and Habitats. This impact would be mitigated to a less-than-significant level with the implementation of Mitigation Measure 4.3-1, which requires that site-specific biological assessments be undertaken in the western portion of the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area. In addition, the mitigation measure requires preconstruction surveys in the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area for burrowing owl. These assessments and surveys would identify locations of special-status plants, wildlife, and suitable habitats, and require avoidance or relocation measures.

Further, the proposed Plan includes policies and actions that would also protect special-status species and minimize impacts associated with future development under the Plan. These proposed policies and actions include:

- Policy CS-1.1: Environmental Impacts of Development. Ensure that development minimizes its impacts on Newark's environment and natural resources through sound planning, design, and management.
- Policy CS-1.2: Conservation of Sensitive Areas. Support the conservation of environmentally sensitive areas and unique natural resources in the city.
- Policy CS-1.3: Interagency Cooperation. Participate in cooperative efforts with private landowners, the federal government, and surrounding cities to encourage the long-term preservation of the baylands and other sensitive natural areas.
- Policy CS-2.1: Wildlife and Habitat Protection. Preserve and protect Newark's plant and animal species and habitats, including wetlands, salt marshes, creeks, and lakes. Ensure that land use decisions consider potential impacts on wildlife habitat.
- Policy CS-2.2: Special Status Species. Ensure that adverse impacts on special status species, including those deemed rare, threatened, endangered, or candidate species for protection, are avoided and mitigated to the greatest extent feasible as development takes place.
- Policy CS-2.3: Don Edwards National Wildlife Refuge. Preserve and maintain the Don Edwards National Wildlife Refuge and the surrounding wetlands along San Francisco Bay.
- Policy CS-2.5: Development Near Wetlands. Manage land use and development on upland sites in a manner that minimizes off-site impacts to nearby wetlands.
- Policy CS-2.7: Coordination with State and Federal Agencies. Coordinate with the California Department of Fish and Game, the US Fish and Wildlife Service, surrounding cities, the Regional Water Quality Control Board and other appropriate agencies to protect wildlife species and habitat.
- Action CS1.A: Development Review. Use the development review and CEQA processes to ensure that sensitive natural areas are set aside as open space and are managed to ensure their long-term conservation.

- Action CS-2.C: Impacts on Special Status Species. Undertake a series of measures, as annotated in the text below, to address the potential impacts of proposed development in areas where special status plant and animal species may occur.

  Mitigation measures for proposed development in areas where special status plant and animal species may be present shall include:

  (1) Preparation and submittal of focused habitat assessments conducted by a qualified biologist to the Newark Community Development Department to determine the potential for special status plant and/or animal species to occur within or adjacent to the proposed development project area.

  (2) Preconstruction surveys by a qualified biologist for each special status species that is known to occur or has a potential to occur within or adjacent to the proposed development project area, as required by the California Endangered Species Act and the Federal Endangered Species Act.

  (3) As appropriate based on the results of the preconstruction surveys, construction limits shall be clearly flagged as directed by the biologist to ensure that impacts to sensitive biological resources are avoided or minimized to the extent feasible.

  (4) As appropriate based on the results of the preconstruction surveys and biological resources assessment, the City shall require:

  a) Development and implementation of contractor training to educate project contractors on the sensitive biological resources within and adjacent to the project site and the measures being implemented to avoid and minimize impacts

  b) That a qualified biological monitor be present during a portion or all of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible;

  c) That project applicants obtain written authorization from the U.S. Fish and Wildlife Service that the grading or construction activity complies with regulations on the "take" of the listed species,

  d) That any mitigation requirements set forth by such agencies be incorporated into the project's final design plans.

Applicable federal, State, and local regulations, together with proposed Plan policies and actions listed above would reduce potential impacts to special-status species that could result from buildout of the Plan, compliance, and implementation to the maximum extent practicable. Subsequent projects under the proposed Plan that would involve development in areas where special status plant and animal species may occur would be subject to separate project-level environmental review pursuant to CEQA in order to identify and mitigate impacts to special-status species. Therefore, impacts from the proposed Plan would be less-than-significant..

Applicable Regulations:

- Federal Endangered Species Act
- Migratory Bird Treaty Act
- California Endangered Species Act
- California Fish and Game Code
- California Native Plant Protection Act

Significance Before Mitigation: Less than significant.

BIO-2	Buildout of the proposed Plan would result in less-than-significant impacts to wetlands, riparian habitat, and sensitive natural communities in the Plan Area.

Lacustrine, saline emergent wetlands, and fresh emergent wetlands, such as that occurring in Newark as shown in Figure 4.3-3, have the potential to contain riparian habitat. Additionally, Northern Coastal Salt Marsh is considered a sensitive natural community. The proposed Plan would have a significant impact if it would result in a substantial adverse impact on riparian habitat or Northern Coastal Salt Marsh.

Impacts to riparian habitats and sensitive natural communities include both direct and indirect impacts that may occur. Direct impacts occur as a result of converting natural resources to developed properties, including the additional of impervious surfaces or hydrologic alterations. Habitat loss and degradation of existing habitat are direct impacts. Direct impacts may also be temporary impacts if they disturb a habitat that is subsequently restored after construction. An indirect impact is a physical change in the environment, which is not immediately related to, but is caused by the project. For example, if development results in reducing the sizes of remaining habitats, the values and functions of that habitat would be reduced and indirect impacts would occur. Increased stormwater runoff could potentially contribute to the conversion of salt marsh habitat to brackish or freshwater habitat, affecting special status species, including the California clapper rails, California black rails, salt marsh harvest mice, harbor seals, several special-status fish, and others. Special status plant species could also be affected.

Previous environmental review for the Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, and the 2009-2014 Housing Element identified impacts to riparian habitat and sensitive natural communities in the Dumbarton TOD Focus Area and in the Southwest Newark Residential and Recreational Focus Area, including mitigation measures to address those impacts.

The Housing Element EIR determined that future development on housing opportunity sites along the western perimeter of the city to accommodate housing development and related improvements could fill all or a portion of existing wetland, marshland, and/or waters of the U.S. and/or waters of the State. Mitigation Measure 4.3-2, included in the Housing Element EIR and requiring avoidance of wetlands or, where avoidance is not feasible, site-specific wetlands creation and enhancement programs, was determined reduce the impacts to a less-than-significant level. The Dumbarton TOD EIR identifies Impact 4.3-6 associated with potential impacts to wetlands and waters of the United States. This impact would be mitigated to a less-than-significant level with the implementation of Mitigation Measure 4.3-6, which requires a wetland delineation to be conducted. Under Mitigation Measure 4.3-6, wetland plant and animal populations shall be relocated from any impacted wetlands.

The Areas 3 and 4 Specific Plan EIR identifies Impacts BIO-1 associated with impacts to riparian habitat. This impact would be mitigated to a less-than-significant level with the implementation of Mitigation Measures BIO-1.1 through BIO-1.2B, which require wetland and habitat avoidance to the maximum extent feasible and either on-site wetland creation (at a ratio of 1:1) and enhancement (at a ratio of 0.5:1) or off-site mitigation banking at a ratio of 1.5:1. Additionally, Impact BIO-2, related to substantial adverse impacts on wetlands and associated species due to altered hydrology, and Impact BIO-3, regarding significant impacts to marsh habitat and associated special-status species due to an increase in freshwater flows, would be mitigated to less-than-significant levels with the

implementation of mitigation measures MM BIO-2.1 through 2.5 from the Area 3 and 4 Specific Plan EIR. Further, Impact BIO-10, regarding indirect impacts to waterbirds associated with the loss of wetlands, would be mitigated to less-than-significant levels with the implementation of Mitigation Measure BIO-10.1, requiring a mitigation plan for creation or enhancement of replacement wetlands.

Previous environmental review has determined that impacts to wetlands, riparian habitat, and sensitive natural communities in the Dumbarton TOD Focus Area and in the Southwest Newark Residential and Recreational Focus Area could be mitigated to less-than-significant levels with the implementation of the mitigation measures described above. The proposed Plan would incorporate the development envisioned in the Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, and the 2009-2014 Housing Element and would not include any additional development in the Dumbarton TOD Focus Area or the Southwest Newark Residential and Recreational Focus Area over and above that which has already been analyzed in previous EIRs. As such, the implementation of the proposed Plan would not result in significant, new environmental impacts to wetlands, riparian habitat, and sensitive natural communities in the Dumbarton TOD Focus Area or the Southwest Newark Residential and Recreational Focus Area.

Additionally, the following goal, policies, and actions from the proposed Plan would also protect wetlands, riparian resources, and sensitive natural communities in the Plan Area:

- Policy CS-1.1: Environmental Impacts of Development. Ensure that development minimizes its impacts on Newark's environment and natural resources through sound planning, design, and management.
- Action CS1.A: Development Review. Use the development review and CEQA processes to ensure that sensitive natural areas are set aside as open space and are managed to ensure their long-term conservation.
- Goal CS-2: Conserve Newark's wetlands and baylands.
- Policy CS-1: Wildlife and Habitat Protection. Preserve and protect Newark's plant and animal species and habitats, including wetlands, salt marshes, creeks, and lakes. Ensure that land use decisions consider potential impacts on wildlife habitat.
- Policy CS-4: Wetlands Delineation. Encourage the owners of large potentially developable properties to enter into early discussions with appropriate agencies conduct wetland delineation studies. Such studies should be used to identify areas to be conserved as permanent open space, as well as appropriate mitigation measures to offset any wetland impacts.
- Action CS2.B: Wetlands Restoration in New Development Areas. Work with the developers of Newark's remaining large development sites, including Dumbarton TOD and the Southwest Newark Residential and Recreational Project (Areas 3 and 4), on efforts to restore and/or re-vegetate natural habitat areas.
- Action CS2.C: Review of Wetland Impacts. Ensure that potential wetland impacts are considered during environmental review and prescribe mitigation measures as necessary to avoid or offset such impacts.
- Policy CS-3.4: Reducing Water Pollution. Protect the quality of Newark's surface waters by supporting controls on point source and non-point sources of pollution.

- Policy CS-3.5: Containment of Contaminated Runoff. Regulate land uses such as auto dismantling, waste disposal, gas stations, and industries in a manner that minimizes the potential for hazardous materials to enter groundwater, surface water, or storm drains.
- Policy CS-3.6: Abating Illegal Dumping. Prohibit and abate the dumping of debris and refuse in and near wetlands and waterways, and the illicit discharge of pollutants into the storm drain system.
- Action CS3.H: Stormwater Controls. Implement stormwater runoff and retention controls in new development and construction projects that reduce pollution discharges to surface waters, and reduce the rate of runoff to storm drain system. Such controls should encourage greater use of pervious pavement and surfaces.
- Action CS T-2.B: Wetland Delineation and Protection. Require wetland delineation studies, authorization from state and regulatory agencies, and the use of Best Management Practices to mitigate potential wetland impacts in any areas where wetlands may exist.

  To reduce the potential for adverse impacts on wetlands, the City shall:

  (1) Require a wetland delineation conducted according to the 1987 USACE Wetland Delineation Manual (U.S. Army Corps of Engineers, 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Coast Region (Corps, 2008) prior to City approval of any specific development proposal. This delineation shall be submitted to the USACE for verification. Once that map is "verified," the full extent of waters of the U.S./State would be known and the extent of impacts on regulated areas ascertained.

  (2) Require authorization from USACE and the RWQCB as necessary and required by these agencies prior to filling any waters of the U.S. or State of California.

  (3) Require the use of Best Management Practices (BMPs) to protect waters of the U.S./State and to ensure that water quality standards are not compromised. These practices can include installing construction fencing buffers, straw waddles to keep fill from entering preserved/avoided wetlands and other waters, and other protective measures; and requiring a biological monitor be on-site during project construction to monitor the integrity of any preserved wetlands and other waters during mass grading or filling of the project site.

  (4) For those wetland areas that are not avoided, require wetlands mitigation approved by the USACE and the RWQCB either:

  (a) through the purchase of mitigation credits from an approved mitigation bank or an approved in-lieu fee mitigation entity at a minimum 1:1 ratio or at a ratio determined by the RWQCB and USACE at the time permits are issued; or

  (b) through the creation of wetlands of an equal or higher functional value than those wetlands affected by the project on-site. If wetlands are restored/ created, adequate compensation shall include creating wetlands at a suitable location that meet the following performance standards:

  1. The wetlands shall remain inundated or saturated for sufficient duration to support a predominance of hydrophytic vegetation.

  2. The wetlands shall exhibit plant species richness comparable to existing wetlands.

3. The wetlands shall replace the lost wetlands at a minimum ratio of one acre created for each acre, or fraction thereof, permanently impacted.

4. The developer shall provide for the protection of the mitigation areas in perpetuity, either through deed restrictions or conservation easements.

5. The developer shall establish a five-year program to monitor the progress of the wetland mitigation toward these standards. At the end of each monitoring year, an annual report shall be submitted to the City, the RWQCB, and the USACE. This report shall document the hydrological and vegetative condition of the mitigation wetlands, and shall recommend remedial measures as necessary to correct deficiencies.

Compliance with applicable federal, State, and local regulations together with implementation of the above-listed mitigation measures and proposed Plan policies and actions would reduce potential impacts to wetlands, riparian habitat, and sensitive natural communities that could result from buildout of the proposed Plan to the maximum extent practicable. Subsequent projects under the proposed Plan that would involve development in areas of wetlands, riparian habitat, and sensitive natural communities would be subject to separate project-level environmental review pursuant to CEQA in order to identify and mitigate impacts. Therefore, impacts from the proposed Plan would be less-than-significant.

Applicable Regulations

- Federal Clean Water Act
- Porter-Cologne Water Quality Control Act

Significance Before Mitigation: Less than significant.

BIO-3	Buildout of the proposed Plan would result in less-than-significant impacts to as-yet undelineated waters of the US in the Plan Area.

Implementation of the proposed Plan would have a significant impact if it would have a substantial adverse effect on federally protected wetlands, including marshlands, through direct removal, filling, hydrological interruption, or other means. Federally protected wetlands are those which have been delineated as jurisdictional waters of the US by the US Army Corps of Engineers (USACE). Pursuant to Section 404 of the Clean Water Act, the USACE maintains a policy of "no net loss" of wetlands and regulates the discharge into waters of the U.S. by requiring project applicants to obtain authorization from the USACE prior to discharging dredged or fill material into any water of the U.S. Where a project would adversely affect waters of the US, the USACE typically requires in-kind mitigation at a ratio of at least 1:1 before they will issue a permit authorizing development.

Figure 4.3-3 shows areas of wetland vegetation in Newark, although it does not depict federally protected wetlands USACE jurisdictional waters. A jurisdiction determination for the land within the Southwest Newark Residential and Recreational Focus Area received from the USACE in October 2007. The USACE determination established approximately 242 acres of wetlands and 34.21 acres of "other waters" for a total of 277 acres. These areas include all aquatic, diked salt marsh, seasonal wetlands, muted tidal saltmarsh, freshwater marsh, brackish marsh, and tidal salt marsh. Jurisdictional determination has also been made for 7.2 acres of wetlands on the Torian property, located within the Dumbarton TOD Focus Area. Additionally, other portions of the Plan Area along the

western perimeter of Newark likely support wetland vegetation, wetland hydrology, and wetland soils and therefore it is likely that there are additional Waters of the US within these areas, although no formal delineation has been made by USACE.

Previous environmental review for the Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, and the 2009-2014 Housing Element identified impacts to Waters of the US in the Dumbarton TOD Focus Area and in the Southwest Newark Residential and Recreational Focus Area and included mitigation measures to address those impacts. The Dumbarton TOD EIR identifies Impact 4.3-6 associated with potential impacts to as-yet-undelineated waters of the US within the Dumbarton TOD Focus Area. It was found that this impact would be mitigated to a less-than-significant level with the implementation of Mitigation Measure 4.3-6, which requires a wetland delineation to be conducted. The 2009-2014 Housing Element EIR similarly included mitigation for potential impacts to waters of the US in the Dumbarton TOD Focus Area. The Housing Element EIR found that impacts to as-yet-undelineated waters of the US would be reduced to a less-than-significant level with the implementation of Mitigation Measure 4.3-2, requiring that development projects avoid and protect existing wetlands, waters of the United States, waters of the State, and similar resources to the maximum extent feasible, or if avoidance is not feasible, that a program be prepared and approved to create and enhance on-site wetlands or create suitable wetland resources off-site.

The Area 3 and 4 Specific Plan EIR concluded that Specific Plan implementation would result in the loss of up to 85.6 acres of wetland/marsh/aquatic habitat in the Southwest Newark Residential and Recreational Focus Area. Most of the seasonal wetlands, aquatic habitats, and muted tidal salt marsh that would be directly filled by the implementation of the Specific Plan were determined to be of poor or marginal quality, primarily due to intensive and ongoing agricultural disturbance and the resulting effects on plant communities and wildlife use. It was determined that implementation of the following measures would reduce associated impacts to a less-than-significant level: Mitigation Measure Bio-1.1 requiring grading plans designed to avoid permanent impacts to wetland and aquatic habitat; Mitigation Measure Bio-1.2A, requiring a detailed mitigation plan shall be developed by a qualified biologist and incorporating a combination of on-site wetland creation and enhancement, and/or acquisition of existing wetlands located off-site; and Mitigation Measure Bio-1.2B, requiring, as an alternative to Measure Bio-1.2A, the acquisition and permanent preservation of existing wetlands at a ratio 1.5:1 (existing habitat: habitat impacted) at an approved wetland mitigation bank or other private lands within 10 air miles of the affected area and along the eastern shore of south San Francisco Bay within the same geographic watershed.

Previous environmental review has determined that impacts to waters of the US in the Dumbarton TOD Focus Area and in the Southwest Newark Residential and Recreational Focus Area could be mitigated to less-than-significant levels with the implementation of the mitigation measures described above. The proposed Plan would incorporate the development envisioned in the Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, and the 2009-2014 Housing Element and would not include any additional development in the Dumbarton TOD Focus Area or the Southwest Newark Residential and Recreational Focus Area over and above that which has already been analyzed in previous EIRs. As such, the implementation of the proposed Plan would not result in significant, new environmental impacts to waters of the US in the Dumbarton TOD Focus Area or the Southwest Newark Residential and Recreational Focus Area.

Additionally, the proposed Plan includes the following goal, policies, and actions that address potential impacts to wetlands, including waters of the US:

- Goal CS-2: Conserve Newark's wetlands and baylands.
- Policy CS-2.3: Don Edwards National Wildlife Refuge. Preserve and maintain the Don Edwards National Wildlife Refuge and the surrounding wetlands along San Francisco Bay.
- Policy CS-2.4: Wetlands Delineation. Encourage the owners of large potentially developable properties to enter into early discussions with appropriate agencies conduct wetland delineation studies. Such studies should be used to identify areas to be conserved as permanent open space, as well as appropriate mitigation measures to offset any wetland impacts.
- Policy CS-2.5: Development Near Wetlands. Manage land use and development on upland sites in a manner that minimizes off-site impacts to nearby wetlands.
- Policy CS-2.8: Location of Mitigation. When off-site mitigation to address wetland impacts is necessary, encourage mitigation to be provided as close as possible to the affected site.
- Action CS2.B: Wetlands Restoration in New Development Areas. Work with the developers of Newark's remaining large development sites, including Dumbarton TOD and the Southwest Newark Residential and Recreational Project (Areas 3 and 4), on efforts to restore and/or re-vegetate natural habitat areas.
- Action CS2.C: Review of Wetland Impacts. Ensure that potential wetland impacts are considered during environmental review and prescribe mitigation measures as necessary to avoid or offset such impacts.
- Action CS.E: Wetland Acquisition and Conservation. Support acquisition of wetlands and other environmentally sensitive areas by land trusts and other environmental organizations for the purpose of mitigation banking and wetlands restoration, provided there are no conflicts with other General Plan goals and objectives.
- Action CS T-2.B: Wetland Delineation and Protection. Require wetland delineation studies, authorization from state and regulatory agencies, and the use of Best Management Practices to mitigate potential wetland impacts in any areas where wetlands may exist.

  To reduce the potential for adverse impacts on wetlands, the City shall:

  (1) Require a wetland delineation conducted according to the 1987 USACE Wetland Delineation Manual (U.S. Army Corps of Engineers, 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Coast Region (Corps, 2008) prior to City approval of any specific development proposal. This delineation shall be submitted to the USACE for verification. Once that map is "verified," the full extent of waters of the U.S./State would be known and the extent of impacts on regulated areas ascertained.

  (2) Require authorization from USACE and the RWQCB as necessary and required by these agencies prior to filling any waters of the U.S. or State of California.

  (3) Require the use of Best Management Practices (BMPs) to protect waters of the U.S./State and to ensure that water quality standards are not compromised. These practices can include installing construction fencing buffers, straw waddles to keep fill from entering preserved/avoided wetlands and other waters, and other protective measures; and requiring a biological monitor be on-site during project construction to monitor the integrity of any preserved wetlands and other waters during mass grading or filling of the project site.

(4) For those wetland areas that are not avoided, require wetlands mitigation approved by the USACE and the RWQCB either:

(a) through the purchase of mitigation credits from an approved mitigation bank or an approved in-lieu fee mitigation entity at a minimum 1:1 ratio or at a ratio determined by the RWQCB and USACE at the time permits are issued; or

(b) through the creation of wetlands of an equal or higher functional value than those wetlands affected by the project on-site. If wetlands are restored/ created, adequate compensation shall include creating wetlands at a suitable location that meet the following performance standards:

1. The wetlands shall remain inundated or saturated for sufficient duration to support a predominance of hydrophytic vegetation.

2. The wetlands shall exhibit plant species richness comparable to existing wetlands.

3. The wetlands shall replace the lost wetlands at a minimum ratio of one acre created for each acre, or fraction thereof, permanently impacted.

4. The developer shall provide for the protection of the mitigation areas in perpetuity, either through deed restrictions or conservation easements.

5. The developer shall establish a five-year program to monitor the progress of the wetland mitigation toward these standards. At the end of each monitoring year, an annual report shall be submitted to the City, the RWQCB, and the USACE. This report shall document the hydrological and vegetative condition of the mitigation wetlands, and shall recommend remedial measures as necessary to correct deficiencies.

Implementation of the above-listed goal, policies, and actions would reduce potential impacts to waters of the US that could result from buildout of the proposed Plan to the maximum extent practicable. Subsequent projects under the proposed Plan that would involve development in areas where wetlands are present or potentially present would be subject to separate project-level environmental review pursuant to CEQA in order to identify and mitigate impacts. Therefore, impacts from the proposed Plan would be less-than-significant.

Applicable Regulations:

- Federal Clean Water Act
- Porter-Cologne Water Quality Control Act

Significance Before Mitigation: Less than significant.

BIO-4	The proposed Plan would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

The proposed Plan would result in a significant impact if new development would interfere with species movement or involve barriers or threats within wildlife corridors. Given the highly urbanized context of the Plan Area and the extent of existing development, vehicular traffic, and human and pet presence in Newark, opportunities for wildlife movement in the urbanized portion of the city are minimal. Existing development,

including buildings, fencing, flood control channels, major roadways, or other similar improvements, represent substantial barriers to wildlife movement. The best opportunities for wildlife migration exist along the western edge of the Plan Area, adjacent to the Don Edwards National Wildlife Refuge.

Previous environmental review conducted for the Dumbarton TOD Specific Plan and the Area 3 and 4 Specific Plan determined that future development in the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area would not result in significant impacts associated with wildlife movement because extensive areas along the western and southern sides of the Focus Areas would not be developed and would continue to allow wildlife to move through these areas. Additionally, the proposed Plan includes the following policies and actions that would further minimize potential impact related to interference with fish and wildlife migration:

- Policy CS-1.2: Conservation of Sensitive Areas. Support the conservation of environmentally sensitive areas and unique natural resources in the city.
- Policy CS-1.3: Interagency Cooperation. Participate in cooperative efforts with private landowners, the federal government, and surrounding cities to encourage the long-term preservation of the baylands and other sensitive natural areas.
- Action CS1.A: Development Review. Use the development review and CEQA processes to ensure that sensitive natural areas are set aside as open space and are managed to ensure their long-term conservation.
- Policy CS-2.1: Wildlife and Habitat Protection. Preserve and protect Newark's plant and animal species and habitats, including wetlands, salt marshes, creeks, and lakes. Ensure that land use decisions consider potential impacts on wildlife habitat.
- Policy CS-2.3: Don Edwards National Wildlife Refuge. Preserve and maintain the Don Edwards National Wildlife Refuge and the surrounding wetlands along San Francisco Bay.
- Policy CS-2.5: Development Near Wetlands. Manage land use and development on upland sites in a manner that minimizes off-site impacts to nearby wetlands.
- Action CS2.B: Wetlands Restoration in New Development Areas. Work with the developers of Newark's remaining large development sites, including Dumbarton TOD and the Southwest Newark Residential and Recreational Project (Areas 3 and 4), on efforts to restore and/or revegetate natural habitat areas.
- Action CS2.E: Wetland Acquisition and Conservation. Support acquisition of wetlands and other environmentally sensitive areas by land trusts and other environmental organizations for the purpose of mitigation banking and wetlands restoration, provided there are no conflicts with other General Plan goals and objectives.

Implementation of the proposed policies and actions listed above would reduce associated impacts to the maximum extent practicable and impacts from implementation of the proposed Plan would be less than significant.

Significance Before Mitigation: Less than significant.

BIO-5 The proposed Plan would not conflict with the City of Newark tree preservation ordinance.

The City of Newark Municipal Code includes a tree preservation ordinance in Chapter 8.16, Preservation of Trees on Private Property, of Title 8, Health and Safety. The proposed Plan would result in a significant impact if it would result in a conflict with this ordinance. Local protection of other biological resources, including special-status plants and animals, riparian habitat, wetlands, and migratory fish and wildlife are discussed elsewhere in this chapter under BIO-1, BIO-2, BIO-3, Bio-4, and BIO-6.

The Plan does not explicitly propose the removal of trees; however, development under the Plan could result in the removal of existing trees in the Plan Area. Newark's tree preservation ordinance requires a permit for the removal of any tree with a trunk diameter of six inches or greater, measured at four feet above the ground. The proposed Plan would result in a significant impact if it would remove any trees with a trunk diameter of six inches or greater without a permit. In addition, the proposed Plan includes the following goal, policies, and actions that would protect trees in the Plan Area:

- Goal CS-4: Conserve and manage the City's tree resources and urban forest.
- Policy CS-4.1: Tree Preservation. Maintain City programs for protecting and preserving trees.
- Policy CS-4.3: Neighborhood Tree Planting and Care. Encourage individual and neighborhood efforts that involve tree planting, tree care, and the stewardship of public space beyond what City resources can provide.
- Action CS4.A: Tree City USA. Continue to participate in the Tree City USA Program.
- Action CS4.D: Tree Planting in New Development. Use the development review process to implement tree planting requirements for new development.

Together, the tree preservation ordinance and the above-listed goal, policies, and actions from the proposed Plan establish a policy framework that minimizes potential adverse impacts to existing trees in the Plan Area to the maximum extent practicable. Additionally, subsequent development under the Plan would be subject to separate CEQA review to identify and mitigate impacts related to conflicts with the tree preservation ordinance. Therefore, the Plan would result in a less-than-significant impact.

Applicable Regulations:

- City of Newark Municipal Code, Chapter 8.16 Preservation of Trees on Private Property

Significance Before Mitigation: Less than significant.

BIO-6	The proposed Plan would result in less-than-significant impacts related to conflict with the Basin Plan and Habitat Goals.

There are no legal Habitat Conservation Plans (HCPs) as defined in the federal Endangered Species Act Section 10(a)(2)(A) that are applicable to the Plan Area;[28] however, this section considers potential impacts related to conflicts with the following local and regional habitat conservation planning initiatives relevant to Newark: the Habitat Goals, and the Basin Plan. Conflicts with the Bay Plan and the Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan are discussed in chapter 4.9 Land Use and Planning of this Draft EIR.

Habitat Goals

The Bay Plan recommends that the Baylands Ecosystem Habitat Goals (Habitat Goals) be used as guides for wetlands restoration in the vicinity of San Francisco Bay. The Habitat Goals envision the restoration of tidal marsh and similar habitat throughout the South Bay region, including the Plan Area, and contain recommendations for enlarging tidal marshes and protecting and enhancing marsh transition areas. However, the Habitat Goals are a set of recommendations that have not been adopted by any agency and therefore are not considered an approved local, regional, or State habitat conservation plan under CEQA.

Basin Plan

As discussed in Section 4.3.1.1, the Basin Plan, adopted by the San Francisco Bay RWQCB, designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies for all waters that include wetlands in and near the Plan Area.[29] The Basin Plan also incorporates the California Wetlands Policy (Executive Order W-59-93) which includes goals to ensure no net loss of wetlands and the conservation, restoration, and enhancement of wetlands.[30] Additionally, the Basin Plan encourages the avoidance of wetland disturbance and the minimization of unavoidable disturbance.

Previous environmental review has determined that impacts to waters of the US in the Dumbarton TOD Focus Area and in the Southwest Newark Residential and Recreational Focus Area could be mitigated to less-than-significant levels with the implementation of the mitigation measures described above, including Mitigation Measure 4.3-6 from the Dumbarton TOD Specific Plan EIR, Mitigation Measure 4.3-2 from the Housing Element EIR, and Mitigation Measures Bio-1.1, Bio-1.2A, and Bio-1.2B from the Area 3 and 4 Specific Plan EIR. Additionally, the following provisions in the proposed Plan would help reduce impacts to wetlands from future development:

- Policy CS-2.3: Don Edwards National Wildlife Refuge. Preserve and maintain the Don Edwards National Wildlife Refuge and the surrounding wetlands along San Francisco Bay.

[28] Bay Area Open Space Council, Stewardship Committee, 2008, *Habitat Conservation Planning in the Bay Area,* November.

[29] San Francisco Bay RWQCB, 2007, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, http://www.swrcb.ca.gov/rwqcb2/basin_planning.shtml, accessed on February 1, 2013.

[30] San Francisco Bay RWQCB, 2007, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, http://www.swrcb.ca.gov/rwqcb2/basin_planning.shtml, accessed on February 1, 2013.

- Policy CS-2.4: Wetlands Delineation. Encourage the owners of large potentially developable properties to enter into early discussions with appropriate federal agencies to conduct wetlands delineation studies. Such studies should be used to identify areas to be conserved as permanent open space, as well as appropriate mitigation measures to offset any wetland impacts.
- Policy CS-2.5: Development Near Wetlands. Manage land use and development on upland sites in a manner that minimizes off-site impacts to nearby wetlands.
- Policy CS-2.8: Location of Mitigation. When off-site mitigation to address wetland impacts is necessary, encourage mitigation to be provided as close as possible to the affected site.
- Action CS-2.B: Wetlands Restoration in New Development Areas. Work with the developers of Newark's remaining large development sites, including Dumbarton TOD and the Southwest Newark Residential and Recreational Project (Areas 3 and 4), on efforts to restore and/or re-vegetate natural habitat areas.
- Action CS-2.C: Review of Wetland Impacts. Ensure that potential wetland impacts are considered during environmental review and prescribe mitigation measures as necessary to avoid or offset such impacts.
- Action CS-2.E: Wetland Acquisition and Conservation. Support acquisition of wetlands and other environmentally sensitive areas by land trusts and other environmental organizations for the purpose of mitigation banking and wetlands restoration, provided there are no conflicts with other General Plan goals and objectives.

- Action CS T-2.B: Wetland Delineation and Protection. Require wetland delineation studies, authorization from state and regulatory agencies, and the use of Best Management Practices to mitigate potential wetland impacts in any areas where wetlands may exist.

  To reduce the potential for adverse impacts on wetlands, the City shall:

  (1) Require a wetland delineation conducted according to the 1987 USACE Wetland Delineation Manual (U.S. Army Corps of Engineers, 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Coast Region (Corps, 2008) prior to City approval of any specific development proposal. This delineation shall be submitted to the USACE for verification. Once that map is "verified," the full extent of waters of the U.S./State would be known and the extent of impacts on regulated areas ascertained.

  (2) Require authorization from USACE and the RWQCB as necessary and required by these agencies prior to filling any waters of the U.S. or State of California.

  (3) Require the use of Best Management Practices (BMPs) to protect waters of the U.S./State and to ensure that water quality standards are not compromised. These practices can include installing construction fencing buffers, straw waddles to keep fill from entering preserved/avoided wetlands and other waters, and other protective measures; and requiring a biological monitor be on-site during project construction to monitor the integrity of any preserved wetlands and other waters during mass grading or filling of the project site.

  (4) For those wetland areas that are not avoided, require wetlands mitigation approved by the USACE and the RWQCB either:

(a) through the purchase of mitigation credits from an approved mitigation bank or an approved in-lieu fee mitigation entity at a minimum 1:1 ratio or at a ratio determined by the RWQCB and USACE at the time permits are issued; or

(b) through the creation of wetlands of an equal or higher functional value than those wetlands affected by the project on-site. If wetlands are restored/ created, adequate compensation shall include creating wetlands at a suitable location that meet the following performance standards:

1. The wetlands shall remain inundated or saturated for sufficient duration to support a predominance of hydrophytic vegetation.

2. The wetlands shall exhibit plant species richness comparable to existing wetlands.

3. The wetlands shall replace the lost wetlands at a minimum ratio of one acre created for each acre, or fraction thereof, permanently impacted.

4. The developer shall provide for the protection of the mitigation areas in perpetuity, either through deed restrictions or conservation easements.

5. The developer shall establish a five-year program to monitor the progress of the wetland mitigation toward these standards. At the end of each monitoring year, an annual report shall be submitted to the City, the RWQCB, and the USACE. This report shall document the hydrological and vegetative condition of the mitigation wetlands, and shall recommend remedial measures as necessary to correct deficiencies.

Therefore, in view of the fact that previous environmental review has determined that impacts to waters of the US in the Dumbarton TOD Focus Area and in the Southwest Newark Residential and Recreational Focus Area could be mitigated to less-than-significant levels, and because regulatory compliance and implementation of policies and action would reduce impacts to wetlands to the maximum extent practicable, conflicts between the proposed Plan and the Basin Plan would be less than significant.

Applicable Regulations:

- Federal Clean Water Act.
- Porter-Cologne Water Quality Control Act.
- McAteer-Petris Act.
- San Francisco Bay Plan.
- Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin.
- City of Newark Municipal Code, Chapter 15.50 Grading and Excavation Ordinance.

Significance Before Mitigation: Less than significant.

4.3.4 CUMULATIVE IMPACTS

BIO-7	The proposed Plan would result in less-than-significant cumulative impacts related to biological resources.

This section analyzes potential impacts to biological resources that could result from a combination of the proposed Plan and other past, present, and reasonably foreseeable development in the South Bay. Such development includes infill development in the adjacent City of Fremont as well as the South Bay Salt Ponds restoration project, which will provide habitat for a number of tidal habitat-associated species, including the salt marsh harvest mouse, salt marsh wandering shrew, and will include enhancement of managed ponds specifically for use by waterbirds.

The Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area are the largest remaining tracts of relatively undeveloped land in the Plan Area. In the absence of project-specific mitigation measures identified in previous environmental review conducted by the City of Newark, potentially significant impacts related to special-status plants and animal species, wetlands, riparian habitat, and sensitive natural communities would all contribute to cumulatively significant impacts in the South Bay. In particular, the cumulative losses of seasonal wetland habitat around the South Bay are significant, and both direct and indirect impacts resulting from the development of the Area 3 and 4 Specific Plan and the Dumbarton TOD Specific Plan would be significant without mitigation. However, as determined in previous environmental review conducted by the City, the mitigation measures prescribed for all of these impacts would adequately mitigate the project's contribution to these cumulative impacts. Buildout of the proposed Plan would not include any additional development in these areas over and above that which has already been analyzed in previous EIRs. Proposed Plan policies and actions detailed above provide a framework that promotes context-sensitive development and seeks to minimize impacts on sensitive natural resources. Additionally, future development under the proposed Plan would be subject to separate project-level environmental review to identify and mitigate specific impacts to biological resources in these areas. Therefore, with adherence to applicable federal, State, and local regulations and implementation of mitigation measures identified in previous environmental review and adopted by the City of Newark, the proposed Plan would result in less-than-significant cumulative impacts to biological resources in the South Bay.

Significance Before Mitigation: Less than significant.

4.3.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant Plan-specific or cumulative impacts to biological resources and therefore no mitigation measures are required.

4.4 CULTURAL RESOURCES

This chapter describes the regulatory framework and existing conditions in the Plan Area related to cultural resources, and the potential impacts of the proposed Plan on cultural resources. Cultural resources include historically and architecturally significant resources, as well as archaeological and paleontological resources.

4.4.1 ENVIRONMENTAL SETTING

4.4.1.1 REGULATORY FRAMEWORK

This section describes the policies and regulations that apply to cultural resources in Newark.

Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the National Register of Historic Places (National Register) as the official designation of historical resources, including districts, sites, buildings, structures, and objects. For a property to be eligible for listing in the National Register, it must be significant in American history, architecture, archaeology, engineering, or culture, and must retain integrity in terms of location, design, setting, materials, workmanship, feeling, and association. Resources less than 50 years in age, unless of exceptional importance, are not eligible for the National Register. Though a listing in the National Register does not prohibit demolition or alteration of a property, CEQA requires the evaluation of project effects on properties that are listed in the National Register.

State Regulations

The California Environmental Quality Act (CEQA)

Section 15064.5 of the CEQA Guidelines states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. The CEQA Guidelines define four ways that a property can qualify as a historical resource for purposes of CEQA compliance:

The resource is listed in or determined eligible for listing in the California Register of Historical Resources, as determined by the State Historical Resources Commission.

The resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

The lead agency determines the resource to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, as supported by substantial evidence in light of the whole record.

The lead agency determines that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1 (CEQA Guidelines Section 15064.5) which means, in part, that it may be eligible for the California Register.

In addition, Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines specify lead agency responsibilities to determine whether a project may have a significant effect on archaeological resources. If it can be demonstrated that a project will damage a unique archaeological resource, the lead agency may require reasonable efforts for the resources to be preserved in place or left in an undisturbed state. Preservation in place is the preferred approach to mitigation. The Public Resources Code also details required mitigation if unique archaeological resources are not preserved in place.

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These provisions protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to identify the most likely descendant and mediate any disputes regarding disposition of such remains.

California Register of Historic Resources (California Register)

The California Register establishes a list of properties to be protected from substantial adverse change (Public Resources Code Section 5024.1). The State Office of Historic Preservation (OHP) has determined that buildings, structures and objects 45 years or older may be of historical value. A historical resource may be listed in the California Register if it meets any of the following criteria.

It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

It is associated with the lives of persons important in California's past.

It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value.

It has yielded or is likely to yield information important in prehistory or history.

The California Register includes properties that are listed or have been formally determined eligible for listing in the National Register, State Historical Landmarks and eligible Points of Historical Interest. Other resources that may be eligible for the California Register, and which require nomination and approval for listing by the State Historic Resources Commission, include resources contributing to the significance of a local historic district, individual historical resources, historical resources identified in historic surveys conducted in accordance with OHP procedures, historic resources or districts designated under a local ordinance consistent with the procedures of the State Historic Resources Commission, and local landmarks or historic properties designated under local ordinance.

Additionally, for a resource to be eligible for the California Register of Historic Resources, it must retain sufficient integrity to be recognizable as a historical resource and to convey its significance.

2010 California Historical Building Code, California Code of Regulations, Title 24, Part 8

The California Historical Building Code (CHBC) (as set forth in Sections 18950 to 18961 of Division 13, Part 2.7 of Health and Safety Code and as subject to the rules and regulations set forth in 24 CCR Part 8), provides regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction) or relocation of historical buildings, structures, and properties deemed by any level of government as having importance to the history, architecture, or culture of an area.

Health and Safety Code Section 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disinterment of remains known to be human, without authority of law, is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC.

California State Senate Bill 18

Senate Bill (SB) 18, which went into effect January 1, 2005, set forth requirements for local governments (cities and counties) to consult with Native American tribes to aid in the protection of traditional tribal cultural places through local land use planning.[1] The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early stage of planning for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy prior to individual site-specific, project level land use designations are made by a local government.

Public Resources Code Section 5097

Public Resources Code Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on non-federal public lands. The disposition of Native American burials fall within the jurisdiction of the NAHC, which prohibits willfully damaging any historical, archaeological, or vertebrate paleontological site or feature on public lands.

[1] SB 18 amends Government Sections (GC) 65040.2, 65092, 65351 and 65560, while adding GC sections 65352.3, 65352.4 and 65562.5.

Local Regulations

Newark Municipal Code

Section 17.39 of Newark's Municipal Code outlines its Historic Preservation Program, which establishes procedures for the designation of historical resources within the City. The Program, adopted in 1989, also establishes procedures for the modification, alteration, demolition, or removal of landmark sites (City of Newark, 1989). The City of Newark Historic Preservation Program evaluates potential historic resources, which it defines as a nominated building, cluster of buildings, structure, tree, plant, or site based on historic merit, and deems the nominated resource either not historic, primary landmark, or secondary landmark. Primary landmarks meet three or more of the specified criteria. Secondary landmarks meet two of the specified criteria of historic merit must meet one of the specified criteria. Criteria for designation as a historic resource are found within Newark Municipal Code Section 17.39.040, and generally include factors such as a relationship to historic persons, notable historic events, or buildings represent a now-rare architectural style, or were otherwise of architectural merit.

4.4.1.2 EXISTING CONDITIONS

This section provides an overview of the history of Newark and of resources of paleontological, archeological, and historical significance that may be affected by the proposed Plan.

History of Newark

The San Francisco Bay region has been inhabited for more than 10,000 years by diverse peoples. The San Francisco Bay area was occupied by scores of small independent tribal territories known as 'tribelets.' Each tribal territory, ranging from 8 to 12 miles wide, contained a number of intermarried families that comprised a small, autonomous political organization of 200 to 400 people.[2] Native Americans of the Tuibun tribelet, a sub-tribe of the Coastanoans, inhabited what is now Newark prior to European arrival. The Tuibun tribal lands are thought to have extended beyond modern day Newark into Fremont, along the Fremont Plain from approximately Alameda Creek north to the Coyote Hills.[3]

As early as 1769, expeditions that preceded the arrival of Spanish settlers and missionaries recorded Native American habitation sites along the eastern San Francisco Bay shoreline. European settlement began with the founding of Mission San Jose in 1797. The Plan Area remained in control of Mission San Jose until approximately 1836, when the Mission was secularized and came under control of the Mexican government.

In 1844, a large land grant, known as the Rancho Potrero de Los Cerritos grant, made by the Mexican governor gave what is now the entire City of Newark, as well as the Coyote Hills and portions of Union City and Fremont to Augustine Alviso and Thomas Pacheco. Most of the uplands remained as grazing lands, until sold off for use

[2] Milliken, R., 1995. A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810. Menlo Park, California: Ballena Press, page 21.

[3] City of Newark, 2009. *Housing Element Update Draft EIR,* page 47.

by small-scale ranchers. When California became part of the United States in 1848, American settlers began moving to the Rancho Potrero de los Cerritos area in great numbers. An early settler jurisdiction called Washington Township was established in the vicinity of present day Fremont.[4] Among the first to settle in the Newark area was Origin Mowry, who in 1850 establish Mowry's Landing, for a time known as Mowry's Creek.[5] Landings such as Mowry's, as well as Mayhew's Landing to the north, provided the main source of commerce to the area.

In March 1878, the present day Union Pacific Railroad came into service in between Wells and Thornton Avenues in Newark, and the historic Old Town Newark train station was established at Carter Avenue.[6] Old Town Newark is roughly bounded by Cherry Street in the east, Spruce Street in the west, Thornton Avenue in the north, and Wells Street in the south. Railroad associated businesses, including Carter Brothers railroad car manufacturing shop, were established in the vicinity. Other industry within the area at that time included the commercial salt ponds in the southwestern portion of Newark. By 1880, Newark had a population of 200 people. In 1909, construction of the first Bay bridge crossing was completed, connecting freight trains from Newark to Redwood City and, ultimately, all the way to San Francisco. By 1900, significant portions of marshland on the western edge of Newark had been diked, bermed, and converted to salt evaporation ponds. The Leslie Salt Company, precursor to Cargill Salt, traces its history back to operations started in Newark in 1936.[7] From the 1950s until the 1990s, Newark has been host to a variety of industrial uses, ranging from brick making, to chemical blending, to semi-truck assembly.[8]

Paleontological Resources

Paleontological resources (fossils) are the remains of prehistoric plant and animal life. Paleontological resources do not include of human remains or artifacts. Fossil remains such as bones, teeth, shells, and wood are found in geologic formations. Paleontological resources are limited, non-renewable, sensitive scientific and educational resources. The potential for fossil remains at a location can be predicted based on whether or not previous fossil finds have been made in the vicinity, and the age of the geologic formations.

The Plan Area is located within a westward sloping alluvial plane and is underlain by Holocene floodbasin deposits and Holocene Bay mud.[9] Many paleontologists consider Holocene biologic remains too recent to qualify as fossils in the strict sense. Using this age-basis definition of significance, the paleontological sensitivity of the Plan Area is considered low.[10] Further, search of the University of California Museum of Paleontology Specimen Search database indicated that there are no known paleontological resources within the City of Newark.[11] There are,

[4] City of Newark, 2009. *Newark Areas 3 and 4 Specific Plan Project Draft EIR,* Volume 1, page 169.
[5] City of Newark, 2011. *Dumbarton TOD Draft EIR,* page 4.4-2.
[6] City of Newark, 2011. *Dumbarton TOD Draft EIR,* page 4.4-3.
[7] City of Newark, 2009. *Housing Element Update Draft EIR,* page 48.
[8] City of Newark, 2011. *Dumbarton TOD Draft EIR,* page 4.4-3.
[9] USGS, 1992. Geologic Map of the Newark 7.5-Minute Quadrangle, Alameda County, California.
[10] City of Newark, 2011. *Dumbarton TOD Draft EIR,* page 4.4-5.
[11] University of California Museum of Paleontology, Specimen Search, http://ucmpdb.berkeley.edu/, accessed on December 7, 2012.

however, many specimens in Alameda County. The closest to Newark are in Irvington, an area within City of Fremont.

Archeological

The Plan Area is located in Alameda County. Native American habitation sites in Alameda County are often marked by the presence of middens, which are piles of organic debris marking village refuse areas, typically containing marine shells and animal bones. Other types of features that distinguish Native American activity areas are scatters of "flakes" of chipped material that resulted from the hand-crafting of stone tools, and seed or acorn milling stations, which consist of depressions consistent with a mortar and pestle. Native American cultural resources in western Alameda County are typically found near the Bay shore and adjacent to other seasonal and perennial watercourses.[12] Over 50 archeological sites have been documented along the Bay shore from Richmond to Newark.[13]

In September and October of 2008, an organized survey for archaeological resources was conducted in the Southwest Newark Residential and Recreational Focus Area, in the area bounded by the intersection of Mowry Avenue, Cherry Street, the Union Pacific Railroad tracks, and City limit. Unique archaeological resources, including Native American human remains, were found.[14] The professional opinion of the project archaeologist in charge of the survey was that large, intact archaeological deposits containing human burials and midden matrices, eligible for the state and national registers, exist in the survey area.[15] All remains were covered and left in place as recommended by the Native American monitor, and the Native American Heritage Commission was notified and has assigned a Most Likely Descendent to ensure appropriate treatment of the human remains. Additionally, the historic salt marshlands at the edge of San Francisco Bay are considered to be moderately sensitive for archaeological resources. A records search conducted by the State of California Office of Historic Preservation Northwest Information Center (NWIC) at Sonoma State University in October 2001indicated recorded Native American sites in this sector of the city.[16]

Historical Resources

Federal and State Designated Historic Resources

The National Register includes buildings 50 years older, unless deemed to be of exceptional importance. The California State Office of Historic Preservation (OHP) includes buildings, structures and objects 45 years or older on the California Register.

[12] City of Newark, 2011. *Dumbarton TOD Specific Plan Draft EIR,* page 4.4-2.
[13] City of Newark, 2009. *Housing Element Update Draft EIR,* page 48.
[14] City of Newark, 2009. *Newark Areas 3 and 4 Specific Plan Project Draft EIR,* Volume 1.
[15] City of Newark, 2009. *Newark Areas 3 and 4 Specific Plan Project Draft EIR,* Volume 1, page 172
[16] City of Newark, 2009. *Housing Element Update Draft EIR,* page 49.

No historic resources in Newark have been placed on the National or California Registers, which would provide these resources special consideration under CEQA.[17] Some structures in the city may be eligible for the National Register or the California Register; however, eligibility does not provide special consideration under CEQA. The city originated in an area referred to as Old Town Newark, considered to be the blocks of Thornton Avenue centered on Sycamore Street between Ash Street and Cherry Street.[18] Industrial buildings in the southwestern portion of Newark, where manufacturing has taken place for decades, could be historically significant. A portion of the Union Pacific Railroad corridor between Wells and Thornton Avenues is eligible for inclusion on the National Register. It is also feasible that the portion of the railroad corridor adjacent to Dumbarton Cutoff train bridge may also be eligible for inclusion on the National Register.[19] The Dumbarton Cutoff train bridge dates back to 1910, and carried freight trains from 1910 to 1982 across the San Francisco Bay. [20]

City Designated Historic Resources

The City of Newark's Historic Preservation Program was adopted in 1989. That year, the City of Newark undertook an assessment of the historic buildings. The result of this effort was a brief three-part document entitled *Historical Preservation Program City of Newark* dated November 30, 1989. These documents establish the historic merit criteria for Primary Landmarks, Secondary Landmarks and Buildings of Historic Merit. As of 2012, the digital copy of the program documents includes official Historic Resources Inventory Form 523 for two properties. This form is similar to the form used to register buildings with the California Register. These two buildings are the St. Edward's Church (now referred to as the Rose of Sharon Chapel) at 7160 Graham Avenue, and the James Graham residence at 7705 A/B Thornton Avenue. These two buildings are the only resources on the City's list of historic resources. [21]

Additionally, the document provides a list of 42 buildings in Newark of "historic merit" with ownership, address, and ranking. These buildings, which may or may not be extant, are not considered to be a part of the City's list of historic resources. As of the 1989 inventory, the majority of the buildings were listed as being in "good condition." However, some were in "fair condition" and had already been modified or demolished. Although Newark's Historic Preservation Program allowed these types of changes, some of these resources were deteriorating in 1989.[22] The 42 buildings were contained within the Old Town Newark area, an area roughly bounded by Cherry Street in the east, Spruce Street in the west, Thornton Avenue in the north, and Wells Street in the south.[23] Several buildings on the historic resource inventory list were located on Thornton Avenue, Locust Street, Ash Street and Dairy Avenue. These buildings dated back to the Washington Township era circa 1880, when contemporary cities of Newark, Fremont, and Union City were settled by the Americans after the Gold Rush era of California. These

[17] City of Newark, 2011. *Dumbarton TOD Draft,* page 4.4-5.

[18] City of Newark, 2011. *Dumbarton TOD Draft,* page 3-19.

[19] City of Newark, 2011. *Dumbarton TOD Draft EIR,* page 4.4-6.

[20] Bay Rail Alliance. N.D. Dumbarton Cutoff Train Bridge. http://www.bayrailalliance.org/dumbarton_rail_pictures accessed December 22, 2012..

[21] Cal Poly San Luis Obispo, 2012. *Background Report for the City of Newark General Plan Update,* page 13-15.

[22] Cal Poly San Luis Obispo, 2012. *City of Newark Community Plan 2040,* pages 13-13 to 13-16.

[23] Cal Poly San Luis Obispo, 2012. *Background Report for the City of Newark General Plan Update,* page 4-29.

were associated with the Union Pacific Railroad, completed in 1878, and housed railroad workers and their families, or they were saloons that served as places of entertainment.[24]

4.4.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed project would result in a significant cultural resources impact if it would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
3. Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature.
4. Disturb any human remains, including those interred outside of formal cemeteries.

4.4.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to cultural resources.

CULT-1	The Plan would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

The proposed Plan would have a significant environmental impact if it would cause a substantial adverse change in the significance of a historical resource, which is any building, structure, feature, object, or site of historic or cultural importance, as listed on the National Register, California Register, or designated a historic resource by the City of Newark. While the act of adopting the Plan would not directly result in impacts, it would allow development and redevelopment that could potentially impact historic resources through direct alteration, damage, or demolition of listed or registered historic structures or historic sites.

As identified in Section 4.4.1.2, Existing Conditions, the National or California Registers do not list any buildings in Newark. However, the City of Newark's list of historic resources contains two buildings, St. Edward's Church (Rose of Sharon Chapel) and the James Graham residence in Old Town. Since the proposed Plan supports citywide infill projects, and such infill projects could be located in Old Town, if any future projects under the proposed Plan include these buildings, such a project would have the potential to alter or destroy these listed historic buildings or modify their settings, which would be considered a potentially significant impact.

Old Town, as of 1989, also contained 42 buildings referred to as of "historic merit." Other structures with potential eligibility for government registers or lists (but that not presently listed on such lists or registers) are

[24] Cal Poly San Luis Obispo, 2012. *Background Report for the City of Newark General Plan Update,* page 4-29.

located in the vicinity of the Dumbarton Bridge. These features are the Dumbarton Cutoff train bridge, industrial buildings in the southwestern portion of Newark, and the Union Pacific Railroad corridor between Wells and Thornton Avenue. The proposed Plan allows development and redevelopment of the Dumbarton Bridge vicinity, where these features "of historic merit" may exist.

Several existing regulations would help to ensure that development and redevelopment activities allowed under the proposed Plan do not cause a substantial adverse change. As described in Section 4.4.1.1, Regulatory Framework, Title 24, Part 8 of the California Code of Regulations ensures that historic buildings and structures are rehabilitated, preserved, restored, and relocated in an appropriate manner. Also, Section 17.39 of the Newark Municipal Code, the Historic Preservation Program, protects City-designated historic resources under its Historic Preservation Program by providing standards for and review of modification, alternation, demolition, or removal of historical resources. These regulations help reduce potential impacts to historical resources.

Previous CEQA analysis identified potential impacts to historical resources and developed mitigation measures. The Newark Housing Element EIR provides additional review and consideration for unlisted historic resources in Mitigation Measure 4.4-2 which requires that:

Specific housing development proposals on housing sites in or adjacent to the Old Town portion of Newark that involve any structure older than 45 years shall be reviewed by the Newark Planning Division to ensure consistency with the City's Historic Resource Ordinance and applicable CEQA Guideline provisions. If a substantial change to a historic resource is proposed, modifications may be required in the design of such project to ensure consistency with the Historic Resource Ordinance.

Future construction on a housing sit adjacent to any identified historic structure shall be complementary to the historic structure in terms of providing appropriate setbacks, consistent design and use of colors, determined by the Newark Planning Division.

In the Dumbarton Transit-Oriented Development (TOD) Focus Area, the Dumbarton TOD EIR Mitigation Measure 4.4-1b requires that if construction is proposed within 100 meters of Union Pacific Railroad buildings or structures, that these structures be evaluated for inclusion on the National Register by a qualified professional. If the Union Pacific Railroad structures are found eligible for inclusion in the National Register, then the project sponsor will submit a study prepared by a qualified historian to determine how the proposed project would adversely change the historical resource. These mitigation measures further reduce potential impacts to historical resources.

Additionally, the proposed Plan contains the following goals, policies, and actions that address potential impacts to historical resources:

- Goal LU-5: Identify, preserve, and maintain historic structures and sites to enhance Newark's sense of place and create living reminders of the city's heritage.
- Policy LU-5.1: Preserving Important Buildings. Encourage the preservation of historically and architecturally important buildings that help enhance Newark's character and sense of identity. The demolition of historically important buildings is strongly discouraged.

- Policy LU-5.2: Context-Sensitive Design. Ensure that the repair, maintenance, and expansion of Newark's historically important structures uses building materials and architectural details, which respect historic context.
- Policy LU-5.3: Adaptive Reuse. Where it is no longer feasible to continue to use an older building for its originally intended use, encourage adaptive reuse of the structure rather than demolition and replacement.
- Policy LU-5.4: Historic Landscapes. Consider the historic value of landscape features, such as trees, gardens, and fences when evaluating the historical significance or importance of a property.
- Action LU5.A: Evaluating Historic Resource Impacts. Evaluate applications for demolition, alteration, or relocation of structures more than 50 years old to determine if the structure has sufficient significance and integrity to merit its designation as a historic resource. In the event alterations to a historic resource are proposed, use the Secretary of the Interior Standards for the Treatment of Historic Properties to guide application review.
- Action LU5.B: Historic Building Code. Allow the use of the State Historic Building Code to achieve the preservation of important historic structures.
- Action LU5.C: Incentives for Restoration. Work with property owners seeking to use state and federal incentives for the restoration and maintenance of historic properties, including historic tax credits and tax relief programs such as Mills Act preservation contracts.
- Action LU5.D: Historic Inventory. Maintain and periodically update a list of Newark's historic sites and structures.
- Actions LU5.E: State and Federal Register Listings. Work with property owners seeking to place their properties on the National Register of Historic Places, the California Points of Historical Interest, California Historical Landmarks, or the California Register of Historical Resources.

These policies would further reduce any potential impacts to a historic resource to a less-than-significant level

Applicable Regulations

- California Register
- National Historic Register
- California Historic Building Code
- City of Newark Historic Preservation Program
- City of Newark Municipal Code, Chapter 17.39 Historical Resources

Significance Before Mitigation: Less than significant.

CULT-2	**Construction activities associated with buildout of the proposed Plan could cause a significant impact to archaeological resources in the Southwest Newark Residential and Recreational Focus Area by potentially damaging or disturbing as yet undiscovered archaeological deposits through the placement of fill and soil compression.**

The developable area of Newark is largely built out today and it is anticipated that buildout of the proposed Plan would largely consist of redevelopment of previously disturbed sites in the Plan Area. As such, the potential for encountering as yet undiscovered archeological resources is low in much of the Plan Area. However, the Dumbarton TOD Focus Area contains some undeveloped land and that sector of the city is considered moderately sensitive for archaeological resources. Additionally, the Southwest Newark Residential and Recreational Focus Area contains a large area of undeveloped land, some of which would be developed with buildout of the Plan. As described above, archaeological resources are also known to be present in the Southwest Newark Residential and Recreational Focus Area. Therefore, development in these areas under the proposed Plan could potentially result in accidental disturbance or damage to archaeological resources.

Implementation of Policy-5.5 would reduce the potential for damage to archaeological resources in Newark associated with implementation of the Plan:

- Policy LU-5.5: Native American Resources. Coordinate with local tribal representatives and the Native American Heritage Commission to ensure the protection of Newark's Native American resources and to follow appropriate mitigation, preservation, and recovery procedures in the event that important resources are identified during development.

Additionally, previous environmental review conducted for the 2007-2014 Housing Element and the Area 3 and 4 Specific Plan identified mitigation measures to address potential impacts to archaeological resources that have been adopted by the City. Mitigation Measure 4.4-1 from the Housing Element EIR requires that in the event an archeological Native American artifact is identified during residential development, work will cease in the immediate vicinity of the artifact until a resource protection plan conforming to CEQA Guidelines is prepared by a qualified paleontologist and/ or archeologist and approved by the City of Newark. Previous environmental review concluded that implementation of this mitigation measure would reduce associated impacts to a less-than-significant level. The Area 3 and 4 Specific Plan EIR also contains mitigation measures that reduce impacts to paleontological resources. Mitigation Measure CUL-2.1 requires before construction activities begin that a hand excavation led by a professional archaeologist be used to determine the extent of archaeological resources in the area. Mitigation Measures CUL-2.2 and CUL-2.3 require that site development plans and grading then use this information to avoid known cultural resources. Mitigation Measure CUL-2.4 requires that where known archaeological resources are present, and cannot be avoided, preservation in place methods or a program of data recovery will be implemented, following CEQA Guidelines. This would involve a combination of limited hand excavation to remove known human remains to prevent additional damage, as well as heavy equipment under the direction of a professional archaeologist. Mitigation Measure CUL-2.4 requires a certified professional archaeological observe during all construction that causes ground disturbance with specific authority to direct and halt earthmoving activities if, and when, cultural materials are encountered, in accordance with CEQA Guidelines. Additionally, mitigation measure CUL-2.4 requires construction to stop within a 100 foot radius if and when such resources are found, until the archaeologist evaluates the significance of the find, and suggests the appropriate mitigation to protect the resources.

Implementation of these mitigation measures would further reduce the potential for impacts related to accidental damage to or disturbance of archaeological resources. Nevertheless, as described in the Area 3 and 4 Specific Plan EIR, given the known extent of unique archeological resources in the Southwest Newark Residential and Recreational Focus Area, it is unlikely that total avoidance of impacts is possible during future development associated with buildout of the proposed Plan. While the implementation of mitigation measures from the Area 3 and 4 Specific Plan EIR will partially reduce impacts to these cultural resources, development in the Southwest Newark Residential and Recreational Focus Area could still damage or disturb archaeological deposits through the placement of fill and soil compression. Consequently, buildout of the proposed Plan would result in a significant impact.

Applicable Regulations

- California Public Resources Code Section 21083.2

Significance Before Mitigation: Significant.

CULT-3	The Plan would not directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature.

The Plan would have a significant environmental impact if it would directly or indirectly destroy a unique paleontological resource (fossil), or site, or unique geologic feature. While the act of adopting the Plan would not directly result in impacts, construction activities facilitated by adoption of this proposed Plan could result in the damage of resources. Examples of impacts include damage to such resources caused by grading or excavation.

As identified in Section 4.4.1.2, Existing Conditions, the potential for fossil remains of significance are unlikely in the Plan Area due to the relatively recent age of Holocene Bay mud underlying the city. Additionally, since no previous fossil finds have been made in the vicinity, and there are no known paleontological resources in Newark according to the University Of California Museum Of Paleontology Specimen Search database, paleontological potential of this area is considered low. Impacts to paleontological resources associated with buildout under the proposed Plan would be less than significant.

Significance Before Mitigation: Less than significant.

CULT-4	Construction activities associated with buildout of the proposed Plan could cause a significant impact to a significant impact to Native American human remains in the Southwest Newark Residential and Recreational Focus Area by potentially damaging or disturbing as yet undiscovered Native American human remains through the placement of fill and soil compression.

As described above, the potential for encountering as yet undiscovered archeological resources is low in much of the Plan Area; however, the traditional salt marshlands in the western portion of the city, including the vicinity of the Dumbarton TOD Focus Area, are considered moderately sensitive for Native American remains and other archaeological resources and the Southwest Newark Residential and Recreational Focus Area is known to contain

Native American remains. Development in these areas under the proposed Plan could potentially result in accidental disturbance or damage to human remains. Compliance with the provisions for Native American consultation pursuant to SB18 as well as with the regulations pertaining to procedures in the event of discovery of human remains contained in California Health and Safety Code Section 7052 and 7050.5 and California Public Resources Code Section 5097 and 15064.5 would reduce potential impacts. The implementation of Mitigation Measure 4.4-1 from the 2009-2104 Housing Element EIR, and Mitigation Measures CUL-2.1 through CUL-2.4 from the Area 3 and 4 Specific Plan EIR, described above, would also further reduce the potential for accidental damage or disturbance of human remains during construction activities associated with buildout of the proposed Plan. Additionally, the proposed Plan includes the following policies that would reduce these impacts:

- Policy LU-5.5: Native American Resources. Coordinate with local tribal representatives and the Native American Heritage Commission to ensure the protection of Newark's Native American resources and to follow appropriate mitigation, preservation, and recovery procedures in the event that important resources are identified during development.

Nevertheless, damage or disturbance of human remains through the placement of fill and soil compression could still result during construction activities associated with buildout. Consequently, development in these areas associated with buildout of the proposed Plan would result in a significant impact.

Applicable Regulations

- SB18
- California Health and Safety Code Section 7052 and 7050.5
- California Public Resources Code Section 5097 and 15064.5

Significance Before Mitigation: Significant.

4.4.4 CUMULATIVE IMPACTS

CULT-5	The Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to cultural resources.

The cumulative impacts analysis takes into consideration the past, present, and reasonably foreseeable projects within the Plan Area and the immediate surrounding area in the City of Fremont. Cumulative impacts occur when a series of actions leads to the loss of a substantial type of site, building, or resource. For example, while the loss of a single historic building may not be significant to the character of a neighborhood or streetscape, continued loss of such resources on a project-by-project basis could constitute a significant cumulative effect. This is most obvious in historic districts, where destruction or alteration of a percentage of the contributing elements may lead to a loss of integrity for the district overall. Changes to the setting or atmosphere of an area, for example, by adding modern structures on all sides of a historically significant building, and thus altering the aesthetics of the streetscape, would create a significant cumulative impact. Destruction or relocation of historic buildings would also significantly impact the setting.

Development and redevelopment in the urbanized area of Fremont adjacent to the Plan Area would occur through 2035; however, this development has been planned for by the City of Fremont as part of its recent General Plan Update and will be regulated by the applicable land use code. Future development and redevelopment in the area of potential cumulative impacts would be subject to federal and State laws protecting cultural resources, as described above. Therefore, past, present, and reasonably foreseeable projects would not result in a cumulatively considerable contribution to impacts on historical resources, archaeological resources, unique paleontological resources, unique geologic features, or human remains.

Significance Before Mitigation: Less than significant.

4.4.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

CULT-2	Construction activities associated with buildout of the proposed Plan could cause a significant impact to archaeological resources in the Southwest Newark Residential and Recreational Focus Area by potentially damaging or disturbing as yet undiscovered archaeological deposits through the placement of fill and soil compression.

Mitigation Measure CULT-2: Regulatory compliance and implementation of proposed Plan policies would reduce but not eliminate the potential for damage or disturbance. No additional feasible mitigation exists to further reduce this impact.

Significance After Mitigation: Significant and unavoidable.

CULT-4	Construction activities associated with buildout of the proposed Plan could cause a significant impact to a significant impact to Native American human remains in the Southwest Newark Residential and Recreational Focus Area by potentially damaging or disturbing as yet undiscovered Native American human remains through the placement of fill and soil compression.

Mitigation Measure CULT-4: While compliance with the provisions of SB18, California Health and Safety Code Section 7052 and 7050.5, and California Public Resources Code Section 5097 and 15064.5 together with implementation Mitigation Measure 4.4-1 from the 2009-2104 Housing Element EIR, and Mitigation Measures CUL-2.1 through CUL-2.4 from the Area 3 and 4 Specific Plan EIR, described above, would reduce the potential for accidental damage or disturbance of human remains during construction activities associated with buildout of the proposed Plan, damage or disturbance of human remains through the placement of fill and soil compression could still result during construction activities associated with buildout. No additional feasible mitigation exists to further reduce this impact.

Significance After Mitigation: Significant and unavoidable.

4.5 GEOLOGY AND SOILS

This chapter provides an overview of existing geologic conditions within the Plan Area, and evaluates the potential for the development of the proposed Plan to result in significant direct and indirect environmental impacts related to geology and soils.

4.5.1 ENVIRONMENTAL SETTING

4.5.1.1 REGULATORY FRAMEWORK

State Regulations

The most relevant State laws that regulate geology and soils in the Plan Area are the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act, and the California Building Code, each of which is described below.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures used for human occupancy.[1] The main purpose of the Act is to prevent the construction of buildings used for human occupancy on top of the traces of active faults. Although the Act addresses the hazards associated with surface fault rupture, it does not address other earthquake-related hazards, such as seismically induced ground shaking or landslides.[2]

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults, and to publish appropriate maps that depict these zones.[3] The maps are then distributed to all affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. In general, construction within 50 feet of an active fault zone is prohibited.

[1] Originally titled the *Alquist-Priolo Special Studies Zones Act* until renamed in 1993, Public Resources Code Division 2, Chapter 7.5, Section 2621.

[2] California Geological Survey, Alquist-Priolo Earthquake Fault Zones, http://www.consrv.ca.gov/CGS/rghm/ap/Pages/Index.aspx, accessed on March 28, 2013.

[3] Earthquake Fault Zones are regulatory zones around active faults. The zones vary in width, but average about ¼-mile wide. http://www.consrv.ca.gov/CGS/rghm/ap/Pages/Index.htm, accessed on March 28, 2013.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, passed in 1990, addresses earthquake hazards other than surface fault rupture, including liquefaction and seismically induced landslides.[4] Under this Act, seismic hazard zones are mapped by the State Geologist to assist local governments in land use planning. The Act states that "it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety."[5] Section 2697(a) of the Act states that "cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard."[6]

California Building Code

The California Building Standards Code, also known as Title 24 of the California Code of Regulations, reflects various building criteria that have been derived from different sources.[7] One of these sources is the International Building Code (IBC), a model building code adopted across the United States that has been modified to suit conditions in the State, thereby creating what is known as the California Building Code (CBC), or Part 2 of CCR Title 24.

The CBC is updated every three years, and the current 2010 CBC took effect on January 1, 2011. The 2013 CBC is scheduled to go into effect in January 2014. The CBC has been adopted for use in Section 15.08 of the City of Newark Code of Ordinances.[8] Through the CBC, the State provides a minimum standard for building design and construction. The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control.[9]

Local Regulations

City of Newark Code of Ordinances

In addition to the adoption of the CBC by reference, the City of Newark Code of Ordinances also contains rules and regulations that govern grading operations whose overall purpose is to "safeguard life, limb, property, and the public welfare by regulating grading on private property." These rules and regulations are organized as Chapter

[4] California Geological Survey, Alquist-Priolo Earthquake Fault Zones, http://www.conservation.ca.gov/CGS/rghm/ap/Pages/Index.aspx, accessed on May 25, 2012.

[5] California Public Resources Code, Division 2, Chapter 7.8, Section 2691(c).

[6] California Public Resources Code, Division 2, Chapter 7.8, Section 2697(a)

[7] California Building Standards Commission, http://www.bsc.ca.gov/codes.aspx , accessed on January 9, 2013.

[8] California Polytechnic State University (Cal Poly), 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 9 Safety, page 9-10.

[9] California Building Standards Commission, 2011, *2010 California Building Standards Administrative Code California Code of Regulations, Title 24, Part 1.*

15.50, Grading and Excavation.[10] The chapter articulates rules and regulations that control excavation, grading, and earthwork construction; establish permitting procedures; and identify plan approval and grading inspection protocols and procedures. Several American Society for Testing and Materials (ASTM) standards are incorporated by reference in Chapter 15.50. They include ASTM standards D1557, D1556, D2167, D2937, D 222, and D3017. These standards specify methods and procedures for determining in-situ soil density and moisture content, as well as the moisture-density relations for soils and soil-aggregate mixtures. Section 42 of this chapter also contains provisions for construction-related erosion control, including the preparation of cut-and-fill slopes and the implementation of erosion control measures such as check dams, cribbing, riprap, or other devices or methods.[11] Additionally, Chapter 15.50 also contains provisions requiring a soils engineering report for all new commercial projects two or more stories in height or new single-story commercial projects with soil bearing for any footings exceeding 1,000 pounds per square foot, an engineering geology report for all grading permits, and a liquefaction study for all building construction projects not specifically exempted.

4.5.1.2 EXISTING CONDITIONS

This section includes a discussion of the geotechnical conditions and soil resources located in the Plan Area.

Site Soils and Bedrock Geology

The Plan Area is located within the U.S. Geological Survey's (USGS) Newark and Niles Quadrangle 7.5-minute topographic maps.[12][13] This area is typified by low topographic relief, with gentle slopes to the southwest in the direction of South San Francisco Bay. By contrast, the Hayward Hills that lie roughly 2.75 miles northeast of the Plan Area, have considerable topographic relief, with elevations that locally exceed 1,600 feet.

The soils in the vicinity of the Plan Area have been mapped by various agencies and researchers, including the U.S. Department of Agriculture Natural Resource Conservation Service (formerly, the Soil Conservation Service). The USDA's 1981 soil survey of western Alameda County embraced the Plan Area and neighboring communities.[14] In general, the soils beneath the City of Newark are dominated by very deep, poorly-drained, fine-grained soils such as clays and silty clay loams, with lesser areas of deep, well-drained silty loam in the northeast corner of the city and very deep, very poorly drained clays in the tidelands that flank the southwest edge of the Plan Area.[15] The USDA identified these soils as the Clear Lake-Omni, Sycamore-Yolo, and Reyes map units, respectively. Detailed soil mapping and associated soil testing revealed that many soil types are characterized by low permeability and are highly erodible. Furthermore, most of the soils that were mapped are characterized by high shrink-swell potential,

[10] Newark, California Code of Ordinances, Title 15, Chapter 15.50, http://library.municode.com/index.aspx?clientId=16521, accessed on April 1, 2013.

[11] Newark, California Code of Ordinances, Title 15, Chapter 15.50, Section 42, http://library.municode.com/index.aspx?clientId=16521, accessed on April 1, 2013

[12] U.S. Geological Survey, 1993, Newark, California Quadrangle Map, scale 1:24,000.

[13] U.S. Geological Survey, 1993, Niles, California Quadrangle Map, scale 1:24,000.

[14] U.S. Department of Agriculture, Soil Conservation Service, 1981, Soil Survey of Alameda County, California, Western Part.

[15] U.S. Department of Agriculture, Natural Resource Conservation Service, Soil Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm, accessed on April 2, 2013.

where alternating wetting and drying can result in significant changes in soil volume. These soil volume changes can cause heaving and cracking in concrete foundations and/or flatwork that are built on these soils.

The surficial and bedrock geology underlying the Plan Area has been mapped by a variety of agencies and organizations, including the USGS. In their 1992 geologic map and report for the Newark area, the USGS concluded that the surficial geology in the Plan Area is almost exclusively comprised of Quaternary alluvium and estuarine sediments.[16] Traversing the Plan Area from northeast to southwest (i.e., in the direction of the Bay), the following trend in surficial geology is encountered: 1) alluvial fan deposits, typically sandy clay associated with Dry Creek; 2) followed by floodplain deposits often composed of sandy to silty clay; and 3) culminating in flood basin and estuarine deposits such as the Bay Mud, whose thickness locally exceeds 60 feet. Bedrock outcrops have not been reported in the Plan Area, with the exception of some isolated bedrock outcroppings, stockpiles and levees in the Dumbarton TOD Focus Area where elevations are as high as approximately 40 feet above mean sea level. Other than these isolated outcropppings, the closest outcrops appear to be exposures of highly deformed, Mesozoic metamorphic and sedimentary rocks (i.e., graywackes, chert, serpentinite) of the Franciscan Assemblage that are exposed in the Coyote Hills, located less than one mile northwest of the Plan Area.

Regional Faulting, Seismicity, and Related Seismic Hazards

The Working Group on California Earthquake Probabilities, a collaborative effort involving the USGS, the California Geological Survey, and the Southern California Earthquake Center, estimates that the 30-year probability of a magnitude 6.7 or greater earthquake striking the San Francisco Bay area is 63 percent.[17] No active faults are known to pass directly through the Plan Area; however, an earthquake of moderate to high magnitude generated within the San Francisco Bay area could cause significant ground shaking in the Plan Area. The degree of shaking would depend on the magnitude of the event, the duration of the event, the distance to the zone of rupture (i.e., hypocenter), and local geologic conditions.

Active earthquake faults in the general vicinity of the Plan Area include, but are not limited to the Hayward, Calaveras, and San Andreas faults, located approximately 2 miles to the east, 9 miles to the northeast, and 13 miles to the west of the Plan Area, respectively.[18] Of these, the Hayward Fault is the most significant to the Plan Area. Its mapped trace lies closest to the Plan Area, and recent seismological research concluded that the average earthquake recurrence interval on this fault is approximately 138 years (the last major earthquake occurred in 1868, or 145 years ago).[19] Although the aforementioned faults all pose significant seismic risks, the risk from surface fault rupture appears to be low because no Alquist-Priolo Earthquake Fault Zones (i.e., active faults) have been mapped within the Plan Area.[20]

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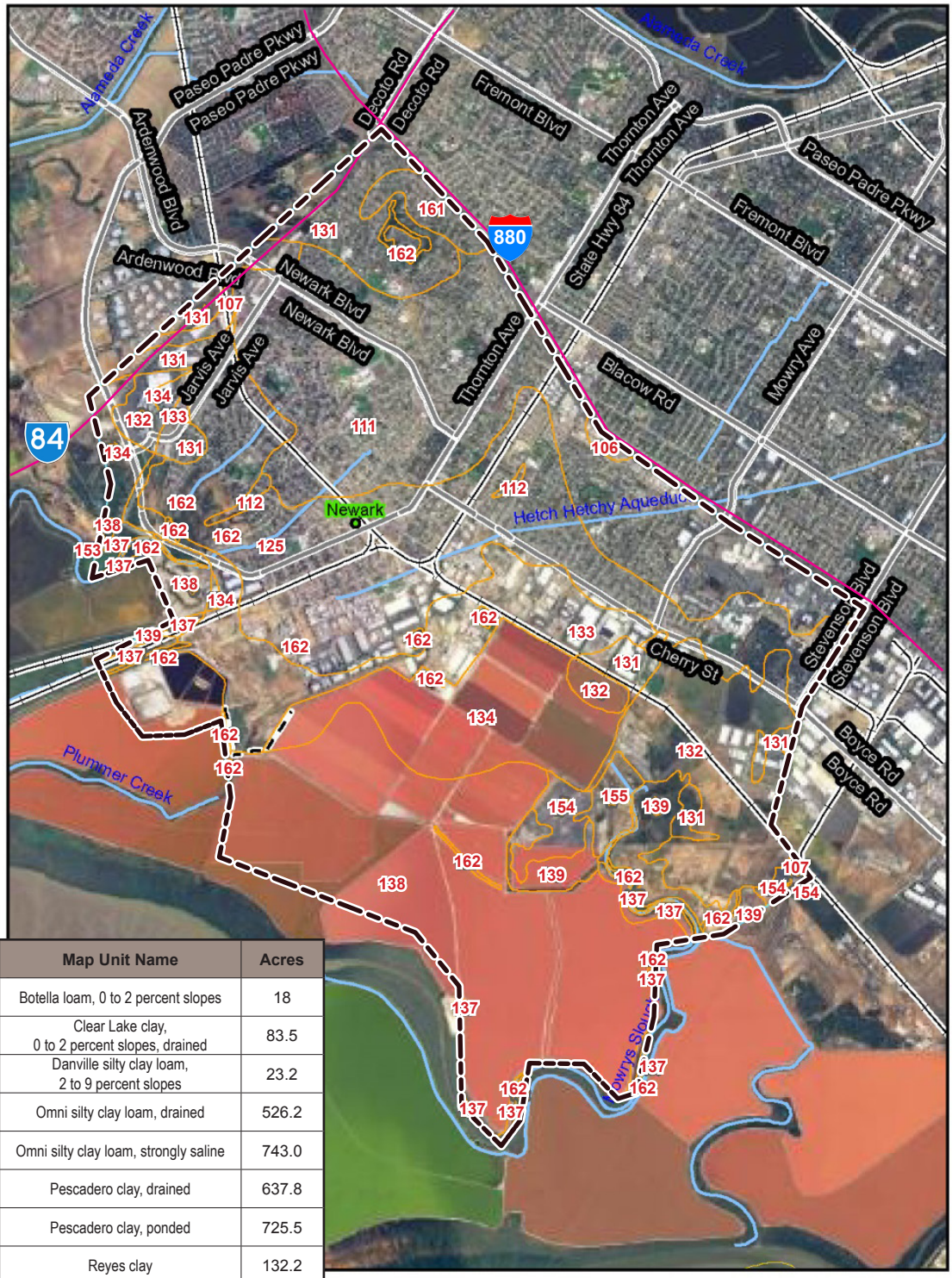
[16] U.S. Geological Survey, 1992, *Geologic Map of the 7.5 Minute Newark Quadrangle, Alameda County, California*, Open File Report OFR 92-312, Helley, E. J. and Miller, D. M., authors.

[17] 2007 Working Group on California Earthquake Probabilities, 2008, *The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2)*, page 6.

[18] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 9 Safety, page 9-5.

[19] U.S. Geological Survey, 2008, *The Hayward Fault—Is It Due for a Repeat of the Powerful 1868 Earthquake?*, USGS Fact Sheet 2008-3019.

[20] California Geological Survey, 1982, *Special Studies Zones, Newark Revised*, map at 1:24,000 scale, effective January 1, 1982.



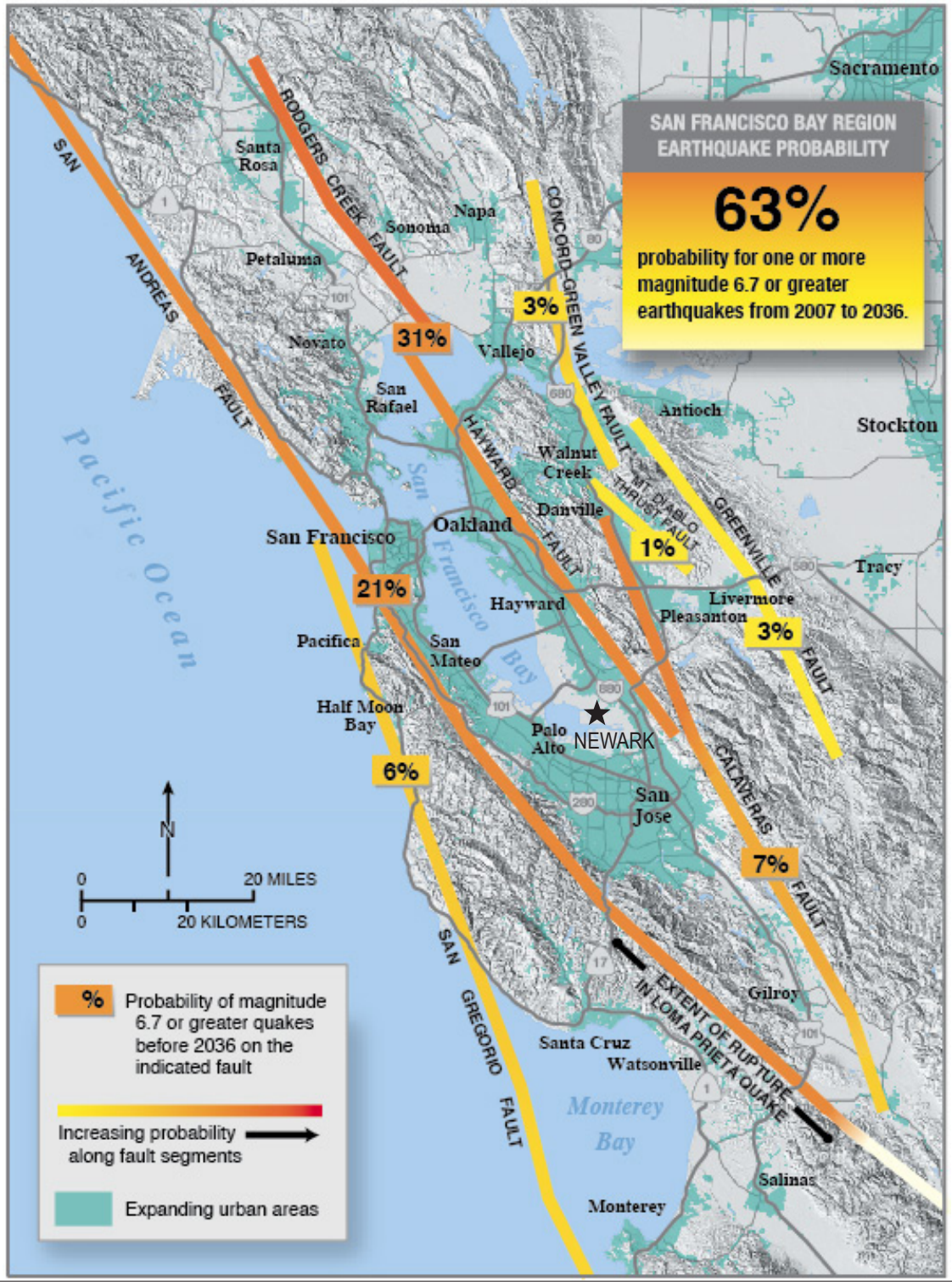
Map Unit Symbol	Map Unit Name	Acres
106	Botella loam, 0 to 2 percent slopes	18
107	Clear Lake clay, 0 to 2 percent slopes, drained	83.5
112	Danville silty clay loam, 2 to 9 percent slopes	23.2
131	Omni silty clay loam, drained	526.2
132	Omni silty clay loam, strongly saline	743.0
133	Pescadero clay, drained	637.8
134	Pescadero clay, ponded	725.5
137	Reyes clay	132.2
138	Reyes clay, ponded	2,025.9
139	Reyes clay, drained	244.5
153	Vallecitos-Rock outcrop complex, 30 to 50 percent slopes	1.8
154	Willows clay, drained	102.0
155	Xerorthents, clayey	71.5
162	Water	105.2

Source: USDA, Natural Resource Conservation Service, Web Soil Survey, 2013.

Newark City Limit

0 1
Scale Miles

Figure 4.5-1
Soil Types



Source: 2007 Working Group on California Earthquake Probabilities, 2008, The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2).

Figure 4.5-2
Earthquake Probabilities

Landslides

As previously discussed, the topography in the Plan Area is comparatively flat, sloping gently from approximately 37 feet above mean sea level (amsl) near the I-880/SR 84 freeway interchange in the northeast part of the Plan Area to nearly sea level in the upper reaches of Newark Slough on the west side of the city.[21] The California Geological Survey's Seismic Hazard Mapping Program has published maps for seismically induced landslide hazards. Based on their 2003 hazard report and map for the Newark 7.5-minute quadrangle, no seismically induced landslide hazard zones have been mapped within the Plan Area.[22]

Liquefaction

Liquefaction can occur in water-saturated, cohesionless sediments during major seismic events. During such events, the liquefied sediment suddenly loses strength and may fail, causing damage to buildings, bridges, and other man-made structures. Based on the California Geological Survey's 2003 seismic hazard report for the Newark 7.5-minute quadrangle, the entire Plan Area has been mapped as a liquefaction hazard zone.[23] The hazard mapping approach took into account a wide range of factors, such as the presence of shallow groundwater (the report noted that water levels are as shallow as 5 to 30 feet below ground surface in most of the Plan Area), the predicted intensity of ground shaking during major seismic events, soil physical properties, and historical evidence of liquefaction such as ground settlement, sand boils, and lurching and lateral spreading that reportedly occurred during the 1906 San Francisco earthquake. It should be noted that despite the city-wide liquefaction hazard zoning, the actual risk from liquefaction will necessarily vary from location-to-location; appropriate mitigation measures will also vary and are best elucidated through site-specific geotechnical studies.

Unstable Geologic Units

Geologic units and soils in the Plan Area could present risks where they are considered unstable, that is, prone to subsidence, differential settlement, and/or shrink-swell behavior (i.e., expansive soils). Much like liquefaction, soil stability often depends on a variety of site-specific factors, such as soil texture, moisture content, mineralogical composition (i.e., certain clay minerals, notably clays of the smectite group, are more prone to shrink-swell behavior), cohesiveness, and organic content. The latter is important where development near the shoreline is contemplated. The Bay Mud is known to contain significant deposits or layers of shells and peat.[24] Peat is a highly compressible material, and significant subsidence has been documented in the San Francisco Bay area where thick peat layers were subject to grading or other alterations. In general, the western part of the Plan Area, including those areas located adjacent to the bay and the associated wetlands are at greater risk from unstable geological units and/or soils.

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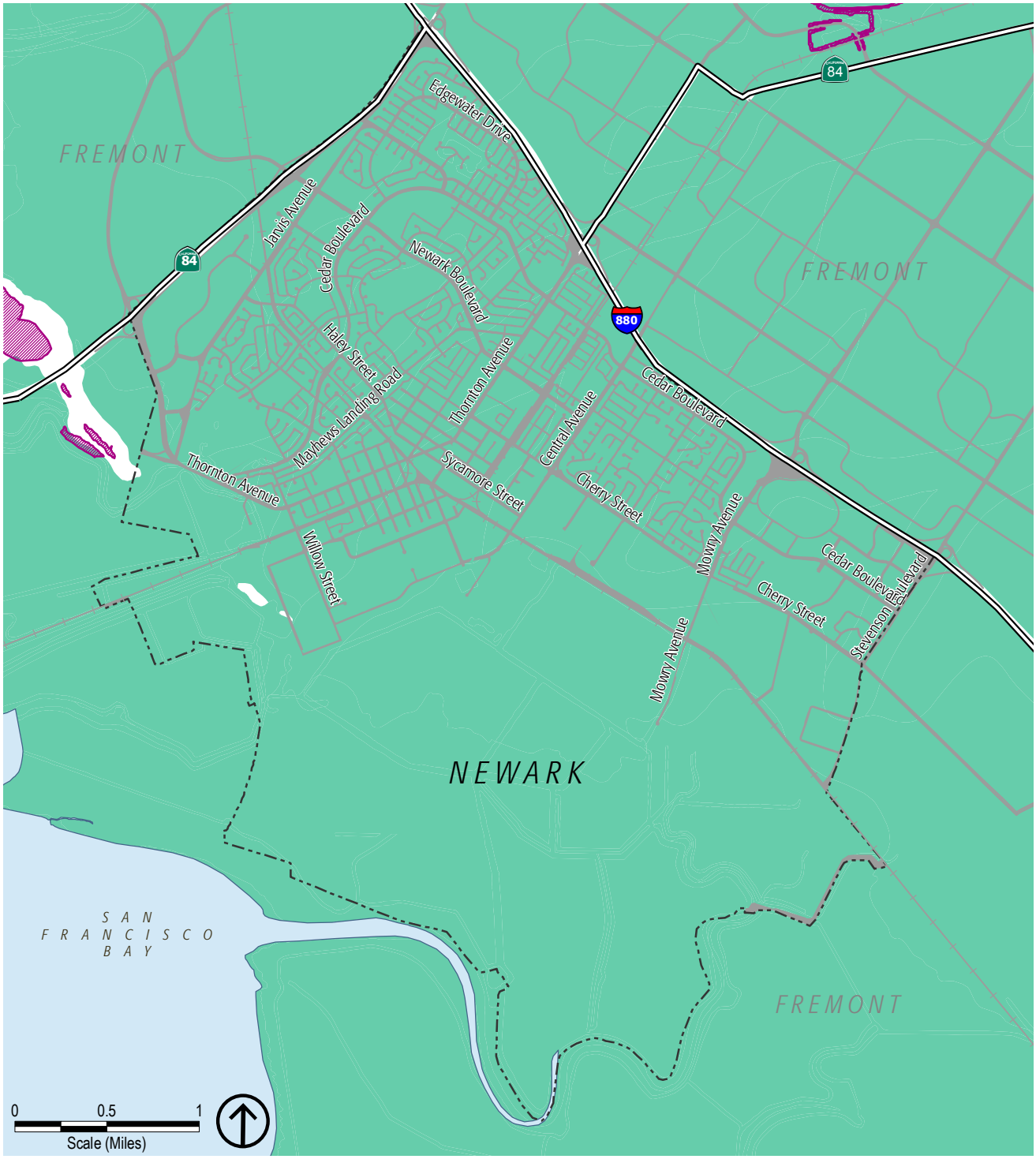
[21] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 6 Conservation, page 6-5.

[22] California Geological Survey, 2003, Seismic Hazard Zone Report for the Newark 7.5-Minute Quadrangle, Alameda County, California, Seismic Hazard Zone Report 090.

[23] California Geological Survey, 2003, Seismic Hazard Zone Report for the Newark 7.5-Minute Quadrangle, Alameda County, California, Seismic Hazard Zone Report 090.

[24] U.S. Geological Survey, 1971, *Preliminary Map of Historic Margins of Marshlands, San Francisco Bay, California*, Open File Report OFR 71-216, Nichols, D. and Wright, N., authors.



Source: Source Data: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010; CGS, 2003.

City Limit | Areas at Risk of Liquefaction | Areas at Risk of Earthquake-Induced Landslides

Figure 4.5-3
Mapped Seismic Hazard Zones

4.5.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, development in the Plan Area would have a significant impact with regard to geology and soils if it would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
    a. Surface rupture along a known active fault, including those faults identified on recent Alquist-Priolo Earthquake Fault Zoning Maps issued by the State Geologist, or active faults identified through other means (i.e. site-specific geotechnical studies, etc.).
    b. Strong seismic ground shaking.
    c. Seismic-related ground failure, including liquefaction.
    d. Landslides.
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landsliding, lateral spreading, subsidence, liquefaction, or collapse.
4. Be located on expansive soil, as defined in Table 18-1-b of the Uniform Building Code (1994), creating substantial risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.

The purpose of this Draft EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project. (*South Orange County Wastewater Authority v. City of Dana Point (2011) 196 Cal.App.4th 1604, 1614-1618; City of Long Beach v. Los Angeles Unified School Dist. (2009) 176 Cal.App.4th 889, 905.)* While identifying the environmental effects of attracting development and people to an area is consistent with CEQA's legislative purpose and statutory requirements, identifying the effects on the Project and its users of locating the Project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes.

Appendix G of the Guidelines is a sample checklist form that is suggested for use in preparing an initial study, and which the City has employed to assist in the preparation of this Draft EIR (see *Guidelines, § 15063, subd. (f).*) However, a few of the questions on the form concern the exposure of people or structures to environmental hazards and could be construed to refer to not only the Project's exacerbation of environmental hazards but also the effects on users of the project and structures in the project of preexisting environmental hazards. To the extent that such questions may encompass the latter effects, the questions do not relate to environmental impacts under CEQA and cannot support an argument that the effects of the environment on the project must be analyzed in an EIR. (*Bellona Wetlands Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473-474.)

Accordingly, while the City provides the following informational analysis of criterion 1, taken from Appendix G of the CEQA Guidelines, the Guidelines language in criterion 1 above is not an example of an environmental effect caused by development, but instead is an example of an effect on the Project caused by the environment.

4.5.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to geology and soils.

This section provides an analysis of potential project and cumulative impacts related to geology and soils that could occur as a result of the implementation of the proposed Plan. This analysis includes a discussion of both Plan-level and cumulative impacts.

GEO-1	The proposed Plan would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving surface rupture along a known active fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides.

The proposed Plan would have a significant environmental impact if it would expose people or structures to potentially substantial adverse effects including the risk of loss, injury, or death involving surface rupture along a known active fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides. As previously discussed, no Alquist-Priolo Earthquake Fault Zones have been established by the CGS within the Plan Area, nor have any seismically induced landslide hazard zones been mapped by the CGS in that area. Thus, the risk of surface fault rupture or earthquake-induced landslides associated with the implementation of the proposed Plan is considered extremely low.

Although all of the Plan Area has been formally designated as a liquefaction hazard zone, State and local regulations and policies require the conduct of detailed, site-specific geotechnical evaluations prior to the approval of a project located in such a zone.[25] These regulations and policies further require the incorporation of the geotechnical report recommendations into any proposed building design and implementation during its construction.

Similarly, the hazards posed by strong seismic ground shaking during a major earthquake, while variable, are nearly omnipresent across the Plan Area. Adherence to applicable building code and building permit requirements would help ensure that the impacts associated with strong seismic ground shaking are minimized to the maximum extent practicable.

The City of Newark Code would ensure that construction, grading, and related activities meet CBC standards, implement erosion control methods, and provide, where required, a professionally-prepared soils engineering report, engineering geology report, and a liquefaction study. The California Public Resources Code further

[25] California Seismic Hazards Mapping Act, Section 2697 (a); Newark Municipal Code, Chapter 15.50.

establishes that, for any project located in a seismic hazard zone, a geotechnical report identifying seismic hazards would be prepared.

Additionally, the following goals, policies, and actions from the proposed Plan would address hazards related to liquefaction and ground shaking:

- Policy EH-1.1: Development Regulations and Code Requirements. Establish and enforce development regulations and building code requirements to protect residents and workers from flooding, liquefaction, earthquakes, fires, and other hazards.
- Policy EH-1.2: Considering Hazards in Project Location and Design. Prohibit development in any area where it is determined that the potential risk from natural hazards cannot be mitigated to acceptable levels.
- Action EH-1.A: Development Review. Review all development applications to ensure their compliance with all relevant building and safety codes, including those related to fire, flooding, soil, and geologic hazards.
- Action EH-1.B: Code Updates. Periodically revise construction codes and regulations to incorporate the latest information and technology related to natural hazards such as earthquakes and flooding.
- Goal EH-2: Reduce risks to life and property associated with geologic hazards.
- Policy EH-2.1: Earthquake Safety in New Construction. Require new development to meet structural integrity standards which minimize the potential for damage during earthquakes.
- Policy EH-2.2: Seismic Retrofits. Encourage the retrofitting of existing structures to reduce the potential for damage during earthquakes.
- Policy EH-2.3: Earthquake Awareness. Inform Newark residents and businesses of steps they can take to reduce earthquake-related hazards.
- Policy EH-2.4: Infrastructure Resilience. Maintain standards for roads and infra-structure which consider geologic hazards, including subsidence and liquefaction.
- Action EH-2.A: Geotechnical Studies. At the discretion of the Director of Public Works, require detailed investigations of ground shaking, liquefaction, soil stability, and other geologic hazards as specific development projects are proposed. Such investigations shall be prepared by a qualified geologist or soils engineer, with appropriate mitigation measures identified and implemented.
- Action EH-2.B: Geotechnical Staff Assistance. As needed, retain outside consulting assistance to assist City staff in conducting specialized evaluations of geotechnical and structural engineering issues.
- Action EH-2.C: Mandatory Seismic Upgrades. If feasible and appropriate, require seismic upgrading of existing buildings when applications for renovation or use permits are filed.
- Action EH-2.D: Homeowner Education on Earthquake Safety. Continue to educate homeowners on the importance of retrofitting their homes for earthquake safety, particularly bolting of foundations where there are currently no connections between the foundation and frame.

- Action EH-2.E: Seismic Safety at Schools. Work with Newark Unified School District to enhance the seismic safety of all school facilities.
- Action EH-2.F: Earthquake Hazard Maps. Periodically update maps indicating risks of liquefaction, subsidence, and other geologic hazards as information becomes available.

Further, Mitigation Measure 4.5-1, from the Dumbarton TOD EIR, requires future developers within the Dumbarton TOD area to perform a design-level geotechnical engineering investigation for their individual property or properties prior to development and as a condition for grading permit approval. Similarly, Mitigation Measure 4.5-1 from the Housing Element EIR requires site specific geotechnical investigations for complexes containing four or more dwellings constructed on a housing site, or for major remodel projects on complexes with four or more dwellings, the design and construction of structures to conform with the CBC's seismic design requirements, and that recommendations of geotechnical investigations be included as conditions of approval for individual development projects.

Applicable Regulations:

- City of Newark Municipal Code, Chapter 15 Building Regulations (including California Building Code adopted by reference, Section 15.50, Newark Municipal Code)
- California Public Resources Code, Division 2, Chapter 7.8, Section 2697(a) (a.k.a. the Seismic Hazards Mapping Act)

Compliance with the above ordinances and mitigation measures would reduce geology- and soils-related impacts to the maximum extent practicable. Consequently, the overall, associated impacts would be less than significant.

Significance Before Mitigation: Less than Significant.

GEO-2	Implementation of the proposed Plan would not result in substantial soil erosion or the loss of topsoil.

Substantial soil erosion or loss of topsoil during construction could undermine structures and minor slopes. This could be a concern at nearly all future development sites within the Plan Area, and could be further exacerbated where soils have been described as highly erodible in prior soil surveys. However, compliance with existing regulatory requirements, such as implementation of erosion control measures as specified in Title 15, Chapter 50, Grading and Excavation, of the City of Newark's Municipal Code, would reduce impacts from erosion and the loss of topsoil. Grading permits are typically required for most development, in which case, the permit application must be accompanied by suitably detailed plans and specifications, and supporting soils engineering report and engineering geology report. Examples of potentially necessary erosion control measures are cited in the Municipal Code: "check dams, cribbing, riprap, or other devices or methods shall be employed to control erosion and provide safety." Adherence to existing regulatory requirements would ensure that impacts associated with substantial erosion and loss of topsoil during development in the Plan Area would be less than significant. As mentioned previously, the City of Newark Code would also ensure that construction, grading, and related activities meet CBC

standards, implement erosion control methods, and provide, where required, a professionally-prepared soils engineering report, engineering geology report, and a liquefaction study.

Also, there are a goal, a policy, and an action from the proposed Plan which would address soil erosion or the loss of topsoil:

- Goal CS-1: Protect Newark's natural environment, landscape, and physical features.
- Policy CS-1.4: Soil Erosion. Identify and eliminate erosion problems on public and private lands. The potential for erosion should be considered as a design and engineering factor in new development.
- Action CS-1.B: Soil Erosion BMPs. Require new construction projects to incorporate best management practices (BMPs) which minimize soil erosion and runoff of nutrients, sediments, and pesticides.

The above goal, policy, and action would further reduce an already less-than-significant impact.

Additionally, Mitigation Measure 4.5-1, from the Dumbarton TOD EIR, requires future developers within the Dumbarton TOD area to perform a design-level geotechnical engineering investigation for their individual property or properties prior to development and as a condition for grading permit approval. Similarly, Mitigation Measure 4.5-1 from the Housing Element EIR requires site specific geotechnical investigations for complexes containing four or more dwellings constructed on a housing site, or for major remodel projects on complexes with four or more dwellings, the design and construction of structures to conform with the CBC's seismic design requirements, and that recommendations of geotechnical investigations be included as conditions of approval for individual development projects.

Applicable Regulations:

- City of Newark Municipal Code, Section 15.50.042 Erosion Control
- City of Newark Municipal Code, Section 15.50.020 Grading Permit Requirements

Compliance with the above ordinances and mitigation measures would reduce impacts relating to erosion or the loss of topsoil to the maximum extent practicable and ensure that impacts would be less than significant.

Significance Before Mitigation: Less than significant.

GEO-3	Development under the proposed Plan would not result in a significant impact related to development on unstable geologic units and soils or result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Unstable soils or geologic units that may be susceptible to liquefaction, differential settlement, and/or subsidence are known to occur within the Plan Area, although this susceptibility is subject to natural variation and site-to-site differences. The location of the Plan Area in a CGS-designated liquefaction hazard zone triggers the need for a detailed, site-specific geotechnical evaluation prior to the approval of a project located in such a zone. The scope of such evaluations is generally broad enough that highly compressible soils (such as peat horizons), soil areas prone to differential settlement or subsidence are identified, and corrective measures, if needed, can be formulated.

State and local regulations further require the incorporation of the geotechnical report recommendations into any proposed building design and implementation during its construction.

As mentioned earlier, the City of Newark Code would ensure that construction, grading, and related activities meet CBC standards, implement erosion control methods, and provide, where required, a professionally-prepared soils engineering report, engineering geology report, and a liquefaction study. The California Public Resources Code further establishes that, for any project located in a seismic hazard zone, a geotechnical report identifying seismic hazards would be prepared.

Additionally, the proposed Plan contains a goal, an action, and several policies relevant to potential development on unstable geologic units and soils or relating to landslide, lateral spreading, subsidence, liquefaction, or collapse:

- Goal EH-1: Reduce the potential for injury, property damage, and loss of life resulting from environmental hazards.
- Policy EH-1.1: Development Regulations and Code Requirements. Establish and enforce development regulations and building code requirements to protect residents and workers from flooding, liquefaction, earthquakes, fires, and other hazards.
- Policy EH-1.2: Considering Hazards in Project Location and Design. Prohibit development in any area where it is determined that the potential risk from natural hazards cannot be mitigated to acceptable levels.
- Action EH-1.A: Development Review. Review all development applications to ensure their compliance with all relevant building and safety codes, including those related to fire, flooding, soil, and geologic hazards.
- Action EH-2.A: Geotechnical Studies. At the discretion of the Director of Public Works, require detailed investigations of ground shaking, liquefaction, soil stability, and other geologic hazards as specific development projects are proposed. Such investigations shall be prepared by a qualified geologist or soils engineer, with appropriate mitigation measures identified and implemented.
- Action EH-2.B: Geotechnical Staff Assistance. As needed, retain outside consulting assistance to assist City staff in conducting specialized evaluations of geotechnical and structural engineering issues.

Additionally, Mitigation Measure 4.5-1, from the Dumbarton TOD EIR, requires future developers within the Dumbarton TOD area to perform a design-level geotechnical engineering investigation for their individual property or properties prior to development and as a condition for grading permit approval. Similarly, Mitigation Measure 4.5-1 from the Housing Element EIR requires site specific geotechnical investigations for complexes containing four or more dwellings constructed on a housing site, or for major remodel projects on complexes with four or more dwellings, the design and construction of structures to conform with the CBC's seismic design requirements, and that recommendations of geotechnical investigations be included as conditions of approval for individual development projects.

Applicable Regulations and Conditions of Approval

- City of Newark Municipal Code, City of Newark Code of Ordinances, Chapter 15 Building Regulations (including California Building Code adopted by reference, Section 15.50, Newark Municipal Code)

- California Public Resources Code, Division 2, Chapter 7.8, Section 2697(a) (a.k.a. the Seismic Hazards Mapping Act)

Impacts relating to development on an unstable geologic unit or to landslide, lateral spreading, subsidence, liquefaction, or collapse, with implementation of the above policies, would be reduced to the maximum extent practicable. Consequently, the overall, associated impacts would be less than significant.

Significance Before Mitigation: Less than significant.

GEO-4	Development under the proposed Plan would not create substantial risks to life or property as a result of its location on expansive soil, as defined in Table 18-1-b of the Uniform Building Code (1994).

As previously discussed, the pattern of expansive soils within the Plan Area is such that expansive soils (i.e., those previously mapped as possessing high shrink-swell potential) are most prevalent in the west part of the Plan Area, in the neighborhoods that lie closest to the marshlands that flank San Francisco Bay. Development within the Plan Area in almost all instances would be preceded by suitably detailed geotechnical evaluations, the scope of which would include tests to determine and quantify the presence of expansive soils. The need for such geotechnical evaluations are triggered by CGS-determined liquefaction hazard zones that embrace all of the Plan area, as well provisions of the CBC and related City of Newark building and grading permit requirements.

As mentioned above, the City of Newark Code would ensure that construction, grading, and related activities meet CBC standards, implement erosion control methods, and provide, where required, a professionally-prepared soils engineering report, engineering geology report, and a liquefaction study. Thus, compliance with existing regulations and policies would ensure that the potential future development impacts related to expansive soils would be reduced to a less-than-significant level.

Also, there are policies, actions, and a goal from the proposed Plan which are relevant to risks associated with locating development on expansive soil:

- Goal EH-1: Reduce the potential for injury, property damage, and loss of life resulting from environmental hazards.
- Policy EH-1.1: Development Regulations and Code Requirements. Establish and enforce development regulations and building code requirements to protect residents and workers from flooding, liquefaction, earthquakes, fires, and other hazards.
- Policy EH-1.2: Considering Hazards in Project Location and Design. Prohibit development in any area where it is determined that the potential risk from natural hazards cannot be mitigated to acceptable levels.
- Action EH-1.A: Development Review. Review all development applications to ensure their compliance with all relevant building and safety codes, including those related to fire, flooding, soil, and geologic hazards.
- Policy EH-2.4: Infrastructure Resilience. Maintain standards for roads and infra-structure which consider geologic hazards, including subsidence and liquefaction.

- Action EH-2.A: Geotechnical Studies. At the discretion of the Director of Public Works, require detailed investigations of ground shaking, liquefaction, soil stability, and other geologic hazards as specific development projects are proposed. Such investigations shall be prepared by a qualified geologist or soils engineer, with appropriate mitigation measures identified and implemented.
- Action EH-2.B: Geotechnical Staff Assistance. As needed, retain outside consulting assistance to assist City staff in conducting specialized evaluations of geotechnical and structural engineering issues.

Further, as described earlier, Mitigation Measure 4.5-1, from the Dumbarton TOD EIR, requires future developers within the Dumbarton TOD area to perform a design-level geotechnical engineering investigation for their individual property or properties prior to development and as a condition for grading permit approval. Similarly, Mitigation Measure 4.5-1 from the Housing Element EIR requires site specific geotechnical investigations for complexes containing four or more dwellings constructed on a housing site, or for major remodel projects on complexes with four or more dwellings, the design and construction of structures to conform with the CBC's seismic design requirements, and that recommendations of geotechnical investigations be included as conditions of approval for individual development projects.

Applicable Regulations:

- City of Newark Municipal Code, Chapter 15.50 (including California Building Code adopted by reference)
- City of Newark Municipal Code, Section 15.50.020 Grading Permit Requirements

Compliance with the above ordinances and mitigation measures would reduce impacts relating to expansive soil to the maximum extent practicable. Consequently, the overall, associated impacts under the propose d Plan would be less than significant.

Significance Before Mitigation: Less than significant.

GEO-5	Implementation of the proposed Plan would not result in impacts associated with the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.

Development within the Plan Area would not require the use of septic tanks or alternative wastewater disposal systems. Wastewater would be discharged into the existing public sanitary sewer system in the Plan Area, which is serviced by the Union Sanitary District, an independent special district that provides wastewater collection, treatment, and disposal services to the residents and businesses of the cities of Newark, Fremont, and Union City, California. As such, there would be no impact from implementation of the Plan at sites where soils might otherwise not be capable of supporting the use of septic tanks or alternative wastewater disposal systems.

Significance Before Mitigation: No impact.

4.5.4 CUMULATIVE IMPACTS

GEO-6	**The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to geology and soils.**

When considering an area-wide planning document such as the proposed Plan, cumulative impacts with respect to geology and soils can result from development under the proposed Plan in concert with the effects of development on nearby land. The geographic scope of this analysis includes past, present, and reasonably foreseeable projects in the Plan Area, so as to embrace all of the City of Newark. The impacts associated with geology, soils, and seismicity are often site-specific. Development within the Plan Area, as well as other past, present, and foreseeable projects in the vicinity would be subject to similar State and local policies and regulations that govern seismic and geologic hazard impacts. Examples of these policies and regulations include, but are not limited to the City's building and grading permit process and required adherence to the California Building Code, required performance of geotechnical studies where significant site-specific geologic risks such as liquefaction hazard zones are known to be present, and incorporation of geotechnical recommendations into the design and construction of new buildings. The City of Newark Code would ensure that construction, grading, and related activities meet CBC standards, implement erosion control methods, and provide, where required, a professionally-prepared soils engineering report, engineering geology report, and a liquefaction study. The California Public Resources Code further establishes that, for any project located in a seismic hazard zone, a geotechnical report identifying seismic hazards would be prepared. Compliance with these requirements within the Plan Area as well as compliance at other past, present, and foreseeable projects in the vicinity, would ensure that the cumulative impacts related to geology, soils, and seismic impacts would be reduced to the maximum extent practicable. For these reasons, the proposed Plan would not result in a cumulatively considerable contribution to cumulative impacts related to geology and soils.

Additionally, the following goals, policies, and actions from the proposed Plan would further protect development in the Plan Area from adverse impacts related to geology and soils:

- Goal EH-1: Reduce the potential for injury, property damage, and loss of life resulting from environmental hazards.
- Policy EH-1.1 Development Regulations and Code Requirements. Establish and enforce development regulations and building code requirements to protect residents and workers from flooding, liquefaction, earthquakes, fires, and other hazards.
- Policy EH-1.2: Considering Hazards in Project Location and Design. Prohibit development in any area where it is determined that the potential risk from natural hazards cannot be mitigated to acceptable levels.
- Action EH-1.A: Development Review. Review all development applications to ensure their compliance with all relevant building and safety codes, including those related to fire, flooding, soil, and geologic hazards.
- Action EH-1.B: Code Updates. Periodically revise construction codes and regulations to incorporate the latest information and technology related to natural hazards such as earthquakes and flooding.
- Goal EH-2: Reduce risks to life and property associated with geologic hazards.

- Policy EH-2.1: Earthquake Safety in New Construction. Require new development to meet structural integrity standards which minimize the potential for damage during earthquakes.
- Policy EH-2.2: Seismic Retrofits. Encourage the retrofitting of existing structures to reduce the potential for damage during earthquakes.
- Policy EH-2.3: Earthquake Awareness. Inform Newark residents and businesses of steps they can take to reduce earthquake-related hazards.
- Policy EH-2.4: Infrastructure Resilience. Maintain standards for roads and infra-structure which consider geologic hazards, including subsidence and liquefaction.
- Action EH-2.A: Geotechnical Studies. At the discretion of the Director of Public Works, require detailed investigations of ground shaking, liquefaction, soil stability, and other geologic hazards as specific development projects are proposed. Such investigations shall be prepared by a qualified geologist or soils engineer, with appropriate mitigation measures identified and implemented.
- Action EH-2.B: Geotechnical Staff Assistance. As needed, retain outside consulting assistance to assist City staff in conducting specialized evaluations of geotechnical and structural engineering issues.
- Action EH-2.C: Mandatory Seismic Upgrades. If feasible and appropriate, require seismic upgrading of existing buildings when applications for renovation or use permits are filed.
- Action EH-2.D: Homeowner Education on Earthquake Safety. Continue to educate homeowners on the importance of retrofitting their homes for earthquake safety, particularly bolting of foundations where there are currently no connections between the foundation and frame.
- Action EH-2.E: Seismic Safety at Schools. Work with Newark Unified School District to enhance the seismic safety of all school facilities.
- Action EH-2.F: Earthquake Hazard Maps. Periodically update maps indicating risks of liquefaction, subsidence, and other geologic hazards as information becomes available.
- Goal CS-1: Protect Newark's natural environment, landscape, and physical features.
- Policy CS-1.4: Soil Erosion. Identify and eliminate erosion problems on public and private lands. The potential for erosion should be considered as a design and engineering factor in new development.
- Action CS-1.B: Soil Erosion BMPs. Require new construction projects to incorporate best management practices (BMPs) which minimize soil erosion and runoff of nutrients, sediments, and pesticides.

Also, Mitigation Measure 4.5-1, from the Dumbarton TOD EIR, requires future developers within the Dumbarton TOD area to perform a design-level geotechnical engineering investigation for their individual property or properties prior to development and as a condition for grading permit approval. Similarly, Mitigation Measure 4.5-1 from the Housing Element EIR requires site specific geotechnical investigations for complexes containing four or more dwellings constructed on a housing site, or for major remodel projects on complexes with four or more dwellings, the design and construction of structures to conform with the CBC's seismic design requirements, and that recommendations of geotechnical investigations be included as conditions of approval for individual development projects.

Applicable Regulations and Conditions of Approval

- California Public Resources Code, Division 2, Chapter 7.8, Section 2697(a) (a.k.a. the Seismic Hazards Mapping Act)
- City of Newark Municipal Code, Chapter 15 Building Code (including California Building Code adopted by reference)
- City of Newark Municipal Code, Section 15.50.042 Erosion Control
- City of Newark Municipal Code, Section 15.50.020 Grading Permit Requirements

Compliance with the above ordinances and mitigation measures would reduce geology- and soils-related impacts to the maximum extent practicable.

Significance Before Mitigation: Less than Significant. In combination with past, present, and reasonably foreseeable projects, development within the Plan Area would result in a *less-than-significant* cumulative impact with respect to geology and soils.

4.5.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The development of the Plan would not result in any significant Plan-specific or cumulative impacts with respect to geology and soils. Therefore, no mitigation measures are required.

4.6 GREENHOUSE GAS EMISSIONS

This chapter evaluates the potential for land use changes within the proposed Plan to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because individually no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate-change–related impacts of a project are considered on a cumulative basis.

This chapter is based on the methodology recommended by the Bay Area Air Quality Management District (BAAQMD) for plan-level review. The analysis contained herein focuses on air pollution from regional emissions and localized pollutant concentrations. The analysis is in this section is based on the population and employment projections anticipated within the City of Newark at buildout of the proposed plan in 2035. Emissions from the transportation sector are based on vehicle miles traveled (VMT) provided by Hexagon, as modeled using Alameda Congestion Transportation Commission's (CTC) regional transportation demand model. GHG emissions modeling is included in Appendix B of this EIR.

4.6.1 ENVIRONMENTAL SETTING

Greenhouse Gases and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[1][2] The major GHG are briefly described below. Table 4.6-1 lists the GHG applicable to the proposed Project and their relative global warming potentials (GWP) compared to CO_2.

- **Carbon dioxide** (CO_2) enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane** (CH_4) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

[1] Intergovernmental Panel on Climate Change (IPCC), 2001, Third Assessment Report: Climate Change 2001. New York: Cambridge University Press.

[2] Water vapor (H2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.

TABLE 4.6-1 GREENHOUSE GASES AND THEIR RELATIVE GLOBAL WARMING POTENTIAL COMPARED TO CO_2

GHGs	Atmospheric Lifetime (Years)	Global Warming Potential Relative to CO_2[a]
Carbon Dioxide (CO_2)	50 to 200	1
Methane (CH_4)[b]	12 (±3)	21
Nitrous Oxide (N_2O)	120	310
Hydrofluorocarbons:		
HFC-23	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
Perfluoromethane: CF_4	50,000	6,500
Perfluoroethane: C_2F_6	10,000	9,200
Perfluorobutane: C_4F_{10}	2,600	7,000
Perfluoro-2-methylpentane: C_6F_{14}	3,200	7,400
Sulfur Hexafluoride (SF_6)	3,200	23,900

[a] Based on 100-Year Time Horizon of the Global Warming Potential (GWP) of the air pollutant relative to CO_2. Intergovernmental Panel on Climate Change (IPCC). 2001. Third Assessment Report: Climate Change 2001. New York: Cambridge University Press.
[b] The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

- **Nitrous oxide** (N_2O) is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.
- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically

emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as High GWP gases.

- **Chlorofluorocarbons** (CFCs) are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.
- **Perfluorocarbons** *(PFCs)* are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.
- **Sulfur hexafluoride** *(SF_6)* is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.
- **Hydrochlorofluorocarbons** *(HCFCs)* contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.
- **Hydrofluorocarbons** *(HFCs)* contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs.[3,4,5]

California's Greenhouse Gas Sources and Relative Contribution

California is the second largest emitter of GHG in the United States, only surpassed by Texas, and the tenth largest GHG emitter in the world.[6] However, California also has over 12 million more people than the state of Texas. Because of more stringent air emission regulations, in 2001 California ranked fourth lowest in carbon emissions per capita and fifth lowest among states in CO_2 emissions from fossil fuel consumption per unit of Gross State Product (total economic output of goods and services).[7]

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[3] United States Environmental Protection Agency (USEPA), 2012, Greenhouse Gas Emissions, http://www.epa.gov/climatechange/ghgemissions/gases.html.

[4] Intergovernmental Panel on Climate Change (IPCC), 2001, Third Assessment Report: Climate Change 2001. New York: Cambridge University Press.

[5] Intergovernmental Panel on Climate Change (IPCC), 2007, Fourth Assessment Report: Climate Change 2007. New York: Cambridge University Press.

[6] California Energy Commission (CEC), 2005, Climate Change Emissions Estimates from Bemis, Gerry and Jennifer Allen, Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2002 Update. California Energy Commission Staff Paper CEC-600-2005-025. Sacramento, California, June.

[7] California Energy Commission (CEC), 2006, Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004. Report CEC-600-2006-013-SF, December.

CARB's latest update to the statewide GHG emissions inventory was conducted in 2012 for year 2009 emissions.[8] In 2009, California produced 457 million metric tons (MMT) of CO_2-equivalent (CO_2e) GHG emissions. California's transportation sector is the single largest generator of GHG emissions, producing 37.9 percent of the State's total emissions. Electricity consumption is the second largest source, comprising 22.7 percent. Industrial activities are California's third largest source of GHG emissions, comprising 17.8 percent of the state's total emissions. Other major sectors of GHG emissions include commercial and residential, recycling and waste, high global warming potential GHGs, agriculture, and forestry.[9,10]

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHG in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and climate change pollutants that are attributable to human activities. The amount of CO_2 has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million (ppm) per year since 1960, mainly due to combustion of fossil fuels and deforestation.[11] These recent changes in climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants.[12]

Climate-change scenarios are affected by varying degrees of uncertainty. IPCC's 2007 IPCC Fourth Assessment Report projects that the global mean temperature increase from 1990 to 2100, under different climate-change scenarios, will range from 1.4 to 5.8°C (2.5 to 10.4°F). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic timeframe but within a human lifetime.[13]

Potential Climate Change Impacts for California

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also hard to predict. In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring

[8] Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (AB 32) (2006).

[9] CO2-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

[10] California Air Resources Board (CARB), 2012l, California Greenhouse Gas Inventory for 2000–2009. By Category as Defined by the Scoping Plan, April.

[11] Intergovernmental Panel on Climate Change (IPCC), 2007, Fourth Assessment Report: Climate Change 2007, New York: Cambridge University Press.

[12] California Climate Action Team (CAT), 2006, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March.

[13] Intergovernmental Panel on Climate Change (IPCC), 2007, Fourth Assessment Report: Climate Change 2007, New York: Cambridge University Press.

temperatures, 2) a smaller fraction of precipitation is falling as snow, 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones, 4) an advance snowmelt of 5 to 30 days earlier in the springs, and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms.[14] According to the California Climate Action Team (CAT), even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 4.13-1), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 4.6-2 and include public health impacts, water resources impacts, agricultural impacts, coastal sea level impacts, forest and biological resource impacts, and energy impacts. Specific climate change impacts that could affect the Project include health impacts from a reduction in air quality, water resources impacts from a reduction in water supply, and increased energy demand.

4.6.1.2 REGULATORY FRAMEWORK

Federal Laws and Regulations

The U.S. Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people, and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements, but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.[15]

The EPA's endangerment finding covers emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world (the first three are applicable to the proposed Project).

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons (MT) or more of CO_2 per year are required to submit an annual report.

State Regulations

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Assembly Bill 32, and Senate Bill 375.

[14] California Climate Action Team (CAT), 2006, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March.

[15] United States Environmental Protection Agency (EPA), 2009, EPA: Greenhouse Gases Threaten Public Health and the Environment. Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity, http://yosemite.epa.gov/opa/admpress.nsf/0/08D11A451131BCA585257685005BF252.

TABLE 4.6-2 SUMMARY OF GHG EMISSION RISKS TO CALIFORNIA

Impact Category	Potential Risk
Public Health Impacts	Poor air quality made worse More severe heat
Water Resources Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: California Energy Commission (CEC), 2006. Our Changing Climate, Assessing the Risks to California, 2006 Biennial Report, California Climate Change Center, CEC-500-2006-077; California Energy Commission (CEC), 2008. The Future Is Now, An Update on Climate Change Science, Impacts, and Response Options for California, CEC-500-2008-0077.

Executive Order S-03-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-03-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010.
- 1990 levels by 2020.
- 80 percent below 1990 levels by 2050.

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Assembly Bill 32 (AB 32), the Global Warming Solutions Act. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05.

AB 32 directed CARB to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. Based on the GHG emissions inventory conducted for the Scoping Plan by CARB, GHG emissions in California by 2020 are anticipated to be approximately 596 $MMTCO_2e$. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the State. The 2020 target requires a total emissions reduction of 169 MMTons, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e. 28.5 percent of 596 $MMTCO_2e$).[16,17]

In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MT of CO_2 per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012. The Climate Action Registry Reporting Online Tool was established through the Climate Action Registry to track GHG emissions.

CAR B 2008 Scoping Plan

The final Scoping Plan was adopted by CARB on December 11, 2008. Key elements of CARB's GHG reduction plan that may be applicable to the proposed Project include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards (adopted and cycle updates in progress);
- Achieving a mix of 33 percent for energy generation from renewable sources (anticipated by 2020);
- A California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system for large stationary sources (adopted 2011);
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets (several Sustainable Communities Strategies have been adopted);

[16] California Air Resources Board (CARB), 2008, Climate Change Scoping Plan, a Framework for Change.

[17] CARB defines BAU in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

- Adopting and implementing measures pursuant to State laws and policies, including California's clean car standards (amendments to the Pavley Standards adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (LCFS) (adopted 2009).[18]
- Creating target fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation (in progress).

While local government operations were not accounted for in achieving the 2020 emissions reduction, CARB estimates that land use changes implemented by local governments that integrate jobs, housing, and services result in a reduction of 5 $MMTCO_2e$, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments play in the successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of today's levels by 2020 to ensure that municipal and community-wide emissions match the State's reduction target.[19] Measures that local governments take to support shifts in land use patterns are anticipated to emphasize compact, low-impact growth over development in greenfields, resulting in fewer VMT.[20]

Senate Bill 375

In 2008, Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO). The Metropolitan Transportation Commission (MTC) is the MPO for the nine-county San Francisco Bay Area region. MTC's targets are a 7 percent per capita reduction from 2005 by 2020, and 15 percent per capita reduction from 2005 by 2035.[21]

Plan Bay Area, Strategy for a Sustainable Region. MTC's *Plan Bay Area* is the Bay Area's Regional Transportation Plan (RTP)/ Sustainable Community Strategy (SCS). The *Plan Bay Area* was released on March 21, 2013, and was adopted in July 2013. The SCS sets a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by CARB.

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[18] On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. One of the court's rulings preliminarily enjoins the CARB from enforcing the regulation during the pendency of the litigation. In January 2012, CARB appealed the decision and on April 23, 2012, the Ninth Circuit Court granted CARB's motion for a stay of the injunction while it continues to consider CARB's appeal of the lower court's decision.

[19] While the Scoping Plan references a goal for local governments to reduce community GHG emissions by 15 percent from current (interpreted as 2008) levels by 2020, the Scoping Plan does not rely on local GHG reduction targets established by local governments to meet the State's GHG reduction target of AB 32. Table 5.6-3 lists the recommended reduction measures, which do not include additional reductions from local measures.

[20] California Air Resources Board (CARB), 2008, Climate Change Scoping Plan, a Framework for Change.

[21] California Air Resources Board (CARB), 2010, Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375, August.

According to *Plan Bay Area*, the Plan meets a 16 percent per capita reduction of GHG emissions by 2035 and a 10 percent per capita reduction by 2020 from 2005 conditions.

In 2008, MTC and the Association of Bay Area Governments (ABAG) initiated a regional effort (FOCUS) to link local planned development with regional land use and transportation planning objectives. Through this initiative, local governments identified Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs). PDAs and PCAs form the implementing framework for *Plan Bay Area*.

- **PDAs** are transit-oriented, infill development opportunity areas within existing communities that are expected to host the majority of future development.
- **PCAs** are regionally significant open spaces for which there exists broad consensus for long-term protection but nearer-term development pressure.

Overall, well over two-thirds of all regional growth by 2040 is allocated within PDAs. PDAs are expected to accommodate 80 percent (or over 525,570 units) of new housing and 66 percent (or 744,230) of new jobs.[22]

There are two potential PDAs in Newark identified in *Plan Bay Area*:

- Dumbarton Transit Area
- Old Town

Per the One Bay Area Grant (OBAG) requirements, Congestion Management Agencies (CMAs) will develop a PDA Investment and Growth Strategy for their respective counties; this will be used to guide future transportation investments that are supportive of PDA-focused development.

Alameda County Transportation Commission. The Alameda CTC is a countywide transportation agency resulting from a merger of the Alameda County Congestion Management Agency and the Alameda County Transportation Improvement Authority. The Alameda CTC developed the 2012 *Countywide Transportation Plan* (CWTP), which evaluates the performance of the county's transportation system. Preparation of the CWTP was closely coordinated with preparation of *Plan Bay Area* and includes goals and performance measures to ensure land use is considered. The Alameda County Draft Land Use Scenario Concept is the County's PDA Investment and Growth Strategy. The Alameda County Draft Land Use Scenario Concept was used in the travel demand model evaluation to identify future travel conditions in the county. The Alameda CTC worked with city planning staff throughout the county to identify Growth Opportunity Areas (GOAs), which include the two PDAs and two additional GOAs in Newark (Cedar Boulevard Transit and Civic Center Re-Use Transit).

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016.

[22] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), 2013, Draft Plan Bay Area, Strategy for a Sustainable Region, March.

California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles.

Executive Order S-01-07

On January 18, 2007, the State set a new Low Carbon Fuel Standard for transportation fuels sold within the State. Executive Order S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The Low Carbon Fuel Standard applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Senate Bills 1078 and 107 and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewable portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. CARB has now approved an even higher goal of 33 percent by 2020. In 2011, the state legislature adopted this higher standard in SBX1-2. Executive Order S-14-08 was signed in November 2008, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

California Building Code

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2008 (Title 24, Part 6, of the California Code of Regulations [CCR]).[23] Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 31, 2012, the CEC adopted the 2013 Building and Energy Efficiency Standards, which go into effect on January 1, 2014. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted

[23] Although new building energy efficiency standards were adopted in April 2008, these standards did not go into effect until 2009.

as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[24] The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. While these regulations are now often viewed as "business-as-usual," they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

Local Regulations and Policies – City of Newark Climate Action Plan

The City of Newark has adopted a Climate Action Plan (CAP) to identify and evaluate feasible and effective policies to reduce GHG emissions in order to reduce energy costs, protect air quality, and improve the economy and the environment. Newark's CAP was compiled using ICLEI's Clean Air and Climate Protection software.[25] The Newark CAP identifies the following GHG reduction targets for the City:

- Municipal
  - 5 Percent Reduction from 2005 Municipal Emissions by July 2012
- Communitywide
  - 5 Percent Reduction in City and Community Emissions by July 2015
  - 15 Percent Decrease in Communitywide Emissions from 2005 Levels by 2020

4.6.1.3 EXISTING CONDITIONS

2012 Greenhouse Gas Emissions Inventory

In 2012, the City of Newark had 43,930 people and 19,727 jobs Based on this demographic profile, the community-wide GHG emissions inventory generated by land uses within the City is summarized in Table 4.6-3.

[24] The green building standards became mandatory in the 2010 edition of the code.

[25] It should be noted that the inventories conducted for the General Plan were not conducted using ICLEI's CACP software and therefore there are differences in the modeling methodology and emissions factors used (e.g. transportation in the CAP was based on a geographic method v. an origin-destination method). Therefore the inventory in the General Plan differs from the inventory compiled for the Newark CAP should not be directly compared.

TABLE 4.6-3 2012 COMMUNITY-WIDE GHG EMISSIONS INVENTORY FOR THE CITY OF NEWARK

	2012, Existing Community-Wide Emissions ($MTCO_2e$/Year)	
Pollutant	$MTCO_2e$	Percent
Transportation[a]	236,354	57%
Energy – Residential[b]	47,361	11%
Energy – Nonresidential[b]	122,054	29%
Energy – City[b]	1,487	<1%
Waste[c]	5,853	1%
Water/Wastewater[d]	2,637	1%
Other – Off-Road Equipment[e]	2,525	1%
Total Community Emissions	418,273	100%
MTCO2e/Service Population (SP)[f]	6.6	NA
Industrial[g]	52,313	NA
Total Community Emissions with Industrial	470,586	NA

Notes: The inventories conducted for the General Plan were not conducted using ICLEI's CACP software and therefore there are differences in the modeling methodology and emissions factors used (e.g. transportation in the CAP was based on a geographic method v. an origin-destination method). Therefore the inventory in the General Plan differs from the inventory compiled for the Newark CAP and they should not be directly compared.
Emissions may not total to 100% due to rounding.
[a] Transportation. VMT is based on data provided by Hexagon based on the 2012 per capita VMT in the CTC model for Newark and modeled with EMFAC2011 using 2012 emission rates.[26,27] VMT is multiplied by 347 days/year to account for reduced traffic on weekends and holidays.
[b] Energy. Based on three-year average (2011–2009) of energy use provided by Pacific Gas & Electric (PG&E).[28] The nonresidential sector includes direct access customers, county facilities, and other district facilities within the City boundaries. PG&E energy based on PG&E's carbon intensity. Direct access energy based on the eGRID carbon intensity.
[c] Water/Wastewater. Includes fugitive emissions from wastewater processing and energy associated with water/wastewater treatment and conveyance. Water use is estimated based on demand rates included in the Alameda County Water District's Urban Water Management Plan and target per capita SBx7-7 of 136.9 gallons per capita per day (gpcd) (residential = 55 gpcd; landscape = 50 gpcd; commercial, industrial, institutional = 31.0 gpcd).
[d] Waste. Based on the US EPA's WARM2012, version 12, model and waste generation identified for Newark by CalRecycle. Waste generation emissions are based on waste commitment method. Assumes 75 percent of fugitive GHG emissions are captured within the landfill's Landfill Gas Capture System with a landfill gas capture efficiency of 75 percent. The Landfill gas capture efficiency is based on the CARB's Local Government Operations Protocol (LGOP), Version 1.1.
[e] Other – Off-road Emissions. Generated using OFFROAD2007. Landscaping and light commercial equipment and estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Newark as a percentage of Alameda County.[29,30] Excludes BAAQMD permitted sources. Does not include emissions from wood-burning fireplaces. [d] Construction equipment use estimated based on housing permit data for Newark from the Association of Bay Area Governments (ABAG).[31,32] Daily off-road construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites.
[f] Based on a service population of 63,657 people (43,930 residents and 19,727 employees).
[g] GHG emissions from point sources (permitted sources) in the City of Newark provided by BAAQMD.
Source: The Planning Center | DC&E, 2013.

[26] Hexagon Transportation Consultants, 2013, Newark General Plan Tune Up Traffic Study.
[27] California Air Resources Board (CARB), 2011, EMFAC2011.
[28] Pacific Gas & Electric Company (PG&E), 2012, Communitywide GHG Inventory Report for Newark 2005 to 2011, February. Provided by John Joseph.
[29] California Air Resources Board (CARB), 2007, OFFROAD2007 Computer Model, Version 2.0.1.2.
[30] Association of Bay Area Governments (ABAG), 2009, Subregional Study Area Population, Housing, Employment Forecasts.
[31] California Air Resources Board (CARB), 2007, OFFROAD2007 Computer Model, Version 2.0.1.2.
[32] Association of Bay Area Governments (ABAG), 2010, San Francisco Bay Area Housing Data, http://www.abag.ca.gov/pdfs/2009_Housing_Data.pdf.

Methodology

For the purposes of environmental review of the proposed Plan, a community-wide GHG emissions inventory was developed for the Newark General Plan Tune-Up. This inventory follows BAAQMD's *GHG Plan Level Guidance*[33] and ICLEI's *US Community Protocol for Accounting and Reporting of GHG Emissions*[34] and includes the following sectors:

- **Transportation**: Transportation emissions forecasts were modeled using CARB's EMFAC2011.[35] Model runs were based on daily per capita VMT data provided by Hexagon using the Alameda CTC model and 2012 (existing), 2020, and 2035 emission rates.[36] Modeling was conducted for both a business as usual (BAU) scenario, which does not include GHG emissions reduction from the Pavley Fuel Efficiency Standard and LCFS and for the Adjusted BAU (ABAU) scenario, which includes these statewide regulations that were adopted for the purpose of reducing GHG emissions. The VMT provided in the model includes the full trip length for land uses in the City (origin-destination approach) and does not include a 50-percent reduction in VMT for external-internal/internal-external trips. To account for annual emissions, daily VMT provided by Hexagon was multiplied by 347 days per year to account for reduced traffic on weekends and holidays. This assumption is consistent with CARB's methodology within the Climate Change Scoping Plan Measure Documentation Supplement.[37]
- **Residential**: Purchased electricity and natural gas use for residential land uses in the city were modeled using data provided by PG&E.[38] Per BAAQMD's Guidelines, residential natural gas and electricity use are based on a three-year average (2011, 2010, and 2009) to account for fluctuation in annual energy use as a result of natural variations in climate.[39] Forecasts are adjusted for increases in population in the City. The carbon intensity of PG&E's purchased electricity is based on the average carbon intensity of their electricity supply (2011, 2010, and 2010)[40] and methane and nitrous oxide emissions from natural gas and purchased electricity.[41] The ABAU scenario for residential electricity use includes a reduction in carbon intensity of PG&E's energy supply identified by PG&E, which includes 33 percent Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High GWP gases such as reductions of SF_6.[42]

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[33] Bay Area Air Quality Management District (BAAQMD), 2012, GHG Plan Level Guidance. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/GHG%20Quantification%20Guidance%20May%202012.ashx?la=en.

[34] ICLEI – Local Governments for Sustainability USA, 2012, US Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, Version 1.0, October.

[35] California Air Resources Board (CARB), 2011, EMFAC2011.

[36] Hexagon Transportation Consultants, 2013, Newark General Plan Tune Up Traffic Study.

[37] California Air Resources Board (CARB), 2008, Climate Change Proposed Scoping Plan, a Framework for Change, October.

[38] Pacific Gas & Electric Company (PG&E), 2012, Communitywide GHG Inventory Report for Newark 2005 to 2011, February. Provided by John Joseph

[39] Bay Area Air Quality Management District (BAAQMD), 2012, GHG Plan Level Guidance, http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/GHG%20Quantification%20Guidance%20May%202012.ashx?la=en.

[40] Pacific Gas & Electric Company (PG&E), 2011, Greenhouse Gas Emission Factors Info Sheet, http://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf.

[41] California Air Resources Board (CARB), 2010, Local Government Operations Protocol (LGOP), Version 1.1, May.

[42] Pacific Gas & Electric Company (PG&E), 2011, Greenhouse Gas Emission Factors Info Sheet, http://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf, April.

- **Non-Residential and City**: Purchased electricity and natural gas use for non-residential land uses in the city and from City facilities were modeled using data provided by PG&E and include direct access energy.[43] Per BAAQMD's Guidelines, non-residential natural gas and electricity use are based on a three-year average (2011, 2010, and 2009) to account for fluctuation in annual energy use as a result of natural variations in climate in the city.[44] The carbon intensity of PG&E's purchased electricity is based on the average carbon intensity of their electricity supply (2011, 2010, and 2009)[45] and methane and nitrous oxide emissions from natural gas and purchased electricity.[46] The carbon intensity of direct access electricity is based on the average carbon intensity of the California electricity supply based on eGRID rates.[47] Forecasts are adjusted for increases in employment in the city. The ABAU scenario for non-residential electricity use includes a reduction in carbon intensity of PG&E's energy supply identified by PG&E, which includes 33% RPS, Cap-and-Trade, and other regulatory reductions for High GWP gases such as reductions of SF_6.[48] The ABAU scenario for direct access electricity use includes a reduction in carbon intensity of grid energy supply to account for a 33% RPS for grid electricity.[49]

- **Water/Wastewater**: GHG emissions from water and wastewater include indirect GHG emissions from the embodied energy of water and wastewater. Total water generation in the city is based on the Alameda County Water District's (ACWD) 2010 Urban Water Management Plan.[50] Forecasts are adjusted for increases in population and employment and are based on the target per capita SBx7-7. Energy use from water use and wastewater treatment is estimated using energy rates identified by the CEC[51] and PG&E's carbon intensity of energy.[52] In addition to the indirect emissions associated with the embodied energy of water use and wastewater treatment, wastewater treatment also results in fugitive GHG emissions from wastewater processing. Fugitive emissions from wastewater treatment in the city were calculated using the emission factor's in CARB's Local Government Operations Protocol (LGOP), Version 1.1.[53] Forecasts are adjusted for increases in population and employment in the city.

- **Waste:** Modeling of waste disposed of by residents and employees in the city is based on the waste commitment method using the US EPA's WARM model, version 12, based on waste disposal (municipal solid

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[43] Pacific Gas & Electric Company (PG&E), 2012, Communitywide GHG Inventory Report for Newark 2005 to 2011, February. Provided by John Joseph.

[44] Bay Area Air Quality Management District (BAAQMD), 2012, GHG Plan Level Guidance. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/GHG%20Quantification%20Guidance%20May%202012.ashx?la=en, May.

[45] Pacific Gas & Electric Company (PG&E), 2011, Greenhouse Gas Emission Factors Info Sheet, http://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf, April.

[46] California Air Resources Board (CARB), 2010, Local Government Operations Protocol (LGOP), Version 1.1, May.

[47] United States Environmental Protection Agency (US EPA), Emissions & Generation Resource Integrated Database (eGRID), 2012, eGRID Version 1.0 Year 2009 Summary Tables, CAMX (WECC California), April.

[48] Pacific Gas & Electric Company (PG&E), 2011, Greenhouse Gas Emission Factors Info Sheet, http://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf, April.

[49] Based on the California Public Utilities Commission (CPUC). California RPS Procurement Summary 2003-20010. http://www.cpuc.ca.gov/PUC/energy/Renewables/index.htm.

[50] Alameda County Water District (ACWD), 2010, Urban Water Management Plan 2010–2015, http://www.acwd.org/documentcenter/.

[51] California Energy Commission (CEC)m, 2006, Refining Estimates of Water-Related Energy Use in California. CEC-500-2006-118. Prepared by Navigant Consulting, Inc. Based on the electricity use for Northern California, December.

[52] Pacific Gas & Electric Company (PG&E), 2011, Greenhouse Gas Emission Factors Info Sheet, http://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf, April.

[53] California Air Resources Board (CARB), 2010, Local Government Operations Protocol (LGOP), Version 1.1, May.

waste and alternative daily cover) and waste characterization data from CalRecycle.[54,55] Because the landfill gas captured is not under the jurisdiction of Newark, the landfill gas emissions from the capture system are not included in Newark's inventory. Only fugitive sources of GHG emissions from landfill are included. Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's Landfill Gas Capture System. The Landfill gas capture efficiency is based on CARB's LGOP, Version 1.1.[56] Forecasts are adjusted for increases in population and employment in the city.

- **Other – Off-Road Equipment**: OFFROAD2007 was used to estimate GHG emissions from landscaping equipment, light commercial equipment, and construction equipment in the city.[57] OFFROAD2007 is a database of equipment use and associated emissions for each county compiled by CARB. Annual emissions were compiled using OFFROAD2007 for the County of Alameda for year 2012. In order to determine the percentage of emissions attributable to the City of Newark, landscaping and light commercial equipment is estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Newark as a percentage of Alameda County, while construction equipment use is estimated based on housing permit data for Newark from ABAG.[58,59] Daily off-road construction emissions are multiplied by 347 days per year to account for reduced/limited construction activity on weekends and holidays.[60] Forecasts are adjusted for increases in population and employment in the city.
- **Lifecycle**: Life cycle emissions are not included in this analysis because not enough information is available for the proposed plan, and therefore life cycle GHG emissions would be speculative.[61]
- **Agricultural**: Agricultural emissions are not included in the analysis because not enough information is available regarding agricultural use in the city, and therefore agricultural GHG emissions would be speculative. Furthermore, agricultural emissions are likely to represent a nominal proportion (less than 1 percent) of the City's community-wide GHG emissions inventory.

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[54] California Department of Resources Recycling and Recovery (CalRecycle), Disposal Reporting System. 2011-2009 Newark Jurisdiction Disposal By Facility with Reported Alternative Daily Cover (ADC) and Alternative Intermediate Cover (AIC). Accessed 2013, http://www.calrecycle.ca.gov/LGCentral/Reports/DRS/Destination/JurDspFa.aspx

[55] California Department of Resources Recycling and Recovery (CalRecycle), 2009, California 2008 Statewide Waste Characterization Study, November.

[56] California Air Resources Board (CARB), 2010, Local Government Operations Protocol (LGOP), Version 1.1, May.

[57] California Air Resources Board (CARB), 2007, OFFROAD2007 Computer Model, Version 2.0.1.2.

[58] Association of Bay Area Governments (ABAG), 2009, Subregional Study Area Population, Housing, Employment Forecasts.

[59] Association of Bay Area Governments (ABAG), 2010, San Francisco Bay Area Housing Data. http://www.abag.ca.gov/pdfs/2009_Housing_Data.pdf.

[60] California Air Resources Board (CARB), 2008, Climate Change Proposed Scoping Plan, a Framework for Change, Measure Documentation Supplement, October.

[61] Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted.

4.6.2 STANDARDS OF SIGNIFICANCE

4.6.2.1 CEQA THRESHOLDS

According to Appendix G of the CEQA Guidelines, GHG impacts associated with the proposed Plan would be considered significant if the Plan would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The City notes that the purpose of this Draft EIR is to identify the significant effects of the Project (proposed Plan) on the environment, not the significant effects of the environment on the Project. (*South Orange County Wastewater Authority v. City of Dana Point (2011) 196 Cal.App.4th 1604, 1614-1618; City of Long Beach v. Los Angeles Unified School Dist. (2009) 176 Cal.App.4th 889, 905.)* While identifying the environmental effects of attracting development and people to an area is consistent with CEQA's legislative purpose and statutory requirements, identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes. Accordingly, the EIR's analysis of GHG emissions is confined to identifying significant GHG emissions-related effects of the Project on the environment.

4.6.2.2 BAAQMD PLAN-LEVEL THRESHOLDS

The BAAQMD adopted CEQA Guidelines in June 2010, which were revised in May 2011.[62] The Guidelines include methodology and thresholds for Plan-Level and Project-Level GHG analyses. Under BAAQMD's criteria, the proposed Plan is a Plan-Level project.

[62] A revised posting of BAAQMD CEQA Guidelines were posted without the screening and significance thresholds tables in 2012 after a Court ruling. On March 5, 2012, the court issued a ruling in *California Building Industry Association v. Bay Area Air Quality Management District* (Superior Court Case No. RG10548693). Pursuant to the ruling, the court found that the adoption of the BAAQMD's CEQA Guidelines, which comprise the BAAQMD's GHG significance criteria, is a "project" requiring CEQA review. Since no CEQA review was conducted for the Guidelines prior to their adoption, the court set aside adoption of the Guidelines for determining the significance of air quality and GHG emissions, and ordered BAAQMD to take no further action to disseminate the thresholds until CEQA review is complete. While adoption of the thresholds was set aside, the thresholds are supported by appropriate studies and analysis (see http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx). Accordingly, pursuant to its discretion under State CEQA Guidelines section 15064 (b) ("lead agencies may exercise their discretion on what criteria to use"), and the recent holding in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 335-336, ("[t]he determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data."), the City has decided to apply the BAAQMD CEQA thresholds to the General Plan Update.

General Plan-Level GHG Criteria

BAAQMD Guidelines include methodology and thresholds for GHG impacts for General Plan analyses that are consistent with the GHG reduction goals of AB 32. As such, the impact of a plan or project is deemed less than significant if it:

- Complies with a qualified GHG emissions reduction strategy, or
- Meets BAAQMD's efficiency target based on the project's service population, where service population is the total number of employees and residents within the town.

Consistency with a Qualified GHG Reduction Plan

BAAQMD, in accordance with the updated CEQA Guidelines, allows cities to tier off plans to mitigate the effects of GHG emissions on a city/town level, consistent with AB 32 goals. An AB 32 consistency determination is considered equivalent to a qualified GHG reduction strategy so long as it achieves one of the following GHG emissions reduction goals within its jurisdiction:

- Reduces emissions to 1990 GHG emission levels by 2020.
- Reduces emissions 15 percent below 2008 or earlier emission levels by 2020.
- Meets the plan efficiency threshold of 6.6 $MTCO_2e$ per service population per year.

The City of Newark has prepared a Climate Action Plan, but it is not considered a "qualified" GHG reduction plan for the purpose of this analysis.[63] However, the City's CAP reflects the City's GHG reduction strategies; therefore, the goals and policies of the General Plan are evaluated for consistency with the GHG reduction measures in the CAP.

Plan-Level Efficiency Target

For general plan level analyses, BAAQMD CEQA Guidelines recommend that GHG emissions from direct and indirect community-wide emission sources be quantified for the baseline year, the year 2020, and the projected year of buildout. Direct sources of emissions include on-site combustion of energy such as natural gas used for heating and cooking, emissions from industrial processes, and fuel combustion from mobile sources. Indirect emissions are emissions produced off-site from energy production and water conveyance due to a project's energy use and water consumption. Biogenic CO_2 emissions are not included in the quantification of a project's GHG emissions because biogenic CO_2 is derived from living biomass (e.g. organic matter present in wood, paper, vegetable oils,

[63] CEQA Guidelines Section 15185.5, Tiering and Streamlining the Analysis of Greenhouse Gas Emissions, states that at a minimum, a plan for the reduction of GHG emissions would need to include: "1)An inventory of GHG emissions from both existing and projected over a specified time period; 2) A target level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable; 3) To identify and analyze the GHG emissions resulting from specific actions or categories within the geographic area; 4) To specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; and 5) Be adopted in a public process following environmental review." The City's CAP does not identify the GHG reductions from implementation of the measures and would not be considered a qualified CAP.

animal fat, food, animal, and yard waste) as opposed to fossil fuels. Total emissions are then compared to the following targets:

- 2020 GHG target of 6.6 $MTCO_2e$ per service population, per year.
- 2035 GHG target of 4.0 $MTCO_2e$ per service population, per year.[64]

4.6.3 IMPACT DISCUSSION

This section discusses the cumulative impacts of the proposed Plan on GHG generated in the plan area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance. Individually, no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate-change–related impacts of a project are considered on a cumulative basis.

GHG-1	The proposed Plan would generate substantial GHG emissions in excess of the long-term 2050 GHG reduction target interpolated from Executive Order S-03-05.

The proposed Plan is a regulatory document that sets the framework for future growth and development. A General Plan does not directly result in development in and of itself. Before any development can occur in the City, it is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Development under the proposed Plan would contribute to global climate change through direct and indirect emissions of GHG from transportation sources, energy (natural gas and purchased energy), water/wastewater use, waste generation, and other off-road equipment (e.g. landscape equipment, construction activities). This contribution would represent a significant impact under CEQA if it would exceed either the BAAQMD 2020 per capita GHG threshold for operation-related GHG emissions, or the long-term 2050 GHG reduction target interpolated from Executive Order S-03-05.

Community-Wide GHG Emissions – 2020 AB 32 Target Year

BAAQMD has adopted a 2020 per capita GHG threshold for operation-related GHG emissions of 6.6 $MTCO_2e$ per service population per year for general plans. The community-wide GHG BAU and ABAU emissions inventory for the City compared to existing conditions is included in Table 4.6-4. The ABAU inventory includes reductions from federal and State measures identified in CARB's Scoping Plan, including the Pavley fuel efficiency standards, LCFS for fuel use (transportation and off-road), and a reduction in carbon intensity from electricity use

[64] The efficiency target is based on the AB 32 goal and therefore is the 2020 target for the City. Based on the long-term GHG reduction target for 2050 interpolated from Executive Order S-03-05, the 2035 target would be 4.0 $MTCO_2e$ per service population for the City.

TABLE 4.6-4 2020 COMMUNITY-WIDE GHG EMISSIONS INVENTORY FOR NEWARK

	2020 Operational Emissions ($MTCO_2e$/Year)				
Pollutant	2012 $MTCO_2e$	2020 BAU $MTCO_2e$	2020 ABAU $MTCO_2e$	Change from 2012 $MTCO_2e$	Change from 2020 BAU $MTCO_2e$
Transportation[a]	236,354	270,013	211,361	-24,994	-58,653
Energy - Residential[b]	47,361	53,579	46,063	-1,299	-7,516
Energy – Nonresidential[b]	122,054	128,256	106,394	-15,660	-21,862
Energy – City[b]	1,487	1,645	1,275	-213	-371
Waste[c]	5,853	6,476	6,476	622	0
Water/Wastewater[d]	2,637	2,359	1,577	1,060	-782
Other – Off-Road Equipment[e]	2,525	2,807	2,526	1	-281
Total Community Emissions	418,273	465,136	375,671	-42,602	-89,465
$MTCO_2e$/Service Population (SP)[f]	6.6	6.6	5.3	NA	NA
2020 Per Capita Threshold	NA	6.6 $MTCO_2e$/SP	6.6 $MTCO_2e$/SP	NA	NA
Exceeds 2020 Per Capita Threshold	NA	No	No	NA	NA
Industrial[g]	52,313	NA	NA	NA	NA

Notes: The inventories conducted for the General Plan were not conducted using ICLEI's CACP software and therefore there are differences in the modeling methodology and emissions factors used (e.g. transportation in the CAP was based on a geographic method v. an origin-destination method). Therefore the inventory in the General Plan differs from the inventory compiled for the Newark CAP and they should not be directly compared.
Emissions forecast based on changes in population (residential energy), employment (nonresidential energy), or service population (city energy, waste, water/wastewater, transportation).
Adjusted BAU includes reductions identified in the Scoping Plan associated with Transportation (Pavley+LCFS), Energy & Water/Wastewater (improvements in the carbon intensity of electricity identified by PG&E), and Other (LCFS). The current inventory does not account for reductions in building energy use from Title 24 cycle updates.

TABLE 4.6-4 2020 COMMUNITY-WIDE GHG EMISSIONS INVENTORY FOR NEWARK

	2020 Operational Emissions ($MTCO_2e$/Year)				
Pollutant	2012 $MTCO_2e$	2020 BAU $MTCO_2e$	2020 ABAU $MTCO_2e$	Change from 2012 $MTCO_2e$	Change from 2020 BAU $MTCO_2e$

Emissions may not total to 100% due to rounding.

[a] Transportation. VMT is based on data provided by Hexagon using the Alameda CTC model run using EMFAC2011 and 2012 (existing) and 2020 emission rates.[65,66] The 2025 per capita VMT provided by Hexagon using the Alameda CTC model is adjusted based on the estimated population and employment in the City in 2020. VMT is multiplied by 347 days/year to account for reduced traffic on weekends and holidays.

[b] Energy. Based on a three-year average (2011 to 2009) of energy use provided by PG&E.[67] The nonresidential sector includes direct access customers, county facilities, and other district facilities within the City boundaries. PG&E energy based on PG&E's carbon intensity. Direct access energy based on the eGRID carbon intensity.

Water/Wastewater. Includes fugitive emissions from wastewater processing and energy associated with water/wastewater treatment and conveyance. Water use is estimated based on demand rates included in the Alameda County Water District's Urban Water Management Plan and target per capita SBx7-7 of 136.9 gpcd (residential = 55 gpcd; landscape = 50 gpcd; commercial, industrial, institutional = 31.0 gpcd).

[d] Waste. Based on the US EPA's WARM2012, version 12, model and waste generation identified for Newark by CalRecycle. Waste generation emissions are based on waste commitment method. Assumes 75 percent of fugitive GHG emissions are captured within the landfill's Landfill Gas Capture System with a landfill gas capture efficiency of 75 percent. The landfill gas capture efficiency is based on the CARB's Local Government Operations Protocol (LGOP), Version 1.1.

[e] Other – Off-Road Emissions. Generated using OFFROAD2007. Landscaping and light commercial equipment and estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Newark as a percentage of Alameda County.[68,69] Excludes BAAQMD-permitted sources. Does not include emissions from wood-burning fireplaces.

[d] Construction equipment use estimated based on housing permit data for Newark from ABAG.[70,71] Daily off-road construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites.

[f] Based on a service population of 70,426 people (49,697 residents and 20,729 employees).

[g] GHG emissions from point sources (permitted sources) in the City of Newark provided by BAAQMD.

[65] Hexagon Transportation Consultants, 2013, Newark General Plan Tune Up Traffic Study.
[66] California Air Resources Board (CARB), 2011, EMFAC2011.
[67] Pacific Gas & Electric Company (PG&E), 2013, Communitywide GHG Inventory Report for Newark 2005 to 2011, February. Provided by John Joseph.
[68] California Air Resources Board (CARB), 2007, OFFROAD2007 Computer Model, Version 2.0.1.2.
[69] Association of Bay Area Governments (ABAG), 2009, Subregional Study Area Population, Housing, Employment Forecasts.
[70] California Air Resources Board (CARB), 2007, OFFROAD2007 Computer Model, Version 2.0.1.2.
[71] Association of Bay Area Governments (ABAG), 2010, San Francisco Bay Area Housing Data. http://www.abag.ca.gov/pdfs/2009_Housing_Data.pdf.

(see the discussion of the inventory methodology). For 2020, the Scoping Plan measures account for a reduction of 98,465 $MTCO_2e$ compared to BAU.

As shown in this table, community-wide GHG emissions in the City at 2020 would meet the 6.6 $MTCO_2e$ threshold, which is consistent with the GHG reduction target of AB 32. In addition, GHG emissions would be less than current conditions even though population and employment in the City is anticipated to increase. Impacts would be less than significant for short-term growth anticipated under the General Plan.

Community-Wide GHG Emissions – General Plan Horizon Year (2035)

BAAQMD has not adopted a 2035 per capita GHG threshold for operation-related GHG emissions. However, a 2035 efficiency target was derived for the proposed Plan based on the long-term GHG reduction target for 2050 interpolated from Executive Order S-03-05, which is an 80 percent reduction from 1990 levels by 2020. The 2035 efficiency target would be 4.0 $MTCO_2e$ per service population for the City. The community-wide GHG emissions inventory for the city compared to existing conditions is included in Table 4.6-5.

As shown in this table, community-wide GHG emissions in the City at 2035 would not meet the 4.0 $MTCO_2e$ threshold, which is based on the long-term GHG reduction goal of Executive Order S-03-05. CARB is currently updating the Scoping Plan to identify additional measures to achieve the long-term GHG reduction targets. At this time, there is no plan past 2020 that achieves the long-term GHG reduction goal established under S-03-05. As identified by the California Council on Science and Technology, the state cannot meet the 2050 goal without major advancements in technology.[72] Impacts from GHG emissions within the City of Newark would be *significant* for long-term growth anticipated under the proposed Plan.

Applicable Regulations:

As described above, the following applicable regulations, policies, and plans would minimize impacts associated with BHB emissions generated under the proposed plan. Nevertheless, while the City of Newark would achieve the short-term GHG efficiency target of AB 32 established by BAAQMD for 2020, for the SFBAAB, additional GHG emissions reductions strategies would be necessary to achieve the long-term GHG reduction goal established under Executive order S-03-05. Therefore, GHG emissions impacts from implementation of the proposed Plan are considered significant.

- CEQA
- City of Newark Climate Action Plan
- Executive Order S-3-05: Greenhouse Gas Emission Reduction Targets
- AB 32: California Global Warming Solutions Act
- SB 375: Sustainable Communities Strategies
- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations: Appliance Energy Efficiency Standards

[72] California Council on Science on Science and Technology, 2012, California's energy Future, Portraits of Energy Systems for Meeting Greenhouse Gas Reduction Targets, http://www.ccst.us/publications/2012/2012ghg.pdf, September.

TABLE 4.6-5 2035 COMMUNITY-WIDE GHG EMISSIONS INVENTORY FOR NEWARK

	2035 Operational Emissions ($MTCO_2e$/Year)				
Pollutant	2012 $MTCO_2e$	2035 BAU $MTCO_2e$	2035 ABAU $MTCO_2e$	Change from 2012 $MTCO_2e$	Change from 2020 BAU $MTCO_2e$
Transportation[a]	236,354	328,086	238,338	1,983	-89,748
Energy - Residential[b]	47,361	65,236	56,085	8,724	-9,151
Energy – Nonresidential[b]	122,054	139,885	116,041	-6,013	-23,845
Energy – City[b]	1,487	1,942	1,504	17	-438
Waste[c]	5,853	7,643	7,643	1,790	0
Water/Wastewater[d]	2,637	2,837	1,896	-741	-941
Other – Off-road Equipment[e]	2,525	3,335	3,001	476	-333
Total Community Emissions	418,273	548,964	424,508	6,235	-124,456
$MTCO_2e$/Service Population (SP)[f]	6.6	6.6	5.1	NA	NA
2035 Per Capita Threshold	NA	4.0 $MTCO_2e$/SP	4.0 $MTCO_2e$/SP	NA	NA
Exceeds 2035 Per Capita Threshold	NA	Yes	Yes	NA	NA
Industrial[g]	42,313	NA	NA	NA	NA

Notes: The inventories conducted for the General Plan were not conducted using ICLEI's CACP software and therefore there are differences in the modeling methodology and emissions factors used (e.g. transportation in the CAP was based on a geographic method v. an origin-destination method). Therefore, the inventory in the General Plan differs from the inventory compiled for the Newark CAP, and they should not be directly compared.
Emissions forecast based on changes in population (residential energy), employment (nonresidential energy), or service population (city energy, waste, water/wastewater, transportation).
Adjusted BAU includes reductions identified in the Scoping Plan associated with Transportation (Pavley+LCFS), Energy & Water/Wastewater (improvements in the carbon intensity of electricity identified by PG&E), and Other (LCFS). The current inventory does not account for reductions in building energy use from Title 24 cycle updates.
Emissions may not total to 100% due to rounding.

TABLE 4.6-5 2035 COMMUNITY-WIDE GHG EMISSIONS INVENTORY FOR NEWARK

	2035 Operational Emissions ($MTCO_2e$/Year)				
Pollutant	2012 $MTCO_2e$	2035 BAU $MTCO_2e$	2035 ABAU $MTCO_2e$	Change from 2012 $MTCO_2e$	Change from 2020 BAU $MTCO_2e$

[a] Transportation. VMT is based on data provided by Hexagon using the Alameda CTC model run using EMFAC2011 and 2012 (existing) and 2035 emission rates.[73,74] The 2025 per capita VMT provided by Hexagon using the Alameda CTC model is adjusted based on the 2035 General Plan population and employment. VMT is multiplied by 347 days/year to account for reduced traffic on weekends and holidays.
[b] Energy. Based on a three-year average (2011 to 2009) of energy use provided by PG&E.[75] The nonresidential sector includes direct access customers, county facilities, and other district facilities within the City boundaries. PG&E energy based on PG&E's carbon intensity. Direct access energy based on the eGRID carbon intensity.
Water/Wastewater. Includes fugitive emissions from wastewater processing and energy associated with water/wastewater treatment and conveyance. Water use is estimated based on demand rates included in the Alameda County Water District's Urban Water Management Plan and target per capita SBx7-7 of 136.9 gpcd (residential = 55 gpcd; landscape = 50 gpcd; commercial, industrial, institutional = 31.0 gpcd).
[d] Waste. Based on the US EPA's WARM2012, version 12, model and waste generation identified for Newark by CalRecycle. Waste generation emissions are based on waste commitment method. Assumes 75 percent of fugitive GHG emissions are captured within the landfill's Landfill Gas Capture System with a landfill gas capture efficiency of 75 percent. The Landfill gas capture efficiency is based on the CARB's Local Government Operations Protocol (LGOP), Version 1.1.
[e] Other – Off-Road Emissions. Generated using OFFROAD2007. Landscaping and light commercial equipment and estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Newark as a percentage of Alameda County.[76,77] Excludes BAAQMD-permitted sources. Does not include emissions from wood-burning fireplaces.
[d] Construction equipment use estimated based on housing permit data for Newark from ABAG.[78,79] Daily off-road construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites.
[f] Based on a service population of 83,119 people (60,510 residents and 22,609 employees).
[g] GHG emissions from point sources (permitted sources) in the City of Newark provided by BAAQMD.

[73] Hexagon Transportation Consultants, 2013, Newark General Plan Tune Up Traffic Study.
[74] California Air Resources Board (CARB), 2011, EMFAC2011.
[75] Pacific Gas & Electric Company (PG&E), 2013, Communitywide GHG Inventory Report for Newark 2005 to 2011, February. Provided by John Joseph.
[76] California Air Resources Board (CARB), 2007, OFFROAD2007 Computer Model, Version 2.0.1.2.
[77] Association of Bay Area Governments (ABAG), 2009, Subregional Study Area Population, Housing, Employment Forecasts.
[78] California Air Resources Board (CARB), 2007, OFFROAD2007 Computer Model, Version 2.0.1.2.
[79] Association of Bay Area Governments (ABAG), 2010, San Francisco Bay Area Housing Data. http://www.abag.ca.gov/pdfs/2009_Housing_Data.pdf.

- Title 17 California Code of Regulations: Low Carbon Fuel Standard
- AB 1881: California Water Conservation in Landscaping Act of 2006
- SB 1368: Statewide Retail Provider Emissions Performance Standards
- SB 1078: Renewable Portfolio Standards
- Title 24, Part 6, California Code of Regulations: Building and Energy Efficiency Standards
- Title 24, Part 11, California Code of Regulations: Green Building Standards Code

Significance Before Mitigation: Significant.

GHG-2	The proposed plan would not conflict with an applicable plan, policy, or regulation for the purpose of reducing the emissions of GHGs.

The proposed Plan would have a significant environmental impact if it would conflict with CARB's scoping plan, MTC's Plan Bay Area, or the Newark CAP.

CARB's Scoping Plan

In accordance with AB 32, CARB developed the Scoping Plan to outline the State's strategy to achieve 1990 level emissions by year 2020. To estimate the reductions necessary, CARB projected statewide 2020 BAU GHG emissions (i.e. GHG emissions in the absence of statewide emission reduction measures). CARB identified that the State as a whole would be required to reduce GHG emissions by 28.5 percent from year 2020 BAU to achieve the targets of AB 32.[80] The revised BAU 2020 forecast shows that the State would have to reduce GHG emissions by 21.6 percent from BAU without Pavley and the 33 percent RPS or 15.7 percent from the adjusted baseline (i.e. with Pavley and 33 percent RPS).[81]

Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard, California Appliance Energy Efficiency regulations; California Building Standards (i.e. CALGreen and the 2008 Building and Energy Efficiency Standards); California Renewable Energy Portfolio standard (33 percent RPS); changes in the corporate average fuel economy standards (e.g. Pavley I and Pavley II); and other measures that would ensure the State is on target to achieve the GHG emissions reduction goals of AB 32. Statewide GHG emissions reduction measures that are being implemented over the next seven years would reduce the Newark's GHG emissions. As shown in Table 4.6-4, Newark would achieve the 2020 target of AB 32 for cities within the San Francisco Bay Area Air Basin (SFBAAB). New residential and non-residential construction in the city would achieve the current building and energy efficiency standards. The new buildings would be constructed in conformance with CALGreen, which requires high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems. Therefore, impacts would be less than significant.

[80] California Air Resources Board (CARB), 2008, Climate Change Scoping Plan, a Framework for Change.
[81] California Air Resources Board (CARB), 2012, Status of Scoping Plan Recommended Measures, http://www.arb.ca.gov/cc/scopingplan/status_of_scoping_plan_measures.pdf.

MTC's Plan Bay Area

To achieve MTC's sustainable vision for the Bay Area, the Plan Bay Area land use concept plan for the region concentrates the majority of new population and employment growth in the region in PDAs. PDAs are transit-oriented, infill development opportunity areas within existing communities. Overall, well over two-thirds of all regional growth by 2040 is allocated within PDAs. PDAs are expected to accommodate 80 percent (or over 525,570 units) of new housing and 66 percent (or 744,230) of new jobs.[82] In Newark, MTC's Draft Plan Bay Area includes the Dumbarton Transit Area and Old Town PDA.[83] The proposed Plan is consistent with the objectives of the Plan Bay Area for growth within these PDAs. Therefore, the General Plan is consistent with the land use concept for Newark identified in the Draft Plan Bay Area. Therefore, impacts would be less than significant.

Local GHG Reduction Plans

The City of Newark has adopted a CAP to identify and evaluate feasible and effective policies to reduce GHG emissions in order to reduce energy costs, protect air quality, and improve the economy and the environment. The policies identified in the CAP represent the City's actions to achieve the GHG reduction targets of AB 32. A consistency analysis with the goals and actions of the General Plan to the community actions in the CAP is shown in Table 4.6-6. As identified in this table, the General Plan would include policies and actions consistent with the City's CAP. Impacts are less than significant.

Applicable Regulations

Implementation of the General Plan policies as well as compliance with the following applicable State standards listed here and described above would ensure that impacts to consistency with State, regional, and local GHG reduction planning efforts would be less than significant.

- CEQA
- City of Newark Climate Action Plan
- Executive Order S-3-05: Greenhouse Gas Emission Reduction Targets
- AB 32: California Global Warming Solutions Act
- SB 375: Sustainable Communities Strategies
- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations: Appliance Energy Efficiency Standards
- Title 17 California Code of Regulations: Low Carbon Fuel Standard
- AB 1881: California Water Conservation in Landscaping Act of 2006
- SB 1368: Statewide Retail Provider Emissions Performance Standards
- SB 1078: Renewable Portfolio Standards

[82] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), 2013, Draft Plan Bay Area, Strategy for a Sustainable Region, March.

[83] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), 2013, Draft Plan Bay Area, Strategy for a Sustainable Region, March.

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
Residential Community Action Item 4.1: Personal Climate Action Plans	*Consistent.* The City's website identifies resources for residents and business within the City, including resources for residents to create personal climate action plans.
Action Item 4.1.1. Outreach a. Attend HOA and other resident group meetings b. Set-up booths at local events c. Distribute information through schools	
Action Item 4.1.2. Encourage application of other jurisdiction's successful tools available to residents: a. Low Carbon Diet b. Green Neighborhood Challenge c. Green-Star Households	
Residential Community Action Item 4.2: Encourage use of Alternative Fuel Vehicles (AFVs)	*Consistent.* The proposed Plan encourages the use of alternative fuels in Newark and leads by example: ▪ Policy CS-5.3: Alternative Fuel Vehicles. Encourage the use of alternative fuel vehicle and development of the necessary infrastructure for such vehicles to be viable in Newark. ▪ Action CS-5.D: Cleaner Fuel Municipal Vehicles. As funds allow, convert the City's vehicle fleet to more energy efficient vehicles. This should begin with compressed natural gas (CNG) vehicles and eventually progress to electric vehicles.
Action Item 4.2.1. Outreach a. Should include that City uses Compressed Natural Gas (CNG) and is looking to expand CNG fleet. b. Research on the number of hybrid vehicles that citizens own in Newark. c. Invite public and private partners to present the benefits of and answer questions about AFVs at local resident meetings	
Action Item 4.2.2. Participate in the region wide electric car network to install plugs in Newark.	
Action Item 4.2.3. Through grant opportunities, create incentives for residents to purchase high-efficiency vehicles.	
Residential Community Action Item 4.3 – Energy Conservation	*Consistent.* The proposed Plan includes polices to ensure energy conservation communitywide : ▪ Policy CS-6.1: Municipal Green Building. Lead by example by incorporating green design methods and materials in new City projects, including the design of new municipal buildings and the renovation of existing buildings. Long-term planning for a new Newark City Hall should take into consideration such factors as energy and water conservation, design for reclaimed water use, incorporation of recycled materials, and other green building components. ▪ Policy CS-6.2: Encouraging Greener Construction. Encourage greener construction methods and greater use of recycled-content materials in new residential, commercial, and industrial construction projects. ▪ Policy CS-6.3: Green Retrofits. Encourage and support Newark property owners seeking to retrofit their buildings to make them
Action Item 4.3.2 Connect residents with private and public assistance programs, such as weatherization, PG&E, Energy Star, and Green Packages	
Action Item 4.3.3 Continue to partner with Alameda County, stopwaste.org, and other California agencies to provide energy assessment and recommendation services and incentives to Newark residents.	

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	greener, more water-efficient, and more energy-efficient. ▪ Policy CS-6.4: Green Roofs. Encourage the use of green roofs and cool roofs as a way of reducing heating and cooling costs, and reducing stormwater runoff. ▪ Policy CS-6.5: Minimizing Impervious Surface Coverage. Minimize impervious surface coverage and related stormwater runoff in new development areas by allowing narrower roads and shared driveways, and by encouraging the use of pervious materials on driveways and parking areas. Other means of reducing urban runoff, such as rain barrels and bioswales, also should be encouraged. ▪ Policy CS-6.6: Cool Pavements. Encourage the use of cool (light colored) pavements to mitigate the heat island effect of development. ▪ Action CS-6.A: Code Updates. Periodically update the City's Building Codes to incorporate the latest State of California green building requirements. ▪ Action CS-6.B: Green Building Incentives. Implement green building programs as called for by the Newark Climate Action Plan, including use of the Green Points certification program and the Multi-family Green Retrofit Fund. ▪ Action CS-6.C: Green Building Information. Make information on green building practices and programs available to Newark homeowners, builders, contractors, business owners, and developers. ▪ Action CS-6.D: Green Certifications. Provide resources and checklists to builders and contractors seeking to obtain green certifications through the City's Building Department. ▪ Policy CS-7.1: Reducing Energy Use. Support measures to reduce energy consumption and increase energy efficiency in residential, commercial, industrial, and public buildings. ▪ Policy CS-7.2: Renewable Energy Sources. Support the expanded use of renewable energy sources such as wind and solar by Newark residents and businesses, the City of Newark, and other government agencies. ▪ Policy CS-7.3: Designing for Energy Efficiency. Support building design, site planning, and subdivision design methods which reduce heating and cooling costs and achieve greater energy efficiency. ▪ Policy CS-7.4: Conservation Practices. Advocate for increased energy conservation by Newark residents and businesses, including basic conservation practices (such as shutting off lights and using lower wattage bulbs) and switching to more energy efficient appliances. The City itself should be a role model in this regard, through the retrofitting of its facilities and its operation and

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	maintenance practices. ▪ Policy CS-7.5: Solar Access. Preserve solar access rights in a way that is consistent with state law and encourages the use of photovoltaic energy systems in new construction and rehabilitation projects. ▪ Action CS-7.A: Energy Efficiency Programs. Work with PG&E, stopwaste.org, and other organizations and agencies to provide energy assessments, audits, and educational programs, and to assist residents with undertaking energy efficiency and weatherization programs in their homes. ▪ Action CS-7.B: Links to Energy-Related Information. Provide links from the City's website to information on alternative energy opportunities and energy efficient practices. ▪ Action CS-7.C: Title 24. Enforce Title 24 and other energy efficiency and conservation standards when reviewing development and building permit applications. ▪ Action CS-7.D: Energy Efficient Street Lighting. Continue to research energy reduction options for street lighting and parking lot lighting, including switching to light emitting diodes (LEDs). As funding allows, work with PG&E to replace streetlights with more energy efficient alternatives. ▪ Action CS-7.E: Climate Action Plan Programs. Implement Newark Climate Action Plan programs intended to reduce energy use, including conservation plans for City buildings, installation of more energy-efficient heating and cooling systems, insulation, solar lighting plans, and increased use of renewable energy.
Residential Community Action Item 4.4 – CaliforniaFirst Program	*Consistent.* The City's website identifies financial resources for residents in the City for improving building energy efficiency: ▪ Action CS-7.F: California First. Participate in the California First Program, a state-wide program to provide another financing option for homeowners to install energy efficiency measures on their homes.
Residential Community Action Item 4.5 – Increase Residential Recycling and Composting	*Consistent.* The City actively promotes recycling composting to increase waste diversion from landfills and has adopted an ambitious goal to achieve a 75 percent waste diversion rate by 2015: ▪ Policy CS-8.1: Recycling Program. Actively promote recycling, composting, and waste reduction in order to minimize the amount of waste requiring disposal in landfills. Provide for residential recycling and green waste containers and weekly curbside recycling pickup, to make it as easy and convenient as possible for residents to reduce the volume of trash requiring landfill disposal. ▪ Policy CS-8.2: Interagency Coordination in Waste Reduction. Promote inter-jurisdictional cooperation, coordination, and planning in

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	the development of recycling and waste management programs. ▪ Policy CS-8.3: Maximizing Reuse. Manage solid waste in a way that maximizes the reclamation and reuse of resources. The City encourages the use of salvaged and recycled materials, rather than the disposal of such materials in landfills. ▪ Action CS-8.A: Reduction Targets. In collaboration with stopwaste.org, implement programs to achieve a 75% waste diversion rate by 2015, and to achieve an ultimate target of zero waste. ▪ Action CS-8.B: Waste Reduction Program. Maintain a solid waste reduction and management program that is coordinated with and consistent with the Countywide Stopwaste.org program. The program should include regularly scheduled trash collection, compost and recycling collection, bulk waste and e-waste collection events, household hazardous materials disposal provisions, education and outreach to promote waste diversion, and other components which minimize landfilled waste. ▪ Action CS-8.C: Source Reduction and Diversion for New Construction. As part of the development review process, require major new projects to prepare solid waste source reduction and diversion programs before building permits are issued. ▪ Action CS-8.D: Construction and Demolition Debris. Reduce the amount of construction and demolition debris being disposed in landfills through mandatory construction and demolition recycling requirements.
Residential Community Action Item 4.6 – Water Conservation	*Consistent.* The proposed Plan identifies the following policies and actions to improve indoor and outdoor water efficiency and reduce water consumption community-wide: ▪ Policy CS-3.2: Water Conservation Standards. Promote water conservation through development standards, building requirements, irrigation requirements, landscape design guidelines, and other applicable City policies and programs. ▪ Policy CS-3.3: ACWD Conservation Incentives. Support Alameda County Water District (ACWD) incentives which encourage Newark residents and businesses to conserve water. ▪ Policy CS-3.9: Reclaimed Water. Plan for the eventual use of reclaimed water to supplement the local water supply and reduce the necessity of using potable water for landscaping, irrigation, and non-domestic purposes. ▪ Action CS-3.B: Development Review. Use the development review process to ensure that water conservation measures are incorporated in new projects.
Action Item 4.6.1 Research incentive programs for removing water intensive plants and replacing with drought tolerant plants.	
Action Item 4.6.2 Outreach regarding drought tolerant landscapes.	

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	▪ Action CS-3.C: ACWD Coordination: Coordinate with ACWD on the review of proposed development, and the identification of necessary measures to mitigate potential impacts on groundwater and water supply. ▪ Action CS-3.D: Low-Flow Plumbing and Irrigation. Strongly encourage--and where appropriate, require--the use of low flow plumbing fixtures, low volume irrigation systems, and drought-tolerant plant palettes as a way to conserve water. ▪ Action CS-3.E: Water Efficient Landscaping. Continue to implement State Department of Water Resources guidelines for water-efficient landscaping, including low water use plants and more efficient irrigation systems. Adopt more stringent outdoor water use policies for individual development proposals where feasible. ▪ Action CS-3.F: Retrofitting Water Infrastructure. As funding allows, retrofit water infrastructure and landscaping on municipal property to reduce public water use.
Residential Community Action Item 4.7 – StopWaste.org Green Packages	*Consistent.* As identified above, the City identifies a community-wide goal to increase waste diversion to 75 percent by 2015 and implements waste reduction programs to achieve this goal: ▪ Action CS-8.A: Reduction Targets. In collaboration with stopwaste.org, implement programs to achieve a 75% waste diversion rate by 2015, and to achieve an ultimate target of zero waste. ▪ Action CS-8.B: Waste Reduction Program. Maintain a solid waste reduction and management program that is coordinated with and consistent with the Countywide Stopwaste.org program. The program should include regularly scheduled trash collection, compost and recycling collection, bulk waste and e-waste collection events, household hazardous materials disposal provisions, education and outreach to promote waste diversion, and other components which minimize landfilled waste.
Action Item 4.7.1 Continue to serve on the Technical Advisory Group of the Green Packages Program.	
Action Item 4.7.2 Use the City website and other communication avenues to market the Green Packages Program to residents	
Action Item 4.7.3 Consider adding the Green Packages standards and specifications to this document when published.	
Residential Community Action Item 4.8 – Multi-family Building Owners Assistance	*Consistent.* The proposed Plan identifies the following actions to encourage multi-family buildings to be designed to be energy efficient: ▪ Action CS-6.A: Code Updates. Periodically update the City's Building Codes to incorporate the latest State of California green building requirements. ▪ Action CS-6.B: Green Building Incentives. Implement green building programs as called for by the Newark Climate Action Plan, including use of the Green Points certification program and the Multi-family Green Retrofit Fund. ▪ Action CS-6.C: Green Building Information. Make information on green building practices and programs available to Newark
Action Item 4.8.1 Encourage participation in and educate the multi-family unit property owners of the Green Points Rated (up to three unit apartments) and LEED (four or more units) certification programs	
Action Item 4.8.2 If funded, refer owners to the regional Multifamily Green Retrofit Fund for loan assistance to help pay for energy and water reduction capital purchases	
Action Item 4.8.3 Partner with owners to encourage their residents' participation in planned residential actions	

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	homeowners, builders, contractors, business owners, and developers. ▪ Action CS-6.D: Green Certifications. Provide resources and checklists to builders and contractors seeking to obtain green certifications through the City's Building Department.
Business Community Action Item 5.1- Encourage businesses to prepare and make public a Climate Action Plan for their company.	*Consistent.* The City's website identifies resources for residents and business within the City, including resources for businesses to create personal climate action plans.
Action Item 5.1.1 Provide resources for businesses to create Climate Action Plans.	
Action Item 5.1.2 Assist businesses with completed Climate Action Plans in information sharing and mentoring activities.	
Action Item 5.1.3 Refer businesses to the Bay Area Green Business Program.	
Action Item 5.1.4 Recognize businesses with Climate Action Plans	
Business Community Action Item 5.2- Increase Commercial and Business Recycling, Composting and Waste Reduction	*Consistent.* In addition to the policies and actions above for community-wide waste reduction, the following additional policies are incorporated into the General Plan for commercial and business recycling: ▪ Policy CS-8.4: Increasing Commercial, Industrial, and Multi-Family Recycling. Increase recycling rates by the commercial, industrial, and multi-family residential sectors, including apartment buildings, offices, restaurants, hotels, retail stores, and other businesses. Retail centers and multifamily residential development should be required to provide on-site shared collection bins for recyclable waste. ▪ Action CS-8.E: Recycling Receptacles in Public Spaces. As funding allows, provide recycling receptacles in parks and public spaces, in addition to trash receptacles.
Action Item 5.2.1 Share City's goal of 75% waste reduction by 2015 with business community; request their support	
Action Item 5.2.2 Facilitate information exchange between model businesses and those businesses in need of assistance.	
Action Item 5.2.3 Provide green building, retrofit, and recycling information at the City's information portals i.e. permit counter, website, Channel 26, Community Center(s) Business Community	
Action Item 5.3- Consider Plastic Bag and Styrofoam Bans	*Consistent.* The proposed Plan identifies community-wide goals and policies for waste reduction, as identified above. Because this measure is not broad enough to be considered in the General Plan, this measure is not directly applicable to the Project. However, the City will continue to evaluate the feasibility of a plastic bag and Styrofoam ban.
Action Item 5.3.1 Monitor success of other cities in the Bay Area that are enacting these restrictions.	
Action Item 5.3.2 Assist businesses in marketing the use of reusable bags for shopping.	
Action Item 5.3.3 Pursue grant opportunities to provide reusable bags to residents.	
Action Item 5.3.4 Recognize businesses that encourage use of reusable bags and/or replace their Styrofoam use with biodegradable materials.	

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
Business Community Action Item 5.4- Green Building Standards Action Item 5.4.1 Require all modifications, additions and new buildings built for commercial or industrial purposes to use environmentally preferred building practices. Action Item 5.4.2 Encourage LEED, HERS, and/or Green Point Rated Certification Action Item 5.4.3 Provide resources and checklists to obtain green certifications through the City's Building Department	*Consistent.* In addition to the policies and actions identified under Energy Conservation, the proposed Plan identifies the following actions to ensure buildings are designed to be energy efficient: ▪ Action CS-6.A: Code Updates. Periodically update the City's Building Codes to incorporate the latest State of California green building requirements. ▪ Action CS-6.B: Green Building Incentives. Implement green building programs as called for by the Newark Climate Action Plan, including use of the Green Points certification program and the Multi-family Green Retrofit Fund. ▪ Action CS-6.C: Green Building Information. Make information on green building practices and programs available to Newark homeowners, builders, contractors, business owners, and developers. ▪ Action CS-6.D: Green Certifications. Provide resources and checklists to builders and contractors seeking to obtain green certifications through the City's Building Department.
Business Community Action Item 5.5- Green Fleets Action Item 5.5.1 Encourage the use of low-carbon emitting vehicles and fuels Action Item 5.5.2 Share the City's experience with AFVs	*Consistent.* The City encourages the use of alternative fuels in Newark and leads by example: ▪ Policy CS-5.3: Alternative Fuel Vehicles. Encourage the use of alternative fuel vehicle and development of the necessary infrastructure for such vehicles to be viable in Newark. ▪ Action CS-5.D: Cleaner Fuel Municipal Vehicles. As funds allow, convert the City's vehicle fleet to more energy efficient vehicles. This should begin with compressed natural gas (CNG) vehicles and eventually progress to electric vehicles.
Business Community Action Item 5.6- Assist businesses in developing and implementing commuter benefits programs Action Item 5.6.1 Survey Newark businesses about their programs Action Item 5.6.2 Encourage businesses with model programs to peer educate	*Consistent.* The proposed Plan identifies several commute trip reduction strategies: ▪ Policy CS-5.4: Reducing Non-Residential Transportation Emissions. Encourage the participation of the business sector in efforts to reduce greenhouse gases. This could include commuter benefit and transit pass programs which encourage employees to use transit rather than driving to work. This also includes efforts by local employers to encourage ridesharing, carpooling, BART shuttles, telecommuting, and other programs which provide alternatives to driving alone. ▪ Policy T-4.7: Car Sharing and Bike Sharing. Promote car sharing and bike sharing as a viable means of transportation and an alternative to private auto and bike ownership. ▪ Policy T-4.8: Ridesharing. Provide incentives for employees to carpool, vanpool, or use transit when traveling to work. These incentives could include preferential parking for carpools, employee rideshare and vanpool programs, bike parking areas, and shuttles to

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	transit. It could also include the creation of additional park and ride lots in and around Newark. ▪ Policy T-4.9: Telecommuting and Flextime. Encourage Newark employers to reduce peak hour commute volumes by offering flexible work schedules and telecommute options for employees, and by providing facilities such as showers and locker rooms which make it more feasible for employees to bike to work. ▪ Action T-4.A: Car Sharing Programs. Work with private car share vendors to explore the feasibility of incorporating car sharing programs and providing preferential car share spaces in business parks, major shopping centers, and higher density residential developments. ▪ Action T-4.B: Regional Bike Share Program. Partner with ABAG, MTC, ACTC, and other entities to implement a regional bike share system. ▪ Action T-4.C: 511.org Program. Continue to support the "511.org" program and other regional initiatives that help residents and workers find carpools, rides home from work, and other alternatives to driving alone. ▪ Action T-4.D: City Employee Trip Reduction Program. Evaluate ways to reduce driving by City employees, including alternative schedules, work from home programs, and incentives for walking or biking to work. ▪ Action T-4.E: Commuter Benefits Programs. Encourage Newark businesses to develop and implement commuter benefit programs, such as transit passes and pre-tax transit benefits.
Business Community Action Item 5.7- Water conservation Action Item 5.7.1 Survey Newark businesses about their water conservation practices. Action Item 5.7.2 Introduce Bay Area Friendly Landscaping and other successful programs to businesses.	*Consistent.* The proposed Plan identifies water conservation standards for new development, including ▪ Policy CS-3.2: Water Conservation Standards. Promote water conservation through development standards, building requirements, irrigation requirements, landscape design guidelines, and other applicable City policies and programs.
Planning and Zoning Action Item 6.1: During the next General Plan update, review and evaluate appropriate transit modes that can decrease the need for personal vehicles for travel within the City. When proposing changes to the transportation system, the City should consider the climate impacts and give preference to solutions that reduce auto dependency and minimize GHG emissions.	*Consistent.* The proposed Plan includes an array of policies and actions to ensure implementation of complete streets within the City to accommodate all modes of transportation: ▪ Policy T-1.1: Improving Travel Mobility for All. Create and maintain "complete" streets that provide safe, comfortable and convenient travel for all categories of users, including pedestrians, bicyclists, transit riders, and motorists; and persons of all physical capabilities, including children, youth, seniors, and persons with disabilities. ▪ Policy T-1.3: Incorporating Complete Streets Elements in Transportation Projects. Incorporate complete streets elements in the

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	planning, funding, design, approval and implementation of all transportation projects. Any construction, reconstruction, retrofit, maintenance, operations, alteration, or major repair of the street network should consider ways to make streets safer for all users. ▪ Policy T-1.6: Traffic Calming. Use traffic design features and traffic calming techniques to improve safety and maintain the quality of life in Newark neighborhoods. Traffic calming should be incorporated into urban design and streetscape plans so that a safer environment is provided for bicyclists and pedestrians. ▪ Action T-1.A: Interdepartmental Cooperation. Require that all relevant City departments work cooperatively toward making complete streets practices a routine part of their daily operations. City departments should approach every transportation-related project and program as an opportunity to improve mobility for all categories of users. ▪ Action T-1.B: Best Practices in Street Design. Follow the City's adopted standards for the design of streets. As appropriate, update the City's street classification and engineering design standards to ensure that the roadway system accommodates all users. ▪ Action T-1.C: Complete Streets Procedures .Take the following steps to implement the city's Complete Streets policy: (a) Maintain, plan, and design future transportation projects so that they are consistent with all adopted local plans; and (b) Develop or clearly define a process to allow for early stakeholder involvement in the design of new transportation projects. ▪ Policy T-2.1: Promoting Bicycling and Walking. Promote bicycling and walking as viable modes of transportation for everyday trips as well as for recreation. ▪ Policy T-2.2: Pedestrian Facilities. Develop curbs, gutters, and sidewalks on all Newark streets to encourage safe, convenient pedestrian travel. Where appropriate, include marked crosswalks at intersections to facilitate safe pedestrian movement across City streets. ▪ Policy T-2.3: Bike Trail Network. Maintain and expand an interconnected network of bicycle trails and pedestrian paths, serving the city's neighborhoods, shopping districts, workplaces, and park and open space areas. The existing bicycle network should be extended to provide connections to developing areas, including the Dumbarton TOD, the Southwest Residential and Recreational Project, Old Town Newark, and the NewPark Mall vicinity ▪ Policy T-2.4: Connecting to the Region. Develop bicycle and pedestrian facilities that connect across city boundaries and integrate with the larger regional bikeway and public transportation systems. ▪ Policy T-2.5: Pedestrian and Bicycle Provisions within New

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	Development. Ensure safe and convenient pedestrian and bicycle access to and through new public and private developments. The City will use the development review process to ensure—and where appropriate to require—provisions for pedestrians and bicycles in new development areas. ▪ Policy T-2.6: Bicycle Parking. Provide secure, adequate, and easily accessible bicycle parking at key destinations throughout the city, including municipal facilities, schools, and within new development. The style and design of bike racks should contribute to overall neighborhood and architectural aesthetics. ▪ Policy: T-2.7: Trails Along Railroads and Utilities. Consider the use of railroad, flood control, and utility rights of way for jogging, biking, and walking trails, provided that safety and operational issues can be fully addressed. ▪ Policy T-2.9: Railroad Crossings. Ensure that any future grade separated railroad crossings include sidewalks and a designated lane for bicycles. ▪ Policy T-2.10: Improving Sidewalk Connectivity. Work to close gaps in the pedestrian network and improve sidewalk connectivity between residential and commercial areas. ▪ Policy T-2.11: Recreational Trails. Develop and maintain trails in park and open space areas, and between Newark neighborhoods and the city's open spaces. ▪ Action T-2.A: Pedestrian and Bicycle Master Plan. Adopt the Draft Newark Pedestrian and Bicycle Master Plan, and proceed with implementation of its priority projects. Periodically update the list of projects as capital improvements are completed. ▪ Action T-2.B: Cedar Boulevard Pedestrian and Bicycle Trail. Convert the linear tract of land formerly reserved for a southerly extension of Cedar Boulevard between Haley St. and Willow St. into a bicycle and pedestrian parkway, including a bicycle and pedestrian bridge over the Union Pacific Railroad. ▪ Action T-2.C: Safe Routes to School. Apply for grant funding to prepare a comprehensive Safe Routes to School program. Such a program should be developed collaboratively with the Newark Unified School District. ▪ Action T-2.F: Priority Areas for Pedestrian Improvements. Pursue pedestrian and bicycle access improvements in the NewPark Mall vicinity, and between the Mall area and Newark neighborhoods. The City should identify prospective capital improvements which would facilitate walking and cycling within this area. ▪ Action T-2.G: Wayfinding Signage. Implement a bicycle signage and wayfinding program, including directional signs to indicate major

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	destinations. ▪ Action T-2.H: Bicycle Parking Requirements. Consider adopting bicycle parking requirements for residential and commercial projects. ▪ Policy T-3.1: Improving Transit Services. Work collaboratively with BART, AC Transit, other agencies, and the private sector to provide an improved transit system serving persons who live in Newark, work in Newark, and visit Newark. ▪ Policy T-3.2: Transit Diversity. Support a variety of transit types within the city, including local bus service within Newark, express bus service linking Newark to regional destinations, and future shuttle or circulator service to BART, ACE, and other rail transit facilities. ▪ Policy T-3.3: Connecting to BART. Encourage improved transit connections between Newark and the BART stations in Fremont and Union City. A variety of strategies leveraging public and private resources should be explored to establish more frequent, reliable connections to BART. ▪ Policy T-3.4: Transbay Service. Support expanded transit service between Newark and the Peninsula, including bus service across the Dumbarton Bridge and eventual rail service between the East Bay and the Peninsula, with a station on the west side of Newark. ▪ Policy T-3.7: Transit Stops. Coordinate with regional transit providers to maintain a safe, clean, comfortable, and well-lit waiting environment at all transit stops and bus shelters within the city. ▪ Policy T-3.8: Improving Transit Reliability and Speed. Work with transit providers to incorporate features such as traffic signal priorities, queue jumps, exclusive transit lanes, real-time information on bus arrival and departures, and other measures which make using transit faster and more reliable. ▪ Policy T-3.9: Schedule Integration. Support efforts to synchronize transit schedules to reduce waiting and transfer times, particularly between AC Transit and BART. ▪ Action T-3.A: BART Shuttle. Study the feasibility of a private, public-private, or AC Transit shuttle that connects Newark's major employment centers, major shopping destinations, and other destinations (such as Ohlone College) with the BART stations in Fremont and/or Union City. ▪ Action T-3.B: Dumbarton Rail Design and Funding. Continue planning, design, and financing studies for the Dumbarton Rail between the Union City BART station and the Peninsula. The City supports phased implementation of the project, with Newark to the Peninsula as the first phase. ▪ Action T-3.C: Consultation with AC Transit. Work with AC Transit to align transit routes in Newark in a way that better achieves the goals

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	of the General Plan. This should include better connections between Newark's neighborhoods and shopping centers, including New Park Mall, Old Town Newark, and the Four Corners area. ▪ Policy CS-5.2: Pedestrian and Bicycle Friendly Design. Ensure that new development is planned and designed to facilitate walking and bicycling as well as driving. This can potentially reduce the number of vehicle trips and related greenhouse gas emissions. ▪ Policy CS-5.5: Consideration of Climate in Transportation Planning. Consider potential greenhouse gas emissions impacts when making changes to the transportation system. Give preference to solutions that reduce auto dependency and minimize emissions. ▪ Policy T-4.6: Transportation Systems Management. Require new commercial and office development to implement Transportation System Management (TSM) measures to reduce trip generation and/or pay for traffic improvements through impact fees or assessment district financing.
Planning and Zoning Action Item 6.2: Encourage smart growth principles that support higher-density, mixed-use and well-designed development in areas near the proposed future transit station and areas near major bus routes.	*Consistent.* The proposed Plan identifies land use strategies to link population with employment centers, consistent with regional land use strategies: ▪ Action CS-5.C: Reducing Vehicle Miles Traveled. Implement the land and use and transportation strategies identified in the Climate Action Plan aimed at reducing greenhouse gas emissions related to motor vehicles. ▪ Action CS-5.E: Living Near Work. Work with local employers to explore programs and incentives for employees to purchase homes in Newark, thereby reducing their commute lengths and related greenhouse gas emissions. ▪ Policy LU-1.1: Balance of Uses. Maintain a reasonable balance of land uses in the city so that residents can live close to where they work and satisfy their shopping, educational, personal, health, entertainment, and recreational needs close to home ▪ Policy LU-1.2: Growth Focus Areas. Achieve a future growth pattern which includes new neighborhoods on vacant land along the southern and western edges of the city, and infill development in transit-served areas such as Old Town and the Greater NewPark Mall Area. Zoning and development review decisions should recognize these areas as the priority locations for growth and change over the next 20 years. ▪ Policy LU-1.3: Jobs-Housing Balance. Seek to balance housing and job growth. The City should strive to have a roughly equal number of jobs and employed residents, with a mix of housing types that meets the needs of the local workforce. ▪ Policy LU-1.4: Coordinating Land Use and Transportation Decisions. Coordinate land use and development decisions with the capacity of

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	the transportation system and plans for future transportation improvements. ▪ Policy LU-4.2: Connectivity. Improve connectivity between neighborhoods and commercial districts so that the city's shopping areas function as neighborhood gathering places and focal points. Over time, shopping centers which are oriented exclusively to auto traffic should be redesigned so they are more pedestrian friendly and better integrated with the uses around them. ▪ Policy CS-5.1: Linking Land Use and Transportation. Encourage land use and transportation patterns which reduce dependence on automobiles. This includes siting well-designed higher-density, mixed use development near the proposed Dumbarton Rail station and in other areas with frequent transit service. ▪ Policy T-4.1: Coordinating Land Use and Transportation. Support land use choices and transportation investments which result in a community that is more walkable and serviceable by public transportation. Land use and development decisions should reflect the existing and planned capacity of Newark's transportation system. ▪ Policy T-4.2: Transit Oriented Development. Require that the densities and intensities of development in the vicinity of major transit hubs are high enough to capitalize on the investment that has been made in transit and to encourage and support transit use. ▪ Policy T-4.4: Mixed Use Development. Encourage mixed use development (such as housing over retail uses) as a way of making it easier to live, work, and shop without owning a car, and as a strategy for reducing the number and length of vehicle trips. ▪ Policy T-4.5: Home Businesses. Encourage home-based businesses, home occupations, live-work development, and space for shared offices and office support uses as a way to make it easier for Newark residents to work from home or from local facilities, rather than commuting to distant employment centers.
Planning and Zoning Action Item 6.3: Explore the development of zoning and development standards that consider both the land uses and the urban design and form of buildings and public space, where the new standards will result in reduced GHG emissions.	*Consistent.* The proposed Plan identifies design strategies to reduce GHG emission: ▪ Policy CS-7.3: Designing for Energy Efficiency. Support building design, site planning, and subdivision design methods which reduce heating and cooling costs and achieve greater energy efficiency. ▪ Policy CS-6.4: Green Roofs. Encourage the use of green roofs and cool roofs as a way of reducing heating and cooling costs, and reducing stormwater runoff. ▪ Policy CS-6.5: Minimizing Impervious Surface Coverage. Minimize impervious surface coverage and related stormwater runoff in new development areas by allowing narrower roads and shared driveways, and by encouraging the use of pervious materials on

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	driveways and parking areas. Other means of reducing urban runoff, such as rain barrels and bioswales, also should be encouraged. ▪ Policy CS-6.6: Cool Pavements. Encourage the use of cool (light colored) pavements to mitigate the heat island effect of development. ▪ Action T-2.H: Bicycle Parking Requirements. Consider adopting bicycle parking requirements for residential and commercial projects. ▪ Policy T-7.5: Shared Parking. Encourage the use of shared parking for uses with different demand characteristics as a way to reduce the total land area devoted to parking and maximize the efficient use of parking resources. In the event that parking structures are developed, encourage joint use agreements which enable multiple users to use such structures. ▪ Policy T-7.7: Sustainable Design. Encourage parking lot designs which contribute to the city's environmental quality goals. This could include the use of permeable pavement to reduce the amount of runoff entering surface waterways and reduce the "heat island" effect of new development. ▪ Actions T-7.A: Parking Reduction Strategies. Consider strategies to ensure that new development does not provide excessive amounts of parking or provide parking in a way that impedes the City's goals of promoting alternate modes of travel. These strategies could include the use of parking maximums in transit served areas, allowing greater parking exemptions for small establishments or reuse of existing structures, allowing credit for on-street parking spaces, and similar measures. ▪ Action T-7.B: Revisiting Parking Regulations. Revisit the parking requirements established through the City's zoning regulations to identify opportunities for parking reductions, shared parking, compact spaces, and other amendments which reduce the land area dedicated to parking in the city while still meeting economic development and convenience goals.
Planning and Zoning Action Item 6.4: Explore potential strategies related to the creation of additional affordable housing to sell to buyers employed in Newark, but who currently reside in other areas and commute to work in Newark.	*Consistent.* The proposed Plan identifies the following policy specific to collocating services proximate to high density and senior housing: ▪ Policy T-4.3: Co-Location of Housing and Services. Locate higher density housing and senior housing close to shopping, medical facilities, senior centers, and public transportation as a way of reducing trip lengths and increasing transportation option for residents of such developments.

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
Planning and Zoning Action Item 6.5: Consider developing and adopting a Buy Local Plan that would give preference to local businesses. The plan should consider incentives such as marketing and promotion assistance for buy local businesses, continue to support the local farmers market, encouraging residents to grow food in home and community gardens, working with community partners to identify methodologies for tracking and reporting on the rate of local food production and consumption.	*Consistent.* The proposed Plan identifies the following policy regarding environmentally friendly purchasing: ▪ Action CS-8.F: Environmentally Friendly Purchasing. As prescribed by the Newark Climate Action Plan, adopt an environmentally friendly purchasing policy. Monitor the policy's effectiveness and adjust it as appropriate. (2010 CAP Action 3.15)
Planning and Zoning Action Item 6.6: Accelerate Implementation of the City's Bicycle and Pedestrian Plans. Upon completion of the plan in October 2010, explore components whose implementation can be accelerated. This CAP should be updated with the recommendations of the completed plan.	*Consistent.* The proposed Plan identifies related policies and actions to encourage walking and biking: ▪ Policy T-2.1: Promoting Bicycling and Walking. Promote bicycling and walking as viable modes of transportation for everyday trips as well as for recreation. ▪ Policy T-2.2: Pedestrian Facilities. Develop curbs, gutters, and sidewalks on all Newark streets to encourage safe, convenient pedestrian travel. Where appropriate, include marked crosswalks at intersections to facilitate safe pedestrian movement across City streets. ▪ Policy T-2.3: Bike Trail Network. Maintain and expand an interconnected network of bicycle trails and pedestrian paths, serving the city's neighborhoods, shopping districts, workplaces, and park and open space areas. The existing bicycle network should be extended to provide connections to developing areas, including the Dumbarton TOD, the Southwest Residential and Recreational Project, Old Town Newark, and the NewPark Mall vicinity ▪ Policy T-2.4: Connecting to the Region. Develop bicycle and pedestrian facilities that connect across city boundaries and integrate with the larger regional bikeway and public transportation systems. ▪ Policy T-2.5: Pedestrian and Bicycle Provisions within New Development. Ensure safe and convenient pedestrian and bicycle access to and through new public and private developments. The City will use the development review process to ensure—and where appropriate to require—provisions for pedestrians and bicycles in new development areas. ▪ Policy: T-2.7: Trails Along Railroads and Utilities. Consider the use of railroad, flood control, and utility rights of way for jogging, biking, and walking trails, provided that safety and operational issues can be fully addressed. ▪ Policy T-2.10: Improving Sidewalk Connectivity. Work to close gaps in the pedestrian network and improve sidewalk connectivity between residential and commercial areas. ▪ Policy T-2.11: Recreational Trails. Develop and maintain trails in park

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	and open space areas, and between Newark neighborhoods and the city's open spaces. ▪ Action T-2.A: Pedestrian and Bicycle Master Plan. Adopt the Draft Newark Pedestrian and Bicycle Master Plan, and proceed with implementation of its priority projects. Periodically update the list of projects as capital improvements are completed. ▪ Action T-2.B: Cedar Boulevard Pedestrian and Bicycle Trail. Convert the linear tract of land formerly reserved for a southerly extension of Cedar Boulevard between Haley St. and Willow St. into a bicycle and pedestrian parkway, including a bicycle and pedestrian bridge over the Union Pacific Railroad. ▪ Action T-2.C: Safe Routes to School. Apply for grant funding to prepare a comprehensive Safe Routes to School program. Such a program should be developed collaboratively with the Newark Unified School District. ▪ Action T-2.F: Priority Areas for Pedestrian Improvements. Pursue pedestrian and bicycle access improvements in the NewPark Mall vicinity, and between the Mall area and Newark neighborhoods. The City should identify prospective capital improvements which would facilitate walking and cycling within this area. ▪ Action T-2.G: Wayfinding Signage. Implement a bicycle signage and wayfinding program, including directional signs to indicate major destinations. ▪ Policy CS-5.2: Pedestrian and Bicycle Friendly Design. Ensure that new development is planned and designed to facilitate walking and bicycling as well as driving. This can potentially reduce the number of vehicle trips and related greenhouse gas emissions.
Planning and Zoning Action Item 6.7: Create ridesharing programs.	*Consistent.* As identified previously, the proposed Plan includes identifies several commute trip reduction strategies, including: ▪ Policy T-4.7: Car Sharing and Bike Sharing. Promote car sharing and bike sharing as a viable means of transportation and an alternative to private auto and bike ownership. ▪ Policy T-4.8: Ridesharing. Provide incentives for employees to carpool, vanpool, or use transit when traveling to work. These incentives could include preferential parking for carpools, employee rideshare and vanpool programs, bike parking areas, and shuttles to transit. It could also include the creation of additional park and ride lots in and around Newark. ▪ Action T-4.A: Car Sharing Programs. Work with private car share vendors to explore the feasibility of incorporating car sharing programs and providing preferential car share spaces in business parks, major shopping centers, and higher density residential

TABLE 4.6-6 CONSISTENCY WITH NEWARK'S COMMUNITY-WIDE GHG REDUCTION MEASURES

Community-Wide GHG Reduction Measures in the Climate Action Plan	Consistency
	developments. ▪ Action T-4.B: Regional Bike Share Program. Partner with ABAG, MTC, ACTC, and other entities to implement a regional bike share system.
Planning and Zoning Action Item 6.8: Enhance and expand outreach, marketing and education regarding land use and transportation. Personal choice underlies many of the transportation-related changes that will have to occur in order for the community to achieve its GHG-reduction goal. Enhancing and expanding current education and outreach efforts is therefore fundamental to this plan. Such efforts are aimed at providing community members with access to information that enables them to make informed choices. For example, specific information about the economic and environmental impact of riding public transit or a bicycle as opposed to driving a car may influence the transportation choices one makes. Along with the City government, regional agencies and local community-based organizations are already playing a key role in providing information that can inform community members' choices.	*Consistent.* As identified above, the proposed Plan identifies several strategies that promote community awareness about local and regional environment programs, including the State's CaliforniaFirst program, the Bay Area's 511.org Program. The City's website provides information to residents and business on environmental programs available.

- Title 24, Part 6, California Code of Regulations: Building and Energy Efficiency Standards
- Title 24, Part 11, California Code of Regulations: Green Building Standards Code

Implementation of the General Plan policies and actions would ensure consistency with statewide, regional, and the City's GHG reduction planning efforts.

Significance Before Mitigation: Less than Significant.

4.6.4 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

GHG-1	GHG emissions under the proposed Plan in 2035 are projected to be 5.1 MTCO2e per service population. As shown in Table 4.6-5, this would exceed the efficiency target of 4.0 MTCO2e per service population for Newark derived for the proposed Plan based on the long-term GHG reduction target for 2050 interpolated from Executive Order S-03-05.

Mitigation Measure GHG-1: To further reduce 2035 GHG emissions resulting from future development under the proposed Plan, the City shall require the following Uniformly Applicable Development Standards for new developments:

- Pedestrian and Bicycle Friendly Design/Bicycle Parking. Site plans submitted shall identify pedestrian and bicycle facilities on-site, including bicycle parking.
- Pedestrian and Bicycle Provisions within New Development. Circulation plans submitted shall identify pedestrian and bicycle routes.
- Source Reduction and Diversion for New Construction. Major new non-residential developments shall submit a plan that identifies solid waste source reduction and diversion measures (e.g. location of recycling bins on-site).
- Sustainable Design/Tree Planting in New Development/Minimizing Impervious Surface Coverage. Landscape plans submitted shall minimize impervious surfaces and identify features to reduce the heat island effect (e.g. tree coverage, permeable pavement, cool pavement).

However, it should be noted that while CARB is currently updating the Scoping Plan to identify additional measures to achieve the long-term GHG reduction targets, at this time, there is no plan past 2020 that achieves the long-term GHG reduction goal established under Executive Order S-03-05. As identified by the California Council on Science and Technology, the State cannot meet the 2050 goal without major advancements in technology.

Significance After Mitigation: Significant and unavoidable. There are no additional measures available to mitigate this impact to a *less-than-significant* level.

4.7 HAZARDS AND HAZARDOUS MATERIALS

This chapter discusses existing conditions in the Plan Area and potentially significant impacts associated with the adoption and implementation of the proposed Plan related to hazardous materials, airport hazards, emergency response plans, and wildland fires. Potential Plan impacts related to fire protection services other than wildland fires are discussed in Section 4.10, Public Services and Recreation.

4.7.1 ENVIRONMENTAL SETTING

4.7.1.1 REGULATORY FRAMEWORK

This section summarizes existing federal, State, regional, and local policies and regulations that apply to hazards and hazardous materials.

Federal Programs and Regulations

The following federal agencies oversee hazards and hazardous materials concerns.

Environmental Protection Agency

The United States Environmental Protection Agency's (EPA) laws and regulations ensure the safe production, handling, disposal, and transportation of hazardous materials. Laws and regulations established by the EPA are enforced in Alameda County by the California EPA.

U.S. Department of Transportation

Transportation of chemicals and hazardous materials are governed by the United States Department of Transportation (DOT), which stipulates the types of containers, labeling, and other restrictions to be used in the movement of such material on interstate highways.

Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) oversees administration of the Occupational Safety and Health Act, which requires specific training for hazardous materials handlers, provision of information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets (MSDS) from materials manufacturers. Material safety data sheets describe the risks, as well as proper handling and procedures, related to particular hazardous materials. Employee training must include response and remediation procedures for hazardous materials releases and exposures.

State Regulations

California Health and Safety Code and Code of Regulations

California Health and Safety Code Chapter 6.95 and 19 California Code of Regulations Section 2729 set out the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on site. A business which uses hazardous materials or a mixture containing hazardous materials must establish and implement a business plan if the hazardous material is handled in certain quantities.

California Environmental Protection Agency

One of the primary agencies that regulates hazardous materials is the California Environmental Protection Agency (CalEPA), which is authorized by the EPA to enforce and implement federal hazardous materials laws and regulations. The Department of Toxic Substance Control (DTSC), a department of the CalEPA, protects California and Californians from exposure to hazardous waste, primarily under the authority of the federal Resource Conservation Recovery Act (RCRA) of 1976 and the California Health and Safety Code.[1] DTSC requirements include the need for written programs and response plans, such as Hazardous Materials Business Plans (HMBPs). DTSC programs include dealing with aftermath clean-ups of improper hazardous waste management, evaluation of samples taken from sites, enforcement of regulations regarding use, storage, and disposal of hazardous materials, and encouragement of pollution prevention. In addition, DTSC's school Property Evaluation and Cleanup Division is responsible for assessing, investigating, and cleaning-up proposed school sites. The Division's goal is to ensure that proposed school properties are free of contamination or that they have been cleaned to a level that protects the students and staff who will occupy the new school. School sites that will receive State funding for acquisition or construction are required to go through an environmental review and cleanup process under DTSC's oversight.

California Division of Occupational Safety and Health (Cal OSHA)

Like OSHA at the federal level, Cal OSHA is the responsible state-level agency for ensuring workplace safety. Cal OSHA assumes primary responsibility for the adoption and enforcement of standards regarding workplace safety and safety practices. In the event that a site is contaminated, a Site Safety Plan must be crafted and implemented to protect the safety of workers. Site Safety Plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from the contaminated site or building.

[1] Department of Toxic Substances Control website http://www.dtsc.ca.gov/InformationResources/DTSC_Overview.cfm#Overview_of_DTSC, accessed on January 28, 2013.

California Building Code

The state of California provided a minimum standard for building design through the 2010 California Building Code (CBC), which is located in Part 2 of Title 24 of the California Code of Regulations (CCR). The 2010 CBC is based on the 1997 Uniform Building Code, but has been modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local city and county building officials for compliance with the CBC Typical fire safety requirements of the CBC included; the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

California Emergency Management Agency (CAL EMA)

The California Emergency Management Agency (CAL EMS) was established as part of the Governor's Office on January 1, 2009 – created by Assembly Bill 38 (Nava), which merged the duties, powers, purposes, and responsibilities of the former Governor's Office of Emergency Services with those of the Governor's Office of Homeland Security. Cal EMA is responsible for the coordination of overall state agency response to major disasters in support of local government. The agency is responsible for assuring the state's readiness to respond to and recover from all hazards – natural, manmade, was-caused emergencies and disasters – and for assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts.

California Department of Forestry and Fire Protection (CAL FIRE)

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire threat potential throughout California. [2] CAL FIRE ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat, moderate, high, and very high fire threat. Additionally, CAL FIRE produced a *2010 Strategic Fire Plan for California*, which contains goals, objectives, and policies to prepare for and mitigate for the effects of fire on California's natural and built environments.[3]

California Fire Code (2010)

California Code of Regulations, Title 24, also known as the California Building Standards Code, contains the California Fire Code (CFC), included as Part 9 of that title. Updated every three years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. The Alameda County Fire

[2] CAL FIRE, http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_development.php, accessed on February 1, 2013.

[3] CAL FIRE, *2010 Strategic Fire Plan for California,* http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf668.pdf, accessed on February 1, 2013.

Department provides fire protection services for the City of Newark and as such, implements and enforces the CFC in the Plan Area.[4]

The California Department of Transportation

The California Department of Transportation (Caltrans) manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on those highway and freeway lanes and inter-city rail services.

State Water Resources Control Board

The San Francisco Bay Regional Water Quality Control Board (RWQCB) is authorized by the State Water Resources Control Board (SWRCB) to enforce provisions of the Porter-Cologne Water Quality Control Act of 1969. This act gives the San Francisco RWQCB authority to require groundwater investigations when the quality of groundwater or surface waters of the State is threatened and to require remediation actions, if necessary.

Materials-Specific Programs and Regulations

Asbestos-Containing Materials (ACM) Regulations

State-level agencies, in conjunction with the federal EPA and OSHA, regulate removal, abatement, and transport procedures for asbestos-containing materials. Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations and medical evaluation and monitoring is required for employees performing activities that could expose them to asbestos. Additionally, the regulations include warnings that must be heeded and practices that must be followed to reduce the risk for asbestos emissions and exposure. Finally, federal, State, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

Polychlorinated Biphenyls (PCBs)

The U.S. EPA prohibited the use of PCBs in the majority of new electrical equipment starting in 1979, and initiated a phase-out for much of the existing PCB-containing equipment. The inclusion of PCBs in electrical equipment and the handling of those PCBs are regulated by the provisions of the Toxic Substances Control Act, 15 U.S.C. § 2601 et seq. (TSCA). Relevant regulations include labeling and periodic inspection requirements for certain types of PCB-containing equipment and outline highly specific safety procedures for their disposal. The State of California likewise regulates PCB-laden electrical equipment and materials contaminated above a certain threshold as hazardous waste; these regulations require that such materials be treated, transported, and disposed accordingly. At lower concentrations for non-liquids, regional water quality control boards may exercise discretion over the classification of such wastes.

[4] City of Newark website, http://www.newark.org/departments/fire/, accessed on January 28, 2013; Alameda County Code of Ordinances, Section 6.04, Alameda County Fire Code.

Lead-Based Paint (LBP)

Cal OSHA's Lead in Construction Standard is contained in Title 8, Section 1532.1 of the California Code of Regulations. The regulations address all of the following areas: permissible exposure limits (PELs); exposure assessment; compliance methods; respiratory protection; protective clothing and equipment; housekeeping; medical surveillance; medical removal protection (MRP); employee information, training, and certification; signage; record keeping; monitoring; and agency notification.

Local Programs and Regulations

Alameda County Department of Environment Health

The Alameda County Department of Environment Health's Hazardous Materials/Waste Program is the DTSC Certified Unified Program Agency (CUPA) charged with implementing and enforcing federal, State, and local policies relating to hazards and hazardous materials in Alameda County, including the Plan Area.[5] This includes administration of the Hazardous Materials Business Plan Program, Hazardous Waste Generator Program, Underground Storage Tank (UST) Program, California Accidental Release Program, Tiered Permitting Program, and Aboveground Storage Tank Program.

Alameda County Water District

The Alameda County Water District (ACWD) works together with the RWQCB and the City of Newark to protect groundwater, which includes efforts to investigate and remediate leaking underground fuel tank (LUFT) and SLIC (Spills, Leaks Investigation and Cleanup) sites.[6] Additionally, the ACWD monitors groundwater quality and annually releases a water quality report.[7]

Local Hazard Mitigation Plan

The Association of Bay Area Governments (ABAG) prepared a Local Hazard Mitigation Plan, *Taming Natural Disasters*, to help prepare for and mitigate the effects of potential hazards in the Bay Area.[8] To supplement ABAG's *Taming Natural Disasters,* Alameda County prepared an Annex particular to its region.. The Annex describes the regional and local hazard mitigation planning process, recounts past occurrences of disasters, assesses various risks (e.g. urban land exposure, infrastructure exposure, critical health care facility exposure, etc.), details mitigation goals, and provides mitigation activities and priorities.

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[5] Alameda County Environmental Health, Hazardous Materials/Waste Program (CUPA), http://www.acgov.org/aceh/hazard/, accessed on January 28, 2013.

[6] Alameda County Water District, 2009, *Cooperative Agreement Between City of Newark, County of Alameda, and Alameda County Water District*, http://www.acwd.org/DocumentCenter/Home/View/129, accessed on January 28, 2013.

[7] Alameda County Water District website, http://www.acwd.org/index.aspx?nid=156, accessed on January 28, 2013.

[8] Association of Bay Area Governments, Regional Hazard Mitigation Plan, http://quake.abag.ca.gov/mitigation/, accessed on January 31, 2013.

City of Newark Emergency Operations Plan and Chemical Emergency Preparedness Supporting Plan

The City has adopted two emergency response plans[10]. The "Emergency Operations Plan" is the City's primary plan which provides operational procedures for responding to a variety of emergency conditions, including earthquakes, flooding, tsunamis, hazardous material incidents, and civil defense conditions. The guidelines included in this plan address the needs of the entire community and identify key responsible agencies and personnel. The City's second response plan is the "Chemical Emergency Preparedness Supporting Plan." This plan establishes standard operating procedures for responding to a chemical spill or hazardous materials incidents within the City.

City of Newark Municipal Code

The City of Newark's Municipal Code contains several provisions relating to hazards and hazardous materials. Chapter 15.44 , Green Building and Construction and Demolition Debris Recycling, requires construction and demolition debris recycling for all construction projects whose total costs are greater than $100,000, or structure demolition projects whose total costs are greater than twenty thousand dollars, or pavement demolition projects involving over 1,000 square feet of removed pavement. Additionally, Chapter 15.44 encourages green building, Bay-Friendly landscaping, and environmentally-preferable purchasing practices. Chapter 17.25, Hazardous Materials Storage Permit, establishes standards for the prevention and control of hazardous materials discharge. These standards require all applicants for a Hazardous Materials Storage Permit to provide a hazardous materials management plan, report of unauthorized hazardous materials discharges, establish and post emergency procedures at hazardous materials storage sites, submit to regular inspections, maintain and upkeep hazardous materials facilities in a safe manner, and accept liability for any cleanup responsibility.

4.7.1.2 EXISTING CONDITIONS

This section describes existing conditions in the Plan Area and in the surrounding area related to hazardous materials, airport hazards, and wildland fires.

Hazardous Materials

Transport, Use, and Disposal of Hazardous Materials

Major transportation routes within the Plan Area include the Dumbarton Bridge, Interstate 880, State Route 84, and surface streets. These transportation routes are used to transport hazardous materials from suppliers to users. Transportation accidents involving hazardous materials could occur on any of the routes, potentially resulting in explosions, physical contact by emergency response personnel, environmental degradation and exposure to the public.

[10] City of Newark General Plan, Environmental Safety Element.

Known Hazardous Materials Sites

Regional Water Quality Control Board (GeoTracker Database)

The GeoTracker database is the RWQCB's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks (USTs), Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. GeoTracker contains well, tank, and pipeline data in California. A database search, conducted on June 18, 2013, revealed a total of 110 listings in or near the Plan Area.[11] Of these, 10 are permitted underground storage tank (UST) facilities, 37 are leaking underground storage tank (LUST) cleanup sites (16 of which are closed), and 45 are other cleanup sites (22 of which are closed). The locations of these sites are shown on Figure 4.7-1 and information about each of these sites is provided in Table 4.7-1, Hazardous Materials Sites.

Department of Toxic Substances Control

The DTSC's EnviroStor database is an online search tool for identifying sites that were contaminated or are potentially contaminated and in need of further investigation. The EnviroStor database also identifies facilities that are authorized to treat, store, dispose of, and/or transfer hazardous waste. The EnviroStor database includes lists of the following site types: federal Superfund sites; State Response, including Military Facilities and Federal Superfund; Voluntary Cleanup; and School sites. EnviroStor provides the site name, site type, status, address, any restricted use and/or recorded deed restrictions, past use(s) that caused contamination, potential contaminants of concern, site history and planned and completed activities. Sites in the EnviroStor database may also be included in the GeoTracker database and vice versa.

As of June 18, 2013, there are 22 regulatory properties within the immediate Plan Area that require DTSC action or evaluation reported via the EnviroStor database search and five which require no further action.[12] The locations of these sites are shown on Figure 4.7-1 and information about each of these sites is provided in Table 4.7-1, Hazardous Materials Sites.

There are no federal Superfund sites in the Plan Area. However, there are three State Response sites that DTSC defines as confirmed release sites that are generally high-priority and high potential risk.[13] The State Response sites are:

- Ashland Chemical, located at 8600 Enterprise Drive, Newark, was a packaging and distribution center involving a variety of chemicals. Contaminants that have been detected and removed from the soil are

[11] California State Water Resources Control Board, GeoTracker, http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Newark%2C+CA, accessed on February 1, 2013.

[12] California Department of Toxic Substances (DTSC), EnviroStor Database www.envirostor.dtsc.ca.gov, accessed on February 1, 2013.

[13] California Department of Toxic Substances (DTSC), EnviroStor Database Glossary, http://www.envirostor.dtsc.ca.gov/public/EnviroStor%20Glossary.pdf, accessed on February 1, 2013.

TABLE 4.7-1 HAZARDOUS MATERIALS SITES IN NEWARK.

No.	Name	Address	City	Type	Status	Database
1	A & S Enterprises	7275 Thornton Ave	Newark	LUST Cleanup Site	Open – Remediation	GeoTracker
2	Abe Oil, Inc.	8130 Enterprise Drive	Newark	Non-Operating	RCRA	EnviroStor; GeoTracker
3	Ac Transit-Newark Facility	37650 Sycamore Street	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
4	Agilent Technologies	39201 Cherry Street	Newark	Tiered Permit	Inactive – Needs Evaluation	EnviroStor
5	Alcan Plastic Packaging Plant	6590 Central Avenue	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
6	American National Can	6590 Central Avenue	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
7	Ashland Chemical	8600 Enterprise Drive	Newark	State Response	Refer: RWQCB	EnviroStor; GeoTracker
8	Ashland Chemical	8610 Enterprise Drive	Newark	Tiered Permit; Other Cleanup Site	Refer: RWQCB; Open – Verification Monitoring	EnviroStor; GeoTracker
9	Ashland Specialty Chemical Co	8600 Enterprise Ave	Newark	Corrective Action	Refer: RWQCB	EnviroStor; GeoTracker
10	Ashland Specialty Chemical Co	8600 Enterprise Ave	Newark	Non-Operating	RCRA	EnviroStor; GeoTracker
11	Baron-Blakeslee	8333 Enterprise Drive	Newark	Closed Other Cleanup Site	Open – Remediation	GeoTracker
12	Bay Mirror, Inc.	6756 Central Ave	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
13	Bay Mirror, Inc.	6792 Central Avenue	Newark	Tiered Permit; Other Cleanup	Inactive – Needs Evaluation; Completed – Case Closed	EnviroStor; GeoTracker
14	BP Oil Gas Station (Former Mobil Station)	35425 Newark Boulevard	Newark	Permitted SUT Site; LUST Cleanup Site	Open – Site Assessment	GeoTracker
15	Cargill Salt	7200 Central Avenue	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
16	Cellco Partnership	37555 Sycamore Street	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
17	Cerro Metal Products Company	6707 Mowry Avenue	Newark	Evaluation	Refer: RWQCB	EnviroStor
18	City of Newark Service Station	37440 Filbert Street	Newark	Permitted UST Site		GeoTracker
19	Cherry Properties	37409 Cherry	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker

TABLE 4.7-1 HAZARDOUS MATERIALS SITES IN NEWARK.

No.	Name	Address	City	Type	Status	Database
20	Chevron #9-3751	5502 Thornton Ave	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
21	Columbus Coated Fabrics	38083 Cherry St	Newark	Evaluation	No Action Required	EnviroStor; GeoTracker
22	Consolidated Freightways Corp.	8130 Enterprise Drive	Newark	Other Cleanup Site	Open – Remediation	GeoTracker
23	Country Club Cleaning	35233 Newark Boulevard	Newark	Other Cleanup Program Site	Open – Site Assessment	GeoTracker
24	Desert Petroleum	36589 Newark Blvd	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
25	Dodge Property	5625 Robertson Avenue	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
26	Dutra Art Stone Facility	8175 Wells Ave	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
27	Earl Automotive	6953 Jarvis Avenue	Newark	LUST Cleanup Site	Case Closed	GeoTracker
28	Edwards Enterprises	8455 Cabot Court	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
29	European Auto Wrecking	7324 Wells Avenue	Newark	Other Cleanup Site	Open – Verification Monitoring	GeoTracker
30	Evergreen Oil Inc.	6880 Smith Ave	Newark	Corrective Action	Active	EnviroStor; GeoTracker
31	Evergreen Oil Inc.	6880 Smith Ave	Newark	Operating	RCRA	EnviroStor
32	Exxon No. 7-7116 (Thornton Avenue)	5835 Thornton Ave	Newark	Permitted UST Site; LUST Cleanup Site	Open – Remediation	GeoTracker
33	FERMA Corporation	6655 Smith Ave	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
34	FMC Corporation	8787 Enterprise Dr	Newark	Non-Operating	RCRA	EnviroStor; GeoTracker
35	FMC Corporation	8787 Enterprise Dr	Newark	Corrective Action; Other Cleanup Site	Refer: RWQCB; Open – Remediation	EnviroStor; GeoTracker
36	Freitas Property	7721 Sunset Ave	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
37	Freemont Paving	38370 Cedar Boulevard	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
38	Full Bloom Baking Company	6500 Overlake Place	Newark	Other Cleanup Program Site	Case Closed	GeoTracker
39	Georgia-Pacific – Former Peterbilt Motor Co	38811 Cherry Street	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker

TABLE 4.7-1 HAZARDOUS MATERIALS SITES IN NEWARK.

No.	Name	Address	City	Type	Status	Database
40	Grace Construction Products	6851 Smith Ave	Newark	LUST Cleanup Site	Open – Remediation	GeoTracker
41	Grand Auto Store	35382 Newark Blvd	Newark	Other Cleanup Program Site	Case Closed	GeoTracker
42	H.B. Fuller Co.	6925 Central Ave	Newark	Other Cleanup Site	Open – Verification Monitoring	GeoTracker
43	Holland Oil	8130 Enterprise Drive	Newark	State Response	Certified	EnviroStor; GeoTracker
44	Honeywell International, Inc.	8333 Enterprise Drive	Newark	Post Closure	RCRA	EnviroStor
45	Honeywell International, Inc.	8333 Enterprise Drive	Newark	Corrective Action	Completed	EnviroStor; GeoTracker
46	Hulbert Lumber	37500 Cedar Blvd	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
47	Inland Paperboard & Packaging, Inc.	37333 Cedar Blvd	Newark	Other Cleanup Site	Open – Site Assessment	GeoTracker
48	International Paper Company	38083 Cherry St	Newark	Other Cleanup Site	Open – Site Assessment	GeoTracker
49	J&M Concrete	38288 Cedar Blvd	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
50	Jarvis Avenue Shell	6005 Jarvis Avenue	Newark	Permitted UST Site; LUST Cleanup Site	Open – Remediation	GeoTracker
51	JC Cleaners	39253 Cedar Blvd	Newark	Other Cleanup Program Site	Open – Site Assessment	GeoTracker
52	Jones-Hamilton Co.	8400 Enterprise Dr	Newark	Tiered Permit; Other Cleanup Site	Refer: RWQCB; Open – Site Assessment	EnviroStor; GeoTracker
53	Kim's Classic Cleaners (Former)	6259 Jarvis Ave	Newark	Other Cleanup Program Site	Open – Verification Monitoring	GeoTracker
54	Lafleur Machinery	8025 Enterprise Dr	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
55	Leslie Salt Company	7200 Central Ave	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
56	Leslie Salt/FMC Magnesia Waste Pile	West of Enterprise Dr	Newark	State Response	Certified	EnviroStor; GeoTracker
57	Lewis Property	7969 Enterprise Dr	Newark	Other Cleanup Site	Open – Inactive	GeoTracker
58	Lido Chevron Station	6104 Jarvis Ave	Newark	Permitted UST Site		GeoTracker
59	LTD Ceramics, Inc.	7411 Central Ave	Newark	Tiered Permit	Inactive – Needs Evaluation	EnviroStor

TABLE 4.7-1 HAZARDOUS MATERIALS SITES IN NEWARK.

No.	Name	Address	City	Type	Status	Database
60	Matheson Tri-Gas, Inc.	6775 Central Ave	Newark	Non-Operating; Other Cleanup Site	Open – Site Assessment	Envirostor; GeoTracker
61	MCI Worldcom Network Service	398 Eureka Dr	Newark	Other Cleanup Program Site	Open – Verification Monitoring	GeoTracker
62	Newark Landfill	8100 Mowry Ave	Newark	Land Disposal Site	Open	GeoTracker
63	Newark Printers	7679 Thornton Ave	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
64	Newark Pump Station	8700 Thornton Ave	Newark	Permitted UST Site		GeoTracker
65	Newark Sportsman Club		Newark	Other Cleanup Site	Open – Inactive	GeoTracker
66	Newark Sportsman's Club	37447 Willow St	Newark	Other Cleanup Site	Open – Site Assessment	GeoTracker
67	Newark Unified School District	37370 Birch St	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
68	Nordstrom	37599 Filbert St	Newark	Permitted UST Site		GeoTracker
69	Nortrax West	38600 Cedar Blvd	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
70	Oatey Company	6600 Smith Ave	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
71	Ohlone Community College District Site	Cherry St Near Mowry	Newark	Voluntary Cleanup	Certified/Operation & Maintenance	EnviroStor
72	Oliveira Vincent Shell Station	6714 Thornton Ave	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
73	Pabco Gypsum	37851 Cherry St	Newark	LUST Cleanup Site	Open – Verification Monitoring	GeoTracker
74	Paccar, Inc.	38801 Cherry St	Newark	Non-Operating	RCRA	EnviroStor; GeoTracker
75	Paccar, Inc.	38801 Cherry St	Newark	Corrective Action	Refer: RWQCB	EnviroStor; GeoTracker
76	Paccar/Lincoln	38505 Cherry St	Newark	Other Cleanup Site	Open – Verification Monitoring	GeoTracker
77	Pacific Coast Transportation Services	37853 Cherry St	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
78	Private Residence	Private Residence	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
79	Quikrete	6950 Stevenson Blvd	Newark	Permitted UST Site		GeoTracker

TABLE 4.7-1 HAZARDOUS MATERIALS SITES IN NEWARK.

No.	Name	Address	City	Type	Status	Database
80	Redwood Lumber	7091 Central Ave	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
81	Redwood Lumber Company	7091 Central Ave	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
82	Regal Station (Now Exxon)	6788 Thornton Ave	Newark	Permitted UST Site; LUST Cleanup Site	Open – Remediation	GeoTracker
83	Romic Environmental Technologies Corp.	37445 Willow St	Newark	Hazardous Waste	Case Closed	EnviroStor; GeoTracker
84	Romic Environmental Technologies Corp.	37445 Willow St	Newark	Corrective Action; Other Cleanup Site	Refer: RWQCB; Open – Remediation	EnviroStor; GeoTracker
85	Shell Station – 5489 Thornton Avenue	5489 Thornton Ave	Newark	LUST Cleanup Site	Open – Remediation	GeoTracker
86	Silvey – Liquid Air Property	8175 Wells Ave	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
87	Silvey Transportation	8175 Wells Ave	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
88	Smith (A.O.) Water Products	37171 Sycamore St	Newark	Other Cleanup Site	Open – Site Assessment	GeoTracker
89	S.P. Dumbarton Branch R.O.W.	8785 Enterprise Dr	Newark	Other Cleanup Site	Open – Verification Monitoring	GeoTracker
90	Standard Dry Wall Products	38403 Cherry St	Newark	Non-Operating		EnviroStor; GeoTracker
91	Standard Dry Wall Products	38403 Cherry St	Newark	Corrective Action	No Further Action	EnviroStor; GeoTracker
92	Steffensen Property – Wells Avenue	8040 Wells Ave	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
93	Steffensen Property – Enterprise Drive	8140 Enterprise D	Newark	Other Cleanup Site	Open – Verification Monitoring	GeoTracker
94	Stevenson Tire	6110 Jarvis Ave	Newark	LUST Cleanup Site	Case Closed	GeoTracker
95	Super Kmart	5401 Thornton Ave	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
96	Summerhill Commons	36840 Cherry St	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
97	Sun Microsystems	39001 Cherry St	Newark	Other Cleanup Program Site	Case Closed	GeoTracker
98	Thornton Business Center	8500 Thornton Willow	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
99	Thoro System Products	38403 Cherry St	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker

TABLE 4.7-1 HAZARDOUS MATERIALS SITES IN NEWARK.

No.	Name	Address	City	Type	Status	Database
100	TNT Incorporated	38201 Cherry St	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
101	Tolbertson Property	Terminus of Mowry Ave	Newark	Other Cleanup Program Site	Open – Verification Monitoring	GeoTracker
102	Torian Holdings	37555 Willow St	Newark	Other Cleanup Site	Open – Site Assessment	GeoTracker
103	Track 7004	SW Corner I-880/ Hwy 84	Newark	Other Cleanup Program Site	Case Closed	GeoTracker
104	Two Count Company	37590 Sycamore St	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
105	Unocal	5799 Mowry Ave	Newark	LUST Cleanup Site	Open – Site Assessment	GeoTracker
106	Unocal Chemicals	6800 Robertson Ave	Newark	Closed Other Cleanup Site	Completed – Case Closed	GeoTracker
107	Union Sanitary District, Newark Stp.	8700 Thornton Ave	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
108	Ups Freight – Newark Terminal	6700 Smith Ave	Newark	Closed LUST Cleanup Site	Completed – Case Closed	GeoTracker
109	Villa Cleaners	36565 Newark Blvd	Newark	Other Cleanup Site	Open – Verification Monitoring	GeoTracker

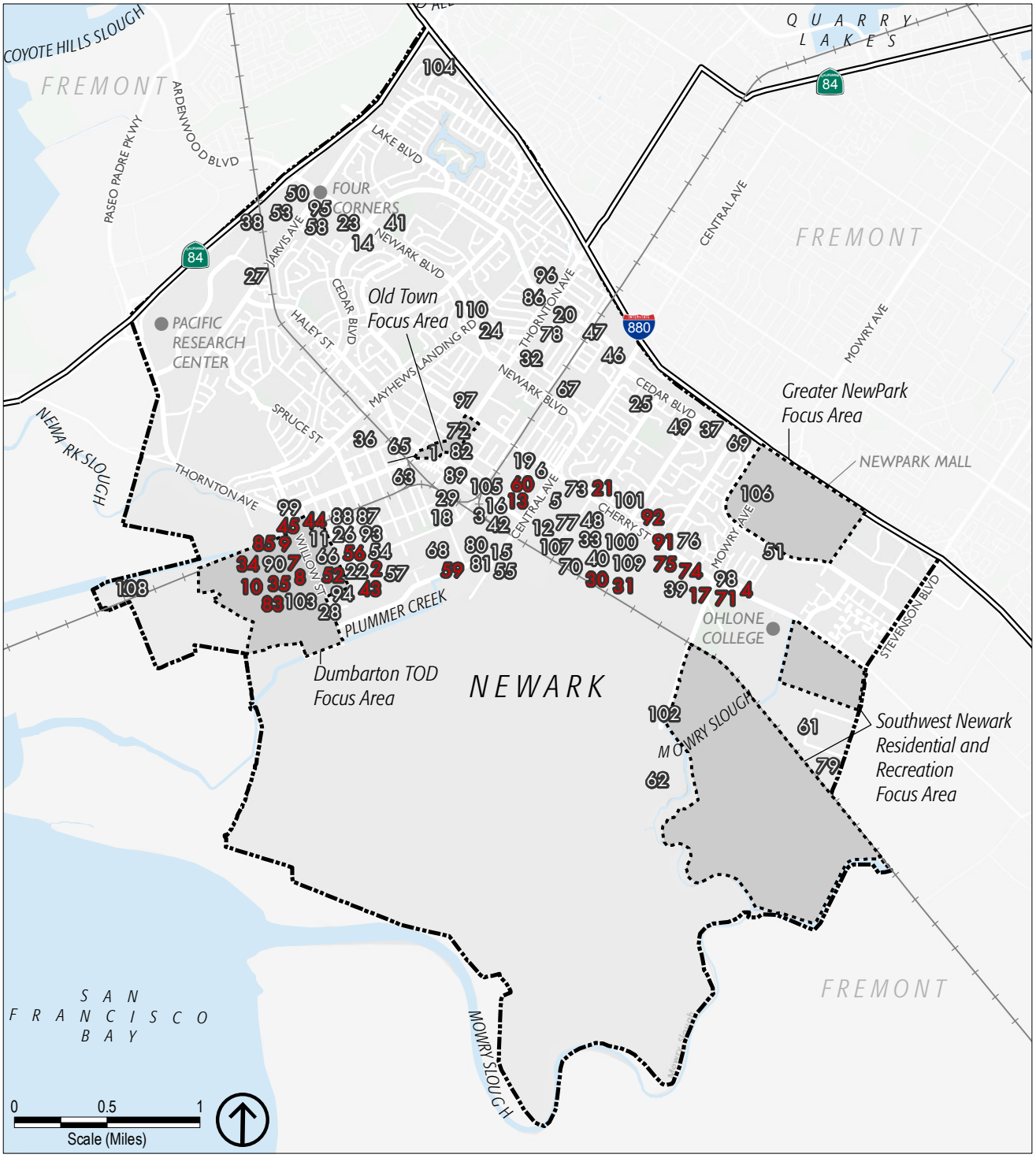
toluene, xylene, ethylbenzene, PCE, and TCE. Ongoing efforts to extract and treat groundwater are supervised by the RWQCB.[14]

- Holland Oil, located at 8130 Enterprise Drive, Newark, once contained six aboveground waste oil tanks and has also been used as a trucking terminal. The potential contaminants of concern are benzene, TPH-Diesel, and TPH-Gas. The potential media affected include groundwater (not used for drinking water) and soil.[15]
- Leslie Salt/FMC Magnesia Waste Pile, located west of Enterprise Drive, Newark, was a disposal site for process wastes including: off-grade magnesia, dolomite, general rubbish, phosphorus sludges, gypsum, and excess catalysts (containing mercury). All material has been certified as removed from the site.[16]

[14] California Department of Toxic Substances (DTSC), Ashland Chemical, http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=01280046, accessed on February 1, 2013.

[15] California Department of Toxic Substances (DTSC), Holland Oil, http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=01290019, accessed on February 1, 2013.

[16] California Department of Toxic Substances (DTSC), Leslie Salt/FMC Magnesia Waste Pile, http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=01280072, accessed on February 1, 2013.



Source: City of Newark; The Planning Center | DC&E, 2013; ESRI 2010; EnviroStor database, 2013 and Geotracker database, 2013.

City Limit

Hazardous Materials Sites (numbers correspond to site numbers in table 4.7-1)

- Site Locations from Geotracker Database Only
- Site Locations from both Geotracker and Envirostor Database

Figure 4.7-1

Hazardous Materials Sites in Newark

Newark 2010 Housing Element Update

A number of potentially significant soil and groundwater contamination conditions within the Project area have been identified based on the existing Phase I analysis and public records. Since the updated Housing Element would facilitate new housing development within the community on some sites that are likely contaminated, there could be potentially significant impacts to future residents and visitors within future residential complexes.

Potential impacts could include the release of Asbestos Containing Materials, lead based paints and other hazardous materials during demolition of existing structures to accommodate new housing development. This could potentially result in a health hazard to construction employees and visitors to the area if these materials are released into the atmosphere. Many of the existing buildings on housing sites were constructed when asbestos was a common building material and lead was used in the manufacture of paint. Construction of new buildings and other improvements on housing sites could have the potential to release potentially hazardous soil-based contaminants material during site grading and excavation operations. Based on the information contained in the above Environmental Setting section, the soil of a number of housing sites may contain one or more potentially hazardous soil contaminants. Release of contaminated materials or contact with humans could result in potential health hazards to surrounding residents, employees and visitors. One or more of the housing sites are likely located over historic groundwater contamination plumes associated with former uses of the properties. Future grading and excavation activities on such housing sites could cause contact with humans and result in a potentially significant impact.

Newark Areas 3 and 4 Specific Plan

The Draft EIR for Area 3 and 4 Specific Plan identifies several properties of potential environmental concern located within the Plan area.[17] These properties include:

- The 78-acre Sobrato property at Stevenson Boulevard and Cherry Street. A dairy farm was on the property in the 1950s and 1960s. Prior environmental work completed at the property revealed that soil has been impacted by organochlorine pesticides at concentrations exceeding residential screening levels established by Cal EPA.
- The 280-acre Perry/Arrillaga property located in the southern extent of the Plan area. The property historically was used for agricultural purposes and as a duck hunting club. Soil in the area of the former duck club and associated ponds may contain lead from lead shot. Additionally, undocumented fill is located near the former duck club structures. Pesticides contamination may be near former farm activities, including the barn area and two water supply wells on the north central portion of the property. Lastly, the Tri-Cities Recycling and Disposal Facility located across the southeast boundary of the property, is a potential source of groundwater and/or soil vapor contamination.
- A 22-acre unnamed property located west of the southern terminus of Stevenson Boulevard. The property historically was used for agricultural purposes and, therefore, residual pesticides could be present.
- The 115-acre Rogers property located in the center portion of the Plan area. The property historically was used for agricultural purposes. Prior environmental work completed at the property revealed that soil has been

[17] New Areas 3 & 4 Specific Plan Draft EIR, December 2009.

impacted with organochlorine pesticides at concentrations exceeding residential screening levels established by Cal EPA.

- The 101-acre Health property located southeast of Mowry Avenue. The property historically was used for agricultural purposes. Prior environmental work completed at the property revealed that soil has been impacted with organochlorine pesticides at concentrations exceeding residential screening levels established by Cal EPA. In addition, total petroleum hydrocarbons and aromatic hydrocarbons were detected underlying groundwater.
- The 10-acre Mowry Avenue property located at the southwestern terminus of Mowry Avenue. The property historically was used for vehicle dismantling. The property is listed on the SLIC database.
- Pick-N-Pull Auto Dismantlers occupies three parcels at 7400 and 7550 Mowry Avenue. The property historically was used for agricultural purposes and more recently for automobile dismantling operations. Prior environmental work completed at the property revealed that soil has been impacted with organochlorine pesticides at concentrations exceeding residential screening levels established by Cal EPA. In addition, regulatory records indicate that soil impacted with waste oil is present at property. Undocumented fill material also is present at the property.
- The five-acre Ace Auto Wrecking property located at 7580 Mowry Avenue. A preliminary environmental investigation revealed the presence of petroleum hydrocarbons in both soil and underlying groundwater at the property. Undocumented fill material also is present at the property.
- The former Mowry Avenue Landfill is located outside of the Area 3 and 4 Specific Plan area, but adjacent to the southwest. This approximately 34-acre off-site facility was used as a sanitary landfill, accepting municipal garbage between 1964 and 1967. Based on information reviewed, low concentrations of gasoline range petroleum hydrocarbons, VOCs, Semi-volatile organic compounds (SVOCs) and pesticides are in soil and groundwater at the former landfill site. The landfill is located downgradient from the Plan area.

Dumbarton TOD Specific Plan

As discussed in the Dumbarton TOD Specific Plan Draft EIR, [18] there are eight properties within the Dumbarton TOD Specific Plan area that are known to have contaminated groundwater and soils. Substances identified on these properties include VOCs, petroleum and gasoline, phosphorous, various metals, arsenic, PBCs, PAHs, and other chemicals. These properties are listed in Table 4.7-1 and shown in Figure 4.7-1. For all eight properties, soil and water sampling have been performed through the form of a Remedial Action Plan, Hazard Mitigation Plan, Phase II Reports, Soil or Groundwater Monitoring Report, or other type of contaminant testing and disclosure documentation. Many of these documents contain recommendations or mitigations associates with remediation of properties, as well as appropriate pollutant thresholds that would need to be achieved prior to development after appropriate property remediation has occurred. It should be noted that soils, groundwater, and/or property decontamination and remediation currently are being managed for each individual property with residual contamination in accordance with applicable Federal, State (including RWQCB and DTSC), and local procedures, protocols, and standards. The Dumbarton TOD Specific Plan incorporated properties owned by multiple property

[18] Dumbarton TOD Specific Plan Draft EIR, September 8, 2010.

owners, and as such properties within the Specific Plan area with any residual contamination would be remediated and developed on a case-by-case basis with regulatory oversight.'

Airport Hazards

There are no airports or private airstrips in the Plan Area.[19] The two nearest airports are across the bay from Newark. Palo Alto Airport is a general aviation airport in the city of Palo Alto in Santa Clara County, located at approximately five miles to the southwest of the Plan Area. Moffett Federal Airfield, located at 150 Cody Road in the city of Mountain View, is approximately five miles to the south of the Plan Area. The Plan Area is located outside of both airports influence areas.[20]

Wildland Fire Hazard

The California Department of Forestry and Fire Protection Services (CAL FIRE) evaluates fire hazard severity risks according to areas of responsibility (i.e. federal, state, and local). According to CAL FIRE, there are no very high fire hazard severity zones with the Local Responsibility Areas of Newark.[21] As shown in Figure 4.7-2, there are some moderate, high, and very high fire hazard severity zones in the State Responsibility Areas in the eastern hills of Fremont.[22] Although this indicates that the wildland fire risk in the Plan Area is low, there are many resources available to address wildland fires should they arise, including the aforementioned CAL FIRE Strategic Plan, the CA Fire Code, and cooperative fire services from Alameda County Fire Department and CAL FIRE.

4.7.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact regarding hazards and hazardous materials if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school.
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

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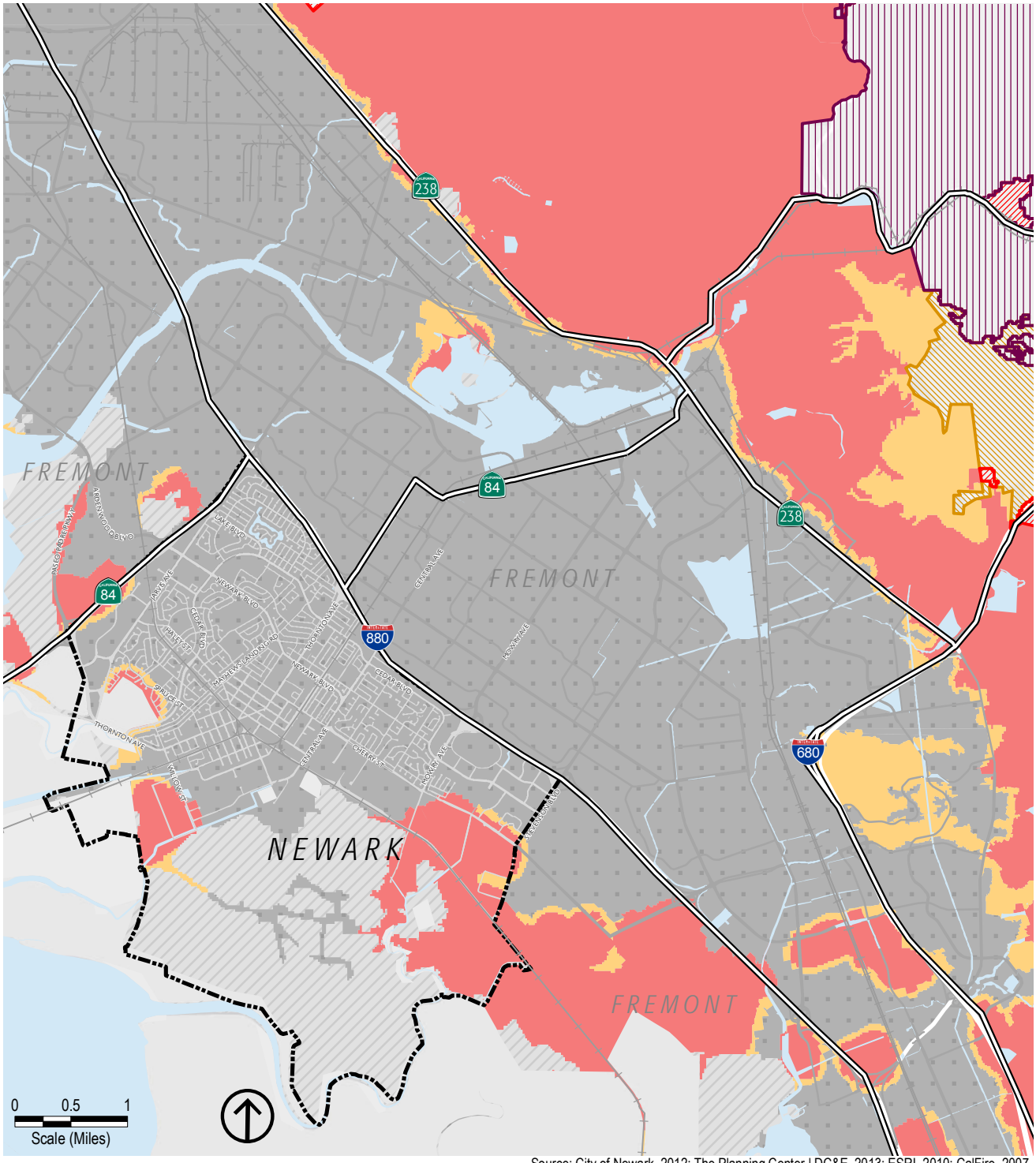
[19] AirNav, http://www.airnav.com/airports/us/CA, accessed on February 1, 2013;

[20] Santa Clara County Airport Land Use Commission, November 2, 2012, *Comprehensive Land Use Plan Santa Clara County Moffett Federal Airfield,* Figure 8, Airport Influence Area, page 3-16; Santa Clara County Airport Land Use Commission, November 2, 2012, *Comprehensive Land Use Plan Santa Clara County Palo Alto Airport,* Figure 8, Airport Influence Area, page 3-15.

[21] CAL FIRE, http://frap.cdf.ca.gov/webdata/maps/alameda/fhszl_map.1.pdf, accessed on February 1, 2013.

[22] CAL FIRE, http://frap.cdf.ca.gov/webdata/maps/alameda/fhszs_map.1.pdf, accessed on February 1, 2013.



Source: City of Newark, 2012; The Planning Center | DC&E, 2013; ESRI, 2010; CalFire, 2007.

Local Responsibility Areas
- Non-Wildland/Non-Urban
- Urban Unzoned
- Moderate Risk from Wildfire
- High Risk from Wildfire
- Very High Risk from Wildfire

State Responsibility Areas
- Moderate Risk from Wildfire
- High Risk from Wildfire
- Very High Risk from Wildfire

City Limit

Figure 4.7-2
Wildfire Risk

5. Be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the Project area.
6. Be within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the Project area.
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The purpose of this Draft EIR is to identify the significant effects of the Project (proposed Plan) on the environment, not the significant effects of the environment on the Project. (*South Orange County Wastewater Authority v. City of Dana Point (2011) 196 Cal.App.4th 1604, 1614-1618; City of Long Beach v. Los Angeles Unified School Dist. (2009) 176 Cal.App.4th 889, 905.)* While identifying the environmental effects of attracting development and people to an area is consistent with CEQA's legislative purpose and statutory requirements, identifying the effects on the Project and its users of locating the Project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes.

Appendix G of the Guidelines is a sample checklist form that is suggested for use in preparing an initial study, and which the City has employed to assist in the preparation of this Draft EIR (See *Guidelines, § 15063, subd. (f)*.) However, a few of the questions on the form concern the exposure of people or structures to environmental hazards and could be construed to refer to not only the Project's exacerbation of environmental hazards but also the effects on users of the Project and structures in the Project of preexisting environmental hazards. To the extent that such questions may encompass the latter effects, the questions do not relate to environmental impacts under CEQA and cannot support an argument that the effects of the environment on the Project must be analyzed in an EIR. (*Bellona Wetlands Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473-474.)

Accordingly, while the City provides the following informational analysis of thresholds 4, 5, 6, and 8 taken from Appendix G of the CEQA Guidelines, the Guidelines language in thresholds 4, 5, 6, and 8 above are not examples of an environmental effect caused by development, but instead is an example of an effect on the Project caused by the environment.

4.7.3 IMPACT DISCUSSION

HAZ-1	The Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

As discussed above in Section 4.7.1 of this chapter, a number of facilities currently operate within the City of Newark that use, store, or dispose of hazardous materials. These operations, if improperly designed or managed, could create a significant hazard to the public or the environment through the routine transport, use, or disposal of such materials. Compliance, however, with applicable federal, State, and local laws and regulations described

above in Section 4.7.1.1 regarding the handling of these materials would minimize this risk. The proposed Plan also includes goals, policies, and actions listed below that are intended to further minimize this risk.

- Goal EH-4: Protect Newark residents and workers from the potential adverse effects of hazardous materials.
- Policy EH-4.1: Hazardous Materials Risk Reduction. Seek to reduce the risk of hazardous materials accidents, spills, and vapor releases, and minimize the effects of such incidents if they occur.
- Policy EH-4.4: Design and Construction of Hazardous Materials Facilities. Require that all facilities in which hazardous materials are used, handled, or stored are designed and constructed to minimize the possibility of environmental contamination and off-site impacts. The City will work with county, state and federal agencies to ensure that such facilities are regularly inspected and that applicable regulations are enforced.
- Policy EH-4.5: Hazardous Materials Information. Provide the means for Newark residents and businesses to obtain information about hazardous materials handling, storage, and regulations in the community.
- Policy EH-4.6: Hazardous Materials Transport. Seek to reduce the risk of accidents in the transportation of hazardous materials. The City will require compliance with all hazardous waste transport standards established by state and federal agencies.
- Policy EH-4.7: Railroad Cargo Safety. Work with the Union Pacific Railroad (UP) and the California Public Utilities Commission (CPUC) to ensure safe conditions for the loading, unloading, and transport of hazardous materials along rail lines through Newark. UP should be encouraged to maintain its tracks and facilities in excellent condition, and minimize occasions where trains block railroad grade crossings.
- Action EH-4.A: Hazardous Material Inventories and Inspections. In cooperation with the Certified Unified Program Agency (CUPA), inventory and regularly inspect those buildings and facilities in which hazardous materials accidents would pose a threat to the community. Work with the owners to develop and implement programs for reducing risks associated with these buildings and facilities.
- Action EH-4.C: Zoning for Hazardous Materials. Consider zoning standards and special environmental review processes which ensure that safe distances are maintained between businesses using hazardous materials and sensitive uses, such as residential areas.
- Action EH-4.E: Hazardous Materials Management Plans. Require the preparation of Hazardous Materials Management Plans for new uses which will handle hazardous materials. HMMPs should include a complete inventory of materials by type, quantities, and conditions of storage and transportation, an assessment of the potential hazards associated with the materials, and steps to be taken to minimize risks. The HMMP also should outline actions to be taken in the event of a spill.
- Action EH-4.G: Hazardous Materials Transport Routes. Work with appropriate state and federal agencies to designate and periodically update official routes for the transportation of hazardous materials.
- Action EH-4.I: Community Disclosure Laws. Enforce community disclosure laws (e.g. Right to Know laws) that inform property owners of the presence of hazardous materials nearby.

In addition, future development in the Dumbarton TOD and Southwest Newark Residential and Recreational Focus Areas as well as on Housing Element opportunity sites could expose the public or the environment to

potential hazards associated with the routine transport, use, or disposal of hazardous materials. Several properties within these areas have residual soil and in some cases groundwater contamination that may require remediation. Also, potentially hazardous building materials (e.g. asbestos containing materials, lead-based paint, etc.) could be encountered during demolition of existing structures to accommodate new development. Therefore, the transport of hazardous materials could occur during future remediation and construction activities. However, potential hazards related to the routine transport, use, or disposal of hazardous materials in these locations have already been analyzed in the Dumbarton TOD Specific Plan EIR, the Area 3 and 4 Specific Plan EIR and in the Housing Element EIR. The Final EIRs conclude that the impacts from the Dumbarton TOD Specific Plan and the 2010 Housing Element would be less than significant after compliance with applicable regulations and conditions of approval and that no mitigation would be required. The Final EIR for Areas 3 and 4 Specific Plan concludes the same for proposed residential uses, but identifies a mitigation measure (HAZ-5.1) to minimize the impact from operation and maintenance of a proposed golf course that could create a significant hazard to the public or the environmental as a result of routine transport, use, or disposal of hazardous materials. With implementation of this mitigation measure, however impacts would be less than significant.

Applicable Regulations:

As described above, compliance with the following laws and regulations, together with implementation of the mitigation measure listed below, would minimize hazards associated with the routine transport, use, or disposal of hazardous materials to the maximum extent practicable:

- DOT Hazardous Materials Transport Act-Code of Federal Regulations (CFR) 49
- EPA Resource Conservation and Recovery Act (RCRA)
- EPA Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
- CAL/OSHA
- California Health and Safety Code (Chapters 6.95 and 19)
- California Code of Regulations (Section 2729)
- California Building Code
- ACDEH – CUPA Program
- ACWD – LUFT and SLIC Oversight Program
- City of Newark Municipal Code, Chapter 17.25 Hazardous Materials Storage Permit

Significance Before Mitigation: Less than significant.

HAZ-2	The Plan would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The proposed Plan would facilitate new development, including residential, mixed-use, commercial, parks, and recreational open spaces, within the City of Newark. Some of the new development could occur on properties that are likely contaminated. Construction of new buildings and improvements could have the potential to release potentially hazardous soil-based materials into the environment during site grading and excavation operations. Demolition of existing structures likewise could potentially result in the release hazardous building materials (e.g. asbestos, lead paint, etc.) into the environment. Use of hazardous materials on newly developed properties after

construction could potentially include cleaning solvents, fertilizers, pesticides, and other materials used in the regular maintenance and operation of the proposed uses. Compliance, however, with applicable federal, State, and local laws and regulations regarding handling of these materials (described in Section 4.7.1.1 of this chapter) would minimize the release of hazardous materials into the environment. The proposed Plan also includes goals, policies, and actions listed below that are intended to further minimize this risk:

- Goal EH-4: Hazardous Materials. Protect Newark residents and workers from the potential adverse effects of hazardous materials.
- Policy EH-4.1: Hazardous Materials Risk Reduction. Seek to reduce the risk of hazardous materials accidents, spills, and vapor releases, and minimize the effects of such incidents if they occur.
- Policy EH-4.4: Design and Construction of Hazardous Materials Facilities. Require that all facilities in which hazardous materials are used, handled, or stored are designed and constructed to minimize the possibility of environmental contamination and off-site impacts. The City will work with county, state and federal agencies to ensure that such facilities are regularly inspected and that applicable regulations are enforced.
- Action EH-4.A: Hazardous Material Inventories and Inspections. Inventory and regularly inspect those buildings and facilities in which hazardous materials accidents would pose a threat to the community. Work with the owners to develop and implement programs for reducing risks associated with these buildings and facilities.
- Action EH-4.C: Zoning for Hazardous Materials. Consider zoning standards and special environmental review processes which ensure that safe distances are maintained between businesses using hazardous materials and sensitive uses, such as residential areas.
- Action EH-4.E: Hazardous Materials Management Plans. Require the preparation of Hazardous Materials Management Plans for new uses which will handle hazardous materials. HMMPs should include a complete inventory of materials by type, quantities, and conditions of storage and transportation, an assessment of the potential hazards associated with the materials, and steps to be taken to minimize risks. The HMMP also should outline actions to be taken in the event of a spill.
- Action EH-4H: Household Hazardous Waste Collection Awareness. Work with Alameda County to publicize household hazardous waste collection events and provide Newark residents with information on safe disposal procedures for household waste such as paint, motor oil, and batteries.
- Action EH-4.J: Phase I Assessments. Require a Phase I Environmental Site Assessment when a property is changed from an existing use to a more sensitive use (for example, industrial to residential). If potential hazardous materials issues are identified, ensure that they are investigated and that sites are cleaned to regulatory agency standards prior to development.
- Action EH-4.K: Hazardous Building Materials Abatement. As appropriate, incorporate hazardous building materials abatement provisions into building permit and developed approvals. The City will work with property owners to ensure remediation of hazardous building materials such as asbestos, lead, and mercury.

Additionally, in the EIRs prepared for the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element, future development in the Dumbarton TOD Focus Area, the Southwest Newark

Residential and Recreational Focus Area, and on the Housing Element opportunity sites has already been analyzed with regard to potential hazards to the public or the environment associated with the reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment. As indicated in the discussion under HAZ-1 above, implementation of the approved plans may require remediation of contaminated properties, and potentially hazardous building materials (e.g. asbestos containing materials, lead-based paint, etc.) could be encountered during remediation and construction activities. The Final EIRs for the TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element identify mitigation measures to minimize these impacts. With implementation of these mitigation measures, impacts would be less than significant.

Applicable Regulations:

Compliance with the following applicable regulations and conditions of approval, including mitigation measures HAZ-1.1 through HAZ-5.1 (Newark Areas 3 and 4 Specific Plan), 4.6-1 and 4.6-2a (2010 Housing Element), and 4.7-1a through 4.7-1e (Dumbarton TOD Specific Plan), together with implementation of proposed Plan goals, policies, and actions listed under HAZ-1 and HAZ-4, would ensure that reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment is minimized to the maximum extent practicable. As such, associated impacts would be less than significant.

- CAL/EPA (State's Environmental Protection Laws)
- DTSC (2011-2016 Strategic Plan)
- RWQCB (Porter-Cologne Water Quality Control Act)
- California Health and Safety Code (Chapter 6.95 and 19)
- ACDEH (CUPA Program)
- ACWD (LUUFT and SLIC Oversight Programs)
- City of Newark Municipal Code, Chapter 17.25 Hazardous Materials Storage Permit

Significance Before Mitigation: Less than significant.

HAZ-3	The proposed Plan would not result in significant impacts associated with hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school.

Overall, implementation of the proposed Plan would not result in significant land use changes in the vicinity of existing schools. However, as envisioned in the Area 3 and 4 Specific Plan, future development in the Southwest Newark Residential and Recreational Focus Area would include a proposed elementary school along Cherry Street in the smaller, non-contiguous sector of the Focus Area formerly known as Area 3. This area formerly was in agricultural use, and contains organochlorine pesticides in shallow soil at concentrations above the EPA Preliminary Remediation Goal (PRG) and the Department of Toxic Substances Control's (DTSC) California Human Health Screening Level (CHHSL) for residential use. The pesticide level in shallow soils in this sector would also exceed appropriate levels for school use. Without remediation, development of this school site would result in construction of a school on a property that is subject to hazards from hazardous materials contamination.

In terms of applicable school siting criteria, the level of soil contamination on the school site would not render the property unsuitable for school use, after remediation. The DTSC's School Property Evaluation and Cleanup

Division is responsible for assessing, investigating, and cleaning-up proposed school sites. The Division's goal is to ensure that proposed school properties are 'free' of contamination or that they have been 'cleaned' to a level that protects the students and staff who will occupy the new school. School sites that will receive State funding for acquisition or construction are required to go through an environmental review and cleanup process under DTSC's oversight. A future elementary school developed in the Southwest Newark Residential and Recreational Focus Area would be a public school within the Newark Unified School District and, therefore, would be subject to DTSC review and approval. Investigation and remediation of the pesticide impacted soil will be required prior to elementary school development.

Additionally, to minimize the impact from constructing a new elementary school on a property that is subject to hazards from the presence of pesticides in shallow soil, the Final EIR for Areas 3 and 4 Specific Plan identifies a mitigation measure (HAZ-2.1). Compliance with applicable laws and regulations in combination with implementation of this mitigation measure would ensure that associated impacts are less than significant.

Applicable Regulations:

As described above, compliance with applicable regulations and conditions of approval, including mitigation measures HAZ-2.1 (Newark Areas 3 and 4 Specific Plan), 4.6-1 and 4.6-2a (2010 Housing Element), and 4.7-1a through 4.7-1e (Dumbarton TOD Specific Plan), together with implementation of proposed Plan goals, policies, and actions listed herein under HAZ-1, HAZ-2, and HAZ-4, would ensure that hazardous emissions or handling of hazardous materials, substances, or waste within ¼-mile of an existing school is minimized to the maximum extent practicable. As a result, associated impacts would be less than significant.

- Newark Unified School District (Strategic Plan)
- DTSC (School Property Evaluation and Cleanup Program)
- California Department of Education (School Facility)

Significance Before Mitigation: Less than significant.

HAZ-4	Implementation of the Plan would not create a significant hazard to the public or the environment as a result of development on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

As discussed in Section 4.7.1 above, a number of sites in Newark are listed on hazardous materials databases compiled pursuant to Government Code Section 65962.5. Some of the sites are listed as closed, indicating that they have been investigated and/or remediated to the satisfaction of the lead responsible agency (i.e., RWQCB, DTSC, ACDEH, ACWD) based on land use at the time of closure. The proposed Plan would facilitate new development, including residential, mixed-use, commercial, parks, and recreational open spaces, within the City of Newark. Some of the new development could occur on properties that are likely contaminated. Construction of new buildings and improvements could have the potential to release potentially hazardous soil-based materials into the environment during site grading and excavation operation. Demolition of existing structures likewise could potentially result in the release hazardous building materials (e.g. asbestos, lead paint, etc.) into the environment. Use of hazardous materials on newly developed properties after construction could potentially include cleaning solvents, fertilizers, pesticides, and other materials used in the regular maintenance and operation of the proposed

uses. Compliance, however, with applicable Federal, State, and local laws and regulations regarding cleanup and reuse of a listed hazardous materials site described above in Section 4.7.1.1 of this chapter would minimize the risk of creating a significant hazard to the public or the environment. Additionally, the proposed Plan includes the following goals, policies, and actions listed below intended to further minimize this risk:

- Goal HW-5: Reducing Hazard Exposure. A land use pattern which minimizes exposure of residents and workers to hazards associated with commercial and industrial uses.
- Policy HW-5.1: Exposure to Hazardous Materials. Eliminate unacceptable relationships between existing hazardous materials users and adjoining sensitive land uses. This includes actions needed to protect the health of natural systems such as wetlands, as well as residential areas and other sensitive receptors.
- Policy HW-5.2: Minimizing Land Use Compatibility Conflicts. Locate future land uses in a manner which limits the potential for residents to come into contact with hazardous materials. This includes location new residential development away from areas where hazardous materials are present and location new industrial development away from established or planned residential uses.
- Policy HW-5.3: Remediation. Require remediation of soil and groundwater contamination to a level that is consistent with proposed land uses. All site clean-up shall be coordinated with State and federal regulatory agencies .
- Action HW-5.A: Hazardous Material Monitoring and Inspection. Regularly inventory and inspect those buildings and facilities in which hazardous materials spills or accidents would pose a threat to the community, and work with the owners to develop and implement programs to reduce risks associated with these activities.

Additionally, in EIRs prepared for the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element, future development in the Dumbarton TOD Focus Area, the Southwest Newark Residential and Recreational Focus Are, and on the Housing Element opportunity sites has already been analyzed with regard to potential hazards to the public or the environment associated with locating new development on a listed hazardous materials sites. Under the proposed Plan, development in these locations as previously approved will include residential, mixed-use, commercial retail, commercial office, school, and parks and recreational open space uses. As discussed in Section 4.7.1.2 above, several properties within the designated areas covered by these plans are listed hazardous materials sites with residual soil and in some cases groundwater contamination that may require remediation. Implementation of these plans, therefore, could result in a significant hazard to the public or the environment. Accordingly, the Final EIRs for the TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element identify mitigation measures to minimize these impacts. Implementation of these mitigation measures, together with adherence to applicable laws and regulations, would ensure that associated impacts are less than significant.

Applicable Regulations:

As described above, compliance with applicable regulation and conditions of approval, including mitigation measures 4.6-1 and 4.6-2a (2010 Housing Element Update), HAZ-1.1 though HAZ-5.1 (Newark Areas 3 and 4 Specific Plan), and 4.7-1a though 4.7-1e (Dumbarton TOD Specific Plan), together with implementation of proposed Plan goals, policies, and actions listed above and under HAZ-1 and HAZ-2, would ensure that

future development of properties listed in hazardous materials databases does not create a significant hazard to the public or the environment. Consequently, associated impacts would be less than significant.

- CAL/EPA (State's Environmental Protection Laws)
- DTSC (2011-2016 Strategic Plan)
- RWQCB (Porter-Cologne Water Quality Control Act)
- California Health and Safety Code (Chapter 6.95 and 19)
- ACDEH (CUPA Program)
- ACWD (LUUFT and SLIC Oversight Programs)
- City of Newark Municipal Code, Chapter 17.25 Hazardous Materials Storage Permit

Significance Before Mitigation: Less than significant.

HAZ-5	Implementation of the Plan would not result in a safety hazard for people residing or working in the Plan Area due to development within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport.

As described above in Section 4.7.2, there are no public use airports within the Plan area. The nearest airports are across the bay from Newark and all are greater than 2 miles from the Plan area. Given the distance from the nearest public use airports, the Plan area would not be subject to any airport safety hazards. The Plan components also would not have an adverse effect on aviation safety or flight patterns.

Significance Before Mitigation: No impact.

HAZ-6	Implementation of the Plan would not result in a safety hazard for people residing or working in the Plan Area due to development in the vicinity of a private airstrip.

There are no private airstrips within or in the near vicinity of the Plan Area and consequently there would be no associated impact from implementation of the Plan.

Significance Before Mitigation: No impact.

HAZ-7	The proposed Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

As described above in Section 4.7.1 of this chapter, the City has adopted two emergency response plans.[23] The "Emergency Operations Plan" is the City's primary plan which provides operational procedures for responding to a variety of emergency conditions, including earthquakes, flooding, tsunamis, hazardous material incidents, and civil defense conditions. The guidelines included in this plan address the needs of the entire community and

[23] City of Newark General Plan, Environmental Safety Element, 1992.

identify key responsible agencies and personnel. The City's second response plan is the "Chemical Emergency Preparedness Supporting Plan." This plan establishes standard operating procedures for responding to a chemical spill or hazardous materials incidents within the City. The proposed Plan also includes the following goals, policies and actions also intended to further ensure that new development would not conflict with emergency operations in the Plan Area:

- Goal EH-5: Emergency Preparedness. Fast, efficient, and coordinated response to natural and man-made emergencies and disaster .
- Policy EH-5.1: Complete Circulation System. Provide for a traffic circulation system that assures the City's capacity to deliver emergency services.
- Policy EH-5.2: Awareness of Preparedness Programs. Increase public awareness of City emergency preparedness programs and resources.
- Policy EH-5.3: Adequacy of Emergency Response Access. Avoid placing new development in areas where emergency response and evacuation cannot be provided within acceptable levels.
- Policy EH-5.4: SEMS Plan. Maintain and regularly update emergency plans for floods, earthquakes, fires, hazardous materials, and other disasters. Plans should be consistent with Standard Emergency Management System (SEMS) protocol.
- Policy EH-5.5: Interagency Coordination. Cooperate with other public agencies, nearby cities, community groups, and private enterprise in developing comprehensive disaster preparedness, assistance, and post-disaster recovery plans.
- Policy EH-5.6: Utility Resilience. Work with local gas, electric, cable, water, sewer, and other utility providers to maintain their facilities and ensure their ability to function (or be quickly restored) following a disaster.
- Policy EH-5.7: Communication Improvements. Strive for improved communications and response capabilities following a disaster, including a resilient Emergency Operations Center.
- Policy EH-5.8: Multi-Lingual Outreach. Ensure that emergency preparedness information is available in multiple languages, consistent with Newark's demographics. Work with the cultural institutions serving Newark's non-English speaking communities to ensure that information is communicated to all residents.
- Action EH-5.A: Capital Improvements to Improve Emergency Response. Periodically update the City's capital improvements program to include railroad grade separations, traffic signal overrides, and other improvements which will expedite emergency response.
- Action EH-5.B: Emergency Response Training. Conduct regular emergency response training exercises.
- Action EH-5.C: Emergency Supplies. Acquire and maintain emergency equipment, supplies, services and communications systems, consistent with emergency management systems plans.
- Action EH-5.D: Emergency Facilities. Identify specific facilities and lifelines critical to effective disaster response, and evaluate their ability to operate efficiently after a major disaster. Designate alternative facilities for post-disaster assistance in the event that primary facilities become unusable. Take appropriate actions to

ensure that critical services and facilities return to normal levels of operation as soon as possible after a disaster.

- Action EH-5.E: Information on Hazards and Preparedness. Regularly disseminate information about Newark's emergency preparedness plans and resources via the City's website, press releases, Radio Newark, local schools, employee information bulletins, and other means.
- Action EH-5.F: Seismic Stability of City Hall. Regularly monitor the seismic stability of City Hall and undertake improvements as needed to reduce damage in the event of a major earthquake. Ultimately, the City should plan for a new City Hall building constructed to meet current seismic safety standards.
- Action EH-5.G: Emergency Management Plan. Maintain an emergency management plan for the city. Among other things, the plan should identify alternate emergency routes in the event road service along any of the City's arterials is disrupted.
- Action EH-5.H: CERT Teams. Continue Community Emergency Response Team (CERT) training programs and expand public awareness of these programs.

Additionally, in EIRs prepared for the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element, future development in the Dumbarton TOD Focus Area, the Southwest Newark Residential and Recreational Focus Area, and on the Housing Element opportunity sites has already been analyzed with regard to impaired implementation or physical interference with an adopted emergency response plan or emergency evacuation plan. The Final EIRs conclude that impacts from these specific plans and housing element would be less than significant after compliance with applicable regulations and conditionals of approval and that no mitigation would be required.

Applicable Regulations:

As described above, compliance with the following applicable regulations and conditions of approval and implementation of proposed Plan goals, policies, and actions listed above would ensure the risk of impaired implementation or physical interference with an adopted emergency response plan or emergency evacuation plan is minimized to the maximum extent practicable.

- Cal EMA (Strategic Plan 2010-2015)
- City of Newark Emergency Operations Plan
- City of Newark Chemical Emergency Preparedness Plan

Significance Before Mitigation: Less than Significant.

HAZ-8	Implementation of the Plan would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The Plan Area is surrounded on all sides by land within the limits of the City of Fremont. The Don Edwards San Francisco Bay National Wildlife Refuge is located along the western perimeter of the Plan Area on the shore of San Francisco Bay. As shown on Figure 4.7-2, the Plan Area is not designated as having high, very high, or extreme

wildland fire threat to people, as determined by CAL FIRE's Wildlife Urban Interface Fire Threat data. Future development in the Plan Area would be constructed pursuant to the California Building Code, California Fire Code, and the City of Newark Municipal Code. The following proposed Plan goals, policies, and actions also are intended to further ensure risks involving wildland fires would be minimized in the Plan Area:

- Goal EH-1: Reducing Hazard Exposure. Reduce the potential for injury, property damage, and loss of life resulting from environmental hazards.
- Policy EH-1.1: Development Regulations and Code Requirements. Establish and enforce development regulations and building code requirements to protect resident and workers from flooding, liquefaction, earthquakes, fires, and other hazards.
- Policy EH-1.2: Considering Hazards in Project Location and Design. Prohibit development in any area where it is determined that the potential risk from natural hazards cannot be mitigated to acceptable levels.

Additionally, in EIRs prepared for the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element, future development in the Dumbarton TOD Focus Area, the Southwest Newark Residential and Recreational Focus Area, and on Housing Element opportunity sites has already been analyzed with regard to risk of loss, injury, or death involving wildland fires. The Final EIRs conclude that impacts from implementation of the specific plans and the Housing Element would be less than significant after compliance with applicable regulations and conditionals of approval and that no mitigation would be required.

Applicable Regulations:

As described above, compliance with the following applicable regulations and conditions of approval and implementation of the proposed Plan goals, policies, and actions listed above would ensure the risk of loss, injury, or death involving wildland fires is minimized to the maximum extent practicable. Consequently, associated impacts would be less than significant.

- California Fire Code (Part 9 CCR)
- California Building Code (Part 2 CCR)
- CAL FIRE (2010 Strategic Fire Plan)
- City of Newark Municipal Code, Chapter 17.25 Hazardous Materials Storage Permit

Significance Before Mitigation: Less than significant.

4.7.4 CUMULATIVE IMPACTS

HAZ-9	The Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to hazards and hazardous materials.

The analysis of cumulative hazards and hazardous materials impacts considers the larger context of future development within the City of Newark. Cumulative impacts can occur when impacts that are significant or less

than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable future projects in the same geographic area.

As discussed previously, future development within the City of Newark would require compliance with federal, State, and local regulations to ensure that potential contamination or exposure to hazardous materials is avoided or controlled to minimize the risk to the public or the environment on a case-by-case basis. Additionally, in EIRs prepared for the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element, future development in the Dumbarton TOD Focus Area, the Southwest Newark Residential and Recreational Focus Area, and on Housing Element opportunity sites has already been analyzed with regard to potential hazards and hazardous materials. The final EIRs identify mitigation measures that when implemented would reduce impacts to less than significant. These previously approved mitigation measures have been included herein as applicable regulations and conditions of approval. Finally, the proposed Plan goals, policies, and action, as listed topically herein under HAZ-1 through HAZ-8, would further ensure that future development in the City if Newark does not contribute to cumulative increase in risk to hazards or hazardous materials.

Applicable Regulations:

In combination with past, present, and reasonably foreseeable projects, compliance with the following applicable regulations and conditions of approval, including mitigation measures 4.6-1 and 4.6-2a (2010 Housing Element Update), HAZ-1.1 through HAZ-5.1 (Newark Areas 3 and 4 Specific Plan), and 4.7-1a through 4.7-1e (Dumbarton TOD Specific Plan), and implementation of proposed Plan goals, policies, and actions listed herein, future development within the City of Newark would not result in significant cumulative impact with respect to hazards and hazardous materials.

- DOT Hazardous Materials Transport Act (CFR 49)
- EPA RCRA/CERCLA
- California Health and Safety Code (Chapters 6.95 and 19)
- California Code of Regulation (Section 2729)
- California Building Code
- CAL EPA (State's Environmental Protection Laws)
- DTSC (2011-2016 Strategic Plan)
- RWQCB (porter-Cologne Water Quality Control Act)
- ACDEH (CUPA Program)
- ACWD (LUFT and SLIC Oversight Programs)
- City of Newark Municipal Code, Chapter 15.44 Green Building and Construction and Demolition Debris Recycling
- City of Newark Municipal Code, Chapter 17.25 Hazardous Materials Storage Permit

Significance Before Mitigation: Less than significant.

4.7.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant project-specific or cumulative impacts related to hazards and hazardous materials and therefore no mitigation measures are required.

4.8 HYDROLOGY AND WATER QUALITY

This chapter discusses the regulatory environment, existing conditions and impacts of the proposed Plan related to hydrology and water quality.

4.8.1 ENVIRONMENTAL SETTING

4.8.1.1 REGULATORY FRAMEWORK

This section summarizes existing federal, State, regional, and local policies and regulations that apply to hydrology and water quality.

Federal Programs and Regulations

Federal Emergency Management Agency[1]

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA. FEMA's minimum level of flood protection for new development is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

Additionally, FEMA has developed requirements and procedures for evaluating earthen levee systems and mapping the areas affected by those systems.[2] Levee systems are evaluated for their ability to provide protection from 100-year flood events and the results of this evaluation are documented in the FEMA Levee Inventory System (FLIS). Levee systems must meet minimum freeboard[3] standards and must be maintained according to an officially adopted maintenance plan. Other FEMA levee system evaluation criteria include structural design and interior drainage.

[1] Federal Emergency Management Agency (FEMA) website, http://www.fema.gov/hazard/flood/index.shtm, accessed on February 1, 2013.

[2] Federal Emergency Management Agency (FEMA), 2003, Guidelines and Specifications for Flood Hazard Mapping Partners, http://www.fema.gov/library/viewRecord.do?id=2206, accessed on February 1, 2013.

[3] Freeboard is defined by FEMA as "a factor of safety usually expressed in feet above a flood level for purposes of floodplain management." FEMA, "Freeboard," http://www.fema.gov/national-flood-insurance-program-2/freeboard, accessed on May 16, 2013.

Clean Water Act

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA, codified at 33 U.S.C. Sections 1251-1376) of 1972 is the primary federal law that governs and authorizes water quality control activities by the EPA, as well as the states. Various elements of the CWA address water quality, and they are discussed below. Wetland protection elements, including permits to dredge or fill wetlands, are administered by the U.S. Army Corps of Engineers under Section 404 of the CWA.

Under Section 401 of the CWA, an applicant for a Section 404 permit to discharge dredged or fill material into waters of the United States must first obtain a certificate from the appropriate State agency stating that the fill is consistent with the State's water quality standards and criteria. In addition, a Water Quality Certification must be sought for any activity that would result in the placement of structures in waters of the United States that are not jurisdictional to the U.S. Army Corps of Engineers, such as isolated wetlands, to ensure that the proposed activity complies with State water quality standards. In California, the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to its nine Regional Water Quality Control Boards (RWQCBs).

Under federal law, the EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations (40 CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires the EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. In California, the EPA has designated the SWRCB and its RWQCBs with authority to identify beneficial uses and adopt applicable water quality objectives.

When water quality does not meet CWA standards and compromises designated beneficial uses of a receiving water body, Section 303(d) of the CWA requires that water body be identified and listed as "impaired". Once a water body has been designated as impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total amount of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards, with a factor of safety included. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

South San Francisco Bay is listed as a Section 303(d) impaired water body, due to the presence of chlordane, DDT, dieldrin, dioxins, furans, invasive species from ballast water, mercury, PCBs, and selenium.[4]

[4] State Water Resources Control Board (SWRCB), 2010, *Final Integrated Report (CWA Section 303(d) List/305(b) Report,* http://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/category5_report.shtml accessed March 25, 2013.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems (MS4s). Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff.[5] NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring and other activities.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, codified in Division 7 of the California Water Code) of 1969 is California's statutory authority for the protection of water quality. Under the Act, the State must adopt water quality policies, plans, and objectives that protect the State's waters for the use and enjoyment of the people. Such "waters of the State" include streams, groundwater, isolated wetlands, and other bodies of water that are not under federal jurisdiction as "waters of the United States" (under the Clean Water Act). These waters include those that are not tributary to navigable waterways. The Act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update water quality control plans (Basin Plans). Basin Plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California.

The Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of Reports of Waste Discharge (RWD) and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals.[6]

State Water Resources Control Board and Regional Water Quality Control Boards

In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. Other State agencies with jurisdiction over water quality regulation in California include the California Department of Health Services (DHS) for drinking water regulations, the California Department of Pesticide Regulation, the California Department of Fish and Game (CDFG), and the Office of Environmental Health and Hazard Assessment.

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[5] Nonpoint-source is defined by the Clean Water Act as, "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." Environmental Protection Agency (EPA), Water: Polluted Runoff, http://water.epa.gov/polwaste/nps/whatis.cfm, accessed on May 16, 2013.

[6] Porter-Cologne Water Quality Act's website, http://ceres.ca.gov/wetlands/permitting/porter.html, accessed December 23, 2011.

Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. The City of Newark is within the jurisdiction of the San Francisco Bay RWQCB (Region 2).

The San Francisco Bay RWQCB adopted a Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan.[7]

Areas of the City of Newark that have shallow groundwater may require dewatering during excavation and trenching activities for new development. This activity is subject to the RWQCB construction dewatering permit requirements (R2-2012-0060).[8] Discharge of any sediment-laden water from a dewatering site into waters of the State is prohibited. Discharge of uncontaminated groundwater from dewatering is a conditionally exempted discharge by the RWQCB. However, if the excavation and dewatering occurs within an area of the City where previous groundwater contamination has been reported and still exists; the extracted groundwater would require treatment prior to discharge. The disposal of dewatered discharges would require a permit or a waiver (exemption) from the RWQCB for discharge to surface creeks and groundwater. The ACWD is the appropriate agency if permits are required for dewatering wells and local agencies should be contacted if the discharge will be released to storm or sanitary sewers.

California Fish and Game Code

The California Department of Fish and Wildlife (CDFW) protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Section 1601 to 1606 of the California Fish and Game Code. The Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying the CDFW, incorporating necessary mitigation and obtaining a streambed alteration agreement. CDFW's jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

SWRCB Construction General Permit (2009-0009-DWQ)

Construction activities that disturb one or more acres of land that could impact hydrologic resources must comply with the requirements of the SWRCB Construction General Permit (2009-0009-DWQ, adopted on September 2, 2009, and effective July 1, 2010). Under the terms of the permit, applicants must file Permit Registration Documents (PRDs), including a Notice of Intent (NOI), risk assessment, annual fee, and a signed certification statement with the SWRCB. Applicants must also demonstrate conformance with applicable best management practices (BMPs) and prepare a Storm Water Pollution Prevention Plan (SWPPP), containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection, and

[7] San Francisco Bay RWQCB, 2007, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, http://www.swrcb.ca.gov/rwqcb2/basin_planning.shtml, accessed on February 1, 2013.

[8] San Francisco Bay RWQCB, 2012, *Order No. R2-2012-0060, General Waste Discharge Requirements for Discharge or Reuse of Extracted Brackish Groundwater, Reverse Osmosis Concentrate Resulting from Treated Brackish Groundwater, and Extracted Groundwater from Structural Dewatering Requiring Treatment (Groundwater General Permit),* August.

discharge points, general topography both before and after construction, and drainage patterns across the Plan Area. The operative Construction General Permit (2009-0009-DWQ) requires stormwater pollution prevention controls, including the imposition of minimum BMPs and the development and implementation of Rain Event Action Plans for certain sites (i.e. Risk Level 2 and 3 dischargers).[9]

The Water Conservation Act of 2009 (Senate Bill X7-7 (2009))[10]

Senate Bill X7-7, which was enacted in 2009, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water use by 20 percent by 2020, with an interim goal of a ten percent reduction in per capita water use by 2015.

State Updated Model Landscape Ordinance (Assembly Bill 1881 (2006))[11]

The updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by January 31, 2010 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance (MO). Until such time as the City of Newark adopts a different ordinance, the provisions of the MO are in effect.

Local Programs and Regulations

Alameda County Programs and Regulations

Alameda County Flood Control & Water Conservation District

The Alameda County Flood Control and Water Conservation District (FC District) is a division of the Alameda County Public Works Agency that develops and maintains flood control systems for the public safety, health, and welfare of Alameda County residents and businesses.[12] Additionally, the FC District enforces pollution control regulations governing County waterways.

The FC District is in the process of issuing a Hydrology and Hydraulics Manual that will outline the District's requirements for new developments and modification of existing flood control systems in western Alameda County. The FC District requires that primary drainage systems (between 50 acres and 10 square miles) be evaluated for two design storms. The system must convey the five-year storm when using the 100-year tide level of 7.6 feet above sea level (National Geodetic Vertical Datum [NGVD] 29) as an outlet constraint, and must convey the 100-year storm event when using the mean higher high water level of 4.4 feet above sea level (NGVD 29) as an outlet control constraint. In addition, all facilities that are part of the FEMA Flood Insurance Study must be designated to contain the FEMA 100-year storm using FEMA criteria. Where these facilities are subject to tidal

[9] State Water Resources Control Board (SWRCB), 2009, *Construction General Permit Fact Sheet*, page 31.

[10] California Department of Water Resources, http://www.water.ca.gov/wateruseefficiency/sb7/, accessed February 1, 2013.

[11] California Department of Water Resources, http://www.water.ca.gov/wateruseefficiency/landscapeordinance/, accessed February 1, 2013.

[12] Alameda County Flood Control & Water Conservation District, About Us, http://acfloodcontrol.org/about-the-district, accessed on February 1, 2013.

backwater effects, two water surface profiles must be calculated and compared. The 100-year tide is run flat (no outflow from the channel), and the FEMA 100-year flow is run against a beginning water surface height of Mean Higher High Water. The higher of these two water surfaces controls the design. Secondary systems (drainage area less than 50 acres) are required to convey the 10-year storm event when using the higher water surface calculated for the two design storms.

Alameda County Clean Water Program (CWP)

Together with 13 other incorporated cities in Alameda County, Newark has joined with the Alameda County Flood Control & Water Conservation District, the Zone 7 Water Agency, and the County in the CWP initiative.[13] Members of the program are regulated waste dischargers under the 2009 NPDES Permit issued by San Francisco Bay RWQCB, and are responsible for municipal storm drain systems and watercourses that they own or operate. As part of the permitting process, dischargers must submit a Stormwater Management Plan that describes a framework for management of stormwater discharges during the term of the permit.

The City of Newark, as a co-permittee under the NPDES permit, is also subject to the Provision C.3 requirements that are post-construction stormwater management requirements for new development and redevelopment projects. Provision C.3 requirements are separate from, and in addition to, requirements for erosion and sediment control and for pollution prevention measures during construction. These requirements apply to all new development or redevelopment projects that create or replace 10,000 square feet of impervious surfaces. Project applicants are required to implement site design measure, source control measure, and stormwater treatment measures to reduce stormwater pollution after construction of the project. The permit specifies methods to calculate the required size of treatment devices.

Alameda County Water District (ACWD)

The Alameda County Water District (ACWD) is the local water purveyor for the City of Newark and works to protect surface water and groundwater quality. The ACWD also provides non-potable water for uses such as irrigation as part of the joint ACWD and Union Sanitary District Recycled Water Master Plan. ACWD is the local enforcement agency for wells, exploratory holes, and other excavations in the City of Newark under the statutory authority granted to ACWD by the Alameda County Water District Groundwater Protection Act and Alameda County Water District Ordinance No. 2010-01 (ACWD Well Ordinance).[14] This Ordinance requires any applicant for a land development project to obtain documentation from ACWD indicating that existing wells or other excavations are in compliance with the Ordinance or that no wells or other excavations have been identified within the boundaries of the property. All abandoned wells on the property must be located and properly destroyed prior to development of the property. In addition, a drilling permit is required to be obtained from the ACWD prior to the start of any subsurface drilling activities for wells, exploratory holes, and other excavations. ACWD also coordinates with the RWQCB to provide oversight of Leaking Underground Fuel Tank (LUFT) and Site Cleanup

[13] Alameda County, Stormwater Quality Control Requirements brochure, https://www.acgov.org/pwa/documents/brochure_9_05_final.pdf, accessed on February 1, 2013.

[14] Alameda County Water District (ACWD), 2013, *ACWD Well Ordinance*, http://www.acwd.org/?nid=234 accessed on March 25, 2013.

Program (SCP) sites and reviews planned development on former sites to ensure that impacts from dewatering activities and/or construction do not interfere with the investigation and cleanup of these sites.

Alameda County Watercourse Ordinance

The Alameda County Watercourse Ordinance is intended to prevent damage during flooding, control erosion and sedimentation, safeguard and preserve watercourses, and restrict the discharge of pollutants into watercourses. A watercourse is defined as any natural or man-made channel through which water flows continuously or intermittently. The ordinance controls development within and adjacent to watercourses by establishing 20-foot minimum setbacks for buildings from the top of the bank and provides the provisions for the issuance of watercourse permits. Implementation of this ordinance serves to protect surface water and groundwater from erosion, sedimentation, and sources of pollution.

San Francisco Bay Conservation and Development Commission (BCDC)

The California Coastal commission carries out its mandate locally through the San Francisco Bay Area Conservation and Development Commission (BCDC). BCDC's jurisdiction for San Francisco Bay includes all sloughs, marshlands between mean high tide and 5 feet above mean sea levels, tidelands, submerged lands, and land within 100 feet of the Bay shoreline. The precise boundaries are determined by BCDC upon request. For planning purposes, BCDC assumes that projects have a lifespan of at least 50 to 90 years.[15]

As a permitting authority along the San Francisco Bay shoreline, BCDC is responsible for granting or denying permits for any proposed fill, extraction of materials, or change is use of any water, land, or structure within the Commission's jurisdiction. The BCDC has jurisdiction for Mowry Slough ending at the culvert at the Mowry Avenue bridge crossing, at the bend of the channel near Plummer Creek, and jurisdiction over managed wetlands in the Southwest Newark Residential and Recreational Focus Area. Projects in BCDC jurisdiction that involve Bay fill must be consistent with the Bay Plan policies on the safety of fills and shoreline protection. These policies state that adequate flood protection should consider future relative sea level rise and all proposed development should be above the highest estimated tide level for the expected life of the project or sufficiently protected by levees.

City of Newark Regulations

City of Newark Municipal Code

Hydrology and water quality are discussed in several areas of the City of Newark Municipal Code (Municipal Code). The main sections addressing hydrology and water quality in the Municipal Code include:

- **Stormwater Management and Discharge Control** (Chapter 8.36). This section implements the Alameda County Urban Water Runoff Clean Water Program and contains regulations intended to control and eliminate non-stormwater discharges to the city storm sewer and reduce pollutants in stormwater discharges.

[15] Bay Area Conservation and Development Commission (BCDC), 2011, *San Francisco Bay Plan,* http://www.bcdc.ca.gov/laws_plans/plans/sfbay_plan.shtml accessed on March 25, 2013.

- **Regulation of Wells** (Chapter 13.04). This section provides standards for the construction, repair, and abandonment of wells to prevent the contamination of groundwater and ensure that the water obtained from the wells are suitable for the intended beneficial uses.
- **Construction in Flood Hazard Zones** (Chapter 15.40). This section requires that new construction and substantial improvements within special flood hazard areas must have the lowest floor, including the basement, elevated to or above the base flood elevation and flood-proofed.

4.8.1.2 EXISTING CONDITIONS

Regional Hydrology

The Plan Area is located in the San Francisco Bay Hydrologic Region, which covers approximately 4,500 square miles and encompasses 10 counties, including Alameda County.[16] It corresponds with the boundaries of the San Francisco Regional Water Quality Control Board (RWQCB) Region 2 and the San Francisco Bay Area Integrated Regional Water Management (IRWM) Plan. The San Francisco Bay Hydrologic Region is a complex network of watersheds, marshes, rivers, creeks, reservoirs, and bays mostly draining into the San Francisco Bay and the Pacific Ocean.

As shown on Figure 4.8-1, the City of Newark is located within the Lower Alameda Creek Watershed, which is further divided into three subwatersheds that also are present within the City limits:[17]

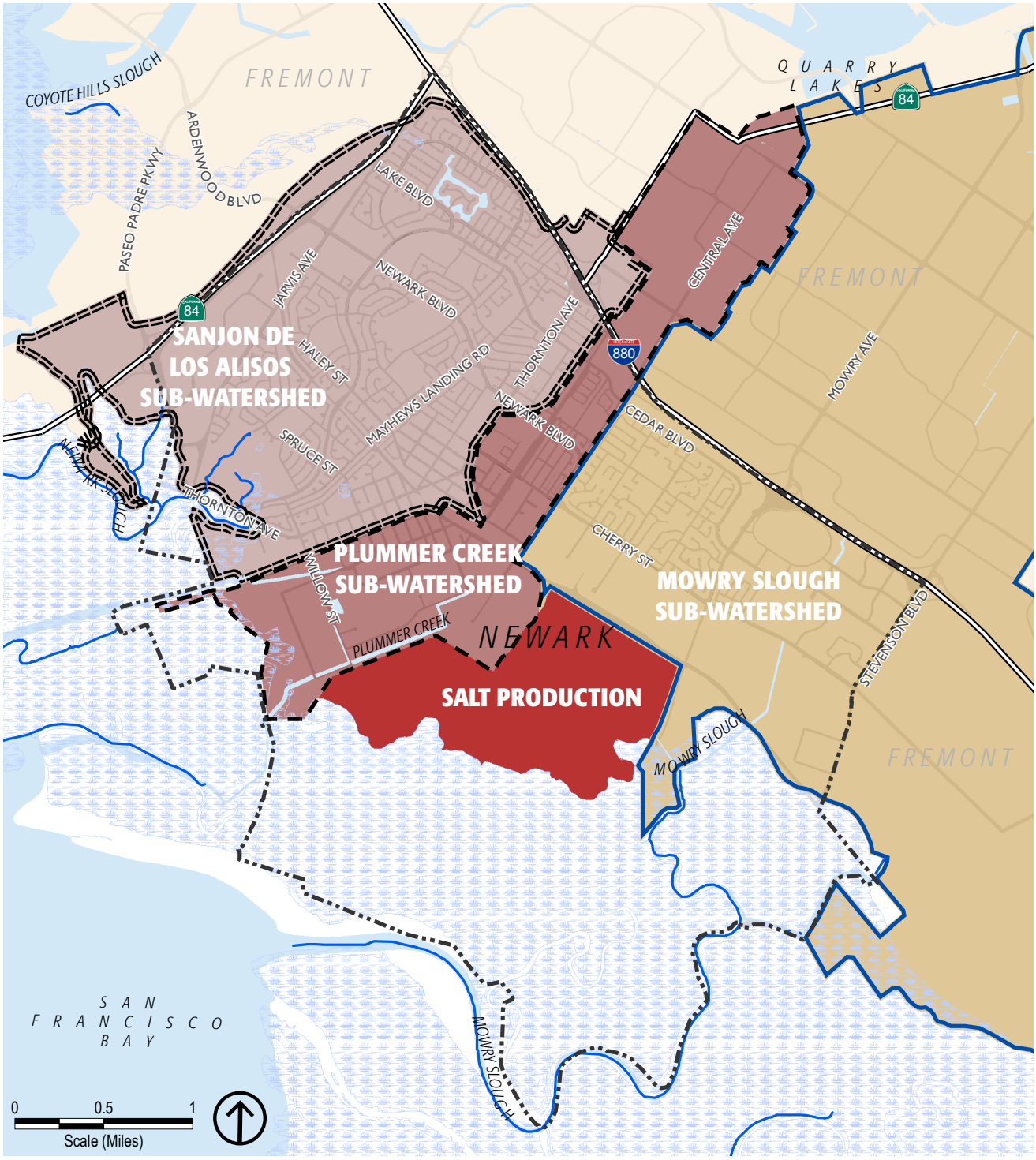
- Sanjon de los Alisos Watershed – This is an old tributary of Alameda Creek that used to carry off waters when Alameda Creek flooded out of its banks. It now carries urban runoff into Newark Slough;
- Plummer Creek Watershed – This network of storm drains and channels replaces small creeks that formerly drained into Plummer Creek Slough; and
- Mowry Slough Watershed – This watershed also consists of a network of storm drains and channels that have replaced small creeks that formerly drained into Mowry Slough.

Alameda County is also divided into nine flood control zones by the Alameda County Flood Control and Water Conservation District (ACFC). The City of Newark is located within Zone 5.[18] Zone 5 covers 45,440 acres and includes portions of the Cities of Fremont and Union City, Newark, and the communities of Centerville, Decoto, and Niles. Over 37 miles of natural waterways are found in this zone including Plummer Creek, Newark Slough, and Mowry Slough within the City of Newark. Stormwater within the City of Newark is managed through a

[16] California Department of Water Resources, *California Water Plan, Update 2009, San Francisco Bay, Integrated Water Management, Bulletin 160-09, Volume 3, Regional Reports.*

[17] Oakland Museum of California, Guide to San Francisco Bay Area Creeks, http://museumca.org/creeks/133A-RescLwrAlameda.html, accessed on March 18, 2013.

[18] Alameda County Flood Control & Water Conservation District, *Report to the Community, Fiscal Years 2008 and 2009,* http://acfloodcontrol.org/files/pdfs/acfcd2008-09report.pdf, accessed on March 18, 2013.



Source: City of Newark, 2012; Santa Clara County, 2012; The Planning Center | DC&E, 2012; ESRI, 2010; FTC, 2010; Fugro William Lettis & Associates, Inc., 2010.

City Limit

Figure 4.8-1
Watersheds in the Vicinity of the Plan Area

system of gutters, drains, channels, and culverts that direct runoff from the City to San Francisco Bay.[19] The construction, monitoring, and maintenance of the stormwater infrastructure are a joint effort between ACFC and the Newark Public Works Department. The ACFC plans, designs, and constructs the infrastructure, while the Newark Public Works Department's Maintenance Division cleans and removes debris from storm drain inlets and catch basins.

As shown in Figure 4.8-2, all of the storm drain catch basins and storm drain systems in Newark eventually connect to one of the following ACFC flood control channels:[20]

- The C & D Line passes under the Nimitz Freeway immediately behind the former cinema complex, passes into an underground culvert under Balentine Drive behind TJ Maxx, and then is an open channel along the south side of Newark Memorial High School.
- The B Line is an open channel that crosses Cedar Boulevard just north of Moores Avenue and passes through the Mowry West subdivision, crossing Cherry Street near Smith Avenue.
- The F Line is an open channel that passes under Cedar Boulevard north of Central Avenue, turns north after crossing under Newark Boulevard, and then follows along the south side of the railroad tracks along Baine Avenue.
- The I Line is an open channel following Mayhews Landing Road east of Thornton Avenue near the Bay. However, it starts at I-880 as a large underground culvert, passing behind Newark Square Shopping Center and making its way past the Old Town Shopping Center.
- The H Line drains into the new San Francisco Wildlife Refuge property on the east side of Thornton Avenue near Jarvis Avenue after passing along the north side of Lincoln School. Upstream, just before crossing under the railroad tracks, the channel splits into two branches, one of which serves the Lido Faire area and the other which, via open channel and underground pipes, serves the Lake and Rosemont areas.

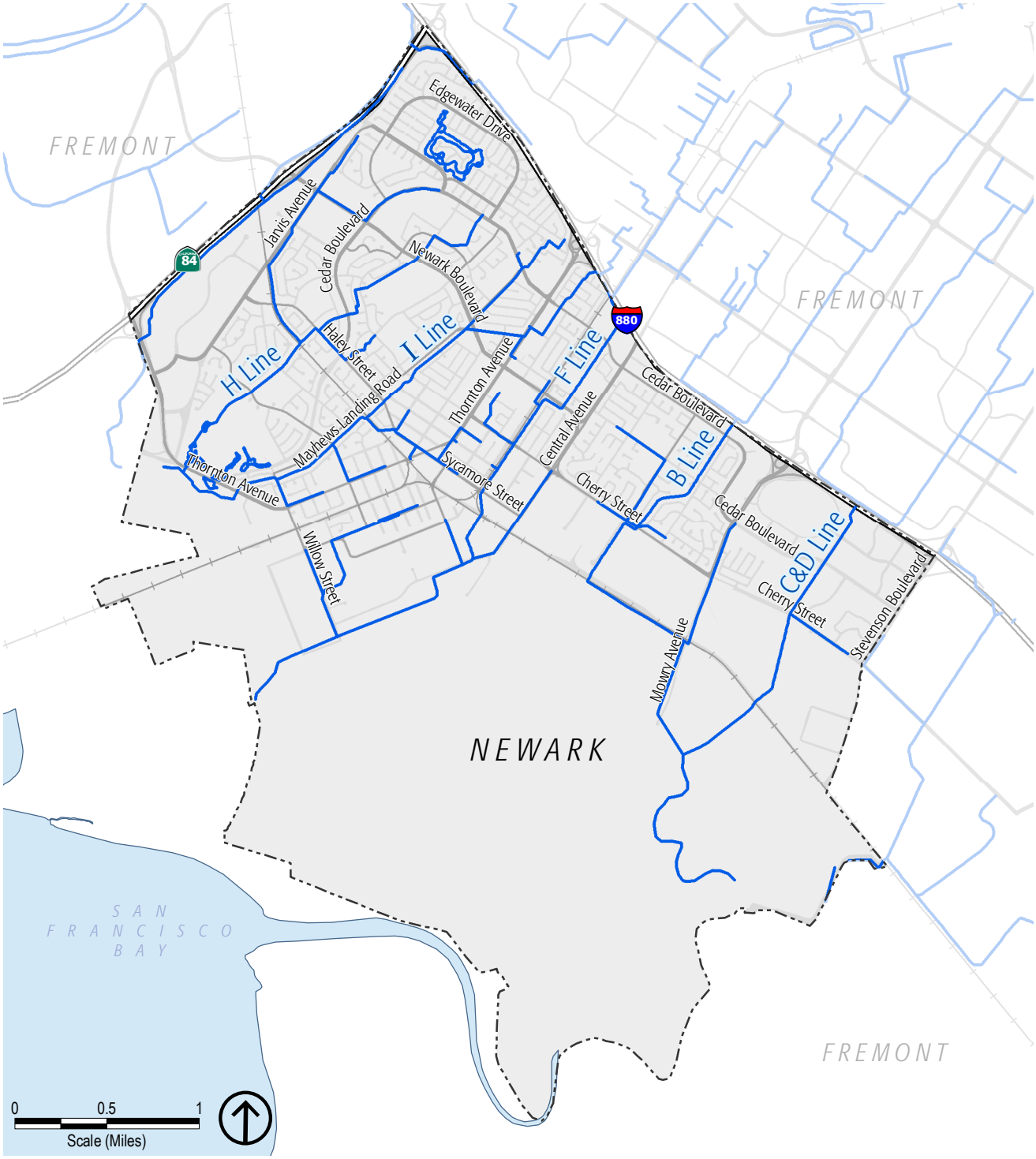
Stormwater collected from the storm drains flows through 50 miles of closed conduit (storm drain pipes) and over 6 miles of concrete channels and culverts, directing water to Zone 5's two pumping stations, J-2 and J-3. The capacity of the J-2 pumping station is 107,712 gallons per minute (GPM) and the capacity of the J-3 pumping station is 45,920 GPM. These two pumping stations pump water that discharges into the Bay during periods of high tide. [21] In addition, the ACFC has a holding pond, Quail Run, which provides additional flood control by receiving overflow water from Alameda Creek, which lies outside of Zone 5. [22]

[19] California Polytechnic State University (Cal Poly), 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 8. Public Facilities.

[20] City of Newark, Storm Drain Channels, http://www.newark.org/images/uploads/pubwks/pdfs/Storm_Drain_Channels.pdf, accessed on January 30, 2013.

[21] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 8, Public Facilities.

[22] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 8, Public Facilities.



Source: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010.

City Limit

ACFC Flood Control Channel

Figure 4.8-2
Alameda County Flood Control District Facilities

In 2008, flood control improvements were constructed along Line F-1, a branch of the F Line as depicted in Figure 4.8-2, at Cherry Street, Sycamore Street, and Filbert Street in Newark to increase flood control conveyance capacity.[23] The ACFC has a list of Capital Improvement Projects (CIPs) for Zone 5 as follows:[24]

- Culvert crossing improvement on Zone 5 Line H at the Union Pacific Railroad (UPRR) crossing and upstream of Bettencourt Street.
- Raising the existing culvert headwall and extending wingwalls on Zone 5 Line D at Balentine Drive.

These two projects are tentatively programmed for design in 2015 and construction in summer 2016 or 2017. The ACFC is also planning to develop a Drainage Master Plan Study for Zone 5 in late 2014, which may identify additional CIPs. [25] The watersheds and natural water features within the City of Newark are shown on Figure 4.8-1.

Groundwater

The Plan Area is located within the Niles Cone Groundwater Basin, which is part of the larger Santa Clara Valley Groundwater Basin.[26] The Niles Cone Groundwater Basin is bounded on the north by the boundary of Alameda County Water District (ACWD) and southern portions of Hayward, on the east by the Diablo Range, on the south by the Alameda-Santa Clara County border, and on the west by San Francisco Bay, as shown in Figure 4.8-3. The Hayward Fault impedes the westward flow of groundwater and divides the basin into two subbasins, the Below Hayward Fault (BHF) and the Above Hayward Fault (AHF). There are large differences in groundwater levels on either side of the fault.

The Niles Cone Basin consists mainly of the alluvial fan formed by Alameda Creek as it exits the Diablo Range and flows toward San Francisco Bay.[27] Most of the water-bearing materials are comprised of Quaternary alluvium. The Newark Aquifer is the uppermost aquifer underlying the Plan Area and consists of an extensive permeable gravel and sand layer between 40 and 140 feet below ground surface (bgs).[28] Beneath the Newark Aquifer are the Centerville Aquifer (between 180 and 200 feet bgs), the Fremont Aquifer (between 300 and 390 feet bgs) and the Deep Aquifer (between 400 and 500 feet bgs).

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[23] Alameda County Flood Control & Water Conservation District, *Report to the Community, Fiscal Year 2008 and 2009*. Website: http://acfloodcontrol.org/files/pdf/acfcd2008-09report.pdf, accessed on March 18, 2013.

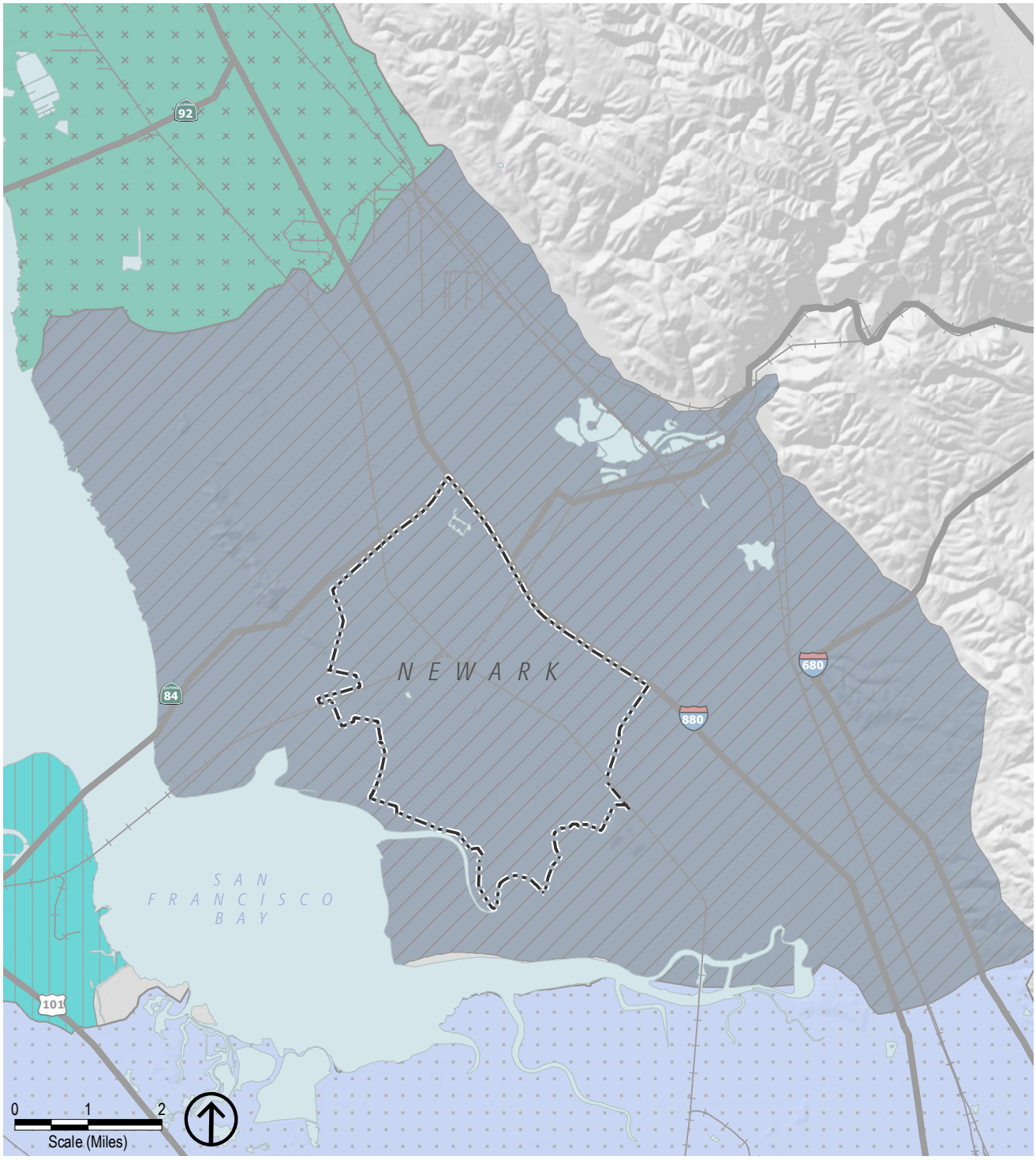
[24] Moses Tsang, Alameda County Flood Control District, email correspondence with The Planning Center | DC&E, February 28, 2013.

[25] Rohin Saleh, MS. PE., Supervising Civil Engineer, Alameda County Flood Control District, email correspondence with The Planning Center | DC&E, February 27, 2013.

[26] California Department of Water Resources, *California's Groundwater: Bulletin 118*, http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/2-9.01.pdf, accessed on February 4, 2013.

[27] California Department of Water Resources, *California's Groundwater: Bulletin 118*, http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/2-9.01.pdf, accessed on February 4, 2013.

[28] California Department of Water Resources, *California's Groundwater: Bulletin 118*, http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/2-9.01.pdf, accessed on February 4, 2013.



Source: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010, Association of Bay Area Governments,1995.

East Bay Plain Basin
San Mateo Plain Basin
Niles Cone Basin
Santa Clara Valley Basin
City Limit

Figure 4.8-3
Groundwater Basins

The Niles Cone Basin is currently listed as having existing beneficial uses for groundwater and is the principal source of local supply for the Alameda County Water District (ACWD). Groundwater recharge occurs through percolation of both local and imported water in Alameda Creek and the adjacent recharge ponds in the Quarry Lakes Regional Recreational Area. The water is subsequently recovered through ACWD's groundwater production wells and provides a potable supply to a population of over 331,000 people in the cities of Fremont, Newark, and Union City.

Approximately 22 percent of the water supplied by the ACWD is from groundwater wells.[29] The groundwater level in the Newark Aquifer ranges from 2.2 to 8.5 feet bgs. When water levels in the Newark Aquifer fall below sea level, saline water from the Bay and salt evaporation ponds will flow inward, causing saltwater intrusion. The Newark Aquifer water levels are presently above sea level and are forecast to remain above sea level through at least June 2013.[30]

Water Quality

Most of the streams and creeks that originally flowed through the City of Newark have been replaced by a network of storm drains and channels that discharge urban runoff into Newark Slough, Plummer Creek Slough, and Mowry Slough. The surface water bodies that currently exist in the Plan Area include engineered channels maintained by the ACFC, Plummer Creek, Newark Slough, Mowry Slough, tidal marshes, tidal flats, salt ponds, and small tidal estuaries.

No site-specific data regarding stormwater runoff from the Plan Area exists. However, pollutants could be present in the stormwater runoff from the Plan Area, including sediment, nutrients, oxygen-demanding substances, heavy metals, petroleum hydrocarbons, pathogenic bacteria, and viruses. Stormwater runoff is the principal source of pollution entering surface and ground water in the San Francisco Bay region.[31] Typical pollutants include oil, grease, or antifreeze releases from cars or trucks; paint or paint products; leaves or yard waste; pesticides, herbicides, or fertilizers from yards and gardens; solvents and household chemicals; animal wastes, litter, or sewer leakage; and construction debris such as fresh concrete, mortar, or cement.

As mentioned earlier, the Plan Area consists of open space and undeveloped land near the bay shoreline and developed land further inland. Stormwater is transported through the ACFC's regional network of storm drains, underground culverts, or engineered drainage channels that eventually discharge into San Francisco Bay. There are sites in the Plan Area with known past groundwater contamination that have undergone remediation and are continuing to be monitored. This issue is discussed more fully in Chapter 4.7, Hazards and Hazardous Materials.

[29] Alameda County Water District, 2013, *Survey Report on Groundwater Conditions,* February.

[30] Alameda County Water District, 2013, *Survey Report on Groundwater Conditions,* February.

[31] San Francisco Bay Conservation and Development Commission, 2003, *Final Staff Report, Water Quality Protection and Nonpoint Source Pollution Control in San Francisco Bay*, page 1.

Groundwater quality in the portion of the Niles Cone Basin west of the Hayward Fault, which includes the Plan Area, has been degraded due to saltwater intrusion.[32] The low yield of the shallow zone and Newark Aquifer, as well as high reported total dissolved solids (TDS) and chloride concentrations indicating brackish water, make these aquifers unsuitable for groundwater supply. The Alameda County Water District (ACWD) is purchasing and importing water to increase water supplies and recharge the groundwater aquifer, which has brought the groundwater table back above sea level and helped return the Newark Aquifer's hydraulic gradient to its bayward direction. Since the 1960s, ACWD has managed the Basin to prevent any additional seawater intrusion and has an ongoing program to pump trapped brackish groundwater back to the Bay through the District's Aquifer Reclamation Program (ARP) wells. Since 2003, much of the water pumped from the ARP wells is treated at the Newark Desalination Facility. The treated water is then blended with untreated local water and is supplied to the water distribution system.[33]

Flooding

The Federal Emergency Management Agency (FEMA) determines floodplain zones in an effort to assist cities in mitigating flooding hazards through land use planning. FEMA also outlines specific regulations for any construction within a 100-year floodplain. The 100-year floodplain is defined as an area that has a one percent chance of being inundated during a 12-month period. FEMA also prepares maps for 500 year floods, which mean that in any given year, the risk of flooding in the designated area is 0.2 percent.

In some locations, FEMA also provides measurements of base flood elevations for the 100-year flood, which is the minimum height of the flood waters during a 100-year event. Base flood elevation is reported in feet above sea level. Depth of flooding is determined by subtracting the land's height above sea level from the base flood elevation. Areas within the 100-year flood hazard area that are financed by Federally-backed mortgages are subject to mandatory federal insurance requirements and building standards to reduce flood damage.

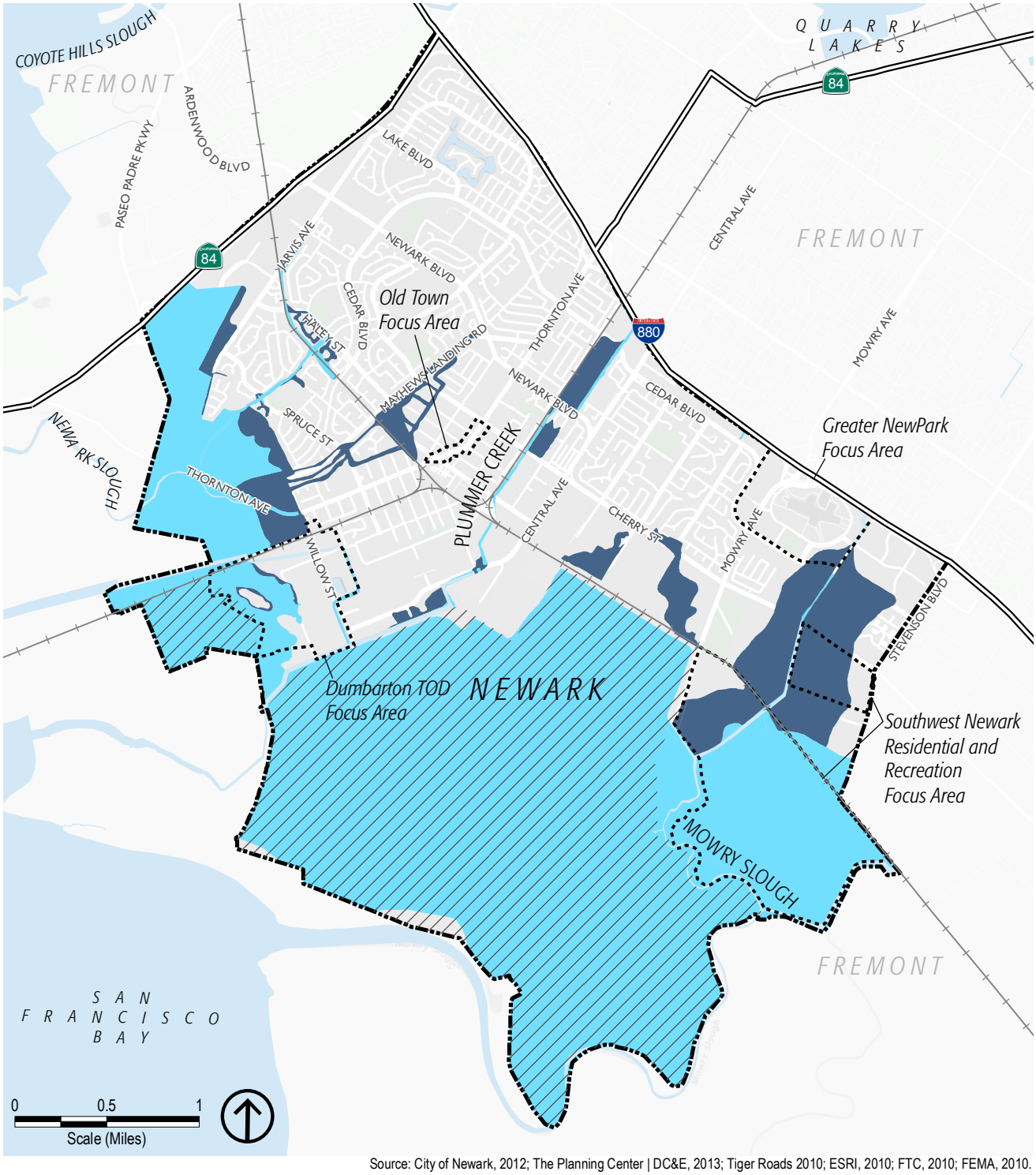
The southern portion of the City of Newark is within the 100-year floodplain subject to tidal flooding from San Francisco Bay.[34] . Much of this area is open space, salt flats, and tidal marshes with no planned development. However, many of the planned future housing sites in the Dumbarton TOD and Southwest Newark Residential and Recreational Focus Areas, are within the 100-year floodplain. In addition, the areas immediately adjacent to the ACFC storm drain channels (Lines B, D, F, H, and I) are within the 100-year floodplain with some of the outlying areas mapped as being within the 500-year floodplain. The flood prone areas within the City of Newark are depicted on Figure 4.8-4.

Although some locations within the City are protected from flooding by levees, FEMA's policy is to disregard any flood protection benefit provided by a levee if that levee is not certified as meeting National Flood Insurance

[32] California Polytechnic State University (Cal Poly), 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 6 Conservation, page 6-20.

[33] Alameda County Water District (ACWD), 2013, *Your Water, Sources, and Supplies,* http://www.acwd.org/?nid=100 accessed March 19, 2013.

[34] Federal Emergency Management Agency (FEMA), 2013, *Various FIRM maps including 06001C0441G, 06001C0443G, 06001C0444G, 06001C0585G, and 06001C0035H.*



Source: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010; FEMA, 2010.

City Limit

Salt Harvesting Ponds

100-Year Flood Zone

500-Year Flood Zone

Figure 4.8-4
FEMA Flood Zones

Program (NFIP) standards for freeboard and geotechnical stability.[35] Most of the levees within the City of Newark are not certified. Therefore, the areas next to the levees are assumed to be subject to flooding should any of the levees fail during a large storm or high tide event.

Dam Inundation

According to the Association of Bay Area Governments (ABAG), the City of Newark is located within the inundations areas of three dams: Del Valle, Turner, and Calaveras, all of which are classified as high hazard dams because their failure could result in a significant loss of life and property damage.[36] The California Division of Safety of Dams inspects each dam on an annual basis to ensure the dam is safe, performing as intended, and is not developing problems. The dam inundation zones for these three dams are shown on Figure 4.8-5.

The Del Valle Dam is an earth fill dam constructed in 1968 by the California Department of Water Resources (DWR), which forms Lake Del Valle. The lake and dam are part of the California State Water Project and South Bay Aqueduct.[37] The dam and lake are located approximately 15.5 miles northeast of the Newark City limit.

The James H. Turner Dam is an earth fill dam constructed in 1964 and is operated by the City and County of San Francisco. [38] The dam across San Antonio Creek forms the San Antonio Reservoir, which is used to store water from the Hetch Hetchy Aqueduct and local wells and watersheds. The dam and reservoir are located approximately 8.2 miles northeast of the Newark City limit.

The Calaveras Dam is a hydraulic fill dam constructed in 1925 and is also operated by the City and County of San Francisco. The dam forms the Calaveras Reservoir, which is used for municipal water supply. It is located approximately 9 miles east of the City of Newark. Because the dam is located near a seismically active fault zone and was determined to be seismically vulnerable, in 2001 the California Division of Safety of Dams restricted the water capacity of the reservoir to one third of its original capacity until the deficiencies are corrected. In January 2011, approval was granted to the San Francisco Public Utilities Commission to begin construction on a new earth- and rockfill dam immediately downstream of the existing dam. Construction began in August 2011 and the new dam is scheduled to be completed in 2015.[39]

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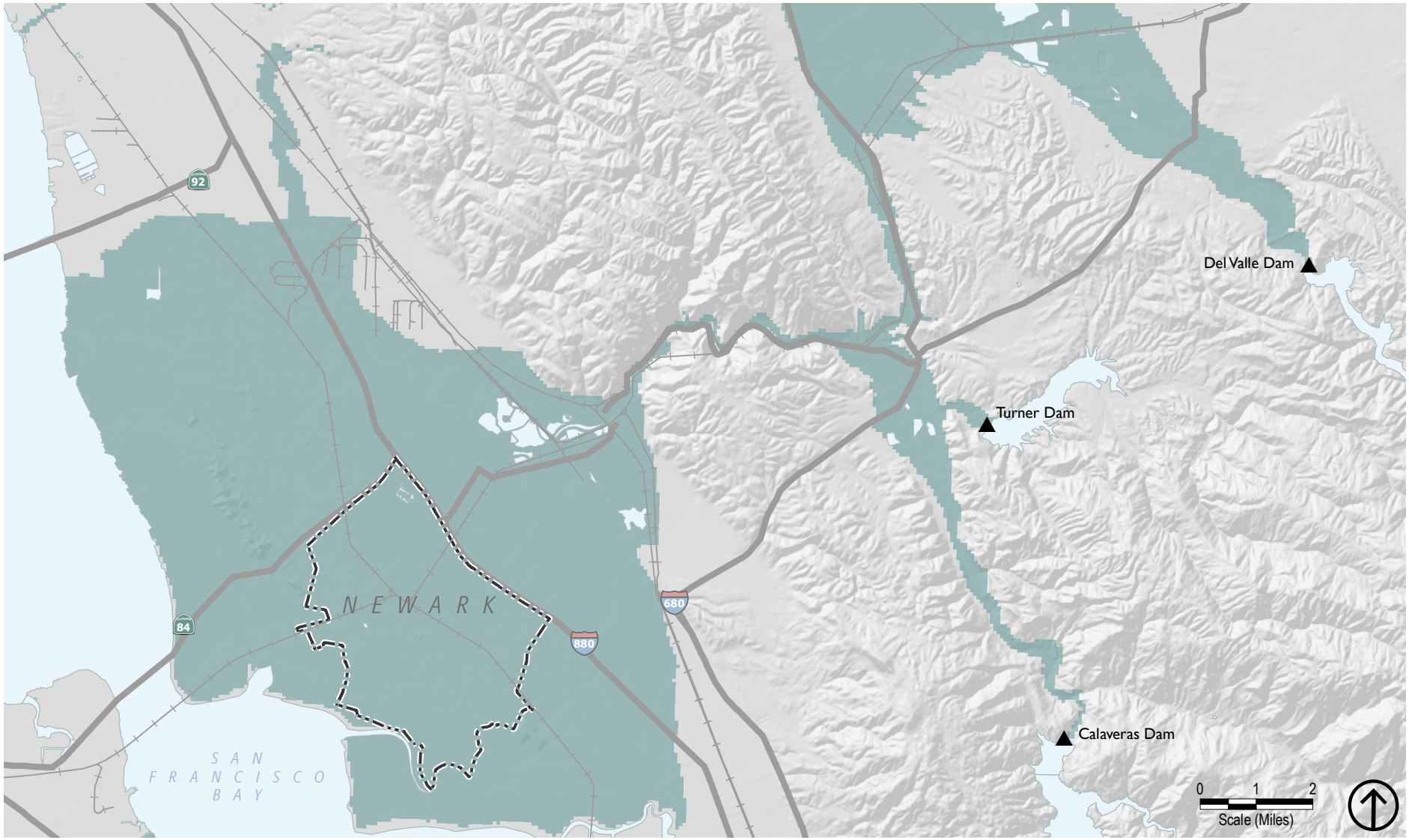
[35] FEMA, 2013, *Levee Certification vs. Levee Accreditation*. http://www.fema.gov/library/viewRecord.do?id=4828m accessed March 19, 2013.

[36] Association of Bay Area Government (ABAG), 2013, *Dam Failure Inundation Maps*. http://www.abag.ca.gov/cgi-bin/pickdamx.pl accessed March 21, 2013.

[37] California Division of Safety of Dams, 2013, *Dams Within the Jurisdiction of the State of California,* http://www.water.ca.gov/damsafety/damlisting/index.cfm accessed on March 20, 2013.

[38] California Division of Safety of Dams, 2013, *Dams Within the Jurisdiction of the State of California,* http://www.water.ca.gov/damsafety/damlisting/index.cfm accessed on March 20, 2013.

[39] San Francisco Public Utilities Commission, 2011, *Calaveras Dam Replacement Fact Sheet,* http://www.ebparks.org/Assets/files/Calaveras_Dam_Fact_Sheet-9-15-11.pdf accessed on March 20, 2013.



Source: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010; USGS, 2010; CA Office of Emergency Services, 1972; ABAG, 2013.

City Limit
Dams
Dam Inundation Hazard Areas

Figure 4.8-5
Dam Failure Inundation Hazard Area

Tsunami, Seiche, and Mudflow

A tsunami is a large sea wave generated by earthquakes that can travel across the ocean at hundreds of miles per hour and cause tall ten foot (or higher) waves. Fifty-one tsunamis have been recorded or observed within the San Francisco Bay area since 1850.[40] Of these, only two tsunamis caused damage in San Francisco Bay: the 1960 Chile earthquake and the 1964 Alaska earthquake. The 1964 Alaska earthquake caused the most damage of the two and had an amplitude of approximately 1.1 meters (3.6 feet) at the Presidio in San Francisco.

Given the location of the Plan Area near the southern portion of San Francisco Bay, its elevation of approximately 5 to 30 feet above sea level, and the history of tsunamis in San Francisco Bay, the risk of flooding due to a tsunami event is considered to be very low within the City of Newark. In addition, ABAG has developed tsunami evacuation maps for the Bay Area and the inundation zone does not extend to Newark's city limits.[41] Furthermore, any development within the Plan Area would be subject to the City's flood elevation standards for lands within Special Flood Hazard Areas (SFHAs), as defined by FEMA (Section 15.40.51 of the Newark Municipal Code). These standards require building pads of all residential structures to be a minimum of 11.25 feet elevation National Geodetic Vertical Datum (NGVD). In addition, the City requires the top of curb grades for residential streets to be no less than ten feet above mean sea level throughout the City (Section 16.08.06 of the Newark Municipal Code).

A seiche is a oscillation wave generated in a closed body of water, which can be compared to the back-and-forth sloshing in a bath tub. Seiches can be caused by winds, changes in atmospheric pressure, underwater earthquakes, tsunamis, or landslides into the water body. Bodies of water such as reservoirs, ponds, and swimming ponds can experience seiche waves up to several feet in height during a strong earthquake. There are no large bodies of water or reservoirs within the City of Newark and the City is not within the inundation zone of tsunamis generated by earthquakes. Therefore, there is no likelihood of seiches occurring within the Plan Area.

Mud and debris flows are mass movements of dirt and debris that occur after intense rainfall, earthquakes, and severe wildfires. The speed of a slide depends on the amount of precipitation, steepness of the slope, and alternate freezing and thawing of the ground. The City of Newark is relatively flat and the City is outside of the impacted zones for earthquake-induced landslides or rainfall-induced landslides.[42]

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[40] The Bay Citizen, 2011, *Mapping Risk: Bay Area Tsunami Plans*. https://www.baycitizen.org/data/disasters/mapping-risk-tsunami-plans-bay-area/ accessed on March 20, 2013.

[41] Association of Bay Area Governments (ABAG), 2013, *Tsunami Inundation Map for Coastal Evacuation* http://gis.abag.ca.gov/website/Tsunami/index.html accessed March 20, 2013.

[42] Association of Bay Area Governments (ABAG), 2013, *Landslide Maps and Information: Earthquake Induced Landslides and Rainfall Induced Landslides,* http://gis.abag.ca.gov/website/LandslideDistribution/index.html accessed March 20, 2013.

4.8.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would result in significant adverse impacts if it would:

1. Violate any water quality standards or waste discharge requirements.
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation, or flooding on- or off-site.
4. Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
5. Otherwise substantially degrade water quality.
6. Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map or place within a 100-year flood hazard area structures which would impede or redirect flood flows.
7. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
8. Inundation by seiche, tsunami, or mudflow.

The City notes that the purpose of this EIR is to identify the significant effects of the Plan (which is considered a Project under CEQA) on the environment, not the significant effects of the environment on the Plan. (*South Orange County Wastewater Authority v. City of Dana Point (2011) 196 Cal.App.4th 1604, 1614-1618; City of Long Beach v. Los Angeles Unified School Dist. (2009) 176 Cal.App.4th 889, 905.*) While identifying the environmental effects of attracting development and people to an area is consistent with CEQA's legislative purpose and statutory requirements, identifying the effects on the Project and its users of locating the Project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes. Appendix G of the Guidelines is a sample checklist form that is suggested for use in preparing an initial study, and which the City has employed to assist in the preparation of this Draft EIR (see *Guidelines, § 15063, subd. (f)*). However, a few of the questions on the form concern the exposure of people or structures to environmental hazards and could be construed to refer to not only the Project's exacerbation of environmental hazards but also the effects on users of the Project and structures in the Project of preexisting environmental hazards. To the extent that such questions may encompass the latter effects, the questions do not relate to environmental impacts under CEQA and cannot support an argument that the effects of the environment on the Project must be analyzed in a Draft EIR. (*Ballona Wetlands Trust v. City of Los Angeles (2011) 201 Cal.App.4th 455, 473-474.*) Accordingly, a discussion of flooding impacts associated with future sea level rise is not an example of an environmental effect caused by development, but instead is an example of an effect on the Project caused by the environment and is not required under CEQA.

4.8.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to hydrology and water quality.

HYDRO-1	The proposed Plan would not violate any water quality standards or waste discharge requirements.

Future construction activities associated with development within the Plan Area could negatively affect the water quality of surface waters. Grading and other earthmoving activities during construction would expose soils, which could be eroded and deposited into downstream receiving waters. This is turn would increase the amount of turbidity and sediment in these water bodies, which could harm aquatic life. Additionally, chemicals or fuels could accidentally spill and be washed into receiving waters.

Future development within the Plan Area would be required to comply with State and local water quality regulations designed to control erosion and protect water quality during construction. This includes compliance with the requirements of the NPDES General Permit, which requires preparation and implementation of a SWPPP. The SWPPP must include erosion and sediment control Best Management Practices (BMPs) that would meet or exceed measures required by the General Permit, as well as BMPs that control hydrocarbons, trash, debris, and other potential construction-related pollutants. Implementation of BMPs would prevent or minimize environmental impacts and ensure that discharges during the construction phase of future projects would not cause or contribute to the degradation of water quality in receiving waters, reducing construction-related water quality impacts to less than significant.

Post-construction impacts from development could affect drainage patterns and increase the overall amount of impervious surfaces, thus creating changes to stormwater flows and water quality. Increasing the total area of impervious surfaces can result in a greater potential to introduce pollutants to receiving waters. Urban runoff can carry a variety of pollutants, including oil and grease, metals, sediment, and pesticide residues from roadways, parking lots, rooftops, and landscaped areas depositing them into adjacent waterways via the storm drain system. However, future housing sites will be primarily located on underutilized land, infill sites, and along transit corridors, most of which (excepting Area 4) have already been developed and currently have a high percentage of impervious surfaces.

Water quality in stormwater runoff is regulated locally by the Alameda County Clean Water Program, which includes the C.3 provisions set by the San Francisco Bay RWQCB. Adherence to these regulations requires new development or redevelopment projects to incorporate treatment measures, an agreement to maintain them, and other appropriate source control and site design features that reduce pollutants in runoff to the maximum extent practicable. Many of the requirements consider Low Impact Development (LID) practices, such as the use of bioswales, infiltration trenches, media filtration devices, pervious surface treatments, and bioretention areas. In addition, all development or redevelopment projects within the Plan Area would be required to prepare a Stormwater Management Plan (SWMP) that includes the post-construction BMPs that control pollutant levels. Neighborhood and lot-level BMPs to promote "green" treatment of storm runoff would be emphasized. BMPs would be designed in accordance with the California Stormwater BMP Handbook for New and Redevelopment or other accepted guidance manuals and all designs would be reviewed and approved by the City of Newark prior to

the issuance of grading or building permits. Since most of the soils within the City of Newark have low permeability and the area has a high water table, BMPs that do not rely on infiltration are most appropriate.

All development and redevelopment projects within the Plan Area would implement storm water management measures, such as street sweeping and litter control, outreach regarding appropriate fertilizer and pesticide use practices, and managed disposal of hazardous wastes. Each project applicant would prepare an Operations and Maintenance (O&M) Plan for post-construction water quality and quality control measures. The project applicant would also identify responsible parties and provide adequate funding to maintain and operate the stormwater improvements through a Home Owners' Association(HOA), Community Services District (CSD), Community Facilities District (CFD), or similar entity. Compliance with State and local policies and regulations would reduce operational-related water quality impacts to a less-than-significant level.

In addition, the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element have already been assessed with regard to water quality issues through each project's CEQA review process. While the Draft EIRs conclude that the impacts from the Dumbarton TOD Specific Plan and the 2010 Housing Element would be less than significant without mitigation, the Draft EIR for Areas 3 and 4 identifies mitigation measures to minimize the impact from buildout of the area on water quality. With implementation of these measures, water quality impacts in the Southwest Newark Residential and Recreational Focus Area would be less than significant.

Furthermore, the following goals and policies contained in the proposed Plan would ensure that new development projects under the proposed Plan would minimize impacts to water quality:

- Action CS-1.B: Soil Erosion BMPs. Require new construction projects to incorporate best management practices (BMPs) which minimize soil erosion and runoff of nutrients, sediments, and pesticides.
- Policy CS-3.1: Protection of Water Resources. Ensure that land use decisions consider the availability of water for domestic and non-domestic uses, potential impacts on groundwater quality and groundwater recharge capacity, and potential off-site impacts on water quality.
- Policy CS-3.4: Reducing Water Pollution. Protect the quality of Newark's surface waters by supporting controls on point source and non-point sources of pollution.
- Policy CS-3.5: Containment of Contaminated Runoff. Regulate land uses such as auto dismantling, waste disposal, gas stations, and industries in a manner that minimizes the potential for hazardous materials to enter groundwater, surface water, or storm drains.
- Policy CS-3.8: Integrated Pest Management. Minimize the use of pesticides, herbicides, and other toxic materials in the maintenance of City parks, medians, and public spaces, as a strategy to avoid runoff of materials, which could potentially harm local waterways, wetlands, and San Francisco Bay.
- Action CS-3.G: Countywide Clean Water Program. Continue to participate in the Alameda Countywide Clean Water Program, in accordance with the federal National Pollution Discharge Elimination System (NPDES) permit. The City will work with Alameda County and other participating jurisdictions to carry out measures to monitor stormwater pollution, regulate construction runoff, sweep local streets, clean storm drain inlets, promote education and outreach, enforce regulations and penalties for illicit discharges, and participate in County meetings to discuss water quality issues.

- Action CS-3.H: Stormwater Controls. Implement stormwater runoff and retention controls in new development and construction projects that reduce pollution discharges to surface waters, and reduce the rate of runoff to storm drain system. Such controls should encourage greater use of pervious pavement and surfaces.

Applicable Regulations:

- NPDES General Construction Permit
- Alameda County Clean Water Program
- City of Newark Municipal Code, Chapter 8.36 Stormwater Management and Discharge Control

In summary, with implementation of the above-mentioned regulations, conditions of approval, and mitigation measures, as well as the proposed policies and actions cited above, development of projects within the Plan Area would not degrade water quality or contribute substantial amounts of polluted runoff.

Significance Before Mitigation: Less than significant.

HYDRO-2	The proposed Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

Future development within the Plan Area would result in an increase in impervious surfaces. In addition there may be the potential diversion of groundwater to surface water if short-term construction dewatering is required due to shallow water tables underlying Newark. Most areas in the City of Newark have groundwater levels of less than 10 feet below ground surface (bgs). These activities would result in a decrease in groundwater recharge to the Niles Cone Basin for which beneficial uses have been established by the San Francisco Bay Basin Plan.

However, the total acreage of land within the City of Newark where future development and redevelopment under the proposed Plan is expected to occur is very small relative to the size of the Lower Alameda Creek Watershed and the Niles Cone Groundwater Basin. In addition, the latest report on groundwater conditions from the Alameda County Water District (ACWD) indicates that there will be a net recharge of 5,300 acre-feet of groundwater in Fiscal Year 2013/2014 (i.e., more groundwater will be recharged into the aquifer than pumped). Under normal precipitation year conditions, ACWD's water supplies are projected to be sufficient to meet the future demands in its service area, including the demands of the proposed land uses within the Plan Area. Also, only 22 percent of the water supplied by ACWD is obtained from groundwater wells. Because the City of Newark is included in the planning assumptions of ACWD's Urban Water Management Plan (UWMP) and its forecast and water supply planning, the water demand associated with development Plan Area would not substantially deplete groundwater supplies.

Proposed new development within the Plan Area will be required to comply with the ACWD's Well Ordinance (Ordinance No. 2010-01), which requires any person applying for a land development permit or approval from the City to obtain documentation from ACWD indicating that existing wells or other excavations are in compliance with the Ordinance and that no other wells or excavations have been identified within the boundaries of the property to be developed. Similarly, the Ordinance requires that drilling permits be obtained from ACWD prior to

the start of any subsurface drilling activities for wells, exploratory holes, or other excavations. Also, any development on a former Leaking Underground Fuel Tank (LUFT) site or Site Cleanup Program (SCP) site should be coordinated with the ACWD and RWQCB to address potential impacts that dewatering activities and/or construction may have on the investigation and cleanup of these sites.

The implementation of Low Impact Development (LID) guidelines that include the use of permeable paving materials and on-site infiltration would increase the potential for groundwater recharge. The use of site design features required in the C.3 provisions of the Alameda County Clean Water Program and implementation of water use efficiency measures mandated by the Water Conservation Act of 2009 would ensure that groundwater supplies are not depleted and impacts would be less than significant.

Also, the following goals and policies would increase the potential for groundwater recharge and ensure adequate water supply:

- Policy CS-3.1: Protection of Water Resources. Ensure that land use decisions consider the availability of water for domestic and non-domestic uses, potential impacts on groundwater quality and groundwater recharge capacity, and potential off-site impacts on water quality.
- Policy CS-3.3: ACWD Conservation Incentives. Support Alameda County Water District (ACWD) incentives, which encourage Newark residents and businesses to conserve water.
- Action CS-3.A: ACWD Conservation Education. Work with the Alameda County Water District (ACWD) to implement water conservation measures, which help the District achieve its 2015 and 2020 per capita water use goals. This should include collaborative community outreach, and education campaigns on the importance of water conservation, and the steps residents and businesses can take to conserve water.
- Action CS-3.C: ACWD Coordination. Coordinate with ACWD on the review of proposed development, and the identification of necessary measures to mitigate potential impacts on groundwater and water supply.
- Policy CS-6.5: Minimizing Impervious Surface Coverage. Minimize impervious surface coverage and related stormwater runoff in new development areas by allowing narrower roads and shared driveways, and by encouraging the use of pervious materials on driveways and parking areas. Other means of reducing urban runoff, such as rain barrels and bioswales, also should be encouraged.

With regard to infrastructure:

- Policy CS-5.5: Consideration of Climate in Transportation Planning. Consider potential greenhouse gas emissions impacts when making changes to the transportation system. Give preference to solutions that reduce auto dependency and minimize emissions.
- Policy CS-5.6: Local Purchasing. Encourage residents to "buy locally." This includes shopping in Newark rather than driving long distances to other cities for major purchases, and buying food and other products made in Newark to reduce the emissions associated with transportation from source to market.
- Action CS-5.B: Greenhouse Gas Monitoring and CAP Updates. Conduct periodic monitoring and biannual estimation of greenhouse gas emission levels to determine the effectiveness of greenhouse gas reduction strategies. Revise the City's Climate Action Plan as needed based on the findings.

Applicable Regulations:

- Alameda County Clean Water Program – C.3 Provisions
- ACWD Ordinance No. 2010-01 – Well Ordinance
- Water Conservation Act of 2009

In summary, with implementation of the applicable regulations and proposed policies and actions cited above, development of projects within the Plan Area would not degrade groundwater supplies or interfere substantially with groundwater recharge.

Significance Before Mitigation: Less than significant.

HYDRO-3	The proposed Plan would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation, or flooding on- or off-site.

Future development within the Plan Area would involve vegetation removal, grading, earth excavation, and the construction of buildings, sidewalks, driveways, and parking lots. These activities would alter existing drainage patterns and increase the potential for erosion and/or siltation. However, none of the future development would alter the course of an existing stream or river. As previously discussed under HYDRO-1, standard erosion control measures would be implemented as part of the SWPPP for any proposed project to minimize the risk during construction. The SWPPP must include an erosion control plan that prescribes measures such as phasing of grading, limiting areas of disturbance, designation of restricted-entry zones, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, and provisions for revegetation or mulching. The erosion control plan would also include treatment measures to trap sediment once it has been mobilized, including inlet protection, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing, and siltation or sediment ponds. With implementation of these measures during construction, any erosion or siltation impacts would be less than significant.

Once projects within the Plan Area have been constructed, the C.3 requirements for new development or redevelopment would include source control measures, site design measures, LID, and treatment measures that address stormwater runoff and would reduce the potential for erosion or siltation.

During the life of any development project, the increase in impervious surfaces could result in a change in drainage patterns that could increase the rate and/or volume of stormwater runoff, contributing to on-site or off-site flooding. However, pursuant to the Municipal Code, the City of Newark would require that plans submitted for grading permits include a detailed hydrology report. The report would include calculations regarding the anticipated volume of stormwater runoff generated by the proposed development and would demonstrate that adequate stormwater conveyance and capacity is available to convey the stormwater flow from the site. The hydrology report would be subject to review and approval by the City Engineer to ensure that all on-site drainage, LID features, and retention basins are adequate to prevent on-site and off-site flooding.

As described above, pursuant to Alameda County Clean Water Program C.3 provisions, any new development or redevelopment project that involves the creation or replacement of 10,000 square feet or more of impervious

surface is required to design and install a permanent post-construction stormwater treatment facility onsite. The treatment/retention facility would be designed so that discharge rates of stormwater generated during a peak storm event would not exceed pre-construction levels. All detention facilities would be designed to the standards of the City of Newark and the ACFC.

In addition, the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element have already been assessed with regard to the alteration of drainage patterns through each project's CEQA review process. While the Draft EIRs conclude that the impacts from the Areas 3 and 4 Specific Plan and the 2010 Housing Element would be less than significant without mitigation, the Draft EIR for the Dumbarton TOD Specific Plan identifies a mitigation measure to minimize the impact from buildout on drainage patterns. The mitigation measure requires a detailed hydrology report to be submitted with the grading plans that include calculations for the anticipated volume of stormwater runoff and demonstration that adequate stormwater conveyance and capacity is available. With implementation of this mitigation measure adopted by the City of Newark with the Mitigation Monitoring and Reporting Program for the Dumbarton TOD Specific Plan, there would be a less-than-significant impact with respect to on-site and off-site erosion or flooding.

Furthermore, the following goals and policies from the proposed Plan would ensure that no on-site or off-site erosion or flooding occurs from alterations in drainage patterns:

- Policy CS-5.4: Reducing Non-Residential Transportation Emissions. Encourage the participation of the business sector in efforts to reduce greenhouse gases. This could include commuter benefit and transit pass programs that encourage employees to use transit rather than driving to work. This also includes efforts by local employers to encourage ridesharing, carpooling, BART shuttles, telecommuting, and other programs that provide alternatives to driving alone.
- Policy CS-5.5: Consideration of Climate in Transportation Planning. Consider potential greenhouse gas emissions impacts when making changes to the transportation system. Give preference to solutions that reduce auto dependency and minimize emissions.
- Policy CS-5.6: Local Purchasing. Encourage residents to "buy locally." This includes shopping in Newark rather than driving long distances to other cities for major purchases, and buying food and other products made in Newark to reduce the emissions associated with transportation from source to market.
- Policy CS-5.7: Public Awareness. Enhance and expand outreach, marketing, and education programs to raise awareness of Newark's greenhouse gas reduction programs.
- Policy CS-5.8: Planning for Sea Level Rise. Require proposed development close to the Newark bayfront or in low-lying areas to include an assessment of possible impacts related to sea level rise.
- Action CS-5.D: Cleaner Fuel Municipal Vehicles. As funds allow, convert the City's vehicle fleet to more energy efficient vehicles. This should begin with compressed natural gas (CNG) vehicles and eventually progress to electric vehicles.
- Action CS-5.E: Living Near Work. Work with local employers to explore programs and incentives for employees to purchase homes in Newark, thereby reducing their commute lengths and related greenhouse gas emissions.

Applicable Regulations:

- Alameda County Clean Water Program – C.3 Provisions
- NPDES General Construction Permit – NOI and SWPPP Requirements
- City of Newark Municipal Code, Chapter 8.36 Stormwater Management and Discharge Control
- Alameda County Hydrology and Hydraulics Manual (pending publication)

In summary, with implementation of the applicable regulations and proposed policies and actions cited above, development of projects within the Plan Area would not result in on-site or off-site erosion, siltation, or flooding.

Significance Before Mitigation: Less than significant.

HYDRO-4	The proposed Plan would not create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

As stated in the impact discussions above, an increase in impervious surfaces with development within the Plan Area could result in increases in stormwater runoff, which in turn could exceed the capacity of existing or planned stormwater drainage systems. New development or redevelopment projects would need to construct adequately sized storm drainage systems to convey on-site stormwater runoff to existing storm drain facilities. The on-site systems would be subject to City and ACFC review to verify that they are designed to accommodate increased flows and would not exceed the capacity of downstream drainage systems. The ACFC is in the process of developing a Hydrology and Hydraulics Manual to provide guidance on sizing and designing drainage systems, based on prescribed storm events.

In addition, the City of Newark requires as a standard condition of approval that major development projects complete drainage and hydrology analyses to ensure that on-site and off-site drainage facilities can accommodate increased stormwater flows. Development projects may also be required a fair share of improvements to the storm drain system necessary to accommodate increased flows from the development. Also, implementation of C.3 provisions for new development, which include LID design and on-site retention basins, would minimize increases in peak flow rates or runoff volumes. With implementation of these measures, impacts to storm drain system capacities would be less than significant.

Also, the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element have already been assessed with regard to the capacity of the existing or planned storm drain system to carry runoff from the planned development areas through each project's CEQA review process. While the Draft EIRs conclude that the impacts from the Areas 3 and 4 Specific Plan and the 2010 Housing Element would be less-than-significant without mitigation, the Draft EIR for the Dumbarton TOD Specific Plan identifies mitigation measures to minimize the impact from buildout on drainage patterns, including the preparation of a detailed hydrology report that demonstrates that adequate stormwater conveyance and capacity is available. With implementation of these mitigation measures, there would be a less-than-significant impact from development within the Dumbarton TOD Focus Area with respect to the capacity of the existing storm drain system and planned improvements.

Furthermore, City goals and policies under the proposed Plan would further reduce potential impacts to the existing storm drain infrastructure:

- Action EH-3.D: Review of Potential Flood Impacts. Use the environmental review process to evaluate potential impacts of new development on the flood control system, and to ensure that post-development runoff rates do not exceed the capacity of the flood control system.
- Action EH-3.E: Alameda County Flood Control and Water Conservation District (ACFC & WCD) Referrals. Continue to refer projects in flood prone areas to the ACFC&WCD for review and comment.
- Policy CS-5.5: Consideration of Climate in Transportation Planning. Consider potential greenhouse gas emissions impacts when making changes to the transportation system. Give preference to solutions that reduce auto dependency and minimize emissions.
- Policy CS-5.6: Local Purchasing. Encourage residents to "buy locally." This includes shopping in Newark rather than driving long distances to other cities for major purchases, and buying food and other products made in Newark to reduce the emissions associated with transportation from source to market.
- Policy CS-5.7: Public Awareness. Enhance and expand outreach, marketing, and education programs to raise awareness of Newark's greenhouse gas reduction programs.
- Policy CS-5.8: Planning for Sea Level Rise. Require proposed development close to the Newark bayfront or in low-lying areas to include an assessment of possible impacts related to sea level rise.
- Action CS-5.E: Living Near Work. Work with local employers to explore programs and incentives for employees to purchase homes in Newark, thereby reducing their commute lengths and related greenhouse gas emissions.

Applicable Regulations:

- Alameda County Clean Water Program – C.3 Provisions
- City of Newark Municipal Code, Chapter 8.36 Stormwater Management and Discharge Control
- Alameda County Hydrology and Hydraulics Manual (pending publication)

In summary, with implementation of the applicable regulations, conditions of approval, mitigation measures, and proposed policies and actions cited above, development of projects within the Plan Area would not create or contribute stormwater runoff that would exceed the capacity of existing or planned stormwater drainage systems.

Significance Before Mitigation: Less than significant.

HYDRO-5 The proposed Plan would not otherwise substantially degrade water quality.

As discussed previously above under Impact HYDRO-1, the principal source of water pollutants from future development within the Plan Area is oil and grease, metals, sediment, and chemicals from roadways, parking lots, rooftops, and landscaped areas. Each project would be required to include source control, site design, and LID measures, such as bioretention areas, flow-through planters, and permeable pavers, in compliance with the C.3

provisions for stormwater in Alameda County. Implementation of these stormwater control measures would provide natural filtration of pollutants from stormwater runoff prior to entry into the storm drain system. As such, new development and redevelopment projects would improve the treatment of stormwater on-site and reduce stormwater pollution, thus reducing impacts to less than significant. In addition, goals and policies that are part of the proposed Plan will further reduce potential impacts to water quality; these are listed under Impact HYDRO-1

Applicable Regulations:

- Alameda County Clean Water Program – C.3 Provisions
- City of Newark Municipal Code, Chapter 8.36 Stormwater Management and Discharge Control

In summary, with implementation of the applicable regulations, conditions of approval, and proposed policies and actions cited above, development of projects within the Plan Area would not substantially degrade water quality.

Significance Before Mitigation: Less than significant

HYDRO-6	The proposed Plan would not result in a significant impact with respect to the placement of housing or structures, which would impede or redirect flood flows within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

Future development in the Plan Area could result in the placement of residential structures in existing FEMA-designated 100-year Special Flood Hazard Areas (SFHAs). The areas within the City of Newark that are within the 100-year floodplain are shown on Figure 4.8-3.

The City of Newark has adopted standards for construction in flood hazard zones. Future projects within the 100-year flood zone would require the placement of fill to elevate structures above the 100-year floodplain elevation. In order for a project to be considered outside of the floodplain and no longer subject to special flood hazard requirements, the project applicant would have to submit an application to FEMA for a Letter of Map Revision – Fill (LOMR-F) after the fill has been placed. After FEMA has revised the Flood Insurance Rate Map (FIRM) to show that the project is now outside of the SFHA, the City would no longer be required to apply the minimum NFIP floodplain management standards to structures built on the land and the mandatory flood insurance requirements would no longer apply.

Construction within SFHAs is governed by the City's Municipal Code Chapter 15.40, Construction in Flood Hazard Areas, which sets forth standards for development that would minimize flood hazard risks, including anchoring and floodproofing; requirement that the lowest floor, including the basement, is at or above the base flood elevation; use of materials and utility equipment resistant to flood damage; the requirement that electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities be designed and/or located to prevent water from entering or accumulating within the components during flood conditions; and the requirement that all new and replacement water supply and sanitary sewage systems be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from systems into floodwaters.

Prior to the issuance of grading permits, the City of Newark requires project applicants to elevate building pads a minimum of one foot above the 100-year flood level elevation, or in accordance with City standards, whichever provides a greater level of flood protection. In addition, project developers must complete hydrology and hydraulic analyses that demonstrate that areas that are raised out of the floodplain will not result in increases in off-site flood levels or redirect flooding to other properties. Also, prior to occupancy of any building, proof that a Letter of Map Revision (LOMR) has been obtained from FEMA must be provided to the City. Compliance with the FEMA and City Municipal Code requirements would reduce potential flood hazards to the maximum extent practicable.

The Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element have already analyzed the potential for flooding through the prospective CEQA review process. While the Draft EIRs conclude that the impacts from the Dumbarton TOD Specific Plan and Areas 3 and 4 Specific Plan would be less than significant without mitigation, the Draft EIR for the 2010 Housing Element identifies mitigation measures to minimize the impact from flooding. The mitigation measures includes the provision that future building pads must be elevated a minimum of one foot above the 100-year floodplain; hydrology and hydraulic analyses must demonstrate that areas raised out of the flood hazard areas shall not result in increases in off-site flood levels or redirect flooding to other properties; and a Letter of Map revision (LOMR) must be files with FEMA and provided to the City prior to occupancy. Implementation of these mitigation measures would further reduce impacts associated with the placement of structures within flood prone areas.

Furthermore, implementation of City goals and policies under the proposed Plan would further reduce potential impacts due to flooding:

- Policy EH-3.3: Residential Development in the Flood Plain. Require that new residential development, including streets and other surface improvements, be constructed above the 100-year flood elevation.
- Policy EH-3.4: Non-Residential Development in the Flood Plain. Require that new non-residential development, including commercial and industrial uses, be flood-proofed or constructed on pads elevated above the 100-year flood elevation.
- Policy EH-3.5: Storm Drain Maintenance. Manage and maintain the storm drainage system to avoid flooding and reduce the negative effects of stormwater runoff.
- Policy EH-3.7: Mitigating Downstream Flood Impacts. Design new development to reduce the potential for downstream flooding. Measures such as porous pavement and on-site drainage retention facilities should be considered to reduce downstream impacts.
- Policy EH-3.8: Flood Control Improvements. Work with Alameda County Flood Control and Water Conservation District (ACFC&WCD) on improvements to the storm drain, flood control channel, and levee system which ensure that these systems continue to protect Newark neighborhoods and business districts from flooding.
- Action EH-3.A: Hydrologic and Drainage Studies. Require hydrologic and drainage studies for new development, and use these studies to identify measures that will reduce the risk of flooding.
- Action EH-3.B: Flood Insurance Rate Maps. Maintain up-to-date Flood Insurance Rate Maps for use in planning and public works decisions.

- Action EH-3.C: Flood Prevention Code Provisions. Continue to enforce Municipal Code provisions for construction in flood hazard areas, and amend these provisions as needed to conform to National Flood Insurance Program criteria.
- Action EH-3.E: Alameda County Flood Control and Water Conservation District (ACFC & WCD) Referrals. Continue to refer projects in flood prone areas to the ACFC&WCD for review and comment.

Applicable Regulations:

- FEMA Regulations in floodplains – LOMR-Fill Determination Requirements
- City of Newark Municipal Code, Chapter 15.40 Construction in Flood Hazard Areas

Implementation of the regulations and conditions of approval provided above would minimize flooding resulting from the construction of housing or structures within a flood hazard area.

Significance Before Mitigation: Less than significant.

HYDRO-7	The proposed Plan would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

According to the Association of Bay Area Governments (ABAG), the City of Newark is located within the inundation area of three dams: Del Valle, Turner, and Calaveras. Inundation resulting from dam failure could damage property and structures within the City and pose a severe hazard to public safety. However, the California Division of Safety of Dams inspects each dam on an annual basis to ensure the dam is safe, performing as intended, and is not developing problems.

Calaveras Dam is the only one of the three dams that is documented with a higher than average risk of failure due to seismic vulnerability. The dam owner and operator, the San Francisco Public Utilities Commission (SFPUC), has taken short term steps (reducing the storage capacity to one third of its original capacity) and long term steps (constructing a new replacement dam immediately downstream from the existing dam). The new dam should be completed in 2015.

The risk of dam failure is extremely low; there is no historic record of any dam failure in the Bay Area. In addition, ABAG addresses dam failure and evacuation procedures in the Multi-Jurisdictional Local Hazard Mitigation Plan. Alameda County has developed an annex to the ABAG Hazard Mitigation Plan that provides mitigation strategies for each potential type of disaster.

With respect to levees, in 2007 the ACFC began a process of evaluating all levees to determine their condition and the scope of repairs that may be required to achieve FEMA certification. FEMA is requiring that levees be certified as to their ability to provide protection from a 100-year storm. The ACFC is evaluating levees within the City of Newark by conducting subsurface field exploration, performing soil and stability testing, and developing operation and maintenance plans. The final report on the status of levees within Zone 5, which encompasses the City of Newark, should be completed soon. Until the levees in the City of Newark are certified as providing protection from the 100-year flood, development within the areas of potential flooding from levee failure will be required to carry flood insurance through the NFIP program. With the extremely low probability of dam failure

and the implementation of these mitigation strategies, the potential for flooding due to the failure of a levee or dam is less than significant.

Furthermore, implementation of City goals and policies under the proposed Plan would further reduce potential impacts due to flooding from levees and dams:

- Goal EH-3: Reduce risks to life and property associated with flooding
- Policy EH-3.6: Dam Safety. Advocate for dam safety and maintenance at Calaveras and/or San Antonio Reservoirs, and take the precautions necessary to protect Newark properties from related flood hazards in the event of dam failure.
- Goal EH-5: Fast, efficient, and coordinated response to natural and man-made emergencies and disaster.
- Action EH-5.G: Emergency Management Plan. Maintain an emergency management plan for the City. Among other things, the plan should identify alternate emergency routes in the event road service along any of the city's arterials is disrupted.
- Action EH-5.H: CERT Teams. Continue Community Emergency Response Team (CERT) training programs and expand public awareness of these programs.

Applicable Regulations:

- FEMA Regulations– Levee Certification
- California Division of Safety of Dams Regulations – California Water Code – Supervision of Dams and Reservoirs
- ABAG Multi-Jurisdictional Local Hazard Mitigation Plan

In summary, implementation of the applicable regulations listed above would reduce potential impacts from dam inundation or levee failure.

Significance Before Mitigation: Less than significant.

HYDRO-8	The proposed Plan would not result in significant adverse effects related to inundation by seiche, tsunami, or mudflow.

As discussed previously, the risk of flooding due to a tsunami event is considered to be very low within the City of Newark due to its location near the southern end of San Francisco Bay, its elevation of approximately 5 to 30 feet above sea level, and the history of minimal tsunami damage within the San Francisco Bay area. In addition, ABAG has developed tsunami evacuation maps for the Bay Area and the inundation zone does not extend to the City limit. Furthermore, any development within the Plan Area would be subject to the City's flood elevation standards for lands within Special Flood Hazard Areas (SFHAs), as defined by FEMA (Section 15.40.51 of the Newark Municipal Code). These standards require building pads of all residential structures to be a minimum of 11.25 feet elevation National Geodetic Vertical Datum (NGVD). In addition, the City requires the top of curb grades for residential streets to be no less than ten feet above mean sea level throughout the City (Section 16.08.06 of the Newark Municipal Code).

The protected portion of the San Francisco Bay near the City of Newark is not subject to potential flooding by seiches, since the several levees and long distance of shallow water associated with salt pond production and harvesting operations between San Francisco Bay and the City of Newark would minimize waves generated by a seiche. In addition, the City of Newark is not located below any steeply sloped areas that would result in a mud or debris flow. The land within the City of Newark is relatively flat and is not within any identified earthquake-induced rainfall-induced landslide areas, according to ABAG hazard maps. For these reasons, the City is not considered to be subject to significant risk from tsunamis, seiches, or mudflows.

Implementation of City goals and policies under the proposed Plan would further reduce potential impacts due to tsunamis, seiches, or mudflows:

- Policy EH-3.9: Sea Level Rise. Consider the effects of rising sea level on the potential for flooding in low-lying areas, and participate in regional adaptation efforts for these areas.
- Policy CS-5.8: Planning for Sea Level Rise. Require proposed development close to the Newark bayfront or in low-lying areas to include an assessment of possible impacts related to sea level rise.
- GOAL EH-5: Fast, efficient, and coordinated response to natural and man-made emergencies and disaster.
- Policy EH-5.2: Awareness of Preparedness Programs. Increase public awareness of City emergency preparedness programs and resources, including the Citizens Emergency Resources Team (CERT) program.
- Policy EH-5.3: Adequacy of Emergency Response Access. Avoid placing new development in areas where emergency response and evacuation cannot be provided within acceptable levels.
- Policy EH-5.4: Standard Emergency Management System (SEMS) Plan. In cooperation with the fire service provider, maintain and regularly update emergency plans for floods, earthquakes, fires, hazardous materials, and other disasters. Plans should be consistent with SEMS protocol.
- Policy EH-5.5: Interagency Coordination. Cooperate with other public agencies, nearby cities, community groups, and private enterprise in developing comprehensive disaster preparedness, assistance, and post-disaster recovery plans.
- Action EH-5.A: Capital Improvements to Improve Emergency Response. Periodically update the City's capital improvements program to include railroad grade separations, traffic signal overrides, and other improvements that will expedite emergency response.
- Action EH-5.B: Emergency Response Training. Conduct regular emergency response training exercises.
- Action EH-5.C: Emergency Supplies. Acquire and maintain emergency equipment, supplies, services and communications systems, consistent with emergency management systems plans.
- Action EH-5.D: Emergency Facilities. Identify specific facilities and lifelines critical to effective disaster response, and evaluate their ability to operate efficiently after a major disaster. Designate alternative facilities for post-disaster assistance in the event that primary facilities become unusable. Take appropriate actions to ensure that critical services and facilities return to normal levels of operation as soon as possible after a disaster.

- Action EH-5.E: Information on Hazards and Preparedness. Regularly disseminate information about Newark's emergency preparedness plans and resources via the City's website, press releases, local schools, employee information bulletins, and other means.
- Action EH-5.F: Seismic Stability of City Hall. Regularly monitor the seismic stability of City Hall and undertake improvements as needed to reduce damage in the event of a major earthquake. The City should plan for a new City Hall building constructed to meet current seismic safety standards.
- Action EH-5.G: Emergency Management Plan. Maintain an emergency management plan for the City. Among other things, the plan should identify alternate emergency routes in the event road service along any of the city's arterials is disrupted.

Applicable Regulations:

- ABAG Multi-Jurisdictional Local Hazard Mitigation Plan and Hazard Maps
- City of Newark Municipal Code, Chapter 15.40 Construction in Flood Hazard Zones
- City of Newark Municipal Code, Section 16.08.06 Curb grade for residential subdivisions

In summary, the City of Newark is not subject to significant risk from seiches, tsunamis, or mudflows.

Significance Before Mitigation: Less than significant.

4.8.4 CUMULATIVE IMPACTS

HYDRO-9	The proposed Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to water quality.

The analysis of cumulative hydrology and water quality impacts considers the larger context of future development within the Lower Alameda Creek Watershed, which encompasses the City of Newark. Cumulative impacts can occur when impacts that are significant or less than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable future projects in a similar geographic area. Cumulative impacts could result from incremental changes that degrade water quality or contribute to drainage and flooding problems within the watershed or City of Newark.

As discussed previously, development within the City of Newark would require conformance with State and local policies that would reduce hydrology and water quality impacts to less than significant levels. Any new development within the City would be subject on a project-by-project basis to independent CEQA review as well as City policies and ordinances, design guidelines, zoning codes, and other applicable City requirements that reduce impacts related to hydrology and water quality. More specifically, potential changes related to stormwater quality, stormwater flows, drainage, impervious surfaces, and flooding would be minimized by the implementation of stormwater control measures, retention, infiltration, and LID measures, and review by the City's Public Works Department to integrate measures to reduce potential flooding impacts. In addition, the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element have already assessed impacts to water

quality and hydrology through their respective CEQA review process. With the implementation of the mitigations measures specified for each project, the impacts to water quality and hydrology would be reduced to a less-than-significant level for these areas within the City of Newark

All cumulative projects within Newark would be subject to similar permit requirements and would be required to comply with City municipal codes and policies, as well as numerous regional and local water quality regulations that control construction related and operational discharge of pollutants in stormwater. The water quality regulations implemented by the San Francisco Bay RWQCB take a basin-wide approach and consider water quality impairment in a regional context. For example, the NPDES Construction Permit ties receiving water limitations and basin plan objectives to terms and conditions of the permit, and the MS4 Permit works with all municipalities to manage storm water systems to be collectively protective of water quality. For these reasons, impacts from future development within the City of Newark on hydrology and water quality are not cumulatively considerable.

In addition, the implementation of goals and policies under the proposed Plan would ensure coordination with the ACFC to minimize potential impacts to water quality and hydrology with planned development:

- Policy CSF-5.4: Flood Control. Coordinate with Alameda County Flood Control and Water Conservation District (ACFCWCD) and Alameda County Public Works to ensure that stormwater runoff is managed in a way that reduces flood hazards.
- Policy CSF-5.7: Involving Utility Agencies in Development Review. Engage local water, sewer, and stormwater service providers in the review of new development projects to ensure that infrastructure, including water supply and wastewater treatment capacity, is available or will be made available to meet development-related needs.
- Action CSF-5.E: ACFCWD Fee Program. Continue the Alameda County Flood Control and Water Conservation District Drainage Area Fee Program to fund flood control and drainage improvements in newly developing areas.

Applicable Regulations:

- NPDES General Construction Permit
- Alameda County Clean Water Program
- City of Newark Municipal Code, Chapter 8.36 Stormwater Management and Discharge Control
- City of Newark Municipal Code, Chapter 15.40 Construction in Flood Hazard Zones

In combination with past, present, and reasonably foreseeable projects, future development and redevelopment within the City of Newark under the proposed Plan would not result in a significant cumulative impact with respect to hydrology and water quality.

Significance Before Mitigation: Less than significant.

4.8.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant Plan-specific or cumulative impacts to hydrology and water quality and therefore no mitigation measures are required.

4.9 LAND USE AND PLANNING

This chapter presents information on the regulatory framework and existing land use pattern in Newark, and evaluates the potential environmental impacts that would result from implementation of the proposed Plan.

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 REGULATORY FRAMEWORK

This section describes the land use plans and regulations relevant to the Plan Area.

State Regulations

Sphere of Influence

The Cortese-Knox Act (1986) established a Local Agency Formation Commission (LAFCO) in each county in California, empowering LAFCOs to review, approve, or deny proposals for boundary changes and incorporations for cities, counties, and special districts. LAFCOs establish a "sphere of influence" (SOI) for cities within their jurisdiction that describes the city's probable future physical boundaries and service area. As stated in Chapter 3 of this Draft EIR, Newark's SOI is coterminous with the Newark City limit.

Regional and Local Plans and Regulations

San Francisco Bay Conservation and Development Commission

In 1969, the McAteer-Petris Act designated the San Francisco Bay Conservation and Development Commission (BCDC) as the agency responsible for the protection of the San Francisco Bay and its natural resources. BCDC fulfills this mission through the implementation of the San Francisco Bay Plan (Bay Plan), an enforceable plan that guides the future protection and use of San Francisco Bay and its shoreline. The Bay Plan includes a range of policies on public access, water quality, fill, and project design, and designates shoreline areas that should be reserved for water-related purposes like ports, industry, and public recreation, airports, and wildlife areas.

San Francisco Bay Basin Water Quality Control Plan

The San Francisco Bay Regional Water Quality Control Board (RWQCB) adopted a Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan, which includes wetlands in and near the Plan Area. The most recent amendments were incorporated into the Basin Plan as of December 31, 2011.

Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan

The USFWS released the Comprehensive Conservation Plan (CCP) for the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) in April 2013. The Refuge protects and restores almost 30,000 acres of some of the last remaining tidal marsh, mudflat, open bay, vernal pool, grassland, and upland habitats in the South Bay. The CCP contains goals, objectives, and policies to guide management of the Refuge for the next 15 years.

City of Newark Plans and Regulations

General Plan

All development in the city must conform to the land use designations outlined in the General Plan. Goals, policies and actions and implementation measures contained in the Land Use Element of the General Plan provide guidance on how land use designations should be developed to contribute to the overall character of Newark. Under State law, the City's General Plan is the primary planning document and all other City plans and policies must be consistent with the adopted General Plan.

Climate Action Plan

On January 28, 2010, the City of Newark adopted the Climate Action Plan Initial Framework (CAP), which identifies and evaluates feasible and effective policies to reduce greenhouse gas (GHG) emissions through a combination of public and private sector policies and programs. Building on emissions reduction actions taken by the City since 2005, the CAP sets short, medium, and long term emission reduction goals for municipal operations, outlines actions that the citizens and businesses of Newark can take to help reduce emissions from non-municipal sources, and lays out long-range planning initiatives the City may consider with a view to reducing vehicle trips, a key source of GHG emissions. The CAP is described in further detail in Chapter 4.6, Greenhouse Gas Emissions, of this EIR.

Area 3 and 4 Specific Plan

In June 2010, the City of Newark adopted the Area 3 and 4 Specific Plan to guide future development and conservation in a 856-acre sector of southwestern Newark. As described in Chapter 3 of this Draft EIR, the Area 3 and 4 Specific Plan preserved 200 acres of open space in Area 4, retained existing light industrial and institutional uses in Area 3, and amended 1992 General Plan Land Use designations to allow for development of up to 1,260 single- and multi-family housing units, a new elementary school capable of accommodating 600 students, a golf course, and additional recreational open space areas.

Dumbarton Transit-Oriented Development Area Specific Plan

The Dumbarton Transit-Oriented Development (TOD) Area Specific Plan, adopted by the City of Newark on September 8, 2010, lays out a vision for a contemporary, walkable new neighborhood on a 205-acre site adjacent to a planned commuter rail station in western Newark. In conjunction with adoption of the TOD Plan, the City amended General Plan land use designations and zoning for this former industrial area to allow for development

of 2,500 new homes, 195,000 square feet of professional office and other commercial uses, 35,000 square feet of new retail uses, and 16.3 acres of parkland, including a connection to the San Francisco Bay Trail.

Newark Municipal Code

The Zoning Ordinance and Subdivision Ordinance of the Newark Municipal Code regulate land use in the city. Newark's Zoning Ordinance is contained in Title 17 of the Municipal Code. The Zoning Ordinance is the mechanism used to implement the goals, objectives and policies of the General Plan and to regulate all land use within the city. The Subdivision Ordinance, contained in Title 16 of the Municipal Code, implements the Subdivision Map Act of the State of California by regulating the design and improvement of subdivisions in Newark.

4.9.1.2 EXISTING CONDITIONS

The City of Newark covers an area of approximately 9,000 acres or about 14 square miles. As described in Chapter 3 of this Draft EIR, Newark is located between I-880 and San Francisco Bay, south of State Route 84 and north of Stevenson Boulevard. The freeways represent the northern and eastern limits of the City, physically separating Newark from surrounding Fremont. The Don Edwards San Francisco Bay National Wildlife Refuge is located along the western perimeter of the City on the shore of San Francisco Bay.

Existing Land Use Pattern

This section summarizes the existing land use pattern in Newark.

Distribution of Existing Land Uses

Table 4.9-1 indicates the acreage in major land use categories in Newark. As shown, approximately 1,800 acres (20.0 percent) of Newark's total area is in residential use. About 375 acres (4.2 percent) was in commercial use and 930 acres (10.3 percent) was in industrial or office-flex use. Another 270 acres (3.0%) was in public or institutional use and 1,130 acres (12.6 percent) consisted of roads and other rights of way. The sum of these areas is roughly 4,500 acres, or 50 percent of the land area of the City.

The remaining 50 percent of Newark's land area consists of undeveloped land. Of this total, approximately 960 acres is vacant and zoned for development, with 280 acres of "conservation" open space, 70 acres of agriculture, 160 acres of public parkland and other "improved" open space, and approximately 3,025 acres of salt evaporation ponds and ancillary facilities used for salt production. Salt harvesting represents approximately one-third of Newark's land area. It is the largest single land use in the city in terms of area occupied.

Residential Land Uses

Newark's residential areas are generally located in the northern part of the city. Cherry Street forms a well-defined edge between residential and industrial uses in the eastern part of Newark. The edge is less well defined in the western part of the city, with residential uses abutting open space north of Thornton Avenue and industrial areas

TABLE 4.9-1 DISTRIBUTION OF EXISTING LAND USES

	Acres (Approx.)	Percent
Residential	1,800	20.0
Commercial	375	4.2
Tech Office/Industrial	930	10.3
Public-Institutional	270	3.0
Transportation (Rights-of-Way)	1,130	12.6
Salt Evaporation Ponds	3,025	33.6
Conservation Open Space	280	3.1
Parks and Improved Open Space	160	1.8
Agriculture	70	0.8
Vacant, Zoned for Development[a]	960	10.6
Total	9,000	100.0

[a] A portion of the vacant, residentially zoned area is likely to be conserved as open space or parkland upon development of adjacent lands due to environmental constraints.
Source: The Planning Center | DC&E, Barry Miller Consulting, 2013.

along Wells Avenue. Between Thornton Avenue and Newark Boulevard, Jarvis Avenue provides a clear separation between residential and office/technology uses at Pacific Research Center.

The City's residential neighborhoods include a variety of housing types and densities. Single-family neighborhoods predominate, with over 75 percent of the city's residential area developed at densities ranging from four to eight units per acre. Multi-family housing includes duplexes and triplexes, small apartment buildings, townhome developments, and larger garden apartment and condominium complexes. These tend to be located in and around Old Town Newark, in the Murieta area southeast of NewPark Mall, along Thornton Avenue, near Jarvis Avenue and Haley Street, and in the area near Newark and Cedar Boulevards. The City's neighborhoods are typically centered around neighborhood schools and parks.

Commercial Land Uses

The city's commercial areas are generally located along major arterial streets and close to the freeways. The largest commercial area in located around NewPark Mall, in the southwestern sector of the city. The 125-acre area includes the Mall itself, plus free-standing commercial uses, auto dealerships, hotels, and shopping centers on the perimeter. Another cluster of commercial uses is located at the "Four Corners" of Jarvis and Newark Boulevards,

where several large shopping centers are located. Additionally, Thornton Avenue forms a commercial spine between Old Town Newark and the I-880 interchange. Its frontage has been developed with several shopping centers, offices, service businesses, churches, fraternal organizations, and individual commercial uses. Other commercial nodes include Mayhews Landing Road and Newark Boulevard and Central Avenue north of Cedar Boulevard.

Industrial Land Uses

Industrial areas include technology parks with amenities such as landscaping, public art, and modern architecture, and more traditional areas for manufacturing, production, distribution, and repair. Notable industrial uses include Cargill Salt processing facilities, Pabco Gypsum's manufacturing facilities, the World Pac auto parts distribution center, corporate offices for Logitech, and the Evergreen Oil Refinery. The primary industrial areas include the area west of Cherry Street south of Central Avenue and the area along Central Avenue between Willow and Cherry. Other industrial areas include the west side of Thornton near Willow, and the area north of Cedar and Central. In addition to supporting manufacturing and distribution uses, Newark's industrial areas also support activities such as auto repair, building supplies, printers, and other commercial services.

Public and Institutional Uses

Public and institutional uses are typically schools, churches, fire stations, and municipal facilities. Occupying about three percent of the total area of Newark, these uses are scattered across the city, typically within residential neighborhoods. A majority of the acreage is associated with school campuses, including the Newark campus of Ohlone College.

Undeveloped Land

Undeveloped areas in Newark are principally located in the southern and western parts of the city. The Cargill salt evaporation ponds constitute a majority of this area; however, approximately 960 acres of land in Newark is vacant and zoned for development. Most of this land is clustered in two areas: the Southwest Newark residential and Recreational Focus Area, west of Cherry Street between Mowry and Stevenson; and the Dumbarton TOD Focus Area. There are also several vacant tracts within the Pacific Research Center, in other industrial parks, and in the NewPark Mall vicinity.

4.9.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Project would result in a significant land use impact if it would:

1. Physically divide an established community.
2. Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.9.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to land use and planning. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

LU-1 The proposed Plan would not physically divide an established community.

The proposed Plan is a long-range policy document that seeks to guide future development in a way that builds on and complements the existing land use pattern in Newark. The Plan does not include any specific elements that would physically divide an existing community. The Plan contains the following policies and actions intended to foster greater connectivity in the Plan Area and to prevent new development from dividing existing communities:

- Policy LU-2.6: Scale Transition. Avoid abrupt transitions from taller buildings to low-rise buildings, especially where commercial and higher density housing abuts neighborhoods characterized by one-story homes. Buildings taller than three stories should be required to step down in height when located adjacent to single-family lots. Overpowering contrasts in scale and height between adjacent lots should be avoided.
- Policy LU-4.2: Connectivity. Improve connectivity between neighborhoods and commercial districts so that the city's shopping areas function as neighborhood gathering places and focal points. Over time, shopping centers which are oriented exclusively to auto traffic should be redesigned so they are more pedestrian friendly and better integrated with the uses around them.
- Policy LU-2.5: Transitional Land Uses. Incorporate transitional land uses as buffers between land uses which are potentially incompatible. For example, this could include office uses as a buffer between industrial and residential areas, and medium density residential uses as a buffer between high and low density residential uses.
- Policy T-1.4: Connections to the Regional Street Network. Improve the safety, convenience, and connectivity of existing streets, with the goal of creating seamless links between Newark and the regional transportation network.
- Policy T-2.3: Bicycle Network. Maintain and expand an interconnected network of bicycle routes, paths and trails, serving the City's neighborhoods, shopping districts, workplaces, and park and open space areas. The existing bicycle network should be expanded to provide connections to developing areas, including the Dumbarton TOD, the Southwest Residential and Recreational Project, Old Town Newark, and the NewPark Mall vicinity.
- Policy T-2.5: Connecting to the Region. Develop bicycle and pedestrian facilities that connect across City boundaries, integrate with larger regional systems, and improve intermodal connections to local and regional public transportation systems..
- Policy: T-2.12: Trails Along Railroads and Utilities. Consider the use of railroad, flood control, and utility rights of way for jogging, biking, and walking trails, provided that safety and operational issues can be fully addressed.
- Policy T-2.10: Railroad Crossings. Ensure that any future grade separated railroad crossings include sidewalks and a designated lane for bicycles.

- Policy T-2.2: Pedestrian Facilities. Work to close gaps in the pedestrian network and improve sidewalk connectivity between residential and commercial areas. Develop curbs, gutters, sidewalks on all remaining Newark streets not yet fully improved to encourage safe, convenient pedestrian travel. Where appropriate, include marked crosswalks at intersections and install pedestrian countdowns at traffic signals to facilitate safe pedestrian movement across City streets.
- Policy T-2.9: Recreational Trails. Develop and maintain trails in park and open space areas, and between Newark neighborhoods and the city's open spaces.
- Action T-2.B: Cedar Boulevard Pedestrian and Bicycle Trail. Convert the linear tract of land formerly reserved for a southerly extension of Cedar Boulevard between Haley St. and Willow St. into a bicycle and pedestrian parkway, including a bicycle and pedestrian bridge over the Union Pacific Railroad. The City will apply for grants and pursue other funding sources to construct this project.
- Action T-2.G: Priority Areas for Pedestrian Improvements. Pursue pedestrian and bicycle access improvements in Old Town and in the NewPark Mall vicinity, and between the Mall area and Newark neighborhoods. The City should identify prospective capital improvements which would facilitate walking and cycling within such areas.
- Action T-2.H: Wayfinding Signage. Implement a bicycle signage and wayfinding program, including directional signs to indicate major destinations.

Additionally, compliance with the provisions contained in the Newark Municipal Code, including the development standards governing building height, lot width, frontage, and setbacks, would further minimize the potential for physical division of existing neighborhoods. Therefore, with implementation of the above-listed policies and actions from the proposed Plan and compliance with the relevant provisions of the Newark Municipal Code, the proposed Plan would result in a less-than-significant impact associated with physical division of existing communities.

Applicable Regulations:

- City of Newark Municipal Code, Title 16 Subdivision Ordinance
- City of Newark Municipal Code, Title 17 Zoning Code

Significance Before Mitigation: Less than significant.

LU-2	The proposed Plan would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Per State law, the General Plan is the primary planning document for the community. Once adopted, the proposed Plan would replace the 1992 Newark General Plan. The Area 3 and 4 Specific Plan and the Dumbarton TOD Area Specific Plan would remain in force; however, the proposed Plan includes the following actions that would ensure consistency:

- Action LU-6.A: Dumbarton TOD Specific Plan Implementation. Use the Dumbarton TOD Specific Plan as the framework for the area's development. More detailed plans will be required as specific applications for subdivision and development are processed, consistent with the provisions of the Specific Plan.
- Action LU-7.B: Street and Path Network. Develop an interior street and path network in the Southwest Newark Residential and Recreational Focus Area, consistent with the standards prescribed in previously approved plans. All streets will be public streets.
- Action LU-7.E: Design Standards. Implement the standards in previously approved plans for the Southwest Newark Residential and Recreational Focus Area addressing lot size, height, setback, lot coverage, open space, patios, and balconies, and parking.

Other Newark regulations, such as the Zoning Ordinance will need to be updated to ensure consistency with the proposed Plan after adoption. Action LU-1.A of the proposed Plan requires an update of the development standards and use regulations in the Zoning Ordinance to be consistent with the proposed Plan. As a result of these actions, implementation of the proposed Plan would result in a less-than-significant impact in relation to consistency with other City regulations.

As described in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR, the proposed plan would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. A detailed analysis of the proposed Plan's consistency with GHG emissions reductions strategies in CARB's Scoping Plan, MTC's Plan Bay Area, and the Newark Climate Action Plan is included in Chapter 4.6 of this Draft EIR.

Overall, implementation of the proposed Plan would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and associated impacts would be less than significant.

Applicable Regulations:

- City of Newark Municipal Code, Title 17 Zoning Code

Significance Before Mitigation: Less than significant.

LU-3	The proposed Plan would result in less than significant conflicts with the Bay Plan and the Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan.

There are no legal Habitat Conservation Plans (HCPs) as defined in the federal Endangered Species Act Section 10(a)(2)(A) that are applicable to the Plan Area;[1] however, this section considers potential impacts related to conflicts with the following local and regional habitat conservation planning initiatives relevant to Newark: the Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan and the Bay Plan. Conflicts with the Habitat Goals and the Basin Plan are discussed in Chapter 4.3, Biological Resources, of this Draft EIR.

[1] Bay Area Open Space Council, Stewardship Committee. 2008, *Habitat Conservation Planning in the Bay Area*, November.

Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan

The Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) Comprehensive Conservation Plan (CCP) outlines goals, objectives and strategies that seek to protect and contribute to the recovery of endangered, threatened, and other special status species; conserve, restore, enhance, create, and acquire habitats to support migratory birds and other native flora and fauna that depend on Refuge lands; provide the public with wildlife-oriented outdoor recreation opportunities; increase public awareness of the ecosystem of San Francisco Bay Estuary; and instill community stewardship. As an urban refuge in a highly developed context such as the South Bay, disturbances from adjacent commercial, industrial, and residential uses and activities are inevitable. The proposed Plan includes numerous policies and actions intended to minimize such disturbances and support the goals of the CCP, including:

- Action LU-7.A: Ecological Protection. Undertake programs to preserve the ecological integrity of the Southwest Newark Residential and Recreational Project, such as public education, limitations on off-leash dogs, signage along levee pathways, avoidance of excessive night lighting, and setting aside sufficiently large areas as undisturbed habitat.
- Policy CS-1.1: Environmental Impacts of Development. Ensure that development minimizes its impacts on Newark's environment and natural resources through sound planning, design, and management.
- Policy CS-1.2: Conservation of Sensitive Areas. Support the conservation of environmentally sensitive areas and unique natural resources in the city.
- Policy CS-1.3: Interagency Cooperation. Participate in cooperative efforts with private landowners, the federal government, and surrounding cities to encourage the long-term preservation of the baylands and other sensitive natural areas.
- Policy CS-1.5: Environmental Education. Support greater environmental education, awareness, and stewardship among Newark residents.
- Action CS-1.A: Development Review. Use the development review and CEQA processes to ensure that sensitive natural areas are set aside as open space and are managed to ensure their long-term conservation.
- Action CS-1.C: Environmental Curricula. Work with the Newark Unified School District and Ohlone College to promote environmental education and curricula for Newark youth. In addition, encourage Newark Recreation and Community Services Department and East Bay Regional Park District programs, which increase awareness of Newark's natural environment.
- Policy CS-2.1: Wildlife and Habitat Protection. Preserve and protect Newark's plant and animal species and habitats, including wetlands, salt marshes, creeks, and lakes. Ensure that land use decisions consider potential impacts on wildlife habitat.
- Policy CS-2.2: Special Status Species. Ensure that adverse impacts on special status species, including those deemed rare, threatened, endangered, or candidate species for protection, are avoided and mitigated to the greatest extent feasible as development takes place.
- Policy CS-2.3: Don Edwards National Wildlife Refuge. Preserve and maintain the Don Edwards National Wildlife Refuge and the surrounding wetlands along San Francisco Bay.

- Policy CS-2.6: Salt Pond Management. Encourage the management of salt ponds to enhance their value for wildlife habitat and recreation. In the event that salt production ceases, conduct a Specific Plan to explore a balance between development and preservation of important wildlife and open space resources.
- Policy CS-2.7: Coordination with State and Federal Agencies. Coordinate with the California Department of Fish and Game, the US Fish and Wildlife Service, surrounding cities, the Regional Water Quality Control Board and other appropriate agencies to protect wildlife species and habitat.
- Action CS-2.A: Habitat Restoration Plans. Support implementation of state and federal plans to restore natural habitat along San Francisco Bay, including Habitat Conservation Plans, which preserve, enhance, and restore local wetlands and bay waters.
- Action CS-2.D: Interpretive Facilities. Encourage the development of interpretive facilities, which enable residents to learn about Newark's wetlands, salt harvesting, and the natural habitat of San Francisco Bay.
- Action CS-2.E: Wetland Acquisition and Conservation. Support acquisition of wetlands and other environmentally sensitive areas by land trusts and other environmental organizations for the purpose of mitigation banking and wetlands restoration, provided there are no conflicts with other General Plan goals and objectives.
- Policy CS-3.4: Reducing Water Pollution. Protect the quality of Newark's surface waters by supporting controls on point source and non-point sources of pollution.
- Policy CS-3.5: Containment of Contaminated Runoff. Regulate land uses such as auto dismantling, waste disposal, gas stations, and industries in a manner that minimizes the potential for hazardous materials to enter groundwater, surface water, or storm drains.
- Action CS-3.H: Stormwater Controls. Implement stormwater runoff and retention controls in new development and construction projects that reduce pollution discharges to surface waters, and reduce the rate of runoff to storm drain system. Such controls should encourage greater use of pervious pavement and surfaces.
- Action POS-1.A: Don Edwards National Wildlife Refuge Expansion. Work with property owners, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the California Coastal Conservancy in the expansion of Don Edwards San Francisco Bay National Wildlife Refuge and the conservation and restoration of salt marsh open spaces along San Francisco Bay.
- Action POS-1.B: Environmental Review and Open Space. Use the environmental review process to encourage new development to designate areas with unique vegetation, wildlife habitat, or natural resources as open space.

The proposed Plan does not envision development in the immediate vicinity of the Refuge over and above that envisioned in the Dumbarton TOD Specific Plan or the Area 3 and 4 Specific Plan and analyzed in the respective specific plan EIRs. The precise location of future development under the Plan is not known at this time; however, implementation of the proposed Plan policies and actions cited above would help ensure that subsequent projects give adequate consideration to buffers and other site planning factors. Additionally, subsequent projects would be subject to separate project-level CEQA review to identify and mitigate environmental impacts, including impacts to wetlands, plant and wildlife species, sensitive habitat, water quality, and conflicts with applicable conservations

planning initiatives. Therefore, overall, implementation of the proposed Plan would result in a less-than-significant impact with respect to conflicts with the CCP.

Bay Plan

As described in Section 4.3.1.1 above, the Bay Plan, implemented by BCDC, guides the future protection and use of San Francisco Bay, its shoreline, and its natural resources. BCDC has jurisdiction for Mowry Slough ending at the culvert at the Mowry Avenue bridge crossing, at the bend of the channel near Plummer Creek, and jurisdiction over managed wetlands, to the extent they are present in the Plan Area. Managed wetlands are areas of historical tidal marshes, such as private waterfowl hunting clubs and publicly owned wildlife management areas, that have been diked off from the Bay and were maintained during the three years immediately preceding November 11, 1969, for wildlife preservation, agriculture, or as a game reserve.[2] Bay Plan policies pertaining to managed wetlands encourage the continued operation and maintenance of managed wetlands for waterfowl hunting or for waterfowl food production. Where development of managed wetlands would occur, Bay Plan policies encourage retaining the maximum amounts of water surface area consistent with the project. The proposed Plan would conflict with the Bay Plan if it would result in conflicts with these policies.

The proposed Plan does not specifically propose any development within Mowry Slough or Plummer Creek, including portions within the jurisdiction of BCDC, and compliance with the setback requirements contained in the City's Grading and Excavation Ordinance (Newark Municipal Code, Chapter 15.50) would ensure that future development under the Plan would not occur within the limits of either Mowry Slough or Plummer Creek. With respect to the potential presence of managed wetlands within the Plan Area, there are two former duck clubs located in the Southwest Newark Residential and Recreational Focus Area, as shown in Figure 4.3-2: the former Whistling Wings Duck Club, has been farmed for the last several decades, and the former Pintail Duck Club, which currently consists of a large pond surrounded by wetland plants.[3] Neither the adopted Area 3 and 4 Specific Plan nor the proposed Plan envision development in the location of the former duck clubs.

Additionally, the proposed Plan contain numerous policies and actions that are consistent with the objectives of the Bay Plan, including:

- Policy CS-1.1: Environmental Impacts of Development. Ensure that development minimizes its impacts on Newark's environment and natural resources through sound planning, design, and management.
- Policy CS-1.2: Conservation of Sensitive Areas. Support the conservation of environmentally sensitive areas and unique natural resources in the city.
- Policy CS-1.3: Interagency Cooperation. Participate in cooperative efforts with private landowners, the federal government, and surrounding cities to encourage the long-term preservation of the baylands and other sensitive natural areas.

[2] San Francisco Bay Conservation and Development Commission, 2008, *San Francisco Bay Plan,* January, page 5.
[3] Pat Boursier, H.T. Harvey & Associates, email communication with The Planning Center | DC&E, April 10, 2013.

- Policy CS-2.1: Wildlife and Habitat Protection. Preserve and protect Newark's plant and animal species and habitats, including wetlands, salt marshes, creeks, and lakes. Ensure that land use decisions consider potential impacts on wildlife habitat.
- Action CS-2.A: Habitat Restoration Plans. Support implementation of state and federal plans to restore natural habitat along San Francisco Bay, including Habitat Conservation Plans, which preserve, enhance, and restore local wetlands and bay waters.
- Policy CS-3.1: Protection of Water Resources. Ensure that land use decisions consider the availability of water for domestic and non-domestic uses, potential impacts on groundwater quality and groundwater recharge capacity, and potential off-site impacts on water quality.
- Action CS-3.G: Countywide Clean Water Program. Continue to participate in the Alameda Countywide Clean Water Program, in accordance with the federal National Pollution Discharge Elimination System (NPDES) permit. The City will work with Alameda County and other participating jurisdictions to carry out measures to monitor stormwater pollution, regulate construction runoff, sweep local streets, clean storm drain inlets, promote education and outreach, enforce regulations and penalties for illicit discharges, and participate in County meetings to discuss water quality issues.
- Action CS-3.H: Stormwater Controls. Implement stormwater runoff and retention controls in new development and construction projects that reduce pollution discharges to surface waters, and reduce the rate of runoff to storm drain system. Such controls should encourage greater use of pervious pavement and surfaces.

Under the proposed Plan, the land use designation and zoning applicable to the duck clubs would remain unchanged as Low Density Residential. No development is envisioned on the location of the duck clubs, nor could any development of these areas, to the extent they are managed wetlands as defined under the McAteer-Petris Act, occur without a permit from BCDC or any other agency with jurisdiction over these areas. Further, as BCDC policies do not explicitly prohibit development on these locations and as none is envisioned in the proposed Plan, conflicts with the Bay Plan would be less than significant.

Significance Before Mitigation: Less than Significant

4.9.4 CUMULATIVE IMPACTS

LU-4	The proposed Plan, in combination with past, present, and reasonably foreseeable development in the surrounding area, would result in less-than-significant-cumulative impacts with respect to land use and planning.

In the case of an area-wide planning document such as the proposed Plan, cumulative land use effects occur from development under the proposed Plan combined with effects of past, present, and reasonably foreseeable development on adjacent land. The geographic scope of this analysis is taken as the Plan Area and adjacent land in the City of Fremont. As described above, the City of Newark is an enclave, physically separated from the

surrounding City of Fremont by transportation infrastructure, including the elevated I-880 and SR 84 freeways. As such, buildout of the proposed Plan would not contribute to a cumulative impact associated with division of an existing community.

The proposed Plan would allow residential development on land in the Southwest Newark Residential and Recreational Focus Area, northwest of the intersection of Cherry Street and Stevenson Boulevard. To the south of this location, land within the City of Fremont is designated General Industrial in that City's General Plan; however, the juxtaposition of these land uses along Stevenson Boulevard would not result in a land use compatibility conflict. Existing uses on the south side of Stevenson in the City of Fremont include engineering and high tech uses comparable to those in the Stevenson Business Park in Newark, and future development in this area would be subject to the zoning code provisions for building height, setback, and stepback contained in the two Cities' respective zoning codes.

With respect to cumulative land use impacts from conflicts with applicable habitat conservation plans or natural community conservation plans, as discussed above, Plan-specific impacts related to conflicts with CCP and the Bay Plan would be less than significant, and would not be cumulatively considerable, when considered together with other past, present and reasonably foreseeable plans in the Plan Area and adjacent land in Fremont. Cumulative impacts related to conflicts with the Basin Plan would be less than significant, as discussed in detail in Chapter 4.3 of this Draft EIR.

Applicable Regulations:

- City of Newark Municipal Code, Title 17 Zoning Code

Significance Before Mitigation: Less than Significant.

4.9.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The Plan would not result in any significant Plan-specific or cumulative impacts related to land use and planning and therefore no mitigation measures are required.

4.10 NOISE

This chapter describes the regulatory framework and existing conditions in the Plan Area related to noise, as well as the potential impacts of the proposed Plan on the noise environment. The chapter beings with a discussion of the fundamentals of sound and vibration, and an examination of relevant federal, State, and local guidelines, policies, and standards regarding noise and vibration. The remainder of the chapter provides an evaluation of the potential noise- and vibration-related, environmental consequences of future development that could occur by adopting and implementing the proposed Plan. The supporting analysis considers noise levels at existing receptor locations; evaluates potential noise impacts associated with the Plan; and provides mitigation to reduce noise impacts at noise-sensitive locations. Noise calculations on which this analysis is based are included in Appendix C, Noise Monitoring and Modeling Data.

4.10.1 ENVIRONMENTAL SETTING

4.10.1.1 BACKGROUND

Noise Descriptors

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness."

The following are brief definitions of terminology used in this section:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Intrusive.** Noise that intrudes over and above the existing ambient noise at a given location. Relative intrusiveness depends on amplitude, duration, frequency, time of occurrence, and tonal or informational content, as well as the prevailing ambient noise level.
- **Decibel (dB).** A unit-less measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Ambient Noise Level.** The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
- **Equivalent Continuous Noise Level (L_{eq}).** The mean of the noise level (or energy) averaged over the measurement period.

- **Statistical Sound Level (Ln).** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L50 level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L10 level, likewise, is the value that is exceeded 10 percent of the time (i.e. near the maximum) and this is often known as the "intrusive sound level." The L90 is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."
- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
- **Community Noise Equivalent Level (CNEL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

Characteristics of Sounds

When an object vibrates, it radiates part of its energy as acoustical pressure in the form of a sound wave. Sound can be described in terms of amplitude (loudness), frequency (pitch), and duration (time). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate the human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The normal range of human hearing extends from approximately 0 dBA (the threshold of detection) to 140 dBA (the threshold of pain).

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale to better account for the large variations in pressure amplitude (the above range of human hearing, 0 to 140 dBA, represents a ratio in pressures of one hundred trillion to one). All noise levels in this study are relative to the industry-standard pressure reference value of 20 micropascals. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 4.10-1 presents the subjective effect of changes in sound pressure levels.

TABLE 4.10-1 CHANGE IN APPARENT LOUDNESS

± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen, 2009.

Sound is generated from a source; the decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as spreading loss or distance attenuation.

When sound is measured for distinct time intervals, the statistical distribution of the overall sound level during that period can be obtained. For example, L_{50} is the noise level that is exceeded 50 percent of the time. Similarly, the L_{02}, L_{08}, and L_{25} values are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. The energy-equivalent sound level (L_{eq}) is the most common parameter associated with community noise measurements. The L_{eq} metric is a single-number noise descriptor of the energy-average sound level over a given period of time. An hour is the most common period of time over which average sound is measured, but it can be measured over any duration. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values are the minimum and maximum root-mean-square (RMS) noise levels obtained over the stated measurement period.

Since sensitivity to noise increases during the evening and at night, when excessive noise can interfere with relaxation and/or the ability to sleep, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. Because of this increased sensitivity to unwanted noise intrusion during the evening and nighttime hours, State law requires, for planning purposes, that this increased noise sensitivity be accounted for. The Day/Night Average Sound Level, L_{dn}, is a measure of the cumulative noise exposure in a community, with a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The Community Noise Equivalent Level (CNEL) is a similar 24-hour cumulative measure of noise; however it differs slightly from L_{dn} in that 5 dB is added to the levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system; prolonged noise exposure in excess of 75 dBA increases body tensions, thereby affecting blood pressure and functions of the heart and nervous system. Extended periods of noise exposure above 90 dBA results in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less-developed areas Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level (SPL) number means. To help relate noise level values to common experience, Table 4.10-2 shows typical noise levels from noise sources.

Causes for annoyance include interference with speech, radio, television, and sleep and rest, as well as induced structural vibrations. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. The threshold for annoyance from vehicle noise is about 55 dBA L_{dn}. At an L_{dn} of about 60 dBA, approximately 8 percent of the population is highly annoyed. When the L_{dn} increases to 70 dBA, the highly annoyed proportion of the population increases to about 20 to 25 percent. There is, therefore, an increase of about 2 percent per decibel of increased noise between an L_{dn} of 60 to 70 dBA. The thresholds for speech interference indoors are approximately 45 dBA for continuous noise and approximately 55 dBA for

TABLE 4.10-2 TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at 3 feet		
	90	
Diesel Truck at 50 feet, at 50 miles per hour		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Bies and Hansen, 2009.

fluctuating noise. Outdoors the thresholds are roughly 15 dBA higher. Steady noise above 35 dBA and fluctuating noise levels above roughly 45 dBA have been shown to affect sleep.

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. Vibration displacement is the distance that a point on a surface moves away from its original static position. The instantaneous speed that a point on a surface moves is the velocity, and the rate of change of the speed is the acceleration. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure. These types of vibration are best measured and described in terms of velocity and acceleration.

The three main types of waves associated with groundborne vibrations are surface or Rayleigh waves, compression or P-waves, and shear or S-waves.

- Surface or Rayleigh waves travel along the ground surface. They carry most of their energy along an expanding cylindrical wave front, similar to the ripples produced by throwing a rock into a lake. The particle motion is more or less perpendicular to the direction of propagation.
- Compression or P-waves are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal, in a push-pull motion. P-waves are analogous to airborne sound waves.
- Shear or S-waves are also body waves, carrying their energy along an expanding spherical wave front. Unlike P-waves, however, the particle motion is transverse, or perpendicular to the direction of propagation.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the RMS velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response.

The units for PPV and RMS velocity are normally inches per second (in/sec). Often, vibration is presented and discussed in dB units in order to compress the range of numbers required to describe the vibration. In this study, all PPV and RMS velocity levels are in in/sec and all vibration levels are in dB relative to one micro-inch per second (abbreviated as VdB). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Even the more persistent Rayleigh waves decrease relatively quickly as they move away from the source of the vibration. Man-made vibration problems are, therefore, usually confined to relatively short distances (500 to 600 feet or less) from the source.

Effects of Vibration

Table 4.10-3 displays human annoyance and the effects on buildings resulting from continuous vibration. As discussed previously, annoyance is a subjective measure and vibrations may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons exposed to elevated ambient vibration levels such as people in an urban environment may tolerate a higher vibration level.

Human response to ground vibration has been correlated best with the velocity of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is 1×10^{-6} inch/second RMS, which equals 0 VdB, and 1 inch/second equals 120 VdB. The abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels. One of the problems with developing suitable criteria for groundborne vibration is the limited research into human response to vibration and, more importantly, human annoyance inside buildings. The U.S. Department of Transportation, Federal Transit Administration has developed rational vibration limits that can be used to evaluate human annoyance to groundborne vibration. These criteria are primarily based on experience with rapid transit and commuter rail systems, and are discussed in greater detail in the regulations section of this document.

Railroad and transit operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of track. Trains generate substantial vibration due to their engines, steel wheels, heavy loads, and wheel-rail interactions.

Construction operations generally include a wide range of activities that can generate groundborne vibration, which varies in intensity depending on several factors. In general, blasting and demolition of structures, as well as pile driving and vibratory compaction equipment generate the highest vibrations. Because of the impulsive nature of such activities, the use of the peak particle velocity descriptor (PPV) has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at up to 200 feet. Heavy trucks can also generate groundborne vibrations, which can vary, depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, etc., all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration from normal traffic flows on streets and freeways with smooth pavement conditions.

"Architectural" damage can be classified as cosmetic only, such as minor cracking of building elements, while "structural" damage may threaten the integrity of a building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to a building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is in a high state of disrepair and the construction activity occurs immediately adjacent to the structure. Table 4.10-4 shows the criteria established by the FTA for the likelihood of structural damage due to vibration.

TABLE 4.10-3 REACTION OF PEOPLE AND DAMAGE TO BUILDINGS FOR CONTINUOUS/FREQUENT INTERMITTENT VIBRATION LEVELS

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.02	Barely perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Virtually no risk of damage to normal buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings
0.5	Severe – Vibrations considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

Source: Transportation- and Construction-Induced Vibration Guidance Manual, California Department of Transportation, June 2004

TABLE 4.10-4 GROUNDBORNE VIBRATION CRITERIA: ARCHITECTURAL DAMAGE

Building Category		PPV (in/sec)	L_v (VdB)[a]
I.	Reinforced concrete, steel, or timber (no plaster)	0.5	102
II.	Engineered concrete and masonry (no plaster)	0.3	98
III.	Non-engineered timber and masonry buildings	0.2	94
IV.	Buildings extremely susceptible to vibration damage	0.12	90

[a] RMS velocity calculated from vibration level (VdB) using the reference of one micro-inch/second.
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2006.

Noise- and Vibration-Sensitive Receptors

Certain land uses are particularly sensitive to noise and vibration, including residential, school, and open space/recreation areas where quiet environments are necessary for enjoyment, public health, and safety. Sensitive land uses within the City of Newark include residences, senior housing, schools, places of worship, and recreational areas. These uses are regarded as sensitive because they are where citizens most frequently engage in activities which are likely to be disturbed by noise, such as reading, studying, sleeping, resting, or otherwise engaging in quiet or passive recreation. Commercial and industrial uses are not considered noise- and vibration-sensitive uses for the purposes of this analysis since noise- and vibration-sensitive activities are less likely to be undertaken in these areas, and because these uses often themselves generate noise in excess of what they receive from other uses.

4.10.1.2 REGULATORY FRAMEWORK

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. This section describes the regulatory framework related to noise and vibration in the vicinity of the Plan Area.

Federal Transit Administration Vibration Standards

Federal Transit Administration (FTA) has established criteria to evaluate potential human annoyance due to groundborne vibration caused by frequent and intermittent events to assess vibration from train passbys. These FTA criteria shown in Table 4.10-5 are used in this analysis to evaluate impacts from transportation sources to sensitive land uses throughout Newark. The criteria are applied for various types of special buildings that are sensitive to vibration, such as high-tech manufacturing, residences, and institutional land uses near rail transit and railroads. The vibration impact criteria are in terms of the velocity of the ground expressed on the decibel scale. As employed by the FTA, the reference velocity is 1×10^{-6} in./sec. Root Mean Square (RMS)[1], which equals 0 VdB, and 1 in./sec. equals 120 VdB. The abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels. The thresholds for residences and buildings where people normally sleep are 72 VdB for frequent events (more than 70 events of the same source per day), 75 VdB for occasional events (30 to 70 vibration events of the same source per day), and 80 VdB for infrequent events (less than 30 vibration events of the same source per day). Table 4.10-5 summarizes the FTA's vibration impact criteria for sensitive buildings, residences, and institutional land uses near rail transit and railroads.

State of California Noise Standards

State of California Building Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. These noise standards are applied to new construction in California for the purpose of ensuring that the level of exterior noise transmitted to and received within the interior living spaces of buildings is compatible with their comfortable use. For new residential dwellings, hotels, motels, dormitories, and school classrooms, the acceptable interior noise limit for new construction is 45 dBA CNEL or L_{dn}. Title 24 requires acoustical studies for development in areas exposed to more than 60 dBA CNEL to demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. Where exterior noise levels are projected to exceed 60 dBA CNEL or L_{dn} at the façade of a building, a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the Project to meet the 45 dBA noise limit.

[1] RMS velocity is defined as the average of the squared amplitude of the signal.

TABLE 4.10-5 FTA GROUNDBORNE VIBRATION IMPACT CRITERIA DUE TO TRANSIT OPERATIONS

Land Use Category	Groundborne Vibration Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
Category 1: Buildings where low ambient vibration is essential for interior operations.[d]	65 VdB[3]	65 VdB[3]	65 VdB[3]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

[a] "Frequent Events" is defined as more than 70 vibration events per day.
[b] "Occasional Events" is defined as between 30 and 70 vibration events per day. Most Commuter trunk lines have this many operations.
[c] "Infrequent Events" is defined as less than 30 vibration events per day. This category includes most commuter rail brunch lines.
[d] These limits are based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels.
Source: United States Department of Transportation Federal Transit Administration, "Transit Noise and Vibration Impact Assessment" Manual, May 2006.

City of Newark Noise Standards

Newark Noise Element

The City of Newark's existing Noise Element, which was adopted in 1992, will be replaced as part of the proposed Plan. Specifics of the proposed Noise Element are discussed below in Section 4.10.3, Impact Discussion.

Newark Municipal Code

The Newark Municipal Code (the Code) does not include a stand-alone noise ordinance; however, it does include district-level noise regulations for various land uses. Section 17.24, Industrial Districts, includes noise level standards for industrial uses according to the frequency generated at the noise source. No noise standards are set for residential and commercial uses.

Vibration Standards

Neither the City of Newark nor the County of Alameda have specific and/or quantitative regulatory standards for construction or operational vibration sources. In general, the City of Newark requires that agricultural, commercial, and other permitted land uses not result in perceptible levels of vibration at sensitive receptors, such as residential or institutional uses. For industrial uses, the City of Newark likewise requires that no vibrations be perceptible beyond the boundaries any particular site, with an exception for vibration caused by temporary construction.

4.10.1.3 EXISTING CONDITIONS

This section describes the existing noise environment in Newark. Newark is impacted by a multitude of noise sources, many of them directly connected with major interstate thoroughfares that cross the city. Mobile sources of noise, especially cars and trucks, are the most common and significant sources of noise in most communities. Additional sources of noise in Newark include railways, as well as industrial and agricultural operations.

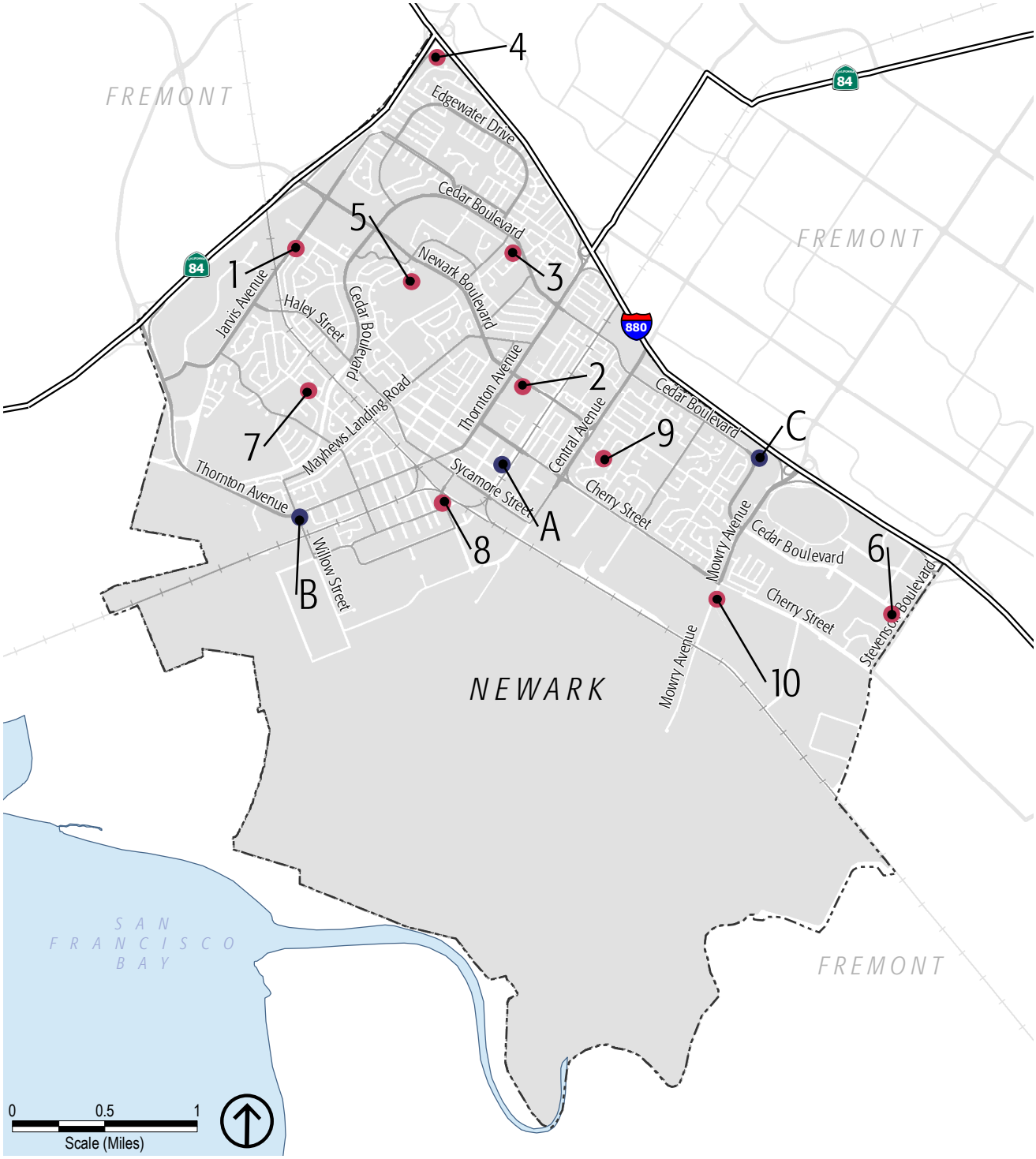
On-Road Vehicles

On-road vehicles, including cars, trucks, and busses, contribute substantially to the noise environment of Newark. Two major regional roadways that cross the city of Newark are I-880 and Highway 84. Together, these thoroughfares carry very high volumes of both passenger and freight traffic. Major roadway arterials within the City include Newark Boulevard, Thornton Avenue, Cedar Boulevard, Cherry Street, Jarvis, Avenue, Mowry Avenue, and Stevenson Boulevard. Local roadways primarily accommodate local traffic for the City and include both the major arterials discussed previously, as well as smaller collector and neighborhood streets.

Train Noise

Two major Union Pacific Railroad (UPRR) rail lines traverse the City of Newark: One line generally follows Thornton Avenue, passing through the Plan Area on an east-west axis, while the other generally follows Cherry Street, traversing the Plan Area along a north-south axis. The two lines cross each other in the northwest sector of the city. Noise generated by the passage of trains contributes to the ambient noise environment along these two railways. Noise from trains is generated by locomotive engines, exhaust systems, cooling fans, and other mechanical components, as well as warning horns and crossing bells at at-grade crossings. The interaction of steel wheels and rails generates rolling noise due to continuous contact; impact noise when a wheel encounters a discontinuity, such as a rail joint, turnout, or crossover; and squeals generated by friction on tight curves. Trains are required by the Federal Railroad Administration to sound a warning horn at a distance of ¼-mile from all at-grade crossings and at a volume in a range of 92 to 110 dBA when measured at 100 feet from the track.

Both freight and passenger rail operate in Newark, with passenger service provided by both the Altamont Commuter Express, and Amtrak's Capitol Corridor service. Service along the Altamont Commuter Express line runs eight times daily on weekdays only, with four morning westbound trains and four evening eastbound trains. Service along the Capitol Corridor runs every day, with seven eastbound and westbound trains. These railways also accommodate freight service, but these trains do not run on a regular or publicized schedule. Altogether, these rail operations contribute the noise environment of Newark. Figure 4.10-1 shows the existing 65 dBA CNEL train noise contours, along with those from motor vehicle traffic.



Source: Source Data: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010.

City Limit

Short-term location (1 - 10)

Long-term location (A - C)

Figure 4.10-1
Noise Monitoring Locations

Aircraft Noise

The region surrounding the city of Newark hosts multiple airports and airfields which impact, to differing extents, the noise environment in the city. The following is a list of nearby air facilities, and their respective directions and distances from the occupied areas of Newark:

- Palo Alto Airport, 5.2 miles to the southwest;
- Moffet Federal Airfield, 5.8 miles to the south;
- Hayward Executive Airport, 7.4 miles to the northwest;
- San Jose International Airport, 9.5 miles to the south-southeast;
- San Carlos Airport, 9.8 miles to the west;
- Oakland International Airport, 13.5 miles to the northwest; and
- San Francisco International Airport, 16.5 miles to the west-northwest.

Although Newark does receive some noise from aircraft using these facilities, Newark does not fall within the airport land use planning areas, runway protection zones, or the 55 dBA CNEL noise contours of any of these airports.

Heliports

There are no heliports for public or private use in the City of Newark; however, there are two nearby heliports in in adjacent Fremont. Both heliports in Fremont are private, with one serving Washington Hospital and the other serving the First Interstate Bank Operations Center. The First Interstate Bank Operations Center heliport is approximately 1.7 miles from the Newark border, and the Washington Hospital heliport is located at a distance of approximately 2.2 miles. . Helicopter operations at these locations are not frequent and the 65 CNEL contour does not extend to the City of Newark.

Other Sources of Noise

Stationary sources of noise include commercial and industrial equipment and activities. Whereas mobile-source noise affects many receptors along an entire length of roadway, stationary noise sources affect only their immediate areas. Stationary sources of noise may occur from all types of land uses. The City of Newark is mostly developed with residential, commercial, and some light industrial uses.

Both commercial uses and schools make modest contributions to the noise environment of Newark. Commercial uses can generate noise from heating, ventilation, air conditioning (HVAC) systems, loading docks, trash compactors, and other sources. Noise generated by commercial uses is generally short and intermittent. Schools are considered noise-sensitive because of the necessity for quiet in the classroom to provide an adequate environment for learning. However, outdoor activities that occur on school campuses throughout the City generate noticeable levels of noise. While it is preferable to have schools in residential areas to support the neighborhood, noise generated on both the weekdays (by physical education classes and sports programs) and weekends (by use of the fields by youth organizations) can elevate noise levels in the immediate surroundings.

Industrial uses may generate noise from HVAC systems, loading docks, and machinery required for manufacturing processes. Industrial uses may generate noise on a more continual basis, or intermittently, depending on the processes and types of machinery involved. The southernmost developed areas of Newark are characterized by industrial and warehousing operations. These uses are generally found along the margin of San Francisco Bay in the areas generally west of Cherry Street and along and south of Enterprise Drive.

Noise Measurements

Existing ambient noise levels were measured at 13 locations in the City of Newark to document representative noise levels at a variety of locations. These locations are shown on Figure 4.10-1. Short-term (ST) noise level measurements were taken at ten locations for a minimum period of 15 minutes during the daytime on November 13, 2012 and November 14, 2012, all between the hours of 10:00 a.m. and 6:00 p.m.

Long-term (LT) noise level measurements were taken at three locations for a period of 24 hours beginning on November 13, 2012. The noise levels were measured using Larson-Davis Model 820 sound level meters, which satisfies the American National Standards Institute for Type 1 general environmental noise measurement instrumentation. The sound level meters and microphones were mounted on a tripod 5 feet above the ground and equipped with a windscreen during all short-term measurements. For long-term measurements, the microphone and windscreen were attached to available objects such as sturdy trees or fences.

Long-Term Measurement Locations

Long-Term Site 1

Long-term noise monitoring Site 1 was located directly across from 6551 Baine Avenue, approximately 165 feet southwest the intersection with Cherry Street. Located in a strip of grass, shrubs, and trees running parallel to an adjacent three-track railway, the site was positioned approximately 45 feet from the nearest track, 42 feet from the Baine Avenue centerline, and 100 feet from the nearest residential structure. The microphone was positioned approximately 5 feet and no obstructions to sound were present. 24-hour noise readings began at 3:07 p.m. on November 13, 2012, at which time the air temperature was 66 degrees Fahrenheit and the wind speed was approximately 5 mph.

The noise environment of Long-term Site 1 was characterized primarily by traffic noise on Cherry Street and railroad activity from passing trains, train warning horn, and at-grade railroad crossing bells.

Long-Term Site 2

Long-term noise monitoring Site 2 was located across from a light-industrial warehouse use, at the intersection of Willow Street and Willow Place, a residential cul-de-sac. The site was located 48 feet from the centerline of Willow Street, 173 feet from the nearest industrial structure, 20 feet from the nearest residential structure, and 160 feet from the center of the major intersection of Thornton Avenue and Willow Street. The microphone was positioned in a tree at a height of approximately 5.5 feet, and it should be noted that though the nearest residential structures to the site were mostly separated from the roadways by a low wooden fence, the monitoring equipment was not

positioned adjacent to this fence. Twenty-four-hour noise readings began at 4:12 p.m. on November 13, 2012, at which time the air temperature was 64 degrees Fahrenheit and the wind speed was less than 5 mph.

The noise environment of Long-term Site 2 was characterized primarily by passing traffic along Willow Street and Thornton Avenue. Noises from the adjacent light industrial use were also discernible and included truck engines, loading and unloading of trucks, and human voices and other equipment. During quieter periods, distant traffic and train whistles were also audible.

Long-Term Site 3

Long-term noise monitoring Site 3 was located along a fence line between two undeveloped lots alongside Interstate 880 near its interchange with Mowry Avenue. The site was accessed by Cedar Court, a cul-de-sac off of Cedar Boulevard, and the microphone was placed at a distance of approximately 90 feet from the center of the cul-de-sac, 180 feet from the nearest quasi-residential use, and 280 feet from the Interstate 880 centerline. The microphone was positioned at a height of approximately 7 feet, at the top of a chain link fence. Adjacent uses included two motels that appeared to also be serving as long-term residences; nearby uses also included light-industrial storage facilities. 24-hour noise readings began at 3:46 p.m. on November 13, 2012, at which time the air temperature was 66 degrees Fahrenheit and the wind speed was approximately 5 mph.

The noise environment of Long-term Site 3 was dominated by the sound of passing traffic on Interstate 880 and its interchange with Mowry Avenue. This tended to overwhelm all other sources of noise, though the passing of cars through the cul-de-sac and into the adjacent motel could occasionally be heard over the sound of the freeway.

Short-Term Measurement Locations

Short-Term Site 1

Short-term noise monitoring Site 1 was located in a parking lot serving multiple commercial uses in the 35000 block of Dumbarton Court. The site was adjacent to both an elementary school and a small office-park use, and other nearby uses included retail stores, a medical clinic, and a hotel. The site was 60 feet from the school facility, 315 feet from the centerline of Dumbarton Court, 400 feet from the centerline of Jarvis Avenue, and approximate 950 feet from the centerline of nearby Highway 84. There is also a rail line located approximately 450 feet west of the site, but no trains were observed during the measurement period. The microphone was positioned on a tripod at a height of 5 feet. Fifteen minutes of readings were taken, beginning at 4:35 p.m. on November 13, 2012, at which time the air temperature was 62 degrees Fahrenheit and the wind was calm.

The noise environment of Site 1 was dominated by the sound of children at play at the nearby school. Other sounds included passing cars in the parking lot and along adjacent roads, distant traffic noise from highway 84, and the sounds of car doors and people in the parking lot.

Short-Term Site 2

Short-term monitoring Site 2 was located in a vacant lot near the intersection of Thornton Avenue and Newark Boulevard. Adjacent and nearby land uses include the Newark Civic Center, commercial offices, and retail stores. The microphone was positioned at a height of 5 feet on a tripod placed at the edge of the vacant lot, 52 feet from

the Centerline of Newark Boulevard and 250 feet from the centerline of Thornton Avenue. Fifteen minutes of readings were taken beginning at 1:01 p.m. on November 14, 2012, at which time the air temperature was 66 degrees Fahrenheit and the wind speed was approximately 5 mph.

The noise environment at Site 2 was dominated by vehicular traffic on Newark Boulevard, as well as more distant traffic along Thornton Avenue. The noise from traffic tended to overwhelm all other sources of noise at the site and no other significant sources of nose were noted.

Short-Term Site 3

Short-term monitoring Site 3 was located near the playscape in Musick Park, a small park along Cedar Boulevard near its intersection with Musick Avenue. The park is located adjacent to Musick Elementary school, as well as several single family homes. The park is also located across Cedar Boulevard from an apartment complex and across Musick Avenue from a restaurant. Additional retail and other commercial uses are present in a shopping center approximately 800 feet from the site. The microphone was positioned at a height of 5 feet on a tripod placed approximately 140 feet from the centerline of Cedar Boulevard; this placement was chosen to replicate the distance from the playscape to Cedar Boulevard. Fifteen minutes of readings were taken beginning at 1:31 p.m. on November 14, 2012, at which time the air temperature was 66 degrees Fahrenheit and the wind speed was approximately 5 mph.

The noise environment at Site 3 was dominated by vehicular traffic on Cedar Boulevard. The only sources of sound noted over that of traffic were children at play on the nearby playscape and the occasional sound of passing aircraft.

Short-Term Site 4

Short-term monitoring Site 4 was located at 35188 Oldham Place, a small residential cul-de-sac located adjacent to the interchange of Interstate 880 and Highway 84. All adjacent and nearby land uses were residential, with some limited, remnant agricultural uses located 900 feet to the northwest, across highway 84. The microphone was positioned at a height of 5 feet on a tripod placed 30 feet from the nearest residential structure, 50 feet from the center of the cul-de-sac, approximately 450 feet from the Interstate 880 centerline, and approximately 950 feet from the center of the Highway 84/I-880 interchange. Fifteen minutes of readings were taken, beginning at 12:23 p.m. on November 14, 2012, at which time the air temperature was 66 degrees Fahrenheit and the wind was calm.

The noise environment at Site 4 is dominated by vehicular traffic on Interstate 880 and Highway 84. Aside from this significant noise, the only other sounds observed were the infrequent passage of cars and occasional noise from human activity in the adjacent houses.

Short-Term Site 5

Short-term noise monitoring Site 5 was located in Newark Community Park along Newark Boulevard. In addition to the recreational uses in the park, adjacent uses were exclusively residential with both single-family houses and multi-family apartment buildings. The nearest non-residential uses were retail stores located approximately 875 feet to the northwest, at the intersection of Newark and Cedar Boulevards. The microphone was positioned at a height of 5 feet on a tripod placed in an area with picnic tables and a barbecue. This area of the park was protected by a

grassy berm, which separated the area from traffic on Newark Boulevard. Fifteen minutes of readings were taken, beginning at 5:21 p.m. on November 13, 2012, at which time the air temperature was 57 degrees Fahrenheit and the wind was calm.

The noise environment of short-term Site 5 was dominated by vehicular traffic on Newark Boulevard, with traffic on Cedar Boulevard and the more distant 880 freeway also audible at times.

Short-Term Site 6

Short-term monitoring Site 6 was located adjacent to the parking area of the large apartment complex at 39975 Stevenson Boulevard. In addition to the adjacent multifamily residential use, large retail, office, and light industrial uses were present across from the site along both Stevenson and Cedar Boulevards. The site was approximately 75 and 115 feet from the centerlines of Cedar and Stevenson Boulevards, respectively, and was located approximately 145 feet from the center of the intersection of these two major roads. The microphone was positioned at a height of 5 feet on a tripod placed on a small grassy knoll adjacent to the parking area and separate from the adjacent roadways by an open, cast-iron fence. Fifteen minutes of readings were taken beginning at 4:33 p.m. on November 14, 2012, at which time the air temperature was 65 degrees Fahrenheit and winds were calm.

The noise environment at Site 6 was dominated the sound of heavy vehicular traffic on Stevenson and Cedar Boulevards. At times when the noise from these two roadways was lower, it was possible to hear traffic on more distant roadways, as well as Interstate 880, which is located approximately 1,900 feet to the northeast of the site. No other significant sources of noise were noted.

Short-Term Site 7

Short-term noise monitoring Site 7 was located adjacent to Lincoln Elementary school and across from 36254 Bettencourt Street. Aside from Lincoln Elementary, all adjacent and nearby land uses were single-family residential. The microphone was positioned at a height of 5 feet on a tripod placed 30 feet from the centerline of Bettencourt Street, immediately adjacent to the school property, 195 feet from the nearest play equipment, and 50 feet from the nearest residential structure. A railway lies 825 feet to the northeast of the site, but no trains were directly observed during the measurement period. Fifteen minutes of readings were taken, beginning at 11:55 a.m. on November 14, 2012, at which time the air temperature was 66 degrees Fahrenheit and the wind was calm.

At the time of measurement, the noise environment of Site 7 was dominated by children at play and by low volumes of vehicular traffic on Bettencourt Street. When these sounds subsided, it was also possible to hear more distant and quiet sounds of traffic, train whistles, and aircraft.

Short-Term Site 8

Short-term monitoring Site 8 was located at the intersection of Wells Avenue and Filbert Street, adjacent to multiple rail lines. The site was located directly across from 7419 Wells Avenue and was immediately adjacent to the Newark Christian Center and associate private school. Nearby land uses included single- and multi-family residential, commercial uses, in the form of a U-Haul rental center, and institutional uses, per the previously mentioned private school. The microphone was positioned at a height of 5 feet on a tripod placed approximately 40 feet from the centerlines of both Wells Avenue and Filbert Street. Though the closest railway was located

approximately 300 feet from the site, no train passages were noted during the measurement period. Fifteen minutes of readings were taken beginning at 3:28 p.m. on November 14, 2012, at which time the air temperature was 67 degrees Fahrenheit and the wind speed was less than 5 mph.

The noise environment of Site 8 was generally characterized by passing cars, with some additional noise from activity at the nearby U-Haul rental center as well as from activity associated with the nearby single-family homes. Nevertheless, noise from these latter sources was minimal.

Short-Term Site 9

Short-term monitoring Site 9 was located directly across from 6257 Honeysuckle Drive, at the northern terminus of the southern segment of the street. The site was adjacent to single family homes as well as fallow, former agricultural fields. Surrounding land uses were purely residential, with the nearest non-residential land use (a Montessori school) approximately 830 feet to the northeast and the nearest commercial or industrial uses over 1,000 feet to the southwest. The microphone was positioned at a height of 5 feet on a tripod placed directly on the roadway, several feet from where the street dead-ends into a wooden fence on the edge of the undeveloped properties. Fifteen minutes of readings were taken beginning at 3:55 p.m. on November 14, 2012, at which time the air temperature was 67 degrees Fahrenheit and winds were calm.

The noise environment of Site 9 was notably quiet and was characterized primarily by the minimal sounds of distant traffic, birdsong, and by occasional human activity associated with adjacent houses. Distant train whistles were also noticeable at times; however, none of these sounds constituted significantly obtrusive noise.

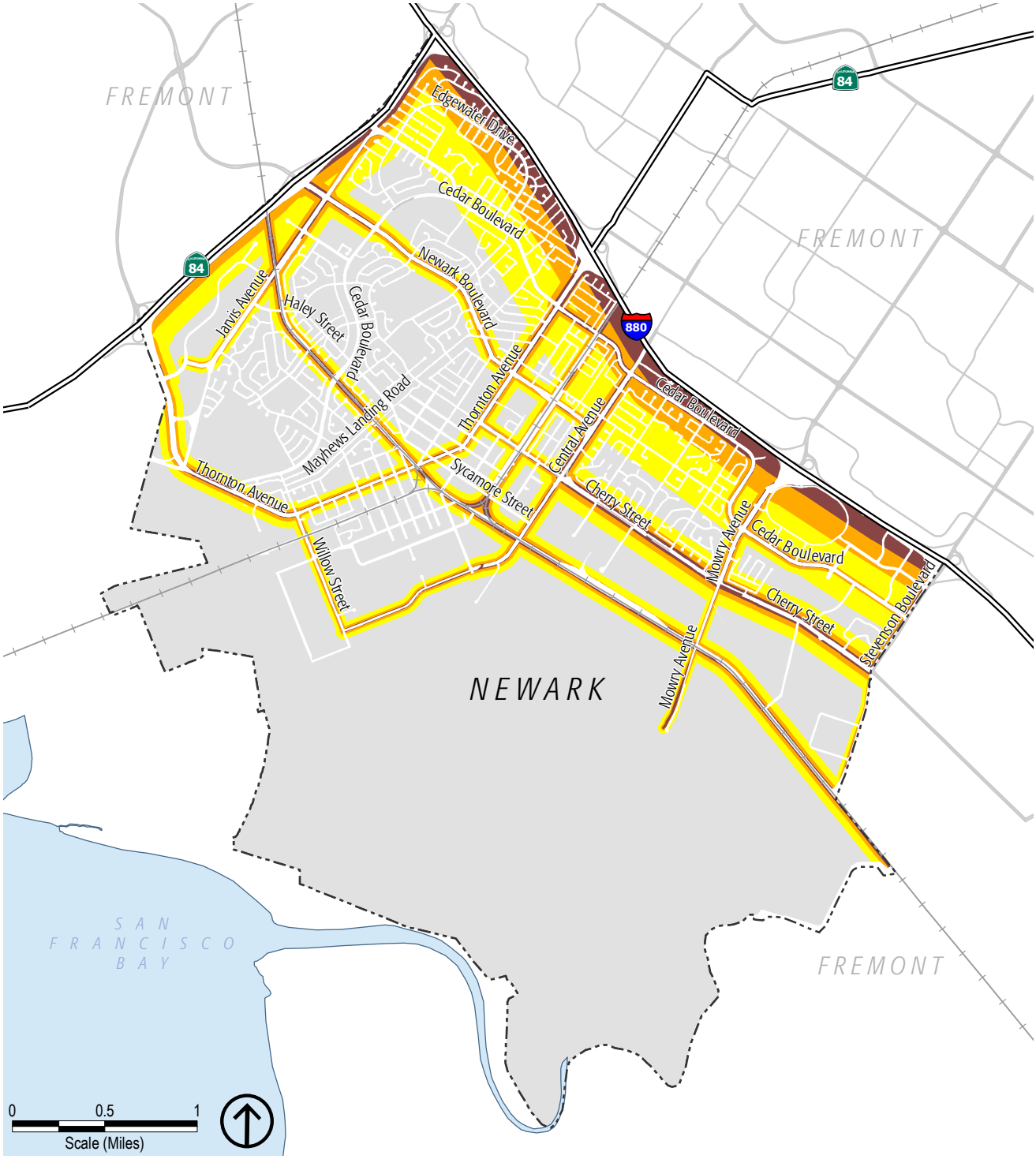
Short-Term Site 10

Short-term monitoring Site 10 was located adjacent to the playing fields and associated parking lots at the Silliman Recreation Complex at 6800 Mowry Avenue. In additional to the immediately adjacent recreational uses, nearby land uses include light industrial, institutional, and residential. Light industrial uses were located across Mowry Avenue at a distance of approximately 400 feet from the site. The microphone was positioned at a height of 5 feet on a tripod positioned approximately 265 feet from the centerline of Mowry Avenue and 500 feet from the centerline of Cherry Street. Fifteen minutes of readings were taken beginning at 4:58 p.m. on November 14, 2012, at which time the air temperature was 66 degrees Fahrenheit and winds were less than 5 mph.

The noise environment at Site 10 was characterized by the sounds of children at play, noise from the adjacent parking lot, and by vehicular traffic on Mowry Avenue and Cherry Street. The sound of traffic from these roadways was consistently noticeable, with Cherry Street contributing the most noise. Additionally, it was at times possible to hear noise from the industrial uses located across Mowry Avenue, as well as from aircraft overflights.

Existing Noise Contours

Figure 4.10-2, Existing Noise Contour Map, characterizes the existing noise environment in Newark. This map was developed from noise measurements taken at the location listed above. Figure 4.10-2 combines noise from traffic and rail, which are the major sources of noise in the City.



Source: Source Data: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010.

Railroads
City Limit
60 dBA CNEL contour
65 dBA CNEL contour
70 dBA CNEL contour

Figure 4.10-2
Existing Noise Contours

4.10.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact with regard to noise if it would result in any of the following:

1. Exposure of people to or generation of noise levels in excess of standards established in the General Plan or the Municipal Code, and/or the applicable standards of other agencies.
2. Exposure of people to or generation of excessive groundborne vibration or groundborne noise levels.
3. Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project.
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
5. Exposure of people residing or working in the vicinity of the plan area to excessive aircraft noise levels, for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport.
6. Exposure of people residing or working in the project area to excessive noise levels, for a project within the vicinity of a private airstrip.

The purpose of this Draft EIR is to identify the significant effects of the Project (the proposed Plan) on the environment, not the significant effects of the environment on the Project. (*South Orange County Wastewater Authority v. City of Dana Point (2011) 196 Cal.App.4th 1604, 1614-1618; City of Long Beach v. Los Angeles Unified School Dist. (2009) 176 Cal.App.4th 889, 905.)* While identifying the environmental effects of attracting development and people to an area is consistent with CEQA's legislative purpose and statutory requirements, identifying the effects on the Project and its users of locating the Project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes. Appendix G of the Guidelines is a sample checklist form that is suggested for use in preparing an initial study, and which the City has employed to assist in the preparation of this Draft EIR (see *Guidelines, § 15063, subd. (f.)*. However, a few of the questions on the form concern the exposure of people or structures to environmental hazards and could be construed to refer to not only the Project's exacerbation of environmental hazards but also the effects on users of the Project and structures in the Project of preexisting environmental hazards. To the extent that such questions may encompass the latter effects, the questions do not relate to environmental impacts under CEQA and cannot support an argument that the effects of the environment on the Project must be analyzed in an EIR. (*Bellona Wetlands Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473-474.)

Accordingly, while the City provides the following informational analysis of thresholds 2 and 5 taken from Appendix G of the CEQA Guidelines, those thresholds, as they relate to operations under the proposed Plan, are not examples of an environmental effect caused by development, but instead are an example of an effect on the Project caused by the environment.

4.10.3 IMPACT DISCUSSION

This section discusses the impacts of the proposed Plan on the noise environment of Newark and on the perception of noise by sensitive receptors in the Plan Area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

NOISE-1	**The proposed Plan would not expose people to or generate noise levels in excess of standards established in the General Plan or the Municipal Code, and/or the applicable standards of other agencies.**

The proposed Plan would result in a significant impact if it would result in noise generation or exposure which exceeds applicable State or local standards for interior or exterior noise. Standards for noise generation and exposure in the City of Newark are determined primarily through the Land Use Noise Compatibility Guidelines included in the proposed Plan and shown in Table 4.10-6, as well as by the exterior and interior noise standards set by the Title 24 of the State Building Code.

Interior Noise

As described above in Section 4.10.1.2, Regulatory Framework, Title 24 establishes 45 dBA CNEL or L_{dn} as the acceptable interior noise limit for new construction. This standard is also established in the proposed Plan, as shown in Table 4.10-6, together with a limit of 50 dBA CNEL or L_{dn} for office buildings and businesses. Buildout of the proposed plan would include development of a variety of uses, including residential dwellings, hotels, motels, dormitories, school classrooms, offices, and other businesses. The proposed Plan includes policies and actions that would help ensure the established interior noise standards would not be exceeded:

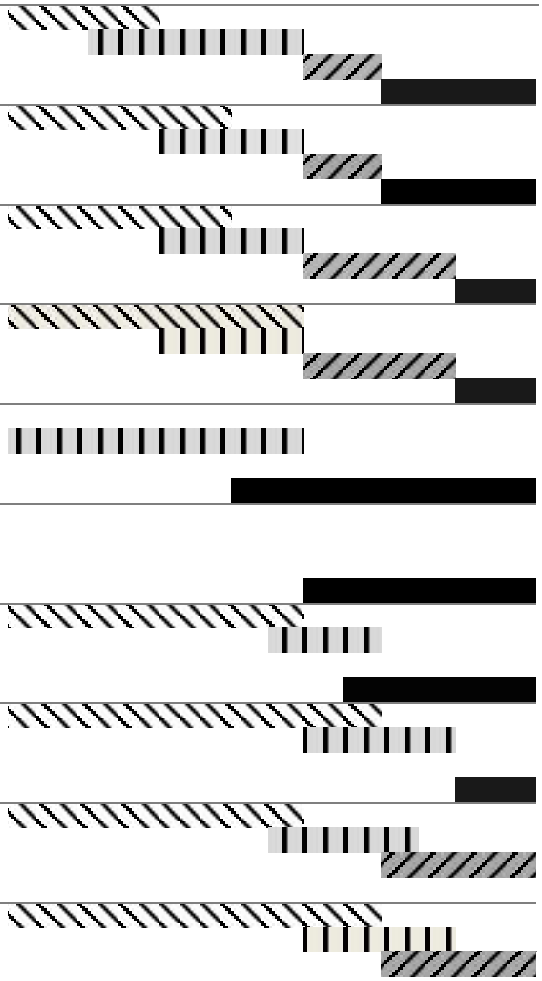
- Policy EH-7.4: Residential Noise Standard – Exterior. Plan for and implement strategies to maintain exterior noise levels that are consistent with the noise compatibility guidelines in Table EH-2. For residential areas, this limit is 60 dBA Ldn for outdoor living areas. Where this level is exceeded due to freeways, arterials, and/or railroads, the construction of berms, walls, buffer zones, and other noise-reduction measures to reduce noise to the greatest extent feasible will be required.
- Action EH-7.A: Acoustical Study Requirement. Require acoustical studies for new developments in areas where the noise levels exceed the 'normally acceptable levels for the proposed land use; based on Table EH-2. For residential uses, the analysis should include mitigation measures to limit the noise exposure in interior living spaces to 45 dB Ldn, consistent with California Title 24.

Acoustical studies should have the following minimum attributes:

- Be the responsibility of the development applicant.
- Be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe existing local conditions.

TABLE 4.10-6 NOISE COMPATIBILITY GUIDELINES FOR NEWARK

Land Uses	Interior CNEL or L_{dn} (dBA)	Exterior Noise Exposure, CNEL or L_{dn} (dBA) 55 60 65 70 75 80
Residential-Low Density Single-Family, Duplex, Mobile Homes	45*	
Residential-Multiple Family	45*	
Transient Lodging, Motels, Hotels	45*	
Schools, Libraries, Churches, Hospitals, Nursing Homes	45*	
Auditoriums, Concert Halls, Amphitheaters	--	
Sports Arena, Outdoor Spectator Sports	--	
Playgrounds, Neighborhood Parks	--	
Golf Courses, Riding Stables, Water Recreation, Cemeteries	--	
Office Buildings, Businesses, Commercial and Professional	50	
Industrial, Manufacturing, Utilities, Agricultural	--	



Normally Acceptable:
Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Normally Unacceptable:
New construction or development should generally be discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Conditionally Acceptable:
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Clearly Unacceptable:
New construction or development generally should not be undertaken.

* Noise level requirement with closed windows, mechanical ventilation, or other means of ventilation shall be provided per Chapter 12 Section 1205 of the Building Code.
Source: City of Newark General Plan, 2013.

- Include estimates for existing and projected (20 years hence) noise levels in terms of (a) Ldn or CNEL and (b) any future noise regulations to be adopted by the City. Those existing and projected noise levels shall be compared to the adopted policies of the Noise Element.
- Include recommended mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element. Where the noise source in question consists of intermittent single events, the report should address the effects of maximum noise levels in sleeping rooms and potential sleep disturbance issues.
- Include estimates for interior and exterior noise exposure after the prescribed mitigation measures have been implemented.
- Describe a post-project assessment program that could be used to evaluate the effectiveness of the proposed mitigation measures.

As the interior noise is related to the exterior noise environment, these policies would help to reduce noise levels in both the interior and exterior areas of new development. Additionally, Title 24 requires acoustical analysis for new noise sensitive areas to be developed in areas exposed to ambient noise levels above 60 dBA CNEL. Therefore, compliance with the standards established in Title 24 and the proposed Plan together with implementation of the proposed policies and actions described above would ensure that impacts related to excessive interior noise would be less than significant.

Exterior Noise

As shown in Table 4.10-6, the proposed Plan includes land use noise compatibility guidelines which establish normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses. The guidelines would be used to prevent the development of incompatible land uses adjacent to one another. Additionally, the proposed Plan includes actions which would further minimize the potential for exceedances of established exterior noise standards:

- Action EH-7.A: Acoustical Study Requirement. Require acoustical studies for new developments in areas where the noise levels exceed the 'normally acceptable levels for the proposed land use; based on Table EH-2. For residential uses, the analysis should include mitigation measures to limit the noise exposure in interior living spaces to 45 dB Ldn, consistent with California Title 24. (See previous discussion of Action EH-7.A for additional discussion of acoustical study requirements)
- Action EH-6.A: Noise Ordinance – Limits on Noise Levels. Draft and adopt a Noise Ordinance that establishes acceptable noise levels and standards, as well as provisions for enforcement and penalties in the event these levels are exceeded. The Ordinance should include a requirement that no person shall be allowed to cause any noise beyond his/her property line that exceeds prescribed noise levels limits. These limits should be consistent with and promote the implementation of the land use compatibility standards, as shown in Table EH-2. (Land Use Noise Compatibility Guidelines)

Action EH-7.A would require acoustical studies for all new development taking place in areas where the noise level exceeds that which is deemed "normally acceptable" for the given land use, including areas where the land use in question would be "conditionally acceptable" or "normally unacceptable." Overall, compliance with Title 24 requirements and implementation of the proposed Plan policies and actions described above would prevent the

development of land uses in areas with inappropriately high ambient noise levels, and would ensure that any development of noise-sensitive land uses include the study and adequate mitigation of noise impacts. As a result, associated impacts would be *less than significant*.

Applicable Regulations:

- California Building Code
- Newark Land Use Noise Compatibility Guidelines

Significance Before Mitigation: Less than significant.

NOISE-2	The proposed Plan would not expose people to or generate excessive groundborne vibration or groundborne noise levels.

CEQA does not specify quantitative thresholds for what is considered "excessive" vibration or ground-borne noise, nor do the City of Newark or the County of Alameda establish such thresholds. Therefore, based on criteria from the FTA, a significant impact would occur if:

- Implementation of the Plan would result in ongoing exceedance of the criteria for annoyance presented in Table 4.10-4 and Table 4.10-5.
- Implementation of the Plan would result in vibration exceeding the criteria presented in Table 4.10-3 that could cause buildings architectural damage.

The following discusses potential vibration impacts as a result of construction activities, industrial operations, and railway transportation activity in the Plan Area.

Construction-Related Vibration Impacts

The effect on buildings in the vicinity of a construction site varies depending on soil type, ground strata, and receptor-building construction. Vibration from construction activities rarely reaches the levels that can damage structures, but groundborne vibration and groundborne noise can reach perceptible and audible levels in buildings that are close to the construction site. Table 4.10-7 lists vibration levels for construction equipment. As shown, vibration generated by construction equipment has the potential to exceed FTA standards and therefore construction activities associated with buildout of the proposed Plan could result in significant impacts.

Construction would be localized and would occur intermittently for varying periods of time. In construction projects, grading and demolition activities typically generate the highest vibration levels during construction activities. Except for pile driving, maximum vibration levels measured at a distance of 25 feet from an individual piece of typical construction equipment do not exceed the thresholds for human annoyance for industrial uses, nor the thresholds for architectural damage.

Methods to reduce vibration during construction would include the use of smaller equipment, use of static rollers instead of vibratory rollers, and drilling piles as opposed to pile driving. The proposed Plan includes measures that would address construction-related vibration impacts:

TABLE 4.10-7 GROUNDBORNE VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	Approximate Velocity Level at 25 Feet (VdB)	Approximate RMS[a] Velocity at 25 Feet (inch/sec)
Pile Driver (impact) Upper Range	112	1.518
Pile Driver (impact) Lower Range	104	0.644
Pile Driver (sonic) Upper Range	105	0.734
Pile Driver (sonic) Lower Range	93	0.170
Large Bulldozer	87	0.089
Caisson Drilling	87	0.089
Jackhammer	79	0.035
Small Bulldozer	58	0.003
Loaded Trucks	86	0.076
FTA Criteria – Human Annoyance (Daytime)	78 to 90[b]	—
FTA Criteria – Structural Damage	—	0.2 to 0.5[c]

[a] RMS velocity calculated from vibration level (VdB) using the reference of 1 micro-inch/second.
[b] Depending on affected land use. For residential 78VdB, for offices 84 VdB, workshops 90 VdB..
[c] Depending on affected building structure, for timber and masonry buildings 0.2 in/sec, for reinforced-concrete, steel, or timber 0.5 in/sec.
Source: Federal Transit Administration, Transit Noise, and Vibration Impact Assessment, 2006.

- Action EH-6.6: Construction Noise - Regulating Construction Hours. Reduce noise associated with construction activities by prohibiting construction in residential neighborhoods between the hours of 7PM and 7AM Monday through Friday and at all times on Saturdays, Sundays, and State/federal holidays.
- Action EH-6.7: Construction Noise - Addressing Sources of Construction Noise. Reduce noise associated with construction activities by requiring properly maintained mufflers on construction vehicles, requiring the placement of stationary construction equipment as far as possible from developed areas, and requiring temporary acoustical barriers/shielding to minimize construction noise impacts at adjacent receptors. Special attention should be paid to noise-sensitive receptors (including residential, hospital, school, and religious land uses).
- Action EH7.E: Vibration-Intensive Construction. Implement a standard operating procedure that requires the evaluation of vibration impacts for individual projects which use vibration-intensive construction activities, such as pile drivers, jack hammers, and vibratory rollers, near sensitive receptors. If construction-related vibration is determined to be perceptible (i.e., in excess of Federal Transit Administrations vibration annoyance criterion) at vibration-sensitive uses, then additional requirements, such as the use of less-vibration-intensive equipment or construction techniques, shall be implemented during construction.

The distance where sensitive receptors could be significantly affected depends on the construction equipment and the use affected. For example, pile driving activities would have the potential to affect residential uses over 100 feet away, while small bulldozers do not generate vibration levels that affect sensitive uses. The proposed plan would prohibit vibration-intensive construction activities if nearby sensitive receptors would experience vibration levels in excess of FTA standards, and would require, where practicable, the use of alternative techniques. Overall, vibration impacts related to construction would be short-term, temporary, and generally restricted to the areas in the immediate vicinity of active construction equipment. As such, implementation of these proposed policies and actions would reduce construction-related vibration impacts to the maximum extent practicable, and vibration impacts from construction would be less than significant.

Vibration from Industrial Operations

As illustrated on Figure 3-6 in Chapter 3 of this Draft EIR, the proposed Plan generally maintains the current separation of industrial land uses from noise-sensitive land uses that exists today in the Plan Area; however, there are some sectors of the city where residential and other noise-sensitive land uses are located or permitted in proximity to industrial land uses that could have equipment with the potential to generate significant vibration levels. These areas include Cherry Street, between Central and Mowry Avenues; Jarvis Avenue, southwest of Lido Boulevard; portions of Old Town Newark; and portions of the Southwest Newark Residential and Recreational Focus Area and the Dumbarton Transit-Oriented Development (TOD) Focus Area.

In general, appropriate setbacks, buffers, use restrictions, and/or other measures defined in the Newark Municipal Code can largely eliminate these impacts, as vibration attenuates relatively rapidly with distance. Additionally, the proposed Plan contains a wide array of policies and actions which would minimize potential vibration impacts:

- Policy LU-2.5: Transitional Land Uses. Incorporate transitional land uses as buffers between land uses which are potentially incompatible. For example, this could include office uses as a buffer between industrial and residential areas, and medium density residential uses as a buffer between high and low density residential uses.
- Action LU-2.A: Development Regulations. Administer development regulations which ensure that infill development and renovation projects are compatible with adjacent uses. This includes application of setback and height requirements, parking requirements, and other standards aimed at creating compatible uses, protecting public safety, and maintaining neighborhood quality.
- Policy LU-3.5: Non-Conforming Uses. Work toward the eventual replacement or relocation of non-conforming industrial and heavy commercial uses located within areas designated for residential use on the General Plan Diagram.
- Action EH-6.B: Noise Ordinance – Limits on Hours of Operation. Draft the Noise Ordinance to include limits on the intensity and hours of use for selected noise sources such as construction equipment, manufacturing equipment, motors, delivery trucks, and parking lot vacuum equipment. Limits on hours of operation should be consistent with and achieve the goals of the land use compatibility standards (as shown in Table EH-2). (Land use compatibility standards)
- Policy EH-7.3: Reducing Exposure to Operational Noise. In new residential and mixed-use developments, require that stationary equipment (such as air conditioning units and condensers) be placed in separate spaces, rooftops, or other areas such that noise impacts to interior living areas will be reduced. Similarly, potentially

noisy common spaces, such as trash collection areas and loading zones, should be located away from residential units or other noise-sensitive spaces.

- Policy EH-7.6: New Noise Sources. Require new developments that have the potential to create long-term noise increases to mitigate potential impact to off-site receptor properties.
- Action EH-7.B: Noise Mitigation. Use the development review process to ensure that noise impacts are mitigated through setbacks/buffer zones, earthen berms, sound walls, building siting/orientation, and other appropriate means.
- Actions EH-7.C: Conditional Use Permits. Use the development review process, including conditional use permits, to limit activities which would generate high levels of noise during nighttime hours (i.e., from 10 PM to 7 AM).
- Action EH-7.D: Allowing Noise-Sensitive Uses Near Noise Sources. Use the development review process when evaluating zoning changes to consider potential noise impacts due to noise-sensitive uses being located near commercial uses, industrial uses, or other activities that typically generate excessive noise.

Together, implementation of the above-listed policies and actions would minimize the potential for vibration impacts to sensitive land uses from industrial operations to the maximum extent practicable. By increasing the distance between sensitive land uses, such as residential, and industrial uses with the potential to generate vibration, these policies would ensure that vibration would sufficiently attenuate such that at adjacent sensitive land uses the vibration would be imperceptible to humans of normal sensitivity. Additionally, these policies would serve to reduce the intensity, frequency, and duration of potential vibration, thereby reducing or preventing perception of vibration at nearby receptors. Additionally, any new industrial development under the proposed Plan would also be subject to separate CEQA review to identify and mitigate potential impacts. As such, associated impacts resulting from buildout of the proposed Plan would be less than significant.

Vibration Related to Railway Transportation Activity

Buildout of the proposed Plan would result in new housing in proximity to the existing rail corridors in the Plan Area. Railway transportation activities along the corridors could generate vibration levels exceeding FTA standards and result in significant impacts to these sensitive receptors. According to the FTA screening distance for the evaluation of vibration to residential land uses from commuter and freight rail operations, is 200 feet. As such, residential development in the western portion of the Southwest Newark Residential and Recreational Focus Area, in the Dumbarton TOD Focus Area, and in the area west of old town could be adversely affected by vibration from rail transportation activities.

The proposed Plan includes a variety of policies and actions which would serve to minimize vibration impacts:

- Action EH7.F: New Development Near Railroads. Implement a standard operating procedure that requires the evaluation of potential vibration impacts for new development that occurs within 200 feet of a railroad track, in accordance with the FTA's vibration screening distances. In such instances, the project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features and/or required building construction improvements to ensure that vibration impacts would remain below acceptable levels for residential uses.

- Action EH-7.D: Allowing Noise-Sensitive Uses Near Noise Sources. Use the development review process when evaluating zoning changes to consider potential noise impacts due to noise-sensitive uses being located near commercial uses, industrial uses, or other activities that typically generate excessive noise.
- Policy EH-6.4: Railroad Noise. Actively coordinate with Union Pacific, Caltrans, neighboring jurisdictions, and other transportation service providers during the planning and design of proposed rail-related projects so that noise impacts to the community are minimized and appropriate mitigation measures are provided.

With implementation of these policies and actions from the proposed Plan, perception of vibration resulting from railway activity would be reduced to the maximum extent practical and impacts would be less than significant.

Applicable Regulations:

- California Building Code
- Newark Land Use Noise Compatibility Guidelines

Significance Before Mitigation: Less Than Significant.

NOISE-3	Implementation of the proposed Plan would result in a substantial permanent increase in ambient noise levels in the Plan Area above levels existing without Plan implementation.

Implementation of the proposed Plan would have a significant impact if it results in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without Plan implementation. The following discusses potential noise impacts from stationary and transportation noise sources.

Stationary Noise

Noise is regulated by numerous codes and ordinances across federal, State, and local agencies. In addition, the City regulates stationary-source noise through the Municipal Code. Buildout of the proposed Land Use Plan would result in an increase in residential, commercial, industrial, and institutional development within the City. The primary noise sources from these land uses are landscaping, maintenance activities, and air conditioning systems. In addition, future commercial uses may include loading docks. Noise generated by residential or commercial uses is generally short and intermittent, and these uses are not a substantial source of noise. The siting of new industrial and large commercial developments may increase noise levels at nearby residential or other sensitive uses. This can be due to the continual presence of heavy trucks used for the pick-up and delivery of goods and supplies, or from the use of noisy equipment used in the manufacturing or machining process. Although vehicle noise on public roadways is exempt from local regulation, for the purposes of the planning process, it may be regulated as a stationary-source noise while operating on private property. Process equipment and the use of pneumatic tools could also generate elevated noise levels, but this equipment is typically housed within the facilities. The City of Newark requires that noise from stationary sources in the city comply with the City's Municipal Code, which regulates the acceptable noise at the impacted property to reduce nuisances to sensitive land uses. The City Police or Code Enforcement Officer enforces the noise limitation of the Municipal Code.

Each individual new commercial or industrial project would be subject to review under CEQA. The proposed Plan's Land Use and Environmental Hazards Elements contain multiple policies and actions that would serve to prevent or mitigate substantial permanent increase to ambient noise levels from long-term operations:

- Action LU-2.C: Conditional Use Permits. Use conditional use permits to improve compatibility between uses and to establish limitations on activities which could create potential adverse effects.
- Action EH-6.B: Noise Ordinance – Limits on Hours of Operation. Draft the Noise Ordinance to include limits on the intensity and hours of use for selected noise sources such as construction equipment, manufacturing equipment, motors, delivery trucks, and parking lot vacuum equipment. Limits on hours of operation should be consistent with and achieve the goals of the land use compatibility standards (as shown in Table EH-2). (Land Use Noise Compatibility Guidelines)
- Policy EH-7.3: Reducing Exposure to Operational Noise. In new residential and mixed-use developments, require that stationary equipment (such as air conditioning units and condensers) be placed in separate spaces, rooftops, or other areas such that noise impacts to interior living areas will be reduced. Similarly, potentially noisy common spaces, such as trash collection areas and loading zones, should be located away from residential units or other noise-sensitive spaces.
- Policy EH-7.6: New Noise Sources. Require new developments that have the potential to create long-term noise increases to mitigate potential impact to off-site receptor properties.

Together, these policies would serve to ensure that the development of new land uses under the proposed Plan would not result in substantial permanent increases in the ambient noise level in the project vicinity, and the impact in this regard would be *less than significant*.

Transportation-Related Noise

Future development under the proposed Plan would cause increases in traffic along roadways. Determination of potential impact is related to the increase from existing conditions, and the ambient noise in terms of compatibility with the affected land use. To assess the compatibility of new development with the anticipated ambient noise, the City utilizes the State's Community Noise and Land Use Compatibility standards, summarized in Table 4.10-6. For the purpose of this analysis, a substantial increase in ambient noise levels would be defined as either:

- A 5 dBA increase, if after the increase the ambient noise level remains in the range of what would be "normally acceptable" at the affected land use; or
- A 3 dBA increase, if after the increase the ambient noise level exceeds the range of what would be "normally acceptable" at the affected land use.

Table 4.10-8 shows major roadway segments in Newark with estimated increases in the ambient noise level at the closest sensitive receiving land use, which is usually single-family residential. The ambient noise level increases shown in Table 4.10-8 demonstrate that there would be numerous major road segments that would experience substantial permanent increases in ambient noise levels at sensitive receiving land uses.

TABLE 4.10-8 INCREASES TO AMBIENT NOISE LEVELS ALONG MAJOR ROADWAY SEGMENTS

Roadway	Segment	Estimated Distance To Nearest Sensitive Receiving Land Use A	Ambient Noise Level At Nearest Sensitive Receptor In CNEL dBA B		Increase dBA C
			Existing Conditions	2030 Conditions	
Thornton Avenue	Highway 84 Off-ramp to Gateway Blvd.	75	72.8	75.2	+2.4
Thornton Avenue	Gateway Boulevard to Willow Street	75	71.1	74.2	+3.1
Thornton Avenue	Willow Street to Sycamore Street	75	68.2	71.8	+3.6
Thornton Avenue	Sycamore Street to Cherry Street	90	68.0	71.7	+3.8
Thornton Avenue	Cherry Street to Newark Boulevard	90	68.9	72.2	+3.3
Thornton Avenue	Newark Boulevard to Cedar Blvd.	90	70.3	71.3	+1.0
Thornton Avenue	Cedar Boulevard to I-880	90	72.8	73.5	+0.8
Thornton Avenue	East of I-880	90	72.0	73.3	+1.4
Willow Street	Thornton Avenue to Enterprise Dr.	40	72.8	72.8	+0.0
Willow Street	Enterprise Drive to Central Avenue	40	72.0	72.1	+0.1
Newark Boulevard	Highway 84 Off-ramp to Jarvis Ave.	90	73.0	74.6	+1.6
Newark Boulevard	Jarvis Avenue to Cedar Boulevard	90	69.9	72.6	+2.7
Newark Boulevard	Cedar Boulevard to Lafayette Ave.	90	68.4	71.0	+2.6
Newark Boulevard	Lafayette Avenue to Landing Road	90	68.2	71.6	+3.4
Newark Boulevard	Landing Road to Thornton Avenue	90	68.2	71.4	+3.2
Newark Boulevard	Thornton Avenue to Central Ave.	90	67.5	69.8	+2.3
Jarvis Avenue	Gateway Boulevard to Haley Street	90	65.8	66.3	+0.5
Jarvis Avenue	Haley Street to Firecrest Street	90	67.7	67.9	+0.2
Jarvis Avenue	Firecrest Street to Newark Blvd.	90	70.6	71.0	+0.4
Jarvis Avenue	Newark Boulevard to Lake Blvd.	90	66.9	67.5	+0.6
Cherry Street	Thornton Avenue to Central Avenue	90	67.1	72.7	+5.6
Cherry Street	Central Avenue to Mowry Avenue	90	72.5	75.0	+2.5
Cherry Street	Mowry Avenue to Stevenson Blvd.	90	72.2	75.3	+3.1
Cedar Boulevard	Thornton Avenue to Central Avenue	75	71.4	72.0	+0.6
Cedar Boulevard	Central Avenue to Smith Avenue	75	70.1	73.2	+3.1
Cedar Boulevard	Smith Avenue to Mowry Avenue	75	69.2	72.4	+3.2

TABLE 4.10-8 INCREASES TO AMBIENT NOISE LEVELS ALONG MAJOR ROADWAY SEGMENTS

Roadway	Segment	Estimated Distance To Nearest Sensitive Receiving Land Use A	Ambient Noise Level At Nearest Sensitive Receptor In CNEL dBA B		Increase dBA C
			Existing Conditions	2030 Conditions	
Cedar Boulevard	Mowry Avenue to Balentine Drive	90	68.2	71.7	+3.6
Cedar Boulevard	Balentine Drive to Stevenson Blvd.	90	66.4	69.9	+3.5
Central Avenue	Willow Street to Filbert Street	75	67.8	68.0	+0.2
Central Avenue	Filbert Street to Cherry Street	75	69.7	69.9	+0.2
Central Avenue	Cherry Street to Cedar Boulevard	75	72.3	72.3	+0.0
Central Avenue	East of Cedar Boulevard	75	69.8	73.4	+3.6
Mowry Avenue	West of Cherry Street	40	71.3	72.1	+0.8
Mowry Avenue	Cherry Street to Cedar Boulevard	90	68.6	71.4	+2.8
Mowry Avenue	Cedar Boulevard to Alpenrose Court	90	70.2	70.7	+0.5
Mowry Avenue	East of I-880	90	72.4	72.7	+0.3
Stevenson Blvd.	West of Cherry Street	90	64.7	67.4	+2.7
Stevenson Blvd.	Cherry Street to Cedar Boulevard	90	70.4	72.9	+2.5
Stevenson Blvd.	Cedar Boulevard to Albrae Street[d]	90	70.6	73.6	+3.0
Stevenson Blvd.	Albrae Street to I-880	90	72.4	74.4	+2.0
Stevenson Blvd.	East of I-880	90	73.2	74.3	+1.1
I-880	South of Stevenson Boulevard	150	77.5	77.7	+0.2
I-880	Stevenson Boulevard to Mowry Ave.	150	77.5	78.2	+0.7
I-880	Mowry Avenue to Highway 84	100	81.3	81.7	+0.4
Highway 84	East of Thornton Avenue	500	61.4	63.7	+2.3
Highway 84	Thornton Avenue to Newark Boulevard[d]	250	66.7	69.7	+3.1
Highway 84	Newark Boulevard to I-880	150	72.6	74.2	+1.5

[a] Distance to nearest sensitive receiving land estimated based upon centerline-to-curb widths used for noise modeling and estimated average distance from edge of roadway to sensitive use.
[b] Ambient noise level at nearest sensitive receptor calculated based upon output of roadway noise model adjusted for estimated distance from centerline.
[c] **Bold** numbers indicate increases in CNEL which would constitute substantial permanent increase in ambient noise level.
[d]There are no noise sensitive receptors along these segments, therefore no potential impact.

According to the significant impact criteria discussed above, several residential uses and the Newark Memorial High School are anticipated to experience increases in ambient noise levels along the following roadway segments:

- Thornton Avenue from Cherry Street to Newark Boulevard
- Newark Boulevard from Lafayette Avenue to Landing Road
- Newark Boulevard from Landing Road to Thornton Avenue
- Cherry Street from Thornton Avenue to Central Avenue
- Cherry Street from Mowry Avenue to Stevenson Boulevard
- Cedar Boulevard from Central Avenue to Smith Avenue
- Cedar Boulevard from Smith Avenue to Mowry Avenue
- Cedar Boulevard from Mowry Avenue to Balentine Drive
- Cedar Boulevard from Balentine Drive to Stevenson Boulevard
- Central Avenue east of Cedar Boulevard

Implementation of the proposed Plan would result in a significant noise impact at sensitive uses along the roadway segments listed above. The proposed Plan contains numerous policies and actions to address the reception of excessive roadway noise at existing sensitive land uses:

- Action EH-6.D: Motor Vehicle Code Enforcement. Request that the California Highway Patrol actively enforce the California Vehicle Code sections relating to adequate vehicle mufflers and modified exhaust systems to limit vehicle noise emissions. Likewise, the City of Newark Police Department should be trained and equipped to properly enforce all local and state ordinances related to excessive vehicle noise emissions.

- Action EH-6.E: Street Resurfacing to Reduce Noise. Conduct regular maintenance and resurfacing of city streets to reduce road noise due to potholes, grade irregularities, and uneven surfaces. Additionally, explore the feasibility of using 'quiet' paving materials or techniques to reduce road noise at the tire-surface interface.

- Action EH-6.H: Sound Wall Improvements. Work with Caltrans to enhance and supplement the benefits of sound walls along I-880 and SR-84. The coordination should be aimed at determining where improvements to these walls may further reduce noise impacts to nearby neighborhoods. Appropriate cost vs. benefit assessments should be part of this coordination and alternative funding sources should be explored.

- Policy EH-7.4: Residential Noise Standard – Exterior. Plan for and implement strategies to maintain exterior noise levels that are consistent with the noise compatibility guidelines in Table EH-2. For residential areas, this limit is 60 dBA Ldn for outdoor living areas. Where this level is exceeded due to freeways, arterials, and/or railroads, the construction of berms, walls, buffer zones, and other noise-reduction measures to reduce noise to the greatest extent feasible will be required.

- Action EH-7.B: Noise Mitigation. Use the development review process to ensure that noise impacts are mitigated through setbacks/buffer zones, earthen berms, sound walls, building siting/orientation, and other appropriate means.

Although these policies and actions could in certain cases reduce or prevent significant increases in ambient noise at sensitive land uses under implementation of the proposed plan, the mitigation measures described in these policies would not be universally feasible, and some of the most effect noise-attenuation measures, including

sound walls and berms, would be infeasible or inappropriate in a majority of locations where sensitive land uses already exist. Factors which would render these mitigations infeasible include but are not limited to cost, aesthetic considerations, and negative impacts to pedestrian and bicycle connectivity.

Increased railway activity from freight lines operated by UPRR and passenger service could also have the potential to cause substantial noise increases on receptors along railroad lines. While rail activity forecasts are not available and the future noise increase cannot be determined at this point, increases in rail activity would not occur as a result of proposed Plan implementation, and would be outside the jurisdiction of the City.

Even after the application of relevant regulations and proposed Plan policies and actions, noise impacts to sensitive uses related to increased traffic would remain *significant*.

Applicable Regulations:

- California Building Code
- Newark Land Use Noise Compatibility Guidelines

Significance Before Mitigation: Significant.

NOISE-4	Construction activities associated with buildout of the proposed Plan would not result in substantial temporary or periodic increases in ambient noise levels in the Plan Area above existing levels.

Implementation of the proposed plan would have a significant impact if it results in a substantial temporary or periodic increase in ambient noise levels in the Plan Area above existing levels. The smallest increase in loudness perceptible by the human ear is 3 dBA and that increases of 5 dBA or greater are easily noticed. Therefore, a substantial increase in ambient noise levels would be defined as either: a 5 dBA increase, if after the increase the ambient noise level remains in the range of what would be "normally acceptable" at the land use where the noise is being received; or a 3 dBA increase, if after the increase the ambient noise level exceeds the range of what would be "normally acceptable" at the land use where the noise is being received.

Temporary or period increases in ambient noise levels under the proposed Plan would chiefly result from construction activities associated with development activity under the proposed Plan. Table 4.10-9 below shows typical noise levels generated by commonly-used pieces of construction equipment.

By restricting hours of construction, and directing the City to review project noise impacts as part of the planning and permitting processes, the policies and actions from the proposed Plan would serve to reduce temporary or periodic increases to ambient noise; these policies and actions include:

- Policy EH-6.6: Construction Noise - Regulating Construction Hours. Reduce noise associated with construction activities by prohibiting construction in residential neighborhoods between the hours of 7PM and 7AM Monday through Friday and at all times on Saturdays, Sundays, and State/federal holidays.

TABLE 4.10-9 CONSTRUCTION EQUIPMENT NOISE EMISSION LEVELS

Construction Equipment	Typical Noise Level (dBA) at 50 Feet	Construction Equipment	Typical Noise Level (dBA) at 50 Feet
Air Compressor	81	Pile-Driver (Impact)	101
Backhoe	80	Pile-Driver (Sonic)	96
Ballast Equalizer	82	Pneumatic Tool	85
Ballast Tamper	83	Pump	76
Compactor	82	Rail Saw	90
Concrete Mixer	85	Rock Drill	98
Concrete Pump	71	Roller	74
Concrete Vibrator	76	Saw	76
Crane, Derrick	88	Scarifier	83
Crane, Mobile	83	Scraper	89
Dozer	85	Shovel	82
Generator	81	Spike Driver	77
Grader	85	Tie Cutter	84
Impact Wrench	85	Tie Handler	80
Jack Hammer	88	Tie Inserter	85
Loader	85	Truck	88
Paver	89		

Source: Federal Transit Administration, Transit Noise, and Vibration Impact Assessment, 2006.

- Policy EH-6.7: Construction Noise - Addressing Sources of Construction Noise. Reduce noise associated with construction activities by requiring properly maintained mufflers on construction vehicles, requiring the placement of stationary construction equipment as far as possible from developed areas, and requiring temporary acoustical barriers/shielding to minimize construction noise impacts at adjacent receptors. Special attention should be paid to noise-sensitive receptors (including residential, hospital, school, and religious land uses).
- Action EH-7.B: Noise Mitigation. Use the development review process to ensure that noise impacts are mitigated through setbacks/buffer zones, earthen berms, sound walls, building siting/orientation, and other appropriate means.

Through the implementation of these policies and actions, the proposed Plan would minimize temporary or periodic impacts to ambient noise levels from construction activities to the maximum extent feasible. Subsequent projects would be subject to separate, project-level CEQA review to identify and mitigate associated impacts. Therefore the impact would be less than significant.

Applicable Regulations:

- California Building Code
- Newark Land Use Noise Compatibility Guidelines

Significance Before Mitigation: Less Than Significant.

NOISE-5	The proposed Plan would not result in exposure of people residing or working in the vicinity of the plan area to excessive aircraft noise levels, for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

There are no areas of Newark which fall within an airport land use plan or 55 dBA contour for any of the airports located in proximity to the city. All public and public use airports in the vicinity of Newark are located a distance of 5 miles or greater. Therefore, implementation of the Plan would therefore not result in exposure to excessive aircraft noise levels and the impact would be less than significant.

Significance Before Mitigation: Less Than Significant.

NOISE-6	The proposed Plan would not result in exposure of people residing or working in the project area to excessive noise levels, for a project within the vicinity of a private airstrip.

There are no private airstrips located within Newark. First Interstate Bank and Washington Hospital, both in Fremont, operate heliports at respective distances of 1.7 and 2.2 miles from the Newark border. Due to limited and sporadic heliport use at these locations, and their distance to the nearest areas of Newark, the impacts from excessive noise levels related to private airstrips would be less than significant.

Significance Before Mitigation: Less Than Significant.

4.10.4 CUMULATIVE IMPACTS

NOISE-7	Implementation of the proposed Plan, in combination with past, present, and reasonably foreseeable projects, would not result in additional cumulatively considerable noise, or groundborne noise and vibration impacts.

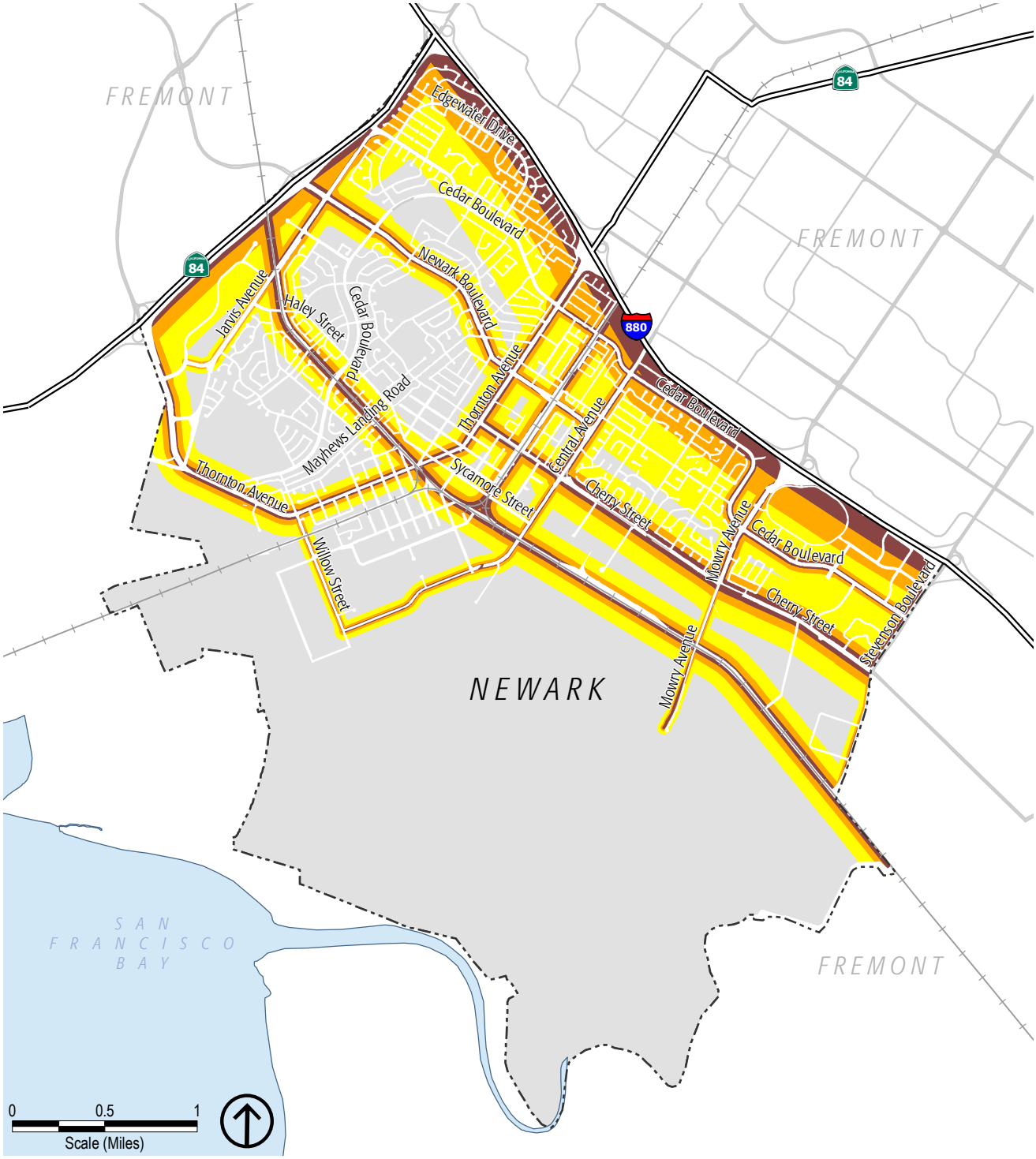
Figure 4.10-3 illustrates future noise levels projected for the Plan Area in 2035. These projections were developed on the basis 2035 traffic data in the Alameda County Travel Demand Forecast model, which incorporates cumulative development anticipated in the county and the region through 2035 as projected by ABAG. As such, cumulative noise impacts from the proposed Plan would be the same as the Plan-specific impacts discussed previously in this chapter.

4.10.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

NOISE-3	Implementation of the proposed Plan would result in a substantial permanent increase in ambient noise levels in the Plan Area above levels existing without Plan implementation.

Mitigation Measure NOISE-3: Increases in vehicular traffic resulting from implementation of the proposed Plan in conjunction with regional growth would result in permanent increases to ambient noise levels that would exceed applicable standards along ten major roadway segments in the Plan Area. Proposed Plan policies and actions, including Policy EH-7.4, Action EH-6.D, Action EH-6.E, Action EH-6.H, and Action EH-7.B, described above, would reduce associated impacts; however, increases in noise in excess of the applicable standards could still occur. Although the most effective mitigations such as soundwalls or earthern berms may theoretically be capable of reducing increases to ambient noise to levels below the above standards, such reductions cannot be guaranteed; and, in many cases, other considerations will prevent the use of these noise-attenuating features. Therefore, there are no additional measures available to reduce the associated impacts to a less-than-significant level.

Significance After Mitigation: No feasible mitigation measures are available to reduce noise impacts to less than significant levels, impacts would remain significant and unavoidable.



Source: Source Data: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010.

Railroads
City Limit
60 dBA CNEL contour
65 dBA CNEL contour
70 dBA CNEL contour

Figure 4.10-3
Future (2035) Noise Contours

4.11 POPULATION AND HOUSING

This chapter describes the population, housing, and employment characteristics of the Plan Area, and potential impacts of the proposed Plan.

4.11.1 ENVIRONMENTAL SETTING

4.11.1.1 REGULATORY FRAMEWORK

Regional Regulations

Association of Bay Area Governments Projections 2009

Association of Bay Area Governments (ABAG) is the official comprehensive planning agency for the San Francisco Bay region, which is composed of the nine counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma, and contains 101 cities. ABAG produces growth forecasts on four-year cycles so that other regional agencies, including the Metropolitan Transportation Commission (MTC) and the Bay Area Air Quality Management District (BAAQMD), can use the forecast to make project funding and regulatory decisions. The next set of growth forecasts will be published in 2013.

ABAG projections are the basis for the Regional Transportation Plan (RTP) and the regional Ozone Attainment Plan. In this way, ABAG projections have practical consequences that shape growth and environmental quality. The General Plans, zoning regulations and growth management programs of local jurisdictions inform the ABAG projections. The ABAG projections are also developed to reflect the impact of "smart growth" policies and incentives that could be used to shift development patterns from historical trends toward a better jobs-housing balance, increased preservation of open space, and greater development and redevelopment in urban core and transit-accessible areas throughout the ABAG region.

Regional Housing Needs Allocation

Housing element law requires local jurisdictions to allow the construction of a share of the region's projected housing needs. This share is called the Regional Housing Needs Allocation (RHNA). The specific RHNA number for a jurisdiction is important because State law mandates that each jurisdiction provide sufficient land to accommodate a variety of housing opportunities for all economic segments of the community to meet or exceed this number of housing units. ABAG, as the regional planning agency, calculates the RHNA for individual jurisdictions within Alameda County, including Newark. Newark's RHNA for the current planning cycle (2007-2014) is 1,755 units.[1]

[1] City of Newark, 2010, *Housing Element,* page 23.

Sustainable Communities Strategy

ABAG and MTC, in coordination with the BAAQMD and the Bay Conservation and Development Commission (BCDC), have been given the joint responsibility for creating the Sustainable Communities Strategy (SCS) for the nine-county Bay Area region. Each of the agencies involved in the SCS has a different role in regional governance. ABAG primarily deals with regional land use, housing, environmental quality, and economic development issues, while MTC is tasked with regional transportation planning, coordinating, and financing. BAAQMD is responsible for regional air pollution regulation. BCDC is focused on preserving, enhancing, and ensuring the responsible use of the San Francisco Bay.

These agencies jointly created the SCS for the Bay Area, entitled the Plan Bay Area. The SCS forecasts a land use pattern, which when integrated with the transportation system, would reduce greenhouse gas (GHG) emissions from automobiles and light trucks, and is measured against a regional GHG emissions reduction target established by the California Air Resources Board (CARB).

The SCS is a land use strategy required to be included as part of the Bay Area's 25-year RTP. By federal law, the RTP must be internally consistent. Therefore, the more than $200 billion dollars of transportation investment typically included in the RTP must align with and support the SCS land use pattern. State law also requires that the updated eight-year RHNA prepared by ABAG be consistent with the SCS. The SCS and RTP were adopted (simultaneously) on July 18, 2013[2]. The goals of the SCS are to:

- Recognize and support compact walkable places where residents and workers have access to services and amenities to meet their day-to-day needs.
- Reduce long commutes, increase energy independence, and decrease the region's carbon consumption.
- Support complete communities which remain livable and affordable for all segments of the population, maintaining the Bay Area as an attractive place to reside, start, or continue a business, and create jobs.
- Support a sustainable transportation system and reduce the need for expensive highway and transit expansions, freeing up resources for other more productive public investments.
- Provide increased accessibility and affordability to the Bay Area's most vulnerable populations.
- Conserve water and decrease the Bay Area's dependence on imported food stocks and their high transport costs.

While the SCS does not directly govern land uses within Newark, there are a number of benefits available to the City from being consistent with this plan, including: streamlining of CEQA pursuant to Senate Bill (SB) 375, the Sustainable Communities and Climate Protection Act of 2008, for applicable transit priority and residential or mixed-use projects, as well as high eligibility for transportation funding, provided that policies and land use patterns in the proposed Plan align with the goals of the SCS.

[2] One Bay Area.org, http://onebayarea.org/regional-initiatives/plan-bay-area.html, accessed on August 9, 2013.

ABAG and MTC adopted the SCS on July 18, 2013. The Final SCS is based on the preferred land use scenario released in May 2012. The land use scenario, titled the Jobs-Housing Connection Strategy, identifies Priority Development Areas (PDAs) throughout the Bay Area. PDAs are areas considered to be appropriate for new development because they are located in proximity to transit. PDAs are nominated by local jurisdictions, and the local municipality maintains land use control over PDAs within its jurisdiction. The Jobs-Housing Connection Scenario identifies two PDAs in Newark: the Dumbarton Rail Station Area and Old Town. To read more about Plan Bay Area: Jobs-Housing Connection Scenario, go to www.OneBayArea.Org.

Local Regulations

City of Newark Housing Element

The City of Newark's 2009-2014 Housing Element was adopted on February 25, 2010. The Housing Element contains a description of Newark's population trends, housing characteristics, and employment trends, an analysis of the city's housing needs in relation to RHNA, an overview of sites available for housing, an analysis of potential constraints to housing development, evaluation of the previous housing element, and housing goals and policies. The goals call for the City to preserve and enhance the quality of residential neighborhoods, provide housing opportunities for households with a wide range of incomes, provide housing opportunities for residents with special needs, balance housing and job growth, ensure a choice of housing types and locations to all residents without discrimination, and to provide affordable housing throughout the city.[3]

City of Newark Affordable Housing Program

Chapter 17.18 (Affordable Housing Program) of the Newark Municipal Code establishes the City's affordable housing program to provide safe and stable housing for households at all income levels. Under this Code, all new residential developments of greater than five units are required to provide a certain percentage of units at below market rates to households with very low, low, or moderate incomes. For non-residential development projects, housing impact fees are charged to provide contributions to the supply of housing for households with very low, low, and moderate incomes.

4.11.1.2 EXISTING CONDITIONS

This section describes existing conditions related to population, housing, and employment in Newark. The US Census Bureau's 2010 Census data presents the most up-to-date demographic profile available for Newark, and the population, housing, and employment projections contained in the SCS, adopted by ABAG and MTC in July 2013, represent the most current regional forecasts. However, regional planning initiatives, including RHNA and the Alameda County Transportation Commission's Travel Demand model, are based on ABAG's Projections 2009. Therefore, all three sets of population, housing, and employment data, which may differ to some extent, are described below.

[3] City of Newark, 2010, *Housing Element,* pages 62 to 64.

Population

According to the US Census Bureau, Newark had a population of 42,573 in 2010.[4] Census data indicate that Newark's population has increased slightly, from 42,471 in 2000 to 42,573 in 2010. In 2010, approximately 68.5 percent of the population was ages 21 years and over, while the median age was 33. Newark's average household size was a relatively high 3.27 persons per household in 2010, compared to 2.70 for Alameda County as a whole.[5] In 2010, 79.7 percent of households in Newark were family households, while 20.3 were non-family households, including 15 percent of households composed of individuals living alone. The SCS does not contain population projections for Newark; however, as shown in Table 4.11-1, ABAG's Projections 2009 estimate that Newark's population will grow to a total of 54,300 by 2035.[6] It should be noted that ABAG Projections 2009 were developed in 2008 and formally adopted in 2009, before the City of Newark enacted major land use changes with the adoption of the Dumbarton Transit-Oriented Development (TOD) Specific Plan or the Area 3 and 4 Specific Plan. Consequently, ABAG projections do not accurately reflect the potential for housing or employment generating development in the city as they were not based on land use designations subsequently adopted by the City of Newark that allow for residential development in large areas of the city previously designated for industrial uses.

Housing

2010 Census data indicate that there were 13,414 housing units in Newark in 2010 with an occupancy rate of 96.7 percent. The most predominant type of housing in Newark is single-family homes, which account for 81 percent of all housing, as shown in Table 4.11-2.[7] Comparatively, multi-family housing, which accounts for 19 percent of all housing, represents a much smaller share of total housing in Newark.[8] Housing needs change over time and adapt to shifting demographics, real estate prices, and the economy. According to the 2009-2014 Housing Element, the percentage of Newark's population over the age of 65 is increasing and of these seniors who are head of household, two-thirds earn less than $50,000.[9] The Housing Element also noted that almost 75 percent of lower income[10] renters overpaid for their housing. Additionally, the Housing Element found that while housing costs have decreased, the median home price as of 2008 was approximately $372,500.

Another factor affecting housing is the condition of the existing housing stock. In Newark, the existing housing stock is aging, with approximately 3,905 homes (29.7 percent) built in the 1960s.[11] Approximately 6,150 homes, almost half of the housing stock, were built prior to 1970[12]. Additionally, the 2010 Housing Element noted that while much of the housing in Newark is in relatively good repair and condition, there are some multi-family

[4] US Census, http://factfinder2.census.gov, accessed on November 27, 2012.
[5] US Census 2010, http://factfinder2.census.gov, accessed on November 27, 2012.
[6] Association of Bay Area Governments (ABAG) 2009, *Projections and Priorities 2009: Building Momentum*, *Projections through 2035*.
[7] The total percentage of single-family housing, which combines the percentages for detached and attached units.
[8] The total percentage of multi-family housing, which combines the percentages for two to four units and five-plus units.
[9] City of Newark, 2010, *Housing Element,* page 1.
[10] Those residents with an income less than $20,000.
[11] City of Newark, 2010, *Housing Element,* pages 14 to 15. Percentages are calculated using the 2000 US Census.
[12] City of Newark, 2010, *Housing Element*, pages 14 to 15. Percentages are calculated using the 2000 US Census.

TABLE 4.11-1 **REGIONAL POPULATION, HOUSING, AND EMPLOYMENT PROJECTIONS FOR NEWARK**

	2000	2005	2010	2025	2035	2040
ABAG Projections 2009						
Population	42,471	43,500	43,900	50,000	54,300	n/a
Housing Units	12,992	13,250	13,300	15,090	16,280	n/a
Household Size	3.26	3.28	3.29	3.31	3.33	n/a
Jobs within the City Limit	21,420	20,590	20,350	23,570	24,830	n/a
Employed Residents	20,910	20,420	20,490	25,030	27,850	n/a
Jobs/Employed Residents Ratio	1.02	1.01	0.99	0.94	0.89	n/a
Sustainable Communities Strategy						
Population	n/a	n/a	n/a	n/a	n/a	n/a
Housing Units	n/a	n/a	13,414	n/a	n/a	16,627
Jobs within the City Limit	n/a	n/a	17,870	n/a	n/a	23,090

Source: ABAG, 2009, Building Momentum: Projections and Priorities 2009, and ABAG and MTC, 2012, Final Jobs-Housing Connection Strategy.

TABLE 4.11-2 **HOUSING STOCK IN NEWARK**

Housing Type	Number	Percent of Total
Single-Family Detached	9,522	71.0%
Single-Family Attached	1,342	10.0%
Multi-Family (Two to Four)	569	4.2%
Multi-Family (Five Plus)	1,981	14.8%
Mobile Homes	0	0.0%
Occupied	12,972	96.7%
Total	**13,414**	**100.0%**

Source: State of California, Department of Finance, 2012, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark*.

developments in need of rehabilitation and some poorly maintained single-family homes with conditions problems including dry rot, holes, leaks, chipped surfaces, and broken appliances.[13]

As shown in Table 4.11-1, ABAG's projections 2009 forecast that the number of housing units in Newark will increase to 16,280 by 2035, while the SCS projects that there will be 16,627 housing units in Newark in 2040.

Employment

As shown in Table 4.11-1, ABAG's Projections 2009 estimates that in 2010 there were roughly 17,870 jobs and 20,490 employed residents in Newark, which is equivalent to a ratio of 0.99 jobs per employed resident. By 2035, ABAG projects that this ratio will decline slightly from 0.99 in 2010 to 0.89, as the resident population increases to 54,300 and the number of employed residents increases to 27,850. By comparison, the more recently completed forecasts in the SCS estimate that there were 13,414 jobs in Newark in 2010 and that that number will increase to 23,090 jobs by 2040. The SCS does not provide an estimate of the ratio of jobs per employed resident for the City of Newark; however, at a regional level the SCS projects that the ration of employed residents per job will remain constant at 0.966 from 2010 through 2040.

According to the US Census, Newark has a concentration of retail trade (26 percent) and manufacturing (26 percent) jobs, but also has strong wholesale (12 percent), professional/scientific/technical (14 percent), and accommodation/food (13 percent) job sectors.[14] Other job sectors in Newark include information (3 percent), health care (3 percent), and education (1 percent). The top employers in Newark include the Newark Unified School District, Logitech, WorldPac, Full Bloom Baking Company, Risk Management Solutions, Smart Modular Technologies, Morhpo Detection, Cargill Salt, , Valassis and Home Depot.[15]

4.11.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact with regard to population, housing, and employment if it would:

1. Induce substantial unexpected population growth, or growth for which inadequate planning has occurred, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
2. Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.
3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

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[13] City of Newark, 2010, *Housing Element*, page 15.

[14] U.S. Census Bureau, LEHD OnTheMap Application, http://onthemap.ces.census.gov, accessed on November 27, 2012; U.S. Census Bureau, 2007, Economic Census, Table 1, Elected Statistics by Economic Sector.

[15] City of Newark, 2011, *Dumbarton TOD Specific Plan Draft Environmental Impact Report*, page 4.11-2; City of Newark website, http://www.ci.newark.ca.us/departments/planning-and-economic-development/economic-development/top-employers, accessed on May 29, 2013.

4.11.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to population and housing.

POP-1	The Plan would not induce substantial unexpected population growth, or growth for which inadequate planning has occurred, either directly or indirectly.

The proposed Plan would result in a significant impact related to population growth if it would lead to substantial unplanned growth, either directly or indirectly. The Plan does not specifically propose any new development or redevelopment, and therefore would not result in direct growth; however, implementation of the proposed Plan would facilitate growth in the Plan Area through 2035 and as such would have indirect effects related to growth. Potential impacts stemming from the indirect inducement of unplanned for population growth are discussed below in relation to both local and regional planning initiatives.

Local Planning

The developable area of Newark is already largely built out and the Plan Area is already well served by utility and transportation infrastructure. Future development and redevelopment under the proposed Plan would be largely infill development and would be primarily concentrated in four focus areas as described in Chapter 3, Project Description, of this Draft EIR. The proposed Plan contains multiple policies for the accommodation of this future growth, including:

- Policy LU-1.2: Growth Focus Areas. Achieve a future growth pattern which includes new neighborhoods on vacant land along the southern and western edges of the city, and infill development in transit-served areas such as Old Town and the Greater NewPark Mall Area. Zoning and development review decisions should recognize these areas as the priority locations for growth and change over the next 20 years
- Policy LU-1.4: Coordinating Land Use and Transportation Decisions. Coordinate land use and development decisions with the capacity of the transportation system and plans for future transportation improvements.

Implementation of these proposed policies would ensure that planning is adequate to accommodate future growth.

Regional Planning

As described above, ABAG and MTC have responsibility for regional planning initiatives in the nine county Bay Area, including Newark. ABAG and MTC have developed regional growth forecasts for the Bay Area as a whole and for constituent jurisdictions. Table 4.11-1 above shows population, housing, and job growth projections for Newark that are included in the regional forecasts. The SCS does not include forecasts for 2035; however, as shown, the SCS projects 16,627 housing units and 23,090 jobs in Newark by 2040. By comparison, as described in Chapter 3, Project Description, of this Draft EIR, buildout of the proposed Plan could result in as many as 60,510 residents, 19,699 housing units, and 22,609 jobs by 2035.

Buildout of the proposed Plan could exceed the population, housing, and employment growth assumed for Newark in the SCS. Buildout of the Plan could result in as many as 3,072 more housing units in 2035 than the

SCS projects in 2040. Additionally, the Plan could result in as many as 389 more jobs in Newark in 2035 than the under the SCS scenario.[16] However, growth under the proposed Plan would come incrementally over a period of approximately 25 years and would be guided by a policy framework in the proposed Plan that is generally consistent with many of the principal goals and objectives established in regional planning initiatives for the Bay Area.

One of the key concepts of the Sustainable Communities Strategy developed for the Bay Area is the idea of focusing future growth into infill opportunity areas, called PDAs. Two of the Focus Areas envision in the proposed Plan – the Dumbarton TOD Focus Area and the Old Town Focus Area – are PDAs defined in the SCS and, prior to that, as part of ABAG's FOCUS program. Implementation of the proposed Plan would facilitate growth in these PDAs and support regional planning efforts. Additionally, the proposed Plan includes the following policies, which are consistent with are consistent with goals and objectives identified in the SCS and support the creation of compact, walkable places, and communities which remain livable and affordable for all segments of the population:

- Policy LU-1.2: Growth Focus Areas. Achieve a future growth pattern which includes new neighborhoods on vacant land along the southern and western edges of the city, and infill development in transit-served areas such as Old Town and the Greater NewPark Mall Area. Zoning and development review decisions should recognize these areas as the priority locations for growth and change over the next 20 years.
- Policy LU-1.4: Coordinating Land Use and Transportation Decisions. Coordinate land use and development decisions with the capacity of the transportation system and plans for future transportation improvements.

The implementation of Mitigation Measure 4.9-1 from the Newark Housing Element EIR, requiring that the City report estimated population increases to ABAG, would also help ensure that future planning efforts are coordinated and that additional growth under the proposed Plan would be accommodated. Therefore, while growth anticipated under the proposed Plan could exceed regional growth projections for Newark, this additional growth would be consistent with the regional planning objectives established for the Bay Area. Further, this additional growth would come incrementally over a period of approximately 25 years and a policy framework is in place to ensure adequate planning occurs to accommodate it. As a result, associated impacts would be less than significant.

Applicable Regulations:

- None

Significance Before Mitigation: Less than significant.

POP-2	The Plan would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.

[16] The number of jobs in Newark in 2035 interpolated from the SCS projections is 22,220 based on the following calculation (5,220 new jobs / 30 years x 25 years = 22,220). The difference is calculated as 22,609 - 22,220 = 389.

The proposed Plan would have a significant environmental impact if it would directly displace of a substantial number of existing housing units, thereby requiring construction of replacement housing elsewhere. Overall, as described in Chapter 3, Project Description, of this Draft EIR, implementation of the proposed Plan would result in an increase in the total number of housing units in Newark from 13,491 to 19,699 units over a period of 20 years through 2035. Development and redevelopment of existing sites in the urbanized area of Newark could potentially displace some existing housing; however, as stated earlier development under the proposed Plan would be concentrated primarily in the four focus areas and on opportunity sites identified in the Housing Element where vacant or under-utilized land exists. As such, displacement of housing units would be minimal and replacement housing would be constructed throughout the city.

Additionally, the Land Use Element of the proposed Plan includes policies further minimize potential impacts related to displacement of housing:

- Policy LU-1.2: Growth Focus Areas. Achieve a future growth pattern which includes new neighborhoods on vacant land along the southern and western edges of the city, and infill development in transit-served areas such as Old Town and the Greater NewPark Mall Area. Zoning and development review decisions should recognize these areas as the priority locations for growth and change over the next 20 years.
- Policy LU-1.8: Housing Opportunity Sites. Ensure that adequate sites are provided for the private and non-profit sectors to develop housing for seniors, persons with disabilities, and lower income households. Such housing should be well designed and managed, and located in a manner that is compatible with existing uses and neighborhood character.
- Policy LU-1.10: Vacant and Underutilized Sites. Encourage the development of Newark's remaining vacant and underutilized sites for their highest and best use, consistent with the designations shown on the General Plan Diagram. Future growth in the city should generally be directed to the areas identified in this General Plan.

Therefore, the proposed Plan would not displace substantial housing units and would have a less-than-significant impact.

Significance Before Mitigation: Less than significant.

POP-3	The Plan would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The proposed Plan would have a significant environmental impact if it would directly or indirectly require the displacement of a substantial number of people, thereby requiring construction of replacement facilities and services elsewhere. Such displacement could result if low income or special needs populations were displaced as a result of development under the Plan, requiring the construction of replacement housing to accommodate them elsewhere. As described above, the proposed Plan is anticipated to result in the development of 6,208 new housing units in Newark by 2035 and implementation of proposed Plan Policy LU-1.8, described above, would ensure the adequate provision of housing sites for seniors, persons with disabilities, and lower income households. Additionally, continued implementation of the City's Affordable Housing Program would ensure the provision of

housing opportunities for low-income and special needs populations. As such, impacts associated with the displacement of people would be less than significant.

Applicable Regulations

- Newark Affordable Housing Program

Significance Before Mitigation: Less than significant.

4.11.4 CUMULATIVE IMPACTS

POP-4	The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to population and housing.

This section analyzes potential impacts to population and housing that could occur from a combination of the proposed Plan and other past, present, and reasonably foreseeable growth in the surrounding area. The geographic scope of this analysis is taken as the nine county San Francisco Bay Area, which corresponds to the geographic scope of regional planning efforts undertaken by ABAG and MTC. A cumulative impact would be considered significant if the proposed Plan, taken together with past, present, and reasonably foreseeable growth within the Bay Area, would result in substantial unplanned growth or the displacement of substantial numbers of either people or housing units.

As shown on Table 4.11-1 and described above, buildout projections conducted for this Draft EIR indicate that growth under the proposed Plan would exceed regional population, housing, and employment projections for Newark contained in the SCS. Taken together with projected growth for the Bay Area region as a whole, buildout of the proposed Plan could therefore result in approximately 3,072 more homes and 389 more jobs in the Bay Area than envisioned in the SCS.[21,22] This represents less than one percent (0.4 percent) of the total 655,656 housing unit increase anticipated for the Bay Area in the SCS preferred scenario by 2040 and 0.03 percent of the total 1,119,920 job increase in the region through 2040. Additionally, this growth would come incrementally over a period of approximately 25 years and therefore growth in excess of regional projections would not be substantial.

Further, buildout of the proposed Plan would be consistent with the principal goals and objectives established in regional planning initiatives for the Bay Area. One of the key concepts of the Sustainable Communities Strategy developed for the Bay Area is the idea of focusing future growth into infill opportunity areas, called PDAs. Two of the Focus Areas envision in the proposed Plan – the Dumbarton TOD Focus Area and the Old Town Focus Area – are PDAs defined in the SCS and, prior to that, as part of ABAG's FOCUS program. Implementation of the

[21] The SCS forecasts 16,627 housing units in Newark by 2040, whereas buildout projections for the proposed Plan project 19,699 units by 2035. Therefore, the Plan could result in as many as 3,072 more housing units in Newark in 2035 than the SCS forecasts for the city in 2040.

[22] The number of jobs in Newark in 2035 interpolated from the SCS projections is 22,220 based on the following calculation (5,220 new jobs / 30 years x 25 years = 22,220). The difference is calculated as 22,609 - 22,220 = 389.

proposed Plan would facilitate growth in these PDAs and support regional planning efforts. Additionally, Goal One of the Jobs-Housing Connection Strategy developed by ABAG and MTC as part of the Plan Bay Area process call for an increase in the amount, affordability, and diversity of housing in the region, and as described above, buildout of the proposed Plan and implementation of its policies and actions would support that goal. Therefore, overall, buildout of the proposed Plan would be consistent with regional planning initiatives, and while it could result in more growth than currently envisioned in regional projections, buildout would occur incrementally over a period of 20 years and would not represent substantial, unplanned growth. Consequently, associated cumulative impacts would be less than significant.

With respect to cumulative impacts related to the displacement of people and housing under the proposed Plan in combination with other past, present, and reasonably foreseeable development in the Bay Area, as described above, the proposed Plan is anticipated to result in the construction of approximately 6,208 new housing units in Newark and the implementation of proposed Plan policies and the City's Affordable Housing Program would ensure the provision of housing options in Newark for low-income and special needs populations from Newark and the surrounding area. Therefore, associated cumulative impacts would be less than significant.

Applicable Regulations:

- Regional Housing Needs Allocation (RHNA)
- City of Newark Affordable Housing Program

Significance Before Mitigation: Less than significant.

4.11.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant Plan-level or cumulative impacts to population and housing and therefore no mitigation measures are required.

4.12 PUBLIC SERVICES AND RECREATION

This chapter describes public services provided in Newark and evaluates the potential impacts that could result from buildout of the proposed Plan on public services. Law enforcement, fire protection and emergency medical response, parks and recreational facilities, schools, and libraries are each addressed in a separate section of this chapter. In each section, a summary of the relevant regulatory setting and existing conditions is followed by a discussion of project-specific and cumulative impacts.

4.12.1 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

4.12.1.1 ENVIRONMENTAL SETTING

This section describes existing conditions related to fire and emergency medical services and the potential impacts that could result from buildout of the proposed Plan.

Regulatory Framework

State Regulations

California Building Code

The State of California provides a minimum standard for building design through the 2010 California Building Code, which is located in Part 2 of Title 24 of the California Code of Regulations. The 2010 California Building Code is based on the 1997 Uniform Building Code, but has been modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local city and county building officials for compliance with the California Building Code. Typical fire safety requirements of the CBC include: the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

The California Fire Code incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official Fire Code for the State and all political subdivisions. It is located in Part 9 of Title 24 of the California Code of Regulations. The California Fire Code is revised and published every three years by the California Building Standards Commission.

Local Regulations

Fire Prevention Code

The City of Newark has adopted a Fire Prevention Code[1] to regulate permit processes, emergency access, hazardous material handling, and fire protection systems, including automatic sprinkler systems, fire extinguishers, and fire alarms. The City adopted the 2010 California Fire Code by reference and amended through Chapter 15.32 of the Newark Municipal Code. Section 15.32.040 of the Municipal Code requires automatic sprinkler systems in new buildings if the new building has a total floor area of 1,000 square feet or more or if the existing building has 12,000 square feet of additional floor area. An automatic sprinkler system is also required in newly constructed and existing one-and two-family dwellings, townhouses, and detached structures accessory to one- and two-family dwellings and townhouses. New construction or improvements are subject to the Newark Fire Department's plan review and approval.

Newark Capital Facilities Fees

As set forth in Chapter 3.24 of the Newark Municipal Code, all new development projects are required to pay Capital Facilities Fees. Capital Facilities Fees consist of three types of fees: public safety, community service and facilities, and transportation impact fees. For commercial and industrial development, the City requires the fees be paid prior to the issuance of a building permit, while for residential development, the fees should be paid prior to the issuance of the Certificate of Occupancy. The fees are used to fund the City's public services and capital facilities improvements.

Existing Conditions

The Alameda County Fire Department (ACFD) provides fire protection services over approximately 506 square miles of the Alameda County area, including Dublin, Newark, San Leandro, and Union City.[2] The ACFD is responsible for a range of fire protection services, including structure fires, medical emergencies, wildland fires, auto fires, auto extrications, special rescues, public education, and disaster preparedness and response. Additionally, the ACFD runs three major divisions: Operations Division; Fire, Life, and Environmental Protection (FLEP) Division; and Administrative Division. ACFD Fire Prevention Branch reviews building and facility plans and inspects completed work to ensure that all new and remodeled buildings and facilities meet State and local fire codes and standards.[3] ACFD has established an average response time goal of five minutes or less 90 percent of the time for the first responding unit for a first alarm assignment, with the remaining units arriving within 10 minutes or less 90 percent of the time.[4]

The ACFD serves a daytime population of approximately 384,000 people, including 43,930 residents and 19,727 employees in Newark under a contract with the Newark Fire Prevention Bureau.[5] The ACFD has directly allocated

[1] Newark Municipal Code, http://library.municode.com/index.aspx?clientId=16521, accessed on January 25, 2013.
[2] Newark Fire Department, http://www.newark.org/departments/fire/, accessed on November 27, 2012.
[3] Alameda County Fire Department, http://www.acgov.org/fire/about/branches.htm, accessed on November 27, 2012.
[4] Rob Eaton, Alameda County Fire Department, email correspondence with The Planning Center | DC&E, March 12, 2013.
[5] Newark Fire Department, http://www.newark.org/departments/fire/, accessed on November 27, 2012.

the following positions to the City of Newark: nine captains, nine engineers, nine firefighters, one deputy fire marshal, and one code compliance officer. The City of Newark is also responsible for funding 8.34 percent of shared positions, including fire chief, deputy fire chiefs, division chiefs, battalion chiefs and administrative staff. The daily minimum staffing is three captains, three engineers, and three firefighters. There is a minimum of nine paramedics and 18 emergency medical technicians assigned to the City of Newark. These specialties are held by the captains, engineers, and firefighters listed above. [6]

Based on the City of Newark's current population of 43,930 residents, the current service ratio of the Newark Fire Department is 0.2 firefighters per thousand residents.[7] The ACFD delivers fire suppression and rescue response, hazard prevention and education, and disaster preparedness to the Plan Area through the three fire stations that are listed below:

- ACFD Station 27, 39039 Cherry Street, Newark: Station #27 was built in 1981 and is home to a crew of three firefighters that staff one fire engine.[8]
- ACFD Station 28, 7550 Thornton Avenue, Newark: Station #28 opened in 2005 and is approximately 13,500 square feet. The former Newark Fire Station #1, this station is maintained by a crew of three firefighters that staff a Quint (a piece of fire apparatus that combines the features of a ladder truck and a fire engine) and one battalion chief.[9]
- ACFD Station 29, 35775 Ruschin Drive, Newark: Station #29 was built in 1962 and is staffed by a crew of three firefighters and one fire engine.[10]

During the 2010-11 fiscal year, the Newark Fire Department responded to 2,952 calls, of which 2,000 were emergency medical service calls.[11]

4.12.1.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the Plan would have a significant impact related to fire protection and emergency services if:

1. In order to maintain acceptable service ratios, response times, or other performance objectives for fire services, the Plan would result in the provision of or need for new or physically altered fire protection facilities, the construction or operation of which could cause significant environmental impacts.

[6] Rob Eaton, Alameda County Fire Department, email correspondence with The Planning Center | DC&E, March 12, 2013.
[7] 10 firefighters/43,139 residents x 1,000 = 0.23.
[8] Alameda County Fire Department, http://www.acgov.org/fire/about/station27.htm, accessed on November 27, 2012.
[9] Alameda County Fire Department, http://www.acgov.org/fire/about/station28.htm, accessed on November 27, 2012.
[10] Alameda County Fire Department, http://www.acgov.org/fire/about/station29.htm, accessed on November 27, 2012.
[11] Alameda County Fire Department, http://www.acgov.org/fire/about/statistics.htm, accessed on November 27, 2012.

4.12.1.3 IMPACT DISCUSSION

PS-1	The proposed Plan would not result in the provision of or need for new or physically altered fire protection facilities, the construction or operation of which could cause significant environmental impacts.

Buildout of the proposed Plan would create an increased demand for fire, rescue and emergency medical services in the ACFD service area. Under CEQA, a significant impact would result if this increased demand would require the construction of new facilities or the expansion of existing facilities in order to ensure the ACFD can adequate serve the Plan Area.

As described in Chapter 3 of this Draft EIR, the proposed Plan could bring an additional 16,510 residents and an additional 2,882 jobs to Newark by 2035. This increase in service population would come incrementally over a period of 20 years. ACFD anticipates that this increase in service population would result in fiscal impacts as well as the need for additional staffing and equipment; however, ACFD does not anticipate that this increase would require the construction or expansion of facilities.[12] Additional staffing and equipment needed to accommodate the increase in service population would be accommodated using existing stations.

Additionally, the proposed Plan includes goals, policies, and actions that would reduce risks associated with fire hazards and minimize calls for fire and emergency medical response services in Newark:

- Goal CS-2: Conserve Newark's wetlands and baylands.
- Goal CSF-4: Provide responsive police, fire, and emergency medical services that ensure the safety of residents, employers, and visitors.
- Policy CSF-4.2: Emergency Medical Services. Ensure the provision of high-quality emergency medical response services, including paramedics and emergency medical technicians.
- Policy CSF-4.4: Fire Prevention and Response Services. Ensure the provision of fire prevention and response services which minimize fire risks and protect life and property.
- Policy CSF-4.5: Mutual Aid Agreements. Support mutual aid agreements that allow for supplemental aid from other police and fire departments in the event of a major fire and which dispatch fire fighters from Newark to other communities in the event of major fires outside the city.
- Policy CSF-4.6: Improving Fire Safety. Identify and take action to make buildings fire-safe including, where appropriate, requirements for sprinkler systems, non-combustible materials, and early warning systems.
- Policy CSF-4.7: Fire Inspections. Maintain an inspection program for industrial, commercial, public, and multi-family buildings to ensure that fire code violations are identified and corrected.

[12] Rob Eaton, Division Chief, Alameda County Fire Department, email communication with The Planning Center | DC&E, June 3, 2013.

- Action CSF-4.F: Improving Fire Response Capacity. Ensure the provision of sufficient facilities and additional fire personnel, to respond to the demand created by new development.
- Action CSF-4.G: Collaboration with ACFD. Work collaboratively with the Alameda County Fire Department to track monthly call frequency, type, and response time. As needed, review and refine the agreement with ACFD to ensure that local needs are met.
- Action CSF-4.H: Fire Department Review of Major Development. Engage fire personnel in the review of proposed development to identify necessary fire prevention and risk reduction measures. Fire Department input should also be solicited to ensure that water supplies will be sufficient to meet fire-fighting needs, appropriate building materials are used, and provisions for emergency access are included.

As such, implementation of the proposed Plan goals, policies, and actions cited above and compliance with the provisions of the California Building Code and California Fire Code would ensure that buildout of the proposed Plan would result in a less-than-significant impact with respect to fire protection services.

Applicable Regulations:

- California Building Code
- California Fire Code
- Newark Fire Prevention Code
- Public Safety Impact Fees
- Development Review

Significance Before Mitigation: Less than significant.

4.12.1.4 CUMULATIVE IMPACTS

PS-2	The proposed Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to fire protection service.

A significant cumulative environmental impact would result if, in combination with other past, present, and reasonably foreseeable development, buildout of the proposed Plan would exceed the ability of fire and emergency medical responders to adequately serve the vicinity, thereby requiring construction of new facilities or modification of existing facilities. This section analyzes potential impacts to fire protection services that could occur from the proposed Plan in combination with reasonably foreseeable growth in the ACFD service area.

As described above, the proposed Plan would not require the need for new or physically altered facilities in order for the ACFD to provide fire protection services to its service area. Cumulative impacts could occur if demands for fire protection services in other communities within the ACFD service area increase to the extent resulting in the need for new fire stations or facilities. However, future development within the ACFD would also be required to comply with State and local regulations, including Building and Fire Code requirements, and be reviewed by the

ACFD to ensure risks associated with fire hazards be minimized. Furthermore, the ACFD has developed a Strategic Business Plan,[13] which calls for the development and implementation of a long-range capital improvement plan in order to maintain acceptable service ratios, response times, or other performance objectives for fire services. Any construction or expansion of ACFD facilities, if identified in the long-range capital improvement plan, would be subject to separate CEQA review, thereby providing an opportunity to identify and mitigate associated environmental impacts.

Therefore, the cumulative impact on the provision of fire services would be less-than-significant.

Applicable Regulations:

- California Building Code
- California Fire Code
- Development Review
- ACFD Strategic Business Plan

Significance Before Mitigation: Less than significant.

4.12.1.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant Plan-specific or cumulative impacts to fire protection service and therefore no mitigation measures are required.

4.12.2 POLICE PROTECTION SERVICES

This section describes the current police protection services conditions in Newark and evaluates potential impacts related to the delivery of police protection services that could result from buildout of the proposed Plan.

4.12.2.1 ENVIRONMENTAL SETTING

Regulatory Framework

<u>Newark Capital Facilities Fees</u>

As set forth in Chapter 3.24 of the Newark Municipal Code, all new development projects are subject to paying Capital Facilities Fees. Capital Facilities Fees consist of three types of fees: public safety, community service and facilities, and transportation impact fees. For commercial and industrial development, the City requires the fees be paid prior to the issuance of a building permit while for residential development, the fees should be paid prior to the issuance of the Certificate of Occupancy. The fees are used to fund the City's capital facilities improvements.

[13] Alameda County Fire Department, 2010, *Strategic Business Plan 2010-2017*.

Existing Conditions

Newark Police Department

The Newark Police Department (NPD) provides police protection services to the City of Newark from its police headquarters, located at 37101 Newark Boulevard. The NPD runs two Divisions: Field Operations and Support Services. The NPD also has a number of community-oriented policing programs, including SRO (School Resource Officers) and GREAT (Gang Resistance Education and Training).

The NPD staff consists of 52 sworn officers, including one chief, two commanders, zero lieutenants, nine sergeants, and 39 officers; 29 in patrol, and ten in various detective assignments. Additionally, NPD staff includes 21 non-sworn civilian staff. The Department's current ratio of officers to population is less than 1.0 per thousand residents (approximately 0.88 sworn officers per thousand residents), which is below the national average of about 1.5 officers per thousand.[14]

4.12.2.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the Plan would have a significant impact related to police services if:

1. In order to maintain acceptable service ratios, response times, or other performance objectives for police services, the Plan would result in the provision of or need for new or physically altered police facilities, the construction or operation of which could cause significant environmental impacts.

4.12.2.3 IMPACT DISCUSSION

PS-3	The proposed Plan would not result in a significant impact related to the construction or expansion of police facilities.

Buildout of the proposed Plan could bring an additional 16,510 residents and an additional 2,882 jobs to Newark by 2035, creating an increased demand for police protection services in the Newark Police Department service area. As described above, while the Police Department currently has no plans to construct or expand facilities, the Police Department currently operates at a staffing level of less than 1.0 officers per thousand residents, which is below the national average of 1.5 officers per thousand residents. The projected increase in service population that would result from buildout of the proposed Plan would further strain police resources, causing a need for additional officers. Given that the existing police building is currently at capacity, and additional locker space, office space, meeting and/or equipment space is not available in the existing building, a new building or further expansion of the existing building would be necessary to accommodate the increased service population anticipated under the proposed Plan. In addition, the existing Police Department parking lot is also at capacity and

[14] Chief James Leal, Newark Police Department, email communication with The Planning Center | DC&E, June 25, 2013.

could not handle any additional patrol vehicles for the additional staff. Therefore, although buildout of the proposed Plan would come incrementally over a period of 20 years, the projected increase in service population would result in a potentially significant impact.

However, the proposed Plan includes a goals, policies, and actions that would address the need for new or expanded police facilities on an ongoing basis through 2035:

- Goal CSF-4: Provide responsive police, fire, and emergency medical services that ensure the safety of residents, employers, and visitors.
- Policy CSF-4.1: Police Services. Maintain professional, efficient, effective Police Department activities which promote a high level of public safety.
- Action CSF-4: Police Department Strategic Plan. Prepare and periodically update a Police Department Strategic Plan which lays out the Department's priorities, and identifies strategies for technology, communication, training, and performance management.
- Action CSF-4.D: Police Department Review of Development. Engage the Police Department in the review of major new development plans to ensure that projects are designed to minimize the potential for criminal activity and maximize the potential for responsive police services.

Additionally, continued implementation of Capital Facilities Fee Program requiring residential, commercial, and industrial developments to pay impact fees would provide funding for the construction or expansion police facilities.

Therefore, implementation of the proposed Plan policies and the Capital Facilities Fee Program cited above would ensure the Police Department is actively involved in planning to accommodate growth under the Plan and that funds are set aside to allow for construction of facilities as needed to accommodate the growth envisioned. In addition, the future construction or expansion of Police Department facilities would be subject to separate CEQA review in order to identify potential environmental impacts and mitigation measures as needed. As such, while buildout of the proposed Plan would require a new building or further expansion of the existing building, associated impacts from buildout of the proposed Plan would be reduced to a less-than-significant level through implementation of the proposed policies and continued collection of Capital Facilities Fees from development under the Plan.

Applicable Regulations:

- Public Safety Impact Fees
- Development Review

Significance Before Mitigation: Less than significant.

4.12.2.4 CUMULATIVE IMPACTS

PS-4	The proposed Plan, in combination with past, present, and reasonably foreseeable growth, would result in less than significant cumulative impacts with respect to law enforcement services.

A significant cumulative environmental impact would result if, in combination with other past, present, and reasonably foreseeable growth in the Newark Police Department service area, buildout of the proposed Plan would exceed the ability of law enforcement service providers to adequately serve the vicinity, thereby requiring construction of new facilities or modification of existing facilities.

The Newark Police Department is responsible for providing all police services for Newark and would also be responsible for any future annexed sites to the City. Therefore, the changes and growth anticipated under the proposed Plan would not have any cumulative impact beyond the service boundary of the Newark Police Department service area. As described above, while buildout of the proposed Plan would require a new building or further expansion of the existing building, associated impacts from buildout of the proposed Plan would be reduced to a less-than-significant through implementation of the proposed policies and collection of Capital Facilities Fees from development under the Plan. Additionally, growth under the proposed Plan is not expected to significantly increase the degree or incidence of need for mutual aid from neighboring agencies for the Newark Police Department. Therefore, the implementation of the proposed Plan would in a less-than-significant cumulative impact on the provision of police services.

Applicable Regulations:

- Public Safety Impact Fees
- Development Review

Significance Before Mitigation: Less than significant.

4.12.2.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The Plan would not result in any significant Plan-specific or cumulative impacts to police services and therefore no mitigation measures are required.

4.12.3 SCHOOLS

This section discusses the Plan-specific and cumulative impacts related to schools.

4.12.3.1 ENVIRONMENTAL SETTING

Regulatory Framework

State Regulations

Senate Bill 50

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding and whether the school district meets certain additional criteria involving bonding capacity, year round school and the percentage of moveable classrooms in use.

California Government Code, Section 65995(b), and Education Code Section 17620

SB 50 amended California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every two years, according to inflation adjustments. On January 25, 2012 the State Allocation Board (SAB) approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) from $2.97 to $3.20 per square foot of assessable space for residential development of 500 square feet or more, and from $0.47 to $0.51 per square foot of chargeable covered and enclosed space for commercial/industrial development.[15] School districts may levy higher fees if they apply to the SAB and meet certain conditions.[16]

Mitigation Fee Act (California Government Code 66000-66008)

Enacted as AB 1600, the Mitigation Fee Act requires a local agency establishing, increasing, or imposing an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put.[17] The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development plan on which it is to be levied. The Act came into force on January 1, 1989.

[15] State Allocation Board Meeting, January 25, 2012, http://www.documents.dgs.ca.gov/opsc/Resources/Index_Adj_Dev.pdf, accessed on May 25, 2012.

[16] http://www.edsource.org/iss_fin_sys_facilities.html, accessed January 25, 2013.

[17] California Government Code, Sections 66000-66008, http://www.leginfo.ca.gov/cgi-bin/waisgate?WAISdocID=56595118777+0+0+0&WAISaction=retrieve, accessed on November 17, 2011.

Existing Conditions

The Newark Unified School District (NUSD) provides school services in Newark. The NUSD operates eight elementary schools (kindergarten through grade 5), two alternative high schools, one junior high, one comprehensive high school, one adult school and one preschool, as listed below:[18]

- James Bunker Elementary, 6071 Smith Street
- James Graham Elementary, 36270 Cherry Street
- John F. Kennedy Elementary, 35403 Blackburn Drive
- Lincoln Elementary, 36111 Bettencourt Drive
- Louis Milani Elementary, 37490 Birch Street
- E.L. Musick Elementary, 5735 Musick Drive
- A.L. Schilling Elementary, 36901 Spruce Street
- H.A. Snow Elementary, 6580 Mirabeau Drive
- Newark Junior High, 6201 Lafayette Avenue
- Newark Memorial High, 39375 Cedar Boulevard
- Bridgepoint High School and Crossroads Independent Study, 35753 Cedar Boulevard
- Newark Adult School, 35777 Cedar Boulevard
- Whiteford Preschool, 35725 Cedar Boulevard

As shown in Table 4.12-1, overall enrollment in NUSD schools has declined since 2006, and the NUSD anticipates the trends will continue.[19] This projection takes into account future residential development in Newark, such as development under the recently adopted Dumbarton TOD Specific Plan, Area 3 and 4 Specific Plan, and 2009-2014 Housing Element and anticipated out of district transfers.[20] According to the NUSD's Developer Fee Justification Study, the NUSD has capacity for a total of 6,476 K-12th grade students.[21] When needed, the NUSD would construct a 600-student capacity elementary school as proposed in the Southwest Newark residential and Recreational Focus Area, as envisioned in the Area 3 and 4 Specific Plan.[22]

For planning purposes, the NUSD estimates that, on average, new residential development within its service area will generate 0.274 students per dwelling unit.[23] This average rate is broken down as follows by type of residential development: 0.416 students per single-family units and 0.133 students per multi-family unit. The NUSD is currently collecting impact fees from development in the area as follows:[24]

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[18] Newark Unified School District, http://www.nusd.ca.schoolloop.com/cms/page_view?d=x&piid=&vpid=1234018512701.

[19] Newark Unified School District, 2013. *Student Population Projections by Residence.*

[20] Elaine Neilsen, Newark Unified School District, telephone communication with The Planning Center | DC&E, July 22, 2013.

[21] Newark Unified School District, 2012, *Developer Fee Justification Study.*

[22] City of Newark, 2009, *The Newark Areas 3 and 4 Specific Plan Draft EIR,* page 9.

[23] Newark Unified School District, 2012, *Developer Fee Justification Study.*

[24] Newark Unified School District, 2012, *Developer Fee Justification Study.*

TABLE 4.12-1 NEWARK UNIFIED SCHOOL DISTRICT ENROLLMENT TRENDS 2006-2019

	School Year									
	Past/Current Enrollment[a]						Planned Enrollment[b]			
School	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2014-2015	2016-2017	2018-2019
James Bunker Elementary	562	542	564	572	560	573	536	561	562	574
James Graham Elementary	490	504	515	497	485	456	458	443	421	411
John F. Kennedy Elementary	458	469	478	428	383	396	309	288	253	261
Lincoln Elementary	347	348	382	401	380	387	289	263	248	238
Louis Milani Elementary	432	461	441	404	384	399	544	563	575	579
E.L. Musick Elementary	468	442	432	377	331	319	332	316	293	284
A.L. Schilling Elementary	536	540	550	541	541	583	492	479	446	424
H.A. Snow Elementary	411	427	426	435	400	404	420	436	415	412
Newark Junior High	1,065	1,036	1,044	998	1,047	968	862	874	888	887
Newark Memorial High	2,157	2,223	2,158	2,126	1,945	1,924	1,972	1,842	1,725	1,772
Bridgepoint High School	74	79	100	72	114	99				
Crossroads Independent Study	67	31	52	46	62	43				
Total	7,067	7,102	7,142	6,897	6,632	6,551	6,538	6,387	6,150	6,172

[a] Source: Education Data Partnership, http://dq.cde.ca.gov/dataquest, accessed on November 27, 2012.
[b] Source: Newark Unified School District, February 2013, *Student Population Projections by Residence*.

- $3.20 for residential construction;
- $0.21 per square foot for mini storage;
- $0.51 per square foot for all other commercial/industrial construction.

4.12.3.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the Plan would have a significant impact related to schools if:

1. In order to maintain acceptable service ratios or other performance objectives, the Plan would result in the provision of or need for new or physically altered school facilities, the construction or operation of which could cause significant environmental impacts.

4.12.3.3 IMPACT DISCUSSION

PS-5	The proposed Plan would not result in the provision of or need for new or physically altered school facilities, the construction or operation of which could cause significant environmental impacts.

The proposed Plan would have a significant environmental impact if buildout of the Plan would exceed the ability of local schools to adequately serve the NUSD service area, thereby requiring construction of new facilities or modification of existing facilities.

As described above and illustrated in Table 4.12-1, overall enrollment in NUSD schools has generally declined since 2006. While NUSD projections indicate that enrollment will slightly exceed total capacity in the 2011-2012 school year, the overall declining trend of enrollment is forecast to continue through the 2018-2019 school year. While declining enrollment is projected at both NUSD high schools, enrollment is however forecast to increase at some NUSD elementary schools and to accommodate this increased demand, a 600-student elementary school is envisioned in the Southwest Newark Residential and Recreational Focus Area, as described in the Area 3 and 4 Specific Plan and analyzed in the Area 3 and 4 Specific Plan EIR. It is anticipated that future increases in enrollment would be accommodated first through transfers between NUSD schools and through the use of portable classroom facilities before the eventual construction of the new school would occur.

As described in Chapter 3 of this Draft EIR, the buildout of proposed Plan could bring 16,510 additional residents to Newark by 2035. Based on student generation rates 0.416 students per single family unit and 0.133 students per multi family unit, buildout of the proposed Plan could generate as many as 1,321 new students in the Plan Area by 2035.[25] Much of this additional demand has already been analyzed in previous environmental review of recent major planning initiatives in Newark and is accounted for in NUSD enrollment projections. The proposed Plan includes a policy framework that would allow for the accommodation of increased enrollment as it occurs incrementally over a period of 20 years. These policies and actions include:

- Policy CSF-2.1: Planning for School Facilities. Support the Newark Unified School District's efforts to modernize existing school facilities and develop new facilities to meet enrollment forecasts.
- Policy CSF-2.2: Mitigation of School Impacts. When new residential development is approved, require mitigation of school impacts to the full extent permitted by law. Work collaboratively with the Newark Unified School Districts to ensure that appropriate fees are collected and other appropriate mitigation measures are taken.
- Action CSF-2.A: School District Review of Development Projects. Engage the school district in the review of major development projects to ensure that school impacts are considered and adequate school facilities are available or will be provided concurrently with development.
- Action CSF-2.B: Coordinating Long-Range Planning. Coordinate with the Newark Unified School District on enrollment projections and facility planning efforts.

[25] 1,751 new single-family units x 0.416 + 4,457 new multi-family units x 0.133 = 1,321 new students.

Moreover, new development under the proposed Plan would be subject to school impact fees in accordance with the provisions of SB 50: $3.20 per square foot for residential construction; $0.21 per square foot for mini storage; and $0.51 per square foot for all other commercial/industrial construction. Pursuant to Section 65996(3)(h) of the California Government Code, payment of these fees "is deemed to be full and complete mitigation of impacts of any legislative or adjudicative act, or both, involving but not limited to, the planning, use, or development of real property, or any change in government organization or reorganization."

Therefore, overall buildout of the proposed Plan would result in a less-than-significant impact with respect to the provision of school facilities.

Applicable Regulations:

- Senate Bill 50
- California Government Code, Section 65995(b), and Education Code Section 17620
- Mitigation Fee Act

Significance Before Mitigation: Less than significant.

4.12.3.4 CUMULATIVE IMPACTS

PS-6	The proposed Plan, in combination with past, present, and reasonably foreseeable growth in the NUSD service area, would result in less than significant cumulative impacts with respect to schools.

This section analyzes potential impacts to school facilities that could occur from the proposed Plan in combination with reasonably foreseeable growth in the NUSD service area. The NUSD service area does not extend beyond the Newark City limit and District enrollment projections include anticipated out of district transfers. Since buildout calculations for the proposed Plan encompass all reasonably foreseeable development in Newark through 2035, cumulative impacts are the same as Plan-specific impacts analyzed under PS-5 above.

As described above, the NUSD expects a decline in enrollment in the future. Given the declining enrollment trends in the school district, the Plan is not expected to contribute to a cumulative impact to school services or create the need for the construction of new school facilities. As discussed above, proposed Plan goals, policies, and actions would ensure impacts to school services in Newark would be minimized. In addition, all development in the NUSD service area would be required to pay developer impact fees. According to Government Code 65996, the payment of such fees is "deemed to provide full and complete school facilities mitigation…" Therefore, in combination with past, present, and reasonably foreseeable growth in the NUSD service area, buildout of the proposed Plan would result in a less-than-significant impact on schools.

Applicable Regulations:

- Senate Bill 50
- California Government Code, Section 65995(b), and Education Code Section 17620
- Mitigation Fee Act

Significance Before Mitigation: Less than significant.

4.12.3.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant Plan-specific or cumulative impacts to schools and therefore no mitigation measures are required.

4.12.4 PARKS AND RECREATION

This section describes the regulatory framework and existing conditions, and the potential for environmental impacts related to parks and recreation.

4.12.4.1 ENVIRONMENTAL SETTING

Regulatory Framework

State Laws and Regulations

The Quimby Act

Since the passage of the 1975 Quimby Act (California Government Code §66477), cities and counties have been authorized to pass ordinances requiring that developers set aside land, donate conservation easements or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities.[26] A 1982 amendment (AB 1600) requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or park land and the type of development project upon which the fee is imposed. Cities with a high ratio of park space to inhabitants can set a standard of up to 5 acres per thousand persons for new development. Cities with a lower ratio can only require the provision of up to 3 acres of park space per 1,000 people. The calculation of a City's or park space to population ratio is based on a comparison of the population count of the last federal census to the amount of City-owned parkland.

Local Regulations

City of Newark Park Standards

The City of Newark has adopted a 3.0-acre per 1,000 resident standard for planning purposes and its Quimby Act fee is based on this ratio. Additionally, the City has established service area standards for neighborhood parks and community parks as described below:

[26] Westrup, Laura, 2002, *Quimby Act 101: An Abbreviated Overview,* Sacramento: California Department of Parks and Recreation, http://www.parks.ca.gov/ pages/795/files/quimby101.pdf.

- Neighborhood parks are typically 5 to 10 acres in size and are designed to serve residents living within a ½-mile radius. Most Newark residents should be able to walk to a neighborhood park within 10 minutes of their homes. Ideally, neighborhood parks should be away from arterial streets and should be adjacent to elementary schools to enhance the joint use of the space for field sports and school activities. Significant features of a neighborhood park include fields, lawns, walkways, picnic areas, and tot lots. Other small-scale recreational facilities such as basketball courts may be acceptable. However, to minimize auto traffic and parking demand, neighborhood parks should generally not have facilities that draw residents from outside the service area.
- Community parks are typically 20 acres or larger and are designed to serve residents living within a 1- to 2-mile radius. They may also have facilities which draw residents from throughout the city. Community parks are typically located near major streets and are accessible by public transportation. Off-street parking should be provided. These parks include a larger array of facilities than neighborhood parks, potentially including tennis courts, swimming pools, lighted fields, restrooms, recreation centers, and open space for unstructured play.

Parks Dedication Ordinance

Chapter 16.30 of the Newark Municipal Code requires that new subdivisions include sufficient land to maintain the adopted per capita service standard, or pay a fee which will enable the city to acquire land to maintain the standard.[27] Smaller developments typically pay the fee, since it is infeasible to provide a neighborhood park of sufficient size on-site. As of 2013, the dedication requirement or fee was based on 0.0102 acres (444 square feet) per single-family unit and 0.0072 acres (314 square feet) per multi-family unit. In 2013, these fees were $2,998 per single-family unit and $2,278 per multi-family unit.

Subdivision applicants are required to dedicate land for an area or community park sufficient in size to serve the present and future needs of the residents of the subdivision. The amount of land to be provided will be determined pursuant to the following formula in Table 4.12-2.

TABLE 4.12-2 FORMULA FOR DEDICATION OF PARK LAND

Dwelling Type	Assumed Density	Standard: Acres/DUs
Single-Family	3.4 persons/DU	.0102 acres/DU
Multi-Family	2.4 persons/DU	.0072 acres/DU

Source: City of Newark Municipal Code, Chapter 16.30.050, 2013.

Existing Conditions

City Parks and Recreation

The Newark Recreation and Community Services Department operates and maintains 132 acres of City parks and several recreational facilities, as listed in Table 4.12-3. Of this total, 122 acres are owned by the City and 10 acres

[27] Newark Municipal Code, http://library.municode.com/index.aspx?clientId=16521, accessed on January 25, 2013.

are leased from the Newark Unified School District. There are 14 parks in the city, including eight neighborhood parks, three community parks, and three special use parks. Figure 4.12-1 shows the location of the parks. Parks are also called out as a land use category on the General Plan Land Use Map in the Land Use Element. Based on a total parkland acreage of 132.2 and a resident population of 43,930 in 2012, the City currently has a ratio of 3.01 acres of parkland per thousand residents, which meets the adopted standard.

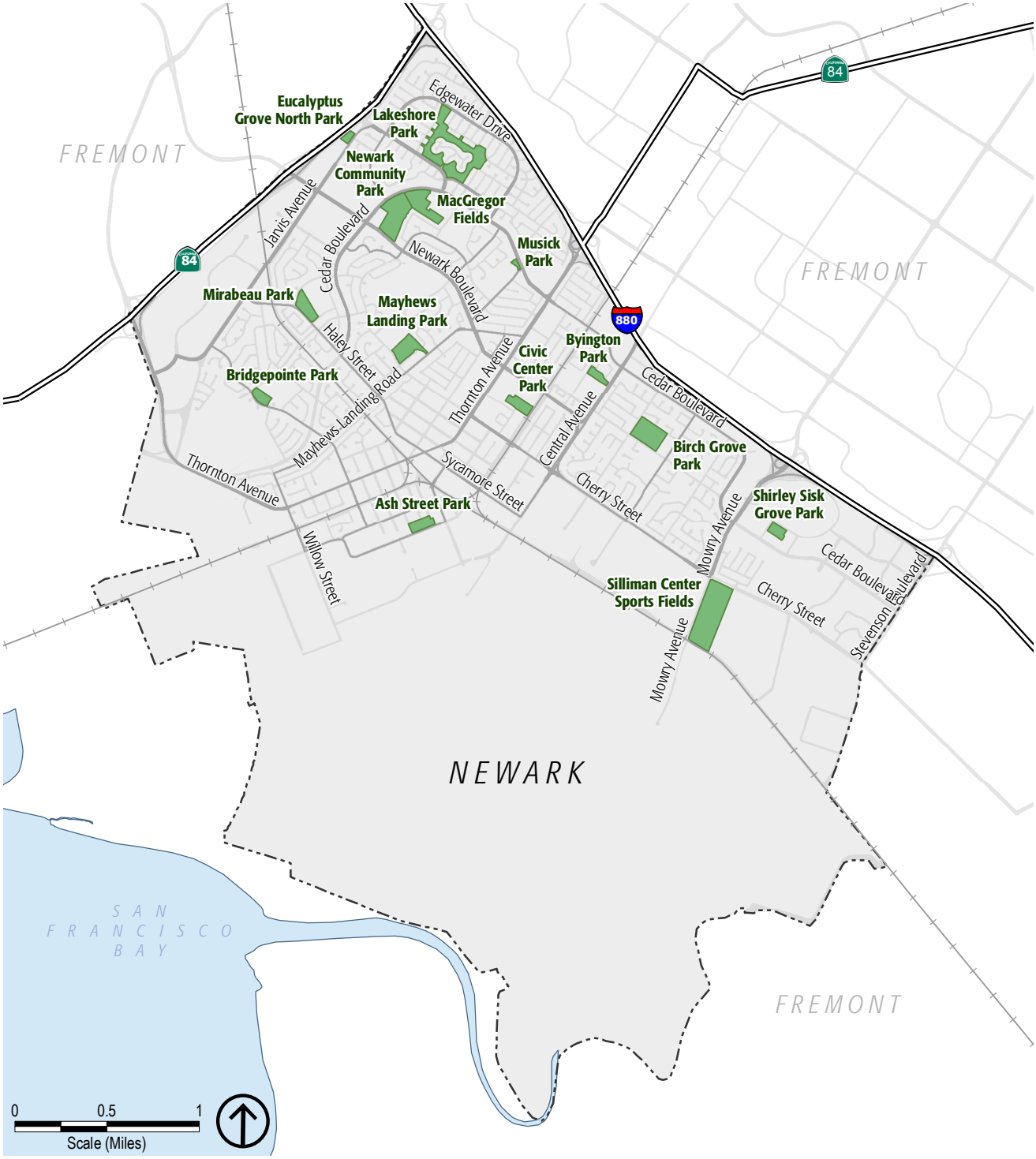
Public land used for resource conversation such as the Don Edwards San Francisco Bay National Wildlife Refuge is not counted in the recreational standard. Similarly, school recreational facilities are not typically included in the city's 3.0 acre per 1,000 standard, although there are exceptions for facilities such as MacGregor Fields, which is subject to a long-term lease between the City and the Newark Unified School District. School field and play areas total 133.2 acres and while the City does not own or operate school playfields, these areas are available to residents on a limited basis during non-school hours and they provide an important supplemental resource. If School field and play areas were factored into the City's parkland acreage per thousand resident's calculation, the grand total to 265 acres, or about 6.23 acres per 1,000 residents.

Several new parks are planned for in the specific plans recently adopted by the City. The Area 3 and 4 Specific Plan includes plans for a golf course or major public recreational facility in the Southwest Newark Residential and Recreational Focus Area. A golf course would likely be 120 acres or larger and could potentially double the City's total park acreage. The Specific Plan for Southwest Newark (formerly Areas 3 and 4) also includes an approximately 5-acre neighborhood park, to be co-located with an elementary school on the south side of Cherry Street east of Ohlone College. The park will not only serve new residents, it will remedy a park access deficiency in the residential area on the north side of Cherry Street in this area.

As indicated in Table 4.12-3, Newark's community parks provide an array of facilities. Sportsfield Park includes the Silliman Activity and Family Aquatic Center, with an indoor water park and pool, gymnasium, teen area, fitness center, dance studio, childcare center, and meeting rooms. The park also includes lighted and non-lighted play fields, serving the entire community. Newark Community Park includes 16 acres of playfields and outdoor activity space, including picnic areas and tot lots. The park also includes a community center at 35501 Cedar Boulevard available for private rental. Adjacent to Ash Street Park, the Newark Senior Center offers programs and activities for Newark seniors. At Lakeshore Park, a 16-acre lagoon provides opportunities for fishing and boating. Other parks in the city contain a mix of passive and active facilities, to serve residents of all ages.

Regional and State Parks

Regional and State parks offer additional open space preserves and recreational opportunities. Regional recreational resources in the vicinity of Newark include the Don Edwards San Francisco Bay National Wildlife Refuge (30,000 acres), the Coyote Hills Regional Park (978 acres), Quarry Lakes Regional Recreation Area (539 acres) and Ardenwood Historic Farm (205 acres). In addition, the community has access to the San Francisco Bay Trail via several local trails, including the Newark Slough Trail and "unimproved" on-street Bay Trail connections along Willow Street and Central Avenue.



Source: Source Data: City of Newark, 2012; The Planning Center | DC&E, 2013; Tiger Roads 2010; ESRI, 2010; FTC, 2010.

City Limit

Figure 4.12-1
City of Newark Parks and Recreational Facilities

TABLE 4.12-3 PARKS AND RECREATIONAL FACILITIES WITHIN THE PLAN AREA

Park Name	Acres	Location	Facilities	Adjacent Park Facilities
Neighborhood Parks				
Ash Street(*)	6.1	Enterprise Dr. at Filbert St.	Play structures, softball fields, basketball court, picnic facilities, horseshoe pit	Newark Senior Center
Bridgepointe	3.5	Spruce St. at Bridgepointe Dr.	Play structures, picnic facilities	Lincoln Elementary School (8.7 acres of additional open space)
Byington	3.0	Byington Dr. at Central Av.	Play structures, picnic facilities	
Civic Center	5.1	Newark Blvd. at Civic Terrace	Play structures, basketball court, par course, picnic facilities	Newark City Hall, Newark Public Library
Lakeshore(**)	26.0	Lake Blvd. at Lakeshore Dr.	26-acre total includes 10 acres of lawn, paths, and par course area and a 16-acre water area with fishing and boating	
Mayhews Landing	8.3	Cherry St. at Mayhews Landing Rd.	Play structures, basketball court, picnic facilities	Graham Elementary School (5.6 acres of additional open space)
Mirabeau	6.0	Haley St. at Mirabeau Dr.	Play structures, paths, picnic facilities	Snow Elementary School (6.0 acres of additional open space)
Musick	0.8	Cedar Blvd. at Mayhews Landing Rd.	Play structures, picnic facilities	Musick Elementary School (4.4 acres of additional open space)
Subtotal	58.8			
Community Parks				
Birch Grove	12.2	Birch St. at Robertson Av.	Play structures, water feature, lighted softball field, basketball court, tennis courts, picnic facilities, restrooms	Across the street from Bunker Elementary School
Community	16.3	Cedar Blvd at Newark Blvd.	Play structures, warm-up wall, basketball and handball court, lawn, paths, tennis courts, picnic facilities, Community Center	MacGregor Alternative Education Center, MacGregor Fields (10 ac)
Sportsfield/Silliman Center	29.6	Mowry Av. at Cherry St.	Lighted and non-lighted softball field, soccer fields, Family Aquatic Center, Community Activity Center, including gymnasium, showers and locker room aerobic/dance studio, fitness center, teen room, children's room, community meeting room, childcare	Adjoins Ohlone College Newark Campus, Fire Station
Subtotal	58.1			
Special Use Parks				
Shirley Sisk Grove	3.2	Cedar Blvd. at NewPark Mall	Passive open space for summer concerts	
Eucalyptus Grove North	1.6	Jarvis Av. at Cardiff St.	Unimproved	

Park Name	Acres	Location	Facilities	Adjacent Park Facilities
MacGregor Fields	10.5	Cedar Blvd. at Lake Blvd.	Soccer and baseball practice fields	MacGregor Alternative Education Center
Subtotal	15.3			
GRAND TOTAL	132.2			

Source: Barry Miller Consulting, 2013.

School District Facilities

As noted above, Newark Unified school District facilities total 133.2 acres and serve as an important supplemental resource for Newark residents, who can make use of District facilities on a limited basis during non-school hours. A description of these facilities and their relative location is included on Table 4.12-3.

4.12.4.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact with regard to parks and recreation if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreational facilities, need for new or physically altered parks and recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.
2. Increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur, or be accelerated.
3. Includes or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

4.12.4.3 IMPACT DISCUSSION

PS-7	**The proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreational facilities in order to maintain the City's adopted ratio of parkland per thousand residents.**

As described in Chapter 3 of this Draft EIR, buildout of the proposed Plan is anticipated to result in a population of 60,510 in Newark by 2035. In order to meet the adopted service standard of 3.0 acres of parkland per 1,000 residents in 2035, the City would need to have 181.5 acres of parkland at that time. The City currently has 132 acres and therefore would need to acquire approximately 50 acres of additional parkland in the next 20 years. As noted above, the City has already planned to add at least 21 acres through new neighborhood parks the Dumbarton TOD and Southwest Newark Residential and Recreational Focus Areas through the specific plans that apply to those locations. This leaves a potential shortfall of approximately 29 acres. The shortfall would be

eliminated with development of a golf course in the Southwest Newark residential and Recreational Focus Area as envisioned in the Area 3 and 4 Specific Plan.

The proposed Plan does not directly propose the construction of any parks or recreational facilities; however, it includes numerous goals, policies, and actions that seek to promote and encourage the development of parks in the Plan Area. Specific actions for increasing provision of parks include:

- Action POS-3.A: calls for developing a Newark Parks Master Plan, which will evaluate local park facilities against National Recreation and Park Association standards and determine the types and locations of improvements needed.
- Action POS-3.D: Golf Course. Continue to pursue the development of a public golf course on the undeveloped residentially designated lands located in the southwestern part of the city. In the event a golf course is infeasible, consider development of another major public recreational feature or open space amenity in this area.
- Action POS-3.H: Dog Park. Recognize the growing demand for dog play areas in the City, and pursue development of a designated dog park within the Dumbarton TOD area.

Potential impacts associated with the construction of new parks and recreational facilities in the Dumbarton TOD and Southwest Newark Residential and Recreational Focus Areas have already been analyzed and addressed at the programmatic level in the Dumbarton TOD Specific Plan EIR and the Area 3 and 4 Specific Plan EIR. Further, the future development of those facilities would be subject to separate project-level CEQA review at the time they are proposed for construction in order to identify and mitigate associated impacts as needed. Therefore, while the proposed Plan would indirectly result in the construction of new parks and recreational facilities in Newark by 2035, associated impacts have previously been addressed at the programmatic level and would be addressed at the project level in the future at such time as specific development applications are made, and consequently impacts from the proposed Plan would be less than significant.

Applicable Regulations:

- The Quimby Act
- City of Newark Park Standards
- City of Newark Parkland Dedication Ordinance

Significance Before Mitigation: Less than significant.

PS-8	The proposed Plan would not increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur, or be accelerated.

Buildout of the proposed Plan would have a significant environmental impact if it would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur, or be accelerated.

As discussed in Chapter 4.11, Population and Housing, of this Draft EIR, new development under the proposed Plan has the potential to generate up to 6,208 new residents and 2,882 employees. New residents and employees would likely increase the use of existing local and regional parks and recreational facilities. However, as discussed under PS-7, additional parks and recreational facilities would be added to accommodate the new residents and employees and to maintain the established standard of 3.0 acres of parkland per thousand residents. Additionally, continued implementation of the parkland dedication requirements established in the Municipal Code would ensure that existing parks or public facilities are well-maintained and improved as needed.

Furthermore, the proposed Plan would serve to ensure that existing facilities are maintained adequately to meet the recreational needs of the community. Goals and policies in the Plan that would serve this purpose include:

- Goal POS-3: Manage Newark's parks in a way that enhances their natural qualities, conveys a positive image of the city and its neighborhoods, and fully meets the community's recreational needs.
- Policy POS-3.1: Facility Modernization. Periodically modernize or upgrade existing recreational facilities to ensure that they meet the needs of the community, respond to current trends, and make a positive contribution to Newark's quality of life.
- Policy POS-3.2: Quality Materials. Utilize quality materials in the construction of parks, public spaces, and recreational facilities. Park equipment and facilities should promote durability and resilience, be responsive to the Bay Area's climate, and be resistant to vandalism to the greatest extent feasible.
- Policy POS-3.8: Park Maintenance. Ensure the regular and systematic maintenance of park grounds and facilities. Maintenance methods should be sensitive to the environment, including pest management and weed control methods which minimize toxic chemical use.

In addition, there are a number of open spaces and parklands in the vicinity of Newark, such as Don Edwards San Francisco Bay National Wildlife Refuge, Coyote Hills Regional Park, Ardenwood Historic Farm, and San Francisco Bay Trail. Future residents and employees would be expected to increase the use of regional parks, but given the size and number of regional parks accessible from the Plan Area, the physical deterioration of regional parks by buildout of the proposed Plan is unlikely to be substantial. Therefore, the proposed Project would not result in substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities and a less-than-significant impact would occur.

Applicable Regulations:

- The Quimby Act
- City of Newark Park Standards
- City of Newark Parkland Dedication Ordinance

Significance Before Mitigation: Less than significant.

PS-9	The proposed Plan would not include or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

As described above under PS-7, the Plan does not directly propose the construction or expansion of parks and recreational facilities in Newark. Direct impacts would be less than significant. Indirect impacts associated with the construction and expansion of parks and recreational facilities resulting from development of the proposed Plan are analyzed above under PS-7.

Applicable Regulations:

- Parkland Dedication Ordinance

Significance Before Mitigation: Less than significant.

4.12.4.4 CUMULATIVE IMPACTS

PS-10	The proposed Plan, in combination with past, present, and reasonably foreseeable growth, would result in less than significant cumulative impacts with respect to parks and recreational facilities.

A significant cumulative environmental impact would result if, in combination with other past, present, and reasonably foreseeable projects, buildout of the proposed Plan would cause substantial deterioration of existing neighborhood and regional parks, or require the construction of new or expanded parks and recreational facilities, the construction of which could result in adverse environmental impacts. This section analyzes potential impacts to parks and recreational services that could occur from buildout of the Plan in combination with cumulative projects within the cities of Newark and Fremont, as Fremont surrounds Newark on all sides.

Growth in the resident and employee population in Newark and Fremont would result in increased use of neighborhood parks and local recreational facilities as well as regional facilities. As discussed above, the impacts to Newark parks and recreational facilities would not be significant, as continued implementation of the park land dedication requirements would ensure that additional parkland is provided as development occurs in the city and new residents arrive. Likewise, according to the Draft EIR of the Fremont General Plan Update, growth in Fremont would not result in adverse impacts to its parks and recreational services.[28] It is also possible that Newark resident and employee population would increase the use of parks and recreational facilities in Fremont and vice versa. However, the increased use would not impact the City of Fremont to the extent that it requires the City of Fremont to provide additional facilities to support Newark residents and employees.

Regionally, increased population would result in greater demand for parks and recreational facilities, possibly requiring the expansion or construction of additional regional parks and other recreational facilities. The proposed Plan includes the following goal, policies and actions that provide a framework for supporting regional parks and recreational facilities:

[28] City of Fremont, 2011, *Draft EIR for Fremont General Plan Update.*

- Policy PR-1.5 Utility Easements. Encourage public utility agencies such as the San Francisco Water Department (Hetch Hetchy Aqueduct) and PG&E to retain their easements in open space or to improve them with linear parks or trails.
- Policy PR-4.4 Regional Parks. Support the continued acquisition and improvement of open space in southwest Alameda County by the East Bay Regional Park District to ensure that Newark residents have access to an array of natural open spaces, including hillside parks, wilderness areas, and shoreline trails.
- Goal PR-5 Improve Newark's trail system, with a focus on access to the Newark shoreline, and access between the shoreline and Newark neighborhoods.
- Policy PR-5.1 Bay Trail. Encourage completion of the Bay Trail along the Newark shoreline, in support of the long-term vision of creating a continuous shoreline trail around San Francisco Bay. Pursue trails that are separated from motor vehicle traffic and pursue pedestrian crossings of railroad rights of way to allow for connections to regional open spaces without conflicts with motorized vehicles.(new)
- Policy PR-5.2 Spur Trails. Provide spur trails which link the Newark section of the Bay Trail to the network of bicycle lanes and sidewalks serving the rest of the city.
- Policy PR-5.3 Shoreline Access. Where feasible, align new sections of the Bay Trail as close as possible to the shoreline. Where shoreline locations are not feasible, encourage alignments that provide views to wetlands or other bay features.
- Policy PR-5.4 Trail Safety. Strive for trail designs which minimize grade level street and rail crossings, and which ensure the safety and comfort of users.
- Policy PR-5.5 Staging Areas. Develop strategically located parking and staging areas which provide trail access and encourage trail use.
- Policy PR-5.6 Land Uses Along Trails. Consider adjacent land uses, existing operations, security, and potential operational conflicts in the alignment and design of the city's trails. Trail design should be coordinated with adjacent landowners.
- Policy PR-5.7 Trail Sustainability. Consider long-term sustainability issues, such as projected sea level rise, surface durability, and the condition of levees, in the design of shoreline and wetland trail facilities.
- Policy PR-5.8 Trail Design and the Environment. Design trails and public access features to minimize impacts on wetlands and other sensitive habitats, including habitat fragmentation. If necessary, identify secondary alignments in the event a trail must be seasonally closed for habitat protection purposes.
- Action PR-5.A Trail Dedication. Encourage trail dedication and construction by developers for portions of the proposed Bay Trail and spur trails located within future development areas.
- Action PR-5.B Interpretive Features. Support development of interpretive features along the Bay Trail to educate visitors about natural resources and local history.
- Action PR-5.C Funding for Regional Connections. Seek regional and state funding for bridges and railroad overcrossings to facilitate regional open space integration and connection.

- Action PR-5.D Cedar Boulevard Extension Linear Park. As funds allow, construct a linear park and trail on the Cedar Boulevard Extension. Crossing of the Union Pacific Railroad should be grade separated to minimize risk and noise.

Additionally, State law allows jurisdictions to require additional development to fund park improvements, which would ensure the provision of adequate parklands in the region. Construction and expansion of parks and recreational facilities would be subject to separate CEQA review on a project-by-project basis, thereby minimizing the potential for adverse environmental impacts to the maximum extent practicable.

Furthermore, as discussed in Chapter 4.11, Population and Housing, of this Draft EIR, as growth occurring with buildout of the cumulative projects would not contribute to substantial, unplanned population growth, and accordingly, there would be no substantial unanticipated increase in the use of regional parks and recreational facilities in the vicinity of Newark. Therefore, overall, buildout of the proposed Project in combination with other past, present, and reasonably foreseeable projects would result in a less-than-significant cumulative impact to parks and recreational services.

Applicable Regulations:

- The Quimby Act
- City's Park Standards
- Parkland Dedication Ordinance
- Fremont General Plan Update

Significance Before Mitigation: Less than significant.

4.12.4.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The Plan would not result in any significant Plan-specific or cumulative impacts to parks and recreational services and therefore no mitigation measures are required.

4.12.5 LIBRARIES

This section describes the existing conditions and the potential impacts of the proposed Plan with regard to libraries.

4.12.5.1 ENVIRONMENTAL SETTING

Regulatory Framework

There are no federal, State, or local regulations related to library services that are applicable to the proposed Plan.

Existing Conditions

The Newark Library, a branch of the Alameda County Library, which is located at 6300 Civic Terrace Avenue, provides library services to over 43,000 residents of the City of Newark.[29] The County Library serves a population of over 523,000 in the cities of Albany, Dublin, Fremont, Newark, Union City, and the unincorporated areas of Castro Valley, and San Lorenzo. Residents in Alameda County with a library card can request all books, magazines, DVDs, and CDs sent to them at their local library from any library within the county and have access to E-books and online databases through the library website. The libraries offer a wide array of educational and cultural programs for children, teens, and adults, and special programs, such as the Discover & Go Museum Pass Program.[30]

The Newark Library is 15,000 square feet in size and includes special areas for each age group, including public meeting room, a conference room, four small study rooms, and internet stations with PC computers. In addition, Wi-Fi access and over 81,054 items are available at the library, including books, magazines, newspapers, DVDs and CDs, and books on CD. [31] According to the Alameda County Library, the ratio of collection per capita in Newark was 1.88 items in Fiscal Year 2011/12, which was below the Countywide average ratio of 2.11.

The funding sources for the County Library include local property taxes, State grants, and contracts with cities for additional open hours and services. The Alameda County Library Foundation, active Friends, and Library League groups support library programs and services. In Newark, the dynamic Newark Library League raises funds and promotes the Library.

4.12.5.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the Plan would have a significant impact related to libraries if:

1. In order to maintain acceptable service ratios or other performance objectives, the Plan would result in the provision of or need for new or physically altered library facilities, the construction or operation of which could cause significant environmental impacts.

4.12.5.3 IMPACT DISCUSSION

PS-11	The proposed Plan would not result in the need for new or physically altered library facilities.

A significant environmental impact would result if buildout of the proposed Plan would require new or physically altered library facilities.

[29] Alameda County Library, http://www.aclibrary.org/branches/nwk/default.asp?topic=Newark&cat=NWKHome, accessed on November 27, 2012.

[30] The Discover & Go program provides complimentary museum passes that allow residents in the County with a library card to patron museums and cultural institutions in the Bay Area.

[31] Alameda County Library, 2012*, 2011-2012 Annual Statistics*.

Implementation of the proposed Plan could potentially add approximately 16,510 new residents and 2,882 new employees to the Plan Area by 2035, which could increase the demand for library services and facilities in Newark. However, growth under the proposed Plan would occur incrementally over a course of 20 years, and much of the increased demand would be addressed through the expansion of digital and online services, minimizing the need for physical expansion. Furthermore, goals, policies, and actions in the proposed Plan would ensure that adequate library services are provided for Newark residents. These goals, policies, and actions include:

- Goal CSF-1: Maintain community services and civic facilities that are readily accessible and respond to the needs of all Newark residents.
- Policy CSF-1.6: Library. Ensure that the Newark Public Library continues to offer the services, facilities, and technology needed by Newark residents at the hours desired.
- Action CSF-1.E: Demographic Forecasts. Use demographic data and forecasts published by regional, state, and federal agencies to evaluate community service needs and plan for future improvements.
- Action CSF-1.F: Community Input on Public Facilities. Conduct periodic community workshops or surveys to evaluate the demand for different services and facilities.

As specific library expansion or improvement projects are identified, additional project-specific, environmental analysis pursuant to CEQA would be completed. Therefore, implementation of the goals, policies and actions in the proposed Plan would ensure that there would be a *less-than-significant* impact relating to the provision of new or physically altered library facilities.

Significance Before Mitigation: Less than significant.

4.12.5.4 CUMULATIVE IMPACTS

PS-12	The proposed Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to libraries.

This section analyzes potential impacts to library services that could occur from the proposed Plan in combination with reasonably foreseeable growth in the Alameda County Library service area. Implementation of the proposed Plan in conjunction with these related projects would further increase demands on library services.

Future growth within Alameda County will increase the demand for library services and facilities; however the increased in service population would come incrementally over a period of 20 years. Further, it is anticipated that the expansion of digital and online services would help the County Library system to accommodate growth in service population and minimize the need to expand existing brick and mortar facilities or construct new one. As such it is not anticipated that the proposed Plan would contribute to a substantial adverse impact on the County Library's ability to serve its constituents. Additionally, if and when specific library expansion or improvement projects are identified, additional project-specific, environmental analysis would be completed. As a result, the proposed Plan would result in a less-than-significant cumulative impact associated with libraries.

Significance Before Mitigation: Less than significant.

4.12.5.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant Plan-specific or cumulative impacts to libraries and therefore no mitigation measures are required.

4.13 TRANSPORTATION AND TRAFFIC

This chapter contains information about transportation and traffic in Newark. It provides an overview of the current regulatory framework, describes existing conditions, and analyzes the potential impacts of the proposed Plan. This chapter has been prepared on the basis of information contained in the Newark General Plan Tune Up Traffic Study prepared by Hexagon Transportation Consultants, Inc. and included as Appendix D to this Draft EIR.

4.13.1 ENVIRONMENTAL SETTING

4.13.1.1 REGULATORY FRAMEWORK

This section summarizes key federal, State, County, and City statutes, regulations, and policies that would apply to the proposed Plan. This information provides a context for the impact discussion related to the proposed Plan's consistency with applicable regulatory conditions.

Federal Laws and Regulations

Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency of the United States (U.S.) Department of Transportation (DOT) responsible for the federally funded roadway system, including the interstate highway network and portions of the primary State highway network, such as Interstate 880 (I-880).

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the US Access Board, an independent Federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public rights-of-way. While these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide in the last decade. The guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, and pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. These guidelines would apply to proposed roadways in the Plan Area.

State Laws and Regulations

California Department of Transportation

The California Department of Transportation (Caltrans) is the primary State agency responsible for transportation issues. One of its duties is the construction and maintenance of the State highway system. Caltrans approves the planning, design, and construction of improvements for all State-controlled facilities including I-880, State Route (SR) 84, and the associated interchanges for these facilities located in the Plan Area. Caltrans has established standards for roadway traffic flow and developed procedures to determine if State-controlled facilities require improvements. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect facilities, but may influence traffic flow and levels of services at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects.

The following Caltrans procedures and directives are relevant to the Plan Components, particularly State roadway facilities:

- *Level of Service Target*. Caltrans maintains a minimum level of service (LOS) at the transition between LOS C and LOS D for all of its facilities.[1] Where an existing facility is operating at less than the LOS C/D threshold, the existing measure of effectiveness should be maintained.[2]
- *Caltrans Project Development Procedures Manual*. This manual outlines pertinent statutory requirements, planning policies, and implementing procedures regarding transportation facilities. It is continually and incrementally updated to reflect changes in policy and procedures. For example, the most recent revision incorporates the Complete Streets policy from Deputy Directive 64-R1, which is detailed below.
- *Caltrans Deputy Directive 64*. This directive requires Caltrans to consider the needs of non-motorized travelers, including pedestrians, bicyclists, and persons with disabilities, in all programming, planning, maintenance, construction, operations, and project development activities and products. This includes incorporation of the best available standards in all of the Caltran's practices.
- *Caltrans Deputy Directive 64-RI*. This directive requires Caltrans to provide for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. Caltrans supports bicycle, pedestrian, and transit travel with a focus on "complete streets" that begins early in system planning and continues through project construction and maintenance and operations.
- *Caltrans Director's Policy 22*. This policy establishes support for balancing transportation needs with community goals. Caltrans seeks to involve and integrate community goals in the planning, design, construction, and maintenance and operations processes, including accommodating the needs of bicyclists and pedestrians.

[1] Level of service is explained further below in Section 4.13.1.2, Existing Conditions, Vehicular Circulation, Analysis Methodologies and Level of Service Standards.

[2] California Department of Transportation, 2010, *Guide for the Preparation of Traffic Impact Studies*.

Complete Streets Act of 2008

The California Complete Streets Act (Assembly Bill (AB) 1358) requires cities and counties, when updating their general plans, to ensure that local streets meet the needs of all users.

California Transportation Commission

The California Transportation Commission (CTC) consists of nine members appointed by the Governor. The CTC is responsible for the programming and allocation of funds for the construction of highway, passenger rail, and transit improvements throughout the state, including in the Plan Area. The CTC is also responsible for managing the State Transportation Improvement Program (STIP) and the State Highway Operation and Protection Program (SHOPP) funding programs.

California Building Code

The State building code, Title 24 of the California Code of Regulations, provides fire and emergency equipment access standards for public roadways in Part 9, Appendix D. These standards include specific width, grading, design, and other specifications for roads that provide access for fire apparatuses; the code also indicates which areas are subject to requirements for such access. The code also incorporates by reference the standards of the International Fire Code. The future construction of streets in Newark would be subject to these and any modified State standards. The City of Newark adopted the most recent, 2010 edition of the State Building Code in 2011.

Regional Agencies, Plans, and Policies

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county Bay Area, including Alameda County. It also functions as the federally mandated metropolitan planning organization (MPO) for the region. It is responsible for regularly updating the Regional Transportation Plan (RTP), a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities. The current RTP, Transportation 2035, was adopted on April 22, 2009. Transportation 2035 was prepared by MTC in partnership with the Association of Bay Area Governments (ABAG), the Bay Area Air Quality Management District (BAAQMD), and the Bay Conservation and Development Commission (BCDC). MTC updates the RTP every four years. Transportation 2035 specifies a detailed set of investments and strategies throughout the region from 2010 through 2035 to maintain, manage, and improve the surface transportation system, specifying how anticipated federal, State, and local transportation funds will be spent.

MTC has established its policy on Complete Streets in the Bay Area. The policy states that projects funded all, or in part, with regional funds (e.g. federal, State Transportation Improvement Program, bridge tolls) must consider the accommodation of bicycle and pedestrian facilities, as described in Caltrans Deputy Directive 64. These recommendations do not replace locally adopted policies regarding transportation planning, design, and construction. Instead, these recommendations facilitate the accommodation of pedestrians, including wheelchair

users, and bicyclists into all projects where bicycle and pedestrian travel is consistent with current adopted regional and local plans.

Alameda County Congestion Management Program

California law requires urban areas to develop and update a congestion management program (CMP) that describes the strategies to address congestion problems. In Alameda County, the Alameda County Transportation Commission (Alameda CTC) is the Congestion Management Agency (CMA) tasked with preparing the CMP and monitoring compliance. The Alameda CTC works cooperatively with the Metropolitan Transportation Commission (MTC), transit agencies, local governments, the California Department of Transportation (Caltrans) and the Bay Area Air Quality Management District (BAAQMD). The CMP contains level-of-service standards for highways and arterials, multimodal performance standards, a capital improvement program, a program for analyzing land use decisions, and a travel demand management (TDM) program.

To manage the transportation system and monitor performance in relation to established level-of-service standards, the Alameda CTC has designated a CMP roadway system for Alameda County. The CMP roadway system contains 232 miles of roadways, of which: 134 miles (58 percent) are interstate freeways, 71 miles (31 percent) are State highways, and 27 miles (11 percent) are city/county arterials. If adopted standards are not being maintained on a specific roadway in the designated system, actions must be taken to address problems on that facility or plans must be developed to improve the overall LOS of the system and improve air quality. The CMP roadway system is a subset of the broader Metropolitan Transportation System (MTS). For purposes of the CMP, the former is used to monitor performance in relation to established LOS standards. The latter is used in the Alameda CTC's Land Use Analysis Program.

There are two roadways in Newark that are part of the CMP roadway system: SR-84 from the San Mateo County line to I-880 and I-880 as it runs along the eastern perimeter of Newark. Additionally, Thornton Avenue and Newark Boulevard are MTS routes.

Local Policies

Newark Municipal Code

Chapter 3.24 Development Impact Fees

To fund the provision of critical municipal infrastructure, including roadways, the City of Newark charges a formula-based Capital Facilities Fee on new commercial, industrial, and single- and multi-family residential developments in the city. The fee is assessed commensurate with the type and amount of infrastructure needs associated with each new development on a per residential unit or per industrial/commercial square foot fee basis. The fee does not apply to existing developments, residential additions or remodels, or the demolition and rebuilding of recently occupied residential structures. Capital Facilities Fees collected are devoted to the following categories of infrastructure in the proportions shown: public safety (31.3 percent); community service and facilities (21.5 percent); and transportation (47.2 percent).

Chapter 10.56 - Transportation System Management

Newark's Transportation System Management Ordinance was adopted subsequent to statewide Proposition 111, passed in 1990, which required the development and implementation of Congestion Management Programs. As part of these programs, localities were directed to adopt policies and programs, which would serve to reduce vehicle trips. Pursuant to this requirement, Municipal Code sections 10.56.050 through 10.56.090 outline program requirements and responsibilities for both the City of Newark and Newark employers, as well as enforcement measures, penalties, and other enabling provisions. The primary measures of Newark's Transportation System Management Ordinance are to require educational programs by area employers; to enable the City to adopt and implement future trip reduction measures, as determined by the Bay Area Air Quality Management District; to direct the City to undertake logistical tasks for program administration; and to enable the establishment of citywide fees in support of the program.

Chapter 16.12 - Streets and Lots

Chapter 16.12 of the Newark Municipal Code contains standards for the design of streets and lots, and these standards include requirements for street width, grading, and access, as well as for sidewalks and cul-de-sacs. The Code contains a table indicating required widths for various roadway types, and specifies that these standards shall apply unless superseded by future General Plan amendments or other City resolutions. For this reason and owing to Newark's 2011 adoption of the most recent California Building Code, some of these provisions may overlap with or by superseded by provisions of the California Building Code.

Newark Traffic Calming Program

The City of Newark has adopted a brief list of potential traffic calming measures in order to reduce traffic and speeding-vehicle impacts in residential areas and along collector streets. The City offers six potential traffic-calming measures, listed in descending order of preference: (1) resident education and selective speed limit enforcement, (2) street centerline striping, (3) stop signs, (4) chicanes, (5) center islands/medians, and (6) speed bumps. The City of Newark considers speed bumps to be a measure of "last resort." For items 1, 2, and 3, such actions may be initiated by citizen complaints, subject to evaluation by and coordination with the City Engineer. Generally, in order for items further down the list to be considered, it must be ascertained that earlier items failed to have the desired traffic-calming effect. Physical alternations for traffic calming must be initiated through a petition submitted to the City Engineer. In order to prompt action, the petition must be signed by residents of the street or street segment being considered for physical treatments, only one signature per household will be counted, and a minimum of two-thirds of the residents on a street or street segment must be signatories of the petition. In all cases, the implementation of traffic calming measures shall be subject to the evaluation of the City Engineer and noticing of residents for selected measures is required. As part of this evaluation, the City Engineer shall perform traffic studies to determine traffic volumes and speeds and to collaborate with residents to determine the most appropriate physical traffic calming approaches. Prior to the implementation of traffic calming measures, the City Engineer must submit an informational report to the City Council regarding the recommended measures.

Newark Complete Streets Policy

On March 14, 2013, the Newark City Council adopted a citywide Complete Streets Policy, with the vision that "All transportation improvements in the City of Newark will be planned, funded, designed, constructed, operated, and maintained to provide safe mobility for all users appropriate to the function and context of the facility." As part of the policy, the City has established complete streets principles, including:

- Serving all users and modes, including pedestrians, bicyclists, persons with disabilities, motorists, freight, transit riders and operators, emergency responders, seniors, children, youth, and families;
- Responding to context, such that considered roadway features and amenities are reflective of the surrounding area and meet the expectations of key stakeholders;
- Addressing complete streets as part of routine procedure for all city departments; and
- Ensuring that all projects and project phases, with appropriate limited exceptions, account for and respond to complete streets policies and requirements.

4.13.1.2 EXISTING CONDITIONS

This section describes existing transportation and traffic conditions in the Plan Area, including existing vehicular circulation, transit service, bicycle and pedestrian circulation, and aviation activity.

Vehicular Circulation

Existing Roadway Network

Regional access to the Plan Area is provided by I-880 and SR 84. These facilities are described below:

- *I-880* is an eight-lane north/south freeway, with three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction. I-880 primarily provides regional access from East Bay cities to San Jose, where it becomes SR 17. Full-access interchanges are provided at Thornton Avenue, Mowry Avenue, and Stevenson Boulevard in Newark.
- *SR 84* is a six-lane east/west freeway, with five mixed-flow lanes and one westbound HOV lane in the vicinity of the Plan Area. SR 84 extends from Highway 1 to the west through the Tri-Valley area to the east. To the west of the Plan Area, SR 84 becomes the Dumbarton Bridge, offering access to cities on the San Francisco Peninsula. Full-access interchanges are located at Thornton Avenue/Paseo Padre Parkway and Newark Boulevard/Ardenwood Boulevard, both in Newark.

The local street network in the Plan Area is composed of arterials, collector streets, and local streets. I-880 runs along the eastern edge of the Plan Area and roadways in Newark that generally run running parallel to it are referred to in this Draft EIR as having a north-south orientation. Similarly, roadways running generally parallel to SR 84 are referred to as having an east-west orientation, as SR 84 forms the northern boundary of the City. Key roadways in Newark are described below.

- *Stevenson Boulevard* is an east-west roadway located on the city's southern boundary with the city of Fremont. Between I-880 and Cedar Boulevard, Stevenson Boulevard features six travel lanes, raised medians, and turn lanes at major intersections. At Cedar Boulevard, the roadway narrows to four travel lanes, and this configuration extends through Cherry Street/Boyce Road. Stevenson Boulevard provides access to commercial and light-industrial areas and also extends east over I-880 into Fremont.
- *Mowry Avenue* is an east-west roadway located north of Stevenson Boulevard. Between I-880 and Cedar Boulevard, Mowry Avenue features six travel lanes, raised medians, and turn lanes at major intersections. At Cedar Boulevard, the roadway narrows to four travel lanes, which continue to Cherry Street. West of Cherry Street, the roadway has two westbound travel lanes and one eastbound travel lane, with a two-way left-turn lane. At the Union Pacific railroad tracks, the roadway has an at-grade crossing and narrows to two travel lanes. Mowry Avenue provides access to commercial-retail, residential, and light-industrial areas, and also extends east over I-880 into Fremont.
- *Cherry Street* is generally a four-lane, north-south roadway located between Thornton Avenue and Stevenson Boulevard. Between Thornton Avenue and Mowry Avenue, Cherry Street has a two-way left-turn lane and provides access to commercial, residential, and industrial areas. South of Mowry Avenue, Cherry Street has raised concrete medians and provides access to light-industrial and residential areas. South of Stevenson Boulevard, Cherry Street becomes Boyce Road.
- *Boyce Road* is the continuation of Cherry Street as it continues south of Stevenson Boulevard, where it becomes a four-lane, north-south roadway that extends to Auto Mall Parkway. Located entirely in the city of Fremont, Boyce Road has raised concrete medians and provides access to light-industrial and commercial areas.
- *Central Avenue* is primarily a four-lane, east-west roadway that extends from Willow Street in Newark to Fremont Boulevard in Fremont. It is a two-lane arterial between Willow Street and Filbert Street. East of Filbert Street, Central Avenue widens to a four-lane arterial street through I-880, until it terminates at Fremont Boulevard. Central Avenue provides access to light-industrial and retail areas between Willow Street and Cherry Street. East of Cherry Street, the roadway provides access to both commercial and residential areas in Newark.
- *Thornton Avenue* is a two- or four-lane arterial street that aligns mostly southwest-northeast through the City of Newark between SR 84 and I-880, and extending into the city of Fremont. North of SR 84 and outside the city of Newark, Thornton Avenue becomes Paseo Padre Parkway. From SR 84, Thornton Avenue extends in a southeasterly direction as a two- or four-lane arterial roadway to Willow Street. Just before Willow Street, Thornton Avenue turns northward, assuming a west-southwest to east-northeast orientation. Between Willow Street and Sycamore Street, Thornton Avenue has two travel lanes and a two-way left-turn lane. East of Sycamore Street, Thornton Avenue widens to three travel lanes (one lane westbound and two lanes eastbound), to Cherry Street. Between Sycamore and Cherry streets, Thornton turns more northward, assuming the southwest-northeast orientation that continues through the remainder of Newark. East of Cherry Street, Thornton Avenue widens to a four-lane roadway through I-880 and into the City of Fremont. Thornton Avenue provides access to residential, light-industrial, and commercial areas in the northern and eastern areas of Newark.

- *Newark Boulevard* is a four-lane, north-south roadway that extends from Central Avenue to SR 84, where it becomes Ardenwood Boulevard in the city of Fremont. Thornton Avenue provides access to residential and commercial-retail areas.
- *Jarvis Avenue* is an east-west arterial that extends between Gateway Boulevard and Lake Boulevard. Jarvis Avenue provides access to residential, commercial, and light-industrial areas, and has two travel lanes between Gateway Boulevard and Haley Street. The roadway expands to four travel lanes as it extends east to Lake Boulevard.
- *Sycamore Street* is a north-south roadway extending between Mayhews Landing Road and Central Avenue. Sycamore Street provides access mainly to residential areas in the center of the city and has two travel lanes and a two-way left-turn lane.
- *Willow Street* is a north-south roadway that extends between Central Avenue and Thornton Avenue. Willow Street is four lanes between Central Avenue and Enterprise Drive, and provides access to light-industrial and warehouse uses. North of Thornton Avenue, Willow Street narrows to two travel lanes and provides access to residential areas.
- *Enterprise Drive* is an east-west, four-lane roadway that extends between Hickory Street and Filbert Street and provides access to light-industrial and commercial uses.
- *Lafayette Avenue* is an east-west, two-lane residential collector street located south of Jarvis Avenue. Lafayette Avenue extends between Cherry Street and Cedar Boulevard, and provides access to residential and institutional (school) uses.
- *Mayhews Landing Road* is an east-west, two-lane collector street located south of Lafayette Avenue. Mayhews Landing Road extends between Thornton Avenue and Sycamore Street, and provides access to residential and commercial areas.
- *Cedar Boulevard* is a major cross-town roadway that extends through most of Newark. Cedar Boulevard begins at Haley Street and extends north and east past Newark Boulevard before turning southeastward at Lake Boulevard. It then continues past Newark Boulevard in a generally southeasterly direction past Thornton, Central, and Mowry Avenues before terminating at Stevenson Boulevard. Cedar Boulevard is a two-lane roadway between Haley Street and Lido Boulevard, and widens to a four-lane roadway south of Lido Boulevard. Cedar Boulevard provides access to commercial, light-industrial, and residential areas throughout Newark.
- *Smith Avenue* is an east-west, two-lane residential collector street that extends from west of Cherry Street to Cedar Boulevard. Smith Avenue provides access to residential and institutional (mainly school) uses.
- *Alpenrose Court/NewPark Mall Road* extends north-south across Mowry Avenue to provide access to the large retail areas south of Mowry Avenue, including NewPark Mall.
- *Balentine Drive/Albrae Street* is a north-south, four-lane roadway that extends south of NewPark Mall and just past Stevenson Boulevard. South of Stevenson Boulevard, in the city of Fremont, Balentine Drive becomes Albrae Street. Balentine Drive/Albrae Street provide access to retail-commercial and light-industrial areas.

Existing Traffic Operations

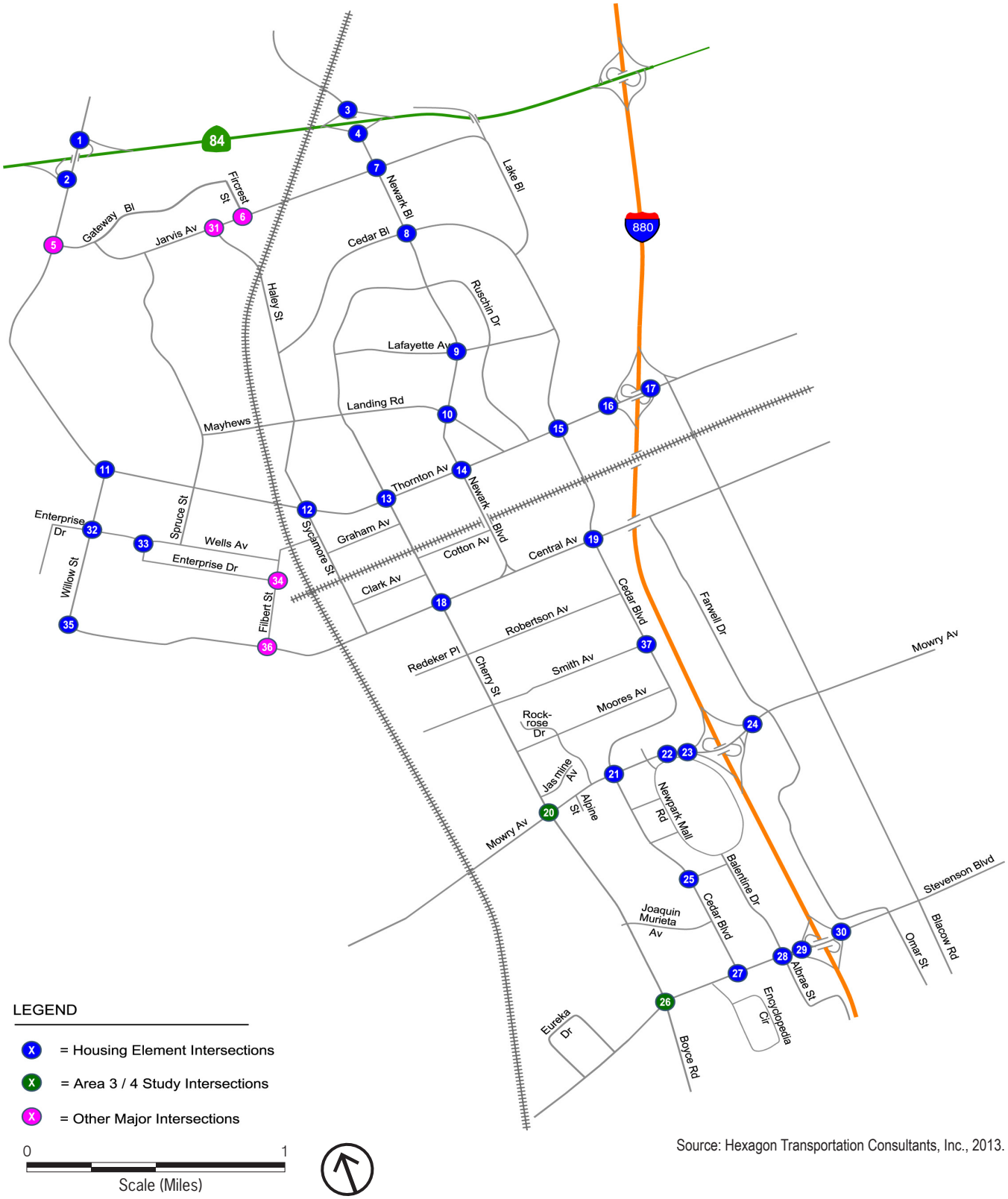
To establish baseline traffic conditions in the Plan Area, Hexagon Transportation Consultants conducted an analysis of 30 signalized intersections and seven unsignalized intersections in Newark and the surrounding area. These intersections, shown on Figure 4.13-1 and listed below, represent the main intersections that would provide access for future traffic under the proposed Plan.

The following is a keyed list of study intersections, which are also illustrated in Figure 4.13-1:

1. Paseo Padre Pkwy and SR 84 WB Ramps
2. Thornton Ave and SR 84 EB Ramps
3. Ardenwood Boulevard and SR 84 WB Ramps
4. Newark Blvd and SR 84 EB Ramps
5. Thornton Avenue and Gateway Blvd
6. Fircrest St and Jarvis Ave
7. Newark Blvd and Jarvis Ave
8. Newark Blvd and Cedar Blvd
9. Newark Blvd and Lafayette Ave
10. Newark Blvd and Mayhews Landing Rd
11. Willow St and Thornton Ave
12. Sycamore St and Thornton Ave
13. Cherry St and Thornton Ave
14. Newark Blvd and Thornton Ave
15. Cedar Blvd and Thornton Ave
16. I-880 SB Ramps and Thornton Ave
17. I-880 NB Ramps and Thornton Ave
18. Cherry St and Central Ave
19. Cedar Blvd and Central Ave
20. Cherry St and Mowry Ave
21. Cedar Blvd and Mowry Ave
22. Alpenrose Court and Mowry Ave
23. I-880 SB Ramps and Mowry Ave
24. I-880 NB Ramps and Mowry Ave
25. Cedar Blvd and Balentine Dr
26. Cherry St and Stevenson Blvd
27. Cedar Blvd and Stevenson Blvd
28. Balentine Dr and Stevenson Blvd
29. I-880 SB Ramps and Stevenson Blvd
30. I-880 NB Ramps and Stevenson Blvd
31. Haley St and Jarvis Ave
32. Willow St and Enterprise Dr
33. Wells Dr and Enterprise Dr
34. Filbert St and Enterprise Dr
35. Willow St and Central Ave
36. Filbert St and Central Ave
37. Cedar Blvd and Smith Ave

Data for the analysis included traffic data from previous studies conducted by the City of Newark in 2006-2007, supplemented with new traffic counts taken in October and November 2012. Traffic counts from previous studies were validated by comparing the intersection data from the previous studies to hourly roadway segment counts that were conducted by the City in 2012. Where the traffic volumes were found to reflect conditions similar to the 2012 segment counts, data was considered valid for use in the traffic analysis. New traffic counts were conducted at intersections for which previous data could not be validated.

Existing intersection lane configurations at the study intersections were determined by observations in the field. They are shown on the calculation sheets included in Appendix D.



Source: Hexagon Transportation Consultants, Inc., 2013.

Figure 4.13-1
Study Intersections

Analysis Methodologies and Level of Service Standards

Traffic conditions at the study intersections were evaluated using LOS, a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or congested conditions with excessive delays. To determine intersection-specific LOS impacts, the traffic volume and travel demand data discussed above were input into the TRAFFIX model. The analysis methods are described in detail below.

Signalized Intersections

The City of Newark has established a standard of LOS D for signalized intersections. This means that intersections operating at LOS D or better operate at acceptable conditions, whereas intersections operating as LOS E or LOS F operate at unacceptable conditions. The intersections along Stevenson Boulevard are shared between the City of Fremont and the City of Newark. Because this Draft EIR is being prepared under the direction of Newark, the LOS D standard was assumed to apply. LOS for this Draft EIR was calculated using TRAFFIX, which is based on the 2000 Highway Capacity Manual (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. The correlation between average delay and LOS for signalized intersections is shown in Table 4.13-1.

Unsignalized Intersections

LOS for the unsignalized intersections was determined using TRAFFIX based on the 2000 Highway Capacity Manual (HCM) methodology. For the purpose of this Draft EIR, the LOS reported is based on the average delay at the unsignalized intersections. The correlation between average delay and LOS for unsignalized intersections is shown in Table 4.13-2.

The City of Newark does not have formal adopted criteria for analyzing impacts to unsignalized intersections. This is common for many jurisdictions because signalized intersections typically limit the overall capacity of a roadway. The analysis of unsignalized intersections is typically evaluated by considering overall LOS, movement delay, availability of alternate routes, intersection spacing, and an analysis of traffic signal warrants. A more detailed discussion of unsignalized intersections is contained in the "Other Transportation Issues" section of the Hexagon traffic report, included as Appendix D.

Signal Warrants

The LOS analysis at unsignalized intersections is supplemented with an assessment of the need for signalization of each intersection. This assessment is made on the basis of signal warrant criteria adopted by Caltrans. For this Draft EIR, the need for signalization is assessed on the basis of the peak-hour traffic signal warrant, Warrant #3 described in the 2006 California Manual on Uniform Traffic Control Devices (CAMUTCD). This method provides an indication of whether traffic conditions and peak-hour traffic levels are, or would be, sufficient to justify installation of a traffic signal.

TABLE 4.13-1 SIGNALIZED INTERSECTION LEVELS OF SERVICE DEFINITIONS BASED ON CONTROL DELAY

LOS	Description of Operations	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high-volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation; that is, when arrival flow-rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delays.	Greater than 80.0

Source: Transportation Research Board, 2000 Highway Capacity Manual, Washington, D.C., pp. 10–16.

TABLE 4.13-2 UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS BASED ON DELAY

LOS	Description of Operations	Average Control Delay Per Vehicle (sec.)
A	Little or no traffic delay.	10.0 or less
B	Short traffic delays.	10.1 to 15.0
C	Average traffic delays.	15.1 to 25.0
D	Long traffic delays.	25.1 to 35.0
E	Very long traffic delays.	35.1 to 50.0
F	Extreme traffic delays.	Greater than 50.0

Source: Transportation Research Board, 2000 Highway Capacity Manual, Washington, D.C., p. 17–20.

The decision to install a traffic signal should not be based purely on the warrants alone. Instead, the installation of a signal should be considered and further analysis performed when one or more of the warrants are met. Additionally, engineering judgment is exercised on a case-by-case basis to evaluate the effect a traffic signal will have on certain types of accidents and traffic conditions at the subject intersection as well as at adjacent intersections.

Existing Traffic Volumes

As described above, the existing traffic volumes were obtained from turning movement counts conducted in October 2012 and also from previous studies conducted in 2006 and 2007. The traffic count data are included in Appendix D. The existing peak hour intersection volumes are shown on Figure 4.13-2a and Figure 4.13-2b.

Existing Intersection Levels of Service

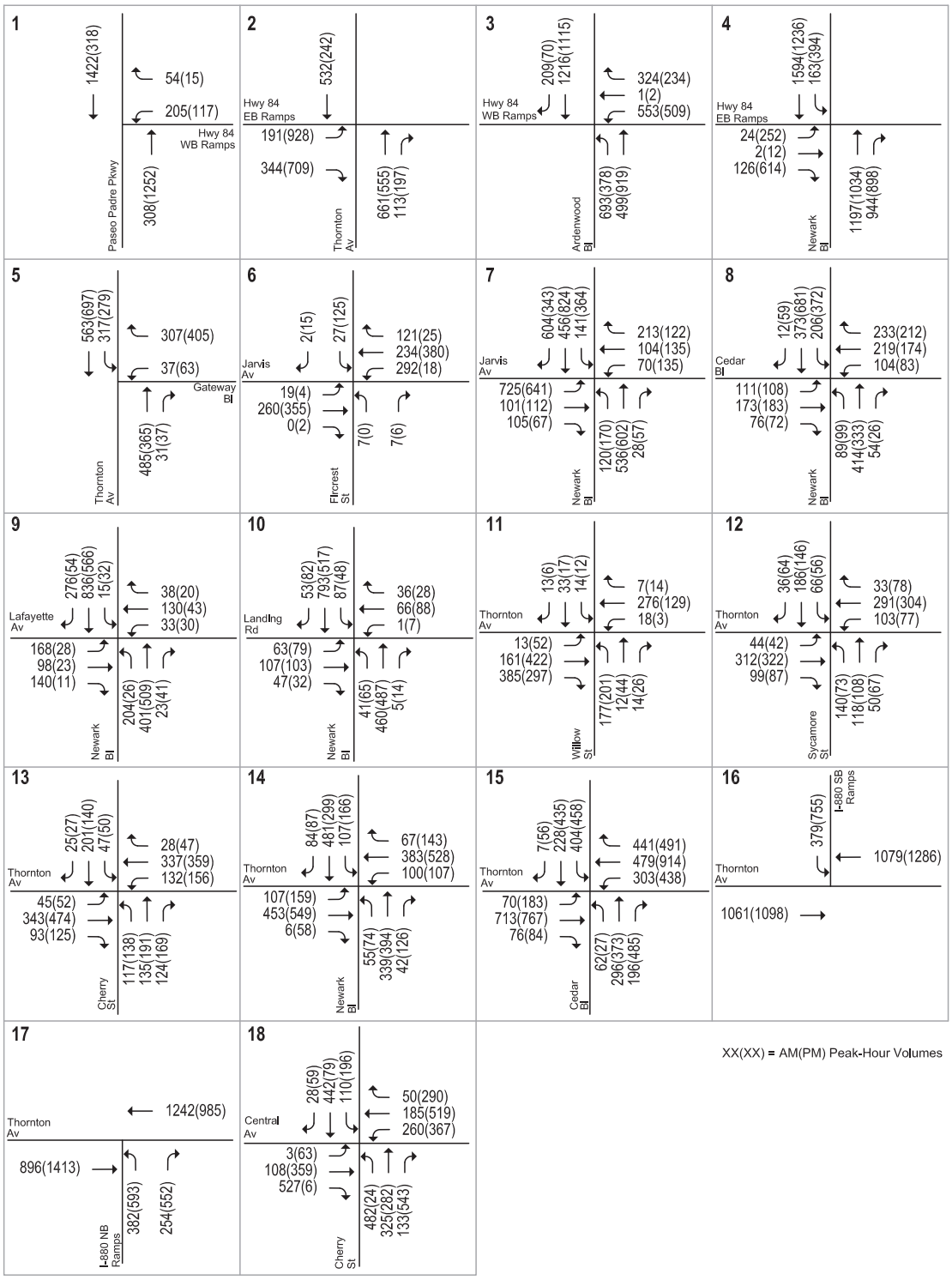
The results of the intersection LOS analysis under existing conditions are summarized in Table 4.13-3. The results show that, compared against the City of Newark LOS standards, all of the study intersections currently operate at LOS D or better. The LOS calculation sheets are included in Appendix D.

Existing Transit Service

Existing local and regional transit service in the Plan Area and vicinity are provided by Alameda-Contra Costa Transit (AC Transit), Bay Area Rapid Transit (BART), Amtrak's Capital Corridor, and the Altamont Commuter Express (ACE). Newark is served directly by eleven AC Transit bus routes, and indirectly by nearby BART, commuter rail, and regional rail stations located in Fremont. The existing services are described below and existing transit services in the immediate Newark area are shown in Figure 4.13-3.

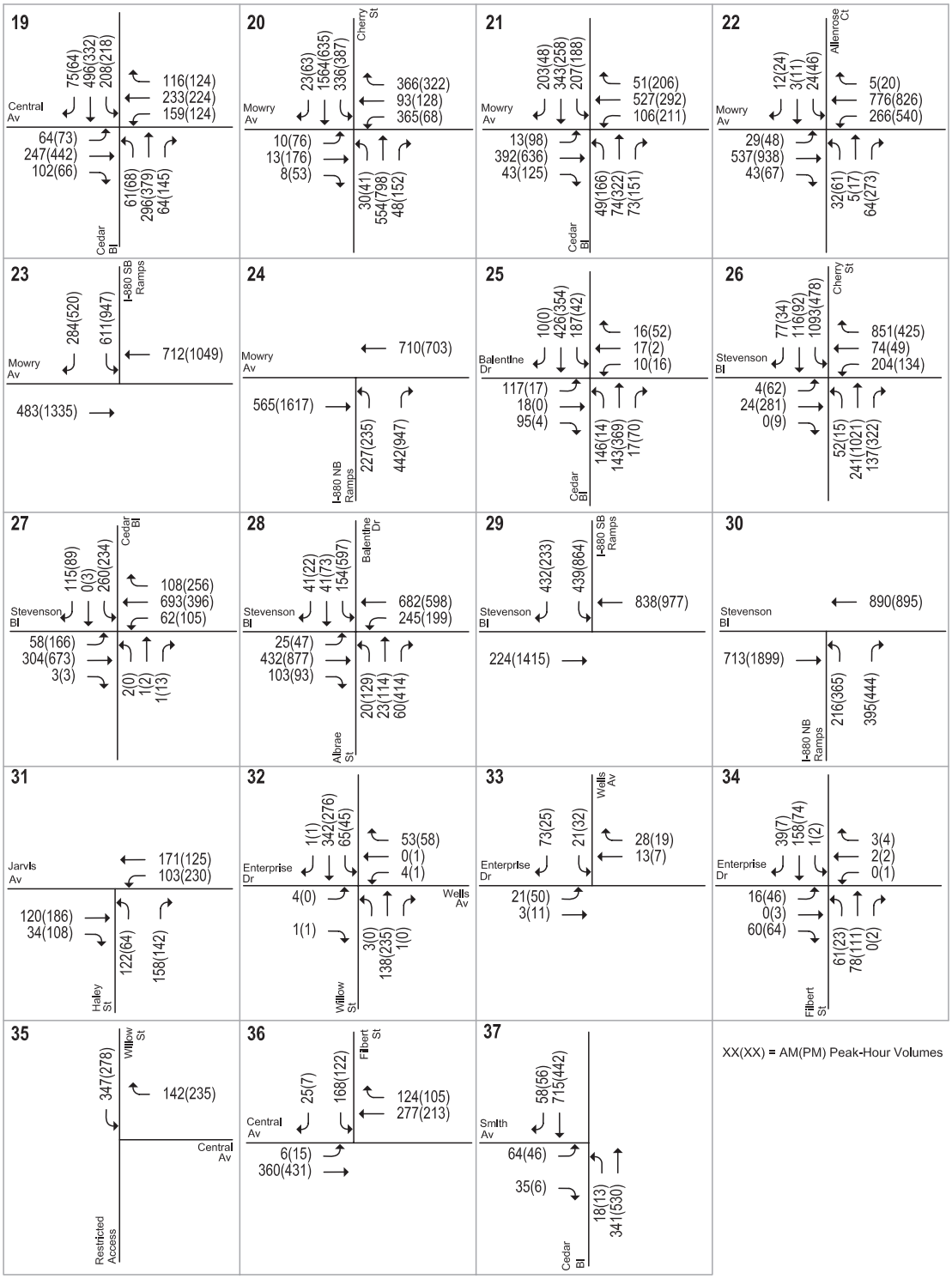
AC Transit

- *Route 212* operates Monday through Friday between 6:45 a.m. and 10:00 p.m. with 30-minute headways. Route 212 travels between Fremont BART and NewPark Mall, and runs along Mowry Avenue, Fremont Boulevard, Pacific Commons, Christy Street, and Cedar Boulevard.
- *Route 216* operates Monday through Friday between 5:30 a.m. and 8:30 p.m. with 60-minute headways. Route 216 travels between Ohlone College Newark Campus to Union City BART via NewPark Mall, Cedar Street, Central Avenue, Fremont Boulevard, Fremont BART, Mowry Avenue, and Niles Boulevard.
- *Route 232* operates Monday through Friday between 5:30 a.m. and 8:40 p.m. with 60-minute headways. Route 232 travels between Fremont BART and NewPark Mall via Walnut Avenue, Mission Boulevard, Union City BART, Paseo Padre Parkway, Ardenwood Boulevard, Lido Faire Shopping Center, and Cedar Boulevard.
- *Route 242* operates Monday through Friday and on weekends between 6:00 am and 11:30 pm with 60-minute headways. Route 242 is a two-way loop serving the Fremont BART station via Stevenson Boulevard, Cherry Street, Ohlone College Newark Campus, NewPark Mall, Mowry Avenue, and Civic Center Drive.
- *Route 251* operates Monday through Friday and on weekends between 6:00 a.m. and 8:30 p.m. with 60-minute headways. Route 251 is a two-way loop serving the Fremont BART station via Walnut Avenue, Paseo Padre Parkway, Thornton Avenue, Willow Street, Enterprise Drive, Filbert Street, Central Avenue, Cherry Street, NewPark Mall, Mowry Avenue, and Civic Center Drive.



Source: Hexagon Transportation Consultants, Inc., 2013.

Figure 4.13-2a
Existing AM and PM Peak Hour Turning Volumes



Source: Hexagon Transportation Consultants, Inc., 2013.

Figure 4.13-2b
Existing AM and PM Peak Hour Turning Volumes

TABLE 4.13-3 EXISTING INTERSECTION LEVELS OF SERVICE

#	Signalized Intersections	Existing Control	Peak Hour	Count Date[a]	Average Delay[b]	LOS
1	Paseo Padre Pkwy and SR 84 WB Ramps	Signal	AM	10/30/12	9.5	A
			PM	10/30/12	5.9	A
2	Thornton Ave and SR 84 EB Ramps	Signal	AM	10/30/12	16.8	B
			PM	10/30/12	18.7	B
3	Ardenwood Boulevard and SR 84 WB Ramps	Signal	AM	10/24/12	35.9	D
			PM	10/24/12	23.4	C
4	Newark Blvd and SR 84 EB Ramps	Signal	AM	10/24/12	9.6	A
			PM	10/24/12	54.2	D
5	Thornton Avenue and Gateway Blvd	Signal	AM	10/30/12	11.6	B
			PM	10/30/12	11.4	B
6	Fircrest St and Jarvis Ave	Signal	AM	10/30/12	19.2	B
			PM	10/30/12	19.4	B
7	Newark Blvd and Jarvis Ave	Signal	AM	H.E.	26.6	C
			PM	H.E.	29.9	C
8	Newark Blvd and Cedar Blvd	Signal	AM	H.E.	20.1	C
			PM	10/24/12	19.7	B
9	Newark Blvd and Lafayette Ave	Signal	AM	10/24/12	20.2	C
			PM	10/24/12	12.4	B
10	Newark Blvd and Mayhews Landing Rd	Signal	AM	10/24/12	11.6	B
			PM	10/24/12	12.4	B
11	Willow St and Thornton Ave	Signal	AM	11/01/12	15.6	B
			PM	11/01/12	16.0	B
12	Sycamore St and Thornton Ave	Signal	AM	H.E.	26.3	C
			PM	H.E.	23.6	C
13	Cherry St and Thornton Ave	Signal	AM	09/27/06	22.9	C
			PM	09/27/06	22.2	C
14	Newark Blvd and Thornton Ave	Signal	AM	09/27/06	20.1	C
			PM	09/27/06	21.0	C

TABLE 4.13-3 EXISTING INTERSECTION LEVELS OF SERVICE

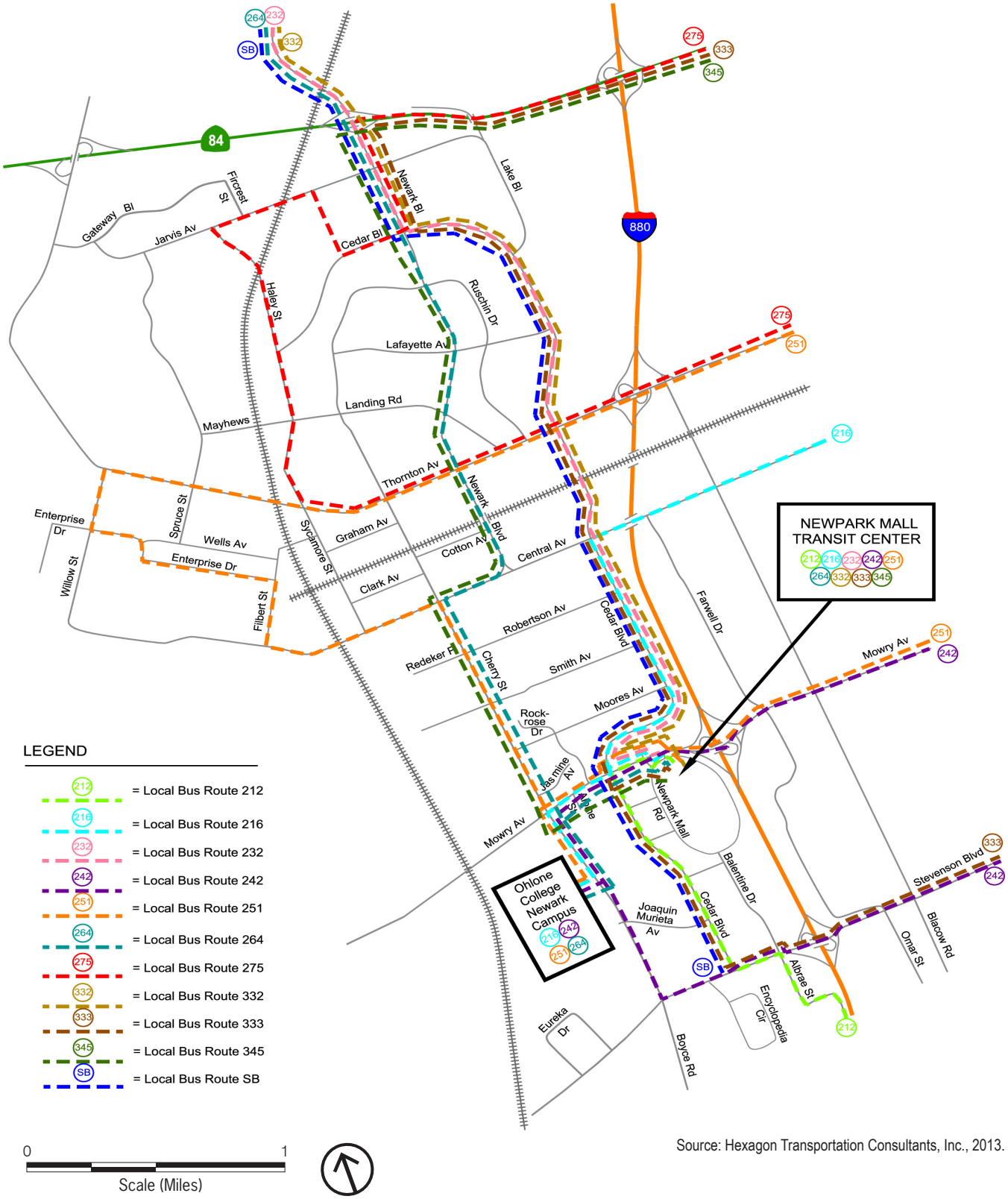
#	Signalized Intersections	Existing Control	Peak Hour	Count Date[a]	Average Delay[b]	LOS
15	Cedar Blvd and Thornton Ave	Signal	AM	H.E.	31.3	C
			PM	H.E.	33.7	C
16	I-880 SB Ramps and Thornton Ave	Signal	AM	10/30/12	10.1	B
			PM	H.E.	15.7	B
17	I-880 NB Ramps and Thornton Ave	Signal	AM	H.E.	12.2	B
			PM	H.E.	15.6	B
18	Cherry St and Central Ave	Signal	AM	10/05/06	21.2	C
			PM	10/30/12	24.8	C
19	Cedar Blvd and Central Ave	Signal	AM	10/31/12	17.2	B
			PM	10/31/12	17.2	B
20	Cherry St and Mowry Ave	Signal	AM	11/01/12	31.1	C
			PM	10/03/06	24.9	C
21	Cedar Blvd and Mowry Ave	Signal	AM	10/02/06	24.9	C
			PM	10/02/06	26.6	C
22	Alpenrose Court and Mowry Ave	Signal	AM	11/01/12	18.5	B
			PM	11/01/12	20.5	C
23	I-880 SB Ramps and Mowry Ave	Signal	AM	10/03/06	10.8	B
			PM	10/03/06	12.1	B
24	I-880 NB Ramps and Mowry Ave	Signal	AM	10/31/12	10.3	B
			PM	10/31/12	11.8	B
25	Cedar Blvd and Balentine Dr	Signal	AM	10/31/12	23.1	C
			PM	10/31/12	17.4	B
26	Cherry St and Stevenson Blvd	Signal	AM	10/31/12	21.3	C
			PM	10/31/12	26.7	C
27	Cedar Blvd and Stevenson Blvd	Signal	AM	09/28/06	20.4	C
			PM	09/28/06	21.4	C
28	Balentine Dr and Stevenson Blvd	Signal	AM	10/18/06	20.3	C
			PM	10/18/06	24.3	C

TABLE 4.13-3 EXISTING INTERSECTION LEVELS OF SERVICE

#	Signalized Intersections	Existing Control	Peak Hour	Count Date[a]	Average Delay[b]	LOS
29	I-880 SB Ramps and Stevenson Blvd	Signal	AM	10/18/06	10.4	B
			PM	11/01/12	11.5	B
30	I-880 NB Ramps and Stevenson Blvd	Signal	AM	10/04/06	9.4	A
			PM	10/04/06	8.6	A
31	Haley St and Jarvis Ave	TWSC	AM	11/01/12	11.1	B
			PM	11/01/12	12.4	B
32	Willow St and Enterprise Dr	TWSC	AM	10/31/12	14.3	B
			PM	10/31/12	9.9	A
33	Wells Dr and Enterprise Dr	TWSC	AM	10/30/12	8.9	A
			PM	10/30/12	9.1	A
34	Filbert St and Enterprise Dr	TWSC	AM	10/31/12	10.0	B
			PM	10/31/12	9.7	A
35	Willow St and Central Ave	TWSC	AM	10/31/12	10.3	B
			PM	10/31/12	9.8	A
36	Filbert St and Central Ave	TWSC	AM	11/01/12	18.3	C
			PM	11/01/12	16.9	C
37	Cedar Blvd and Smith Ave	TWSC	AM	H.E.	20.0	C
			PM	H.E.	15.9	C

[a] H.E. = General Plan Housing Element Update Traffic Impact Analysis Report, Prepared by Omni Means Engineers & Planners, April 2009.
[b] At signalized intersections, the delay reported is the average delay experienced by all approaches to the intersection and at unsignalized intersections, the delay reported is the worst delay experienced by the minor street approach.
[c] TWSC = Two Way Stop Control.
Source: Hexagon Transportation Consultants, Inc., 2013.

- *Route 264* operates Monday through Friday between 5:15 a.m. and 9:00 p.m. with 60-minute headways. Route 264 travels between Union City BART and NewPark Mall via Decoto Road, Paseo Padre Parkway, Thornton Avenue, Fremont Boulevard, Paseo Padre Parkway, Newark Boulevard, Cherry Street, Ohlone College Newark Campus, and Mowry Avenue.
- *Route 275* operates Monday through Friday between 6:15 a.m. and 8:30 p.m. with 60-minute headways. Route 275 is a two-way loop serving the Union City BART station via Decoto Road, SR 84, Newark Boulevard, Cedar Boulevard, Lido Boulevard, Haley Street, Sycamore Street, Thornton Avenue, and Fremont Boulevard. On weekends, Route 275 operates in the clockwise direction only.



Source: Hexagon Transportation Consultants, Inc., 2013.

Figure 4.13-3
Transit Service in Newark

- *Route 332* operates weekends between 7:00 a.m. and 8:00 p.m. with 60-minute headways. Route 332 travels between Fremont BART and NewPark Mall via Mowry Avenue, Niles Boulevard, Union City BART, Paseo Padre Parkway, Ardenwood Boulevard, Lido Faire Shopping Center, and Cedar Boulevard.
- *Route 333* operates Monday through Friday during off-peak hours between 7:00 p.m. and 12:45 a.m. with 60-minute headways. Route 333 provides flexible service between Union City BART and NewPark Mall. Passengers can request service to any bus stop in the City of Newark.
- *Route 345* operates weekends between 6:00 a.m. and 9:00 p.m. with 60-minute headways. Route 345 travels between NewPark Mall and Fremont BART via Mowry Avenue, Cherry Street, Newark Boulevard, Highway 84, Decoto Road, Union City BART, Mission Boulevard, and Walnut Street. This route serves the Gurdwara Sahib Fremont (Sikh Temple) on Sundays between 9:00 a.m. and 3:00 p.m.
- *The Newark Transbay Express SB* route operates only during the peak commute hours between 5:15 to 9:00 a.m. (westbound only), and 4:00 to 9:15 p.m. (eastbound only), Monday through Friday, with headways between 20 and 30 minutes. The SB Transbay Express route originates in the Stevenson/Cedar area and travels north on Cedar Boulevard toward northern Fremont, and on to San Francisco via Cedar Boulevard, Newark Boulevard, Union City Boulevard, and Hesperian Boulevard.

BART

The BART system provides regional rail service and operates trains along five routes within the Bay Area: (1) Fremont–Richmond, (2) Fremont–Daly City, (3) Richmond–Millbrae, (4) Dublin/Pleasanton–Millbrae, and (5) SFO–Pittsburg/Bay Point. The nearest BART station is located in Fremont, near Mowry Avenue and Civic Center Drive, at an average distance of 5.3 miles from Newark. The BART station in Union City also offers nearby service for Newark, and is located near Decoto Road and 11th Street, approximately 5.5 miles away from Newark, on average. There are two additional planned BART stations at Irvington and Warm Springs, in Fremont; these are under construction and expected to be completed by 2015.

Regional Rail

The Amtrak "Capitol Corridor" and Altamont Commuter Express (ACE) provide passenger rail service in the Newark vicinity via the Fremont Centerville Train station, located approximately 3 miles northeast of Newark.

The Capitol Corridor provides daily service between San Jose and Sacramento, making stops in Santa Clara, Fremont, Hayward, Oakland, Emeryville, Berkeley, Richmond, Martinez, Suisun-Fairfield, and Davis. On both weekdays and weekends, seven southbound Capitol Corridor trains provide passenger rail service to Santa Clara and Downtown San Jose, and seven northbound trains provide service to Oakland, Davis, Sacramento, and the other previously mentioned intermediate communities to the north of Fremont.

ACE provides service between San Jose and Stockton, with stops in Santa Clara, Fremont, Pleasanton, Livermore, Tracy, and Lathrop-Manteca. On weekdays, ACE offers four eastbound trains from Fremont to Stockton, making stops in Pleasanton, Livermore, Tracy, and Lathrop-Manteca, and four westbound trains from Fremont to San Jose, making two stops in Santa Clara. ACE does not currently offer weekend or holiday service.

Existing Pedestrian and Bicycle Circulation

Pedestrian facilities in Newark consist primarily of sidewalks along the city streets. Sidewalks and crosswalks are found along virtually all previously described local roadways in the city.

According to the latest Alameda Countywide Bicycle Plan that was adopted on October 25, 2012, bicycle facilities are located on Paseo Padre Parkway, Newark Boulevard, Haley Street, Cheery Street, and Ardenwood Boulevard. These facilities are classified as Class I, Class II, and Class III facilities that are described below. Figure 4.13-4 illustrates the existing bicycle facilities in the City of Newark.

- Class I (Bike Path) facilities provide a completely separate right-of-way for exclusive use of bicycles and pedestrians with cross-flow of motorists minimized.
- Class II (Bike Lane) facilities provide a striped lane for one-way bike travel on a street or highway.
- Class III (Bike Route) facilities provide for shared use with pedestrians or motorized vehicles.

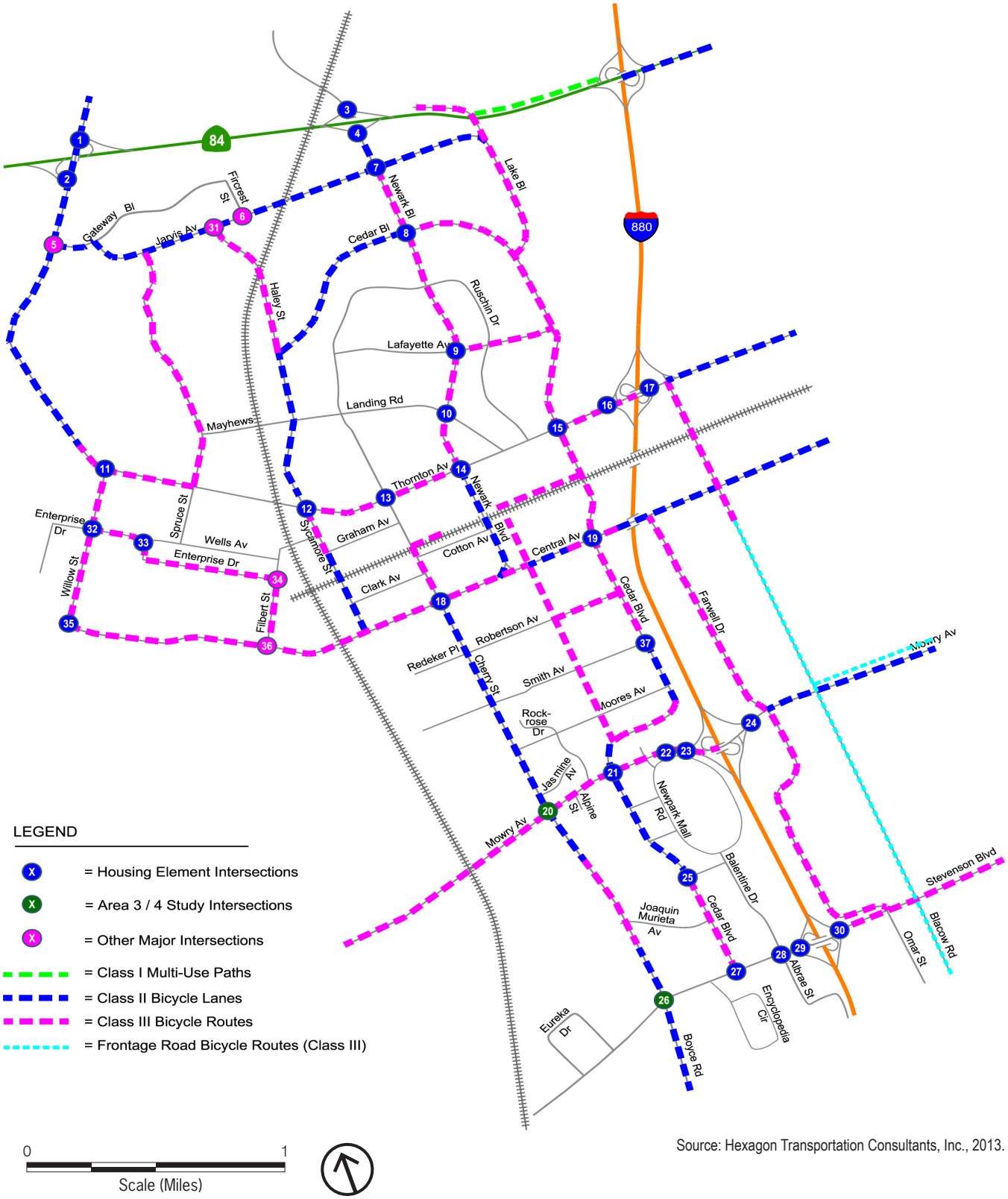
Aviation Activity

There are multiple airports and airfields in the region surrounding the city of Newark; however, all of these facilities are approximately four or more miles from the Plan Area, and no area of Newark falls within the airport planning area for any of these facilities. There are no heliports for public or private use in the City of Newark; however, there are two nearby heliports in adjacent Fremont. Both heliports in Fremont are private, with one serving Washington Hospital and the other serving the First Interstate Bank Operations Center. Helicopter operations at these locations do not follow a regular schedule and are not frequent. The First Interstate Bank Operations Center heliport is approximately 1.7 miles from the Newark city limit, and the Washington Hospital heliport is located at a distance of approximately 2.2 miles.

4.13.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact with regard to transportation and traffic if it would:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
2. Conflict with an applicable congestion management program, including, but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.



Source: Hexagon Transportation Consultants, Inc., 2013.

Figure 4.13-4
Existing Bicycle Facilities in Newark

4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
5. Result in inadequate emergency access.
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Definition of Significant Intersection Impacts

For this analysis, the set of relevant criteria for impacts on intersections is based on LOS standards for the City of Newark and for the Alameda County Transportation Commission (Alameda CTC). The plan is said to create a significant adverse impact on traffic conditions at an intersection in the City of Newark if for either peak hour:

1. The LOS at the intersection degrades from an acceptable LOS under existing conditions to an unacceptable LOS under proposed Plan conditions, where the threshold of acceptable LOS is LOS D,[3] or
2. The LOS at the intersection is LOS E or LOS F under existing conditions and the addition of proposed Plan trips causes the average delay at the intersection to increase by four or more seconds.

By the City of Newark standards, a significant impact is said to be satisfactorily mitigated when measures are implemented that would restore intersection LOS to no-project conditions or better.

Metropolitan Transportation System (MTS) Segment Impacts

A project would cause a significant impact to MTS roadway segment operations if the addition of project traffic, (a) causes a roadway segment on the MTS to operate at LOS F or, (b) increases the volume-to-capacity ratio (v/c) by 0.030 or more for a roadway segment that is operating at LOS F without the project.

4.13.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to transportation and traffic. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

TRANS-1	**With buildout of the proposed Plan, three signalized study intersections would operate at unacceptable LOS in 2035.**

As described above, the City of Newark and the Alameda CTC have established vehicular LOS standards for intersection performance. Hexagon Transportation Consultants modeled future traffic conditions under the

[3] The sources for threshold of acceptable LOS in Newark are the Dumbarton TOD Specific Plan (September 2009) and the Southwest Newark Residential and Recreational Focus Area Specific Plan (July 2011).

proposed Plan in 2035 in order to evaluate impacts with respect to established standards. Impacts to MTS roadways segments are discussed below under TRANS-2.

The traffic analysis assumed that the transportation network, including roadways and intersection lane configurations, would be the same in 2035 as that described above in section 4.13.1.2, Existing Conditions, of this chapter. New development projected within the Plan Area at buildout of the proposed Plan, including net increases over 2012 baseline conditions of 16,580 residents, 6,208 housing units, and 2,882 jobs, was input to the Alameda County Transportation Commission (ACTC) model in order to generate 2035 traffic forecasts. The resulting traffic volumes are shown on Figures 4.13-5a and 4.13-5b.

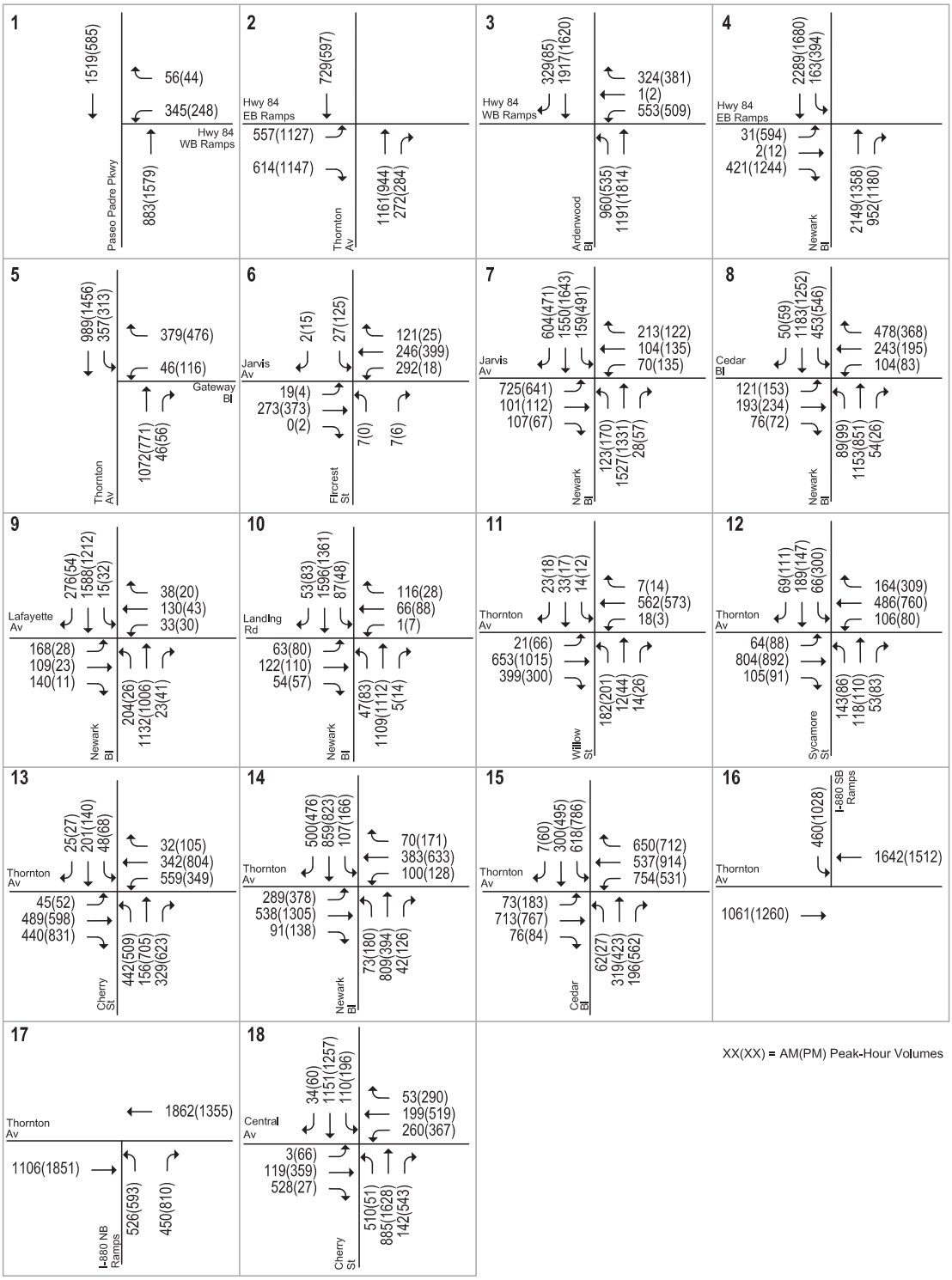
The TRAFFIX model was then used to determine intersection LOS in 2035. Table 4.13-4 shows the results of the LOS analysis, with a comparison of existing conditions (2012) LOS and proposed Plan buildout (2035) LOS. As shown, seven of the study intersections would operate at unacceptable LOS in 2035 with buildout of the proposed Plan. All other study intersections would continue to operate at acceptable levels of service under the proposed Plan buildout conditions in 2035. The impacted intersections are:

1. Ardenwood Boulevard and Hwy 84 WB Ramps (LOS F, Average Delay = 96 sec, AM peak hour)
2. Newark Boulevard and Hwy 84 EB Ramps (LOS F, Average Delay = 156 sec, PM peak hour)
3. Thornton Avenue and Gateway Boulevard (LOS E, Average Delay = 60 sec, PM peak hour)
4. Cherry Street and Thornton Avenue (LOS E, Average Delay = 72 sec, PM peak hour)
5. Cedar Boulevard and Smith Avenue (LOS F, Delay of worst approach = 576 sec, AM peak hour; and LOS E, Delay of worst approach = 42 sec, PM peak hour)
6. Cherry Street and Mowry Avenue (LOS E, Average Delay = 79 sec, AM peak hour)
7. Cherry Street and Stevenson Boulevard (LOS F, Average Delay = 84 sec, PM Peak hour)

Table 4.13-5 shows improvements identified in the proposed Plan that, once implemented, would remedy deficiencies at the seven impacted intersections and ensure acceptable intersection LOS in 2035. Additionally, the proposed Plan includes the following action requiring the City to implement the necessary intersection improvements when LOS falls to unacceptable levels:

- Action T-5.J: Improvements to Maintain LOS "D". In the event that future traffic monitoring data indicates that the intersections of Cherry Street and Thornton Avenue, Cherry Street and Mowry Avenue, Thornton Avenue and Gateway Boulevard, or Cedar Boulevard and Smith Avenue are operating at LOS E or F, undertake the improvements listed in Table T-4 so that service levels can be restored to acceptable levels at the affected intersection(s). Funding would be provided through the City's Capital Improvements Fee.

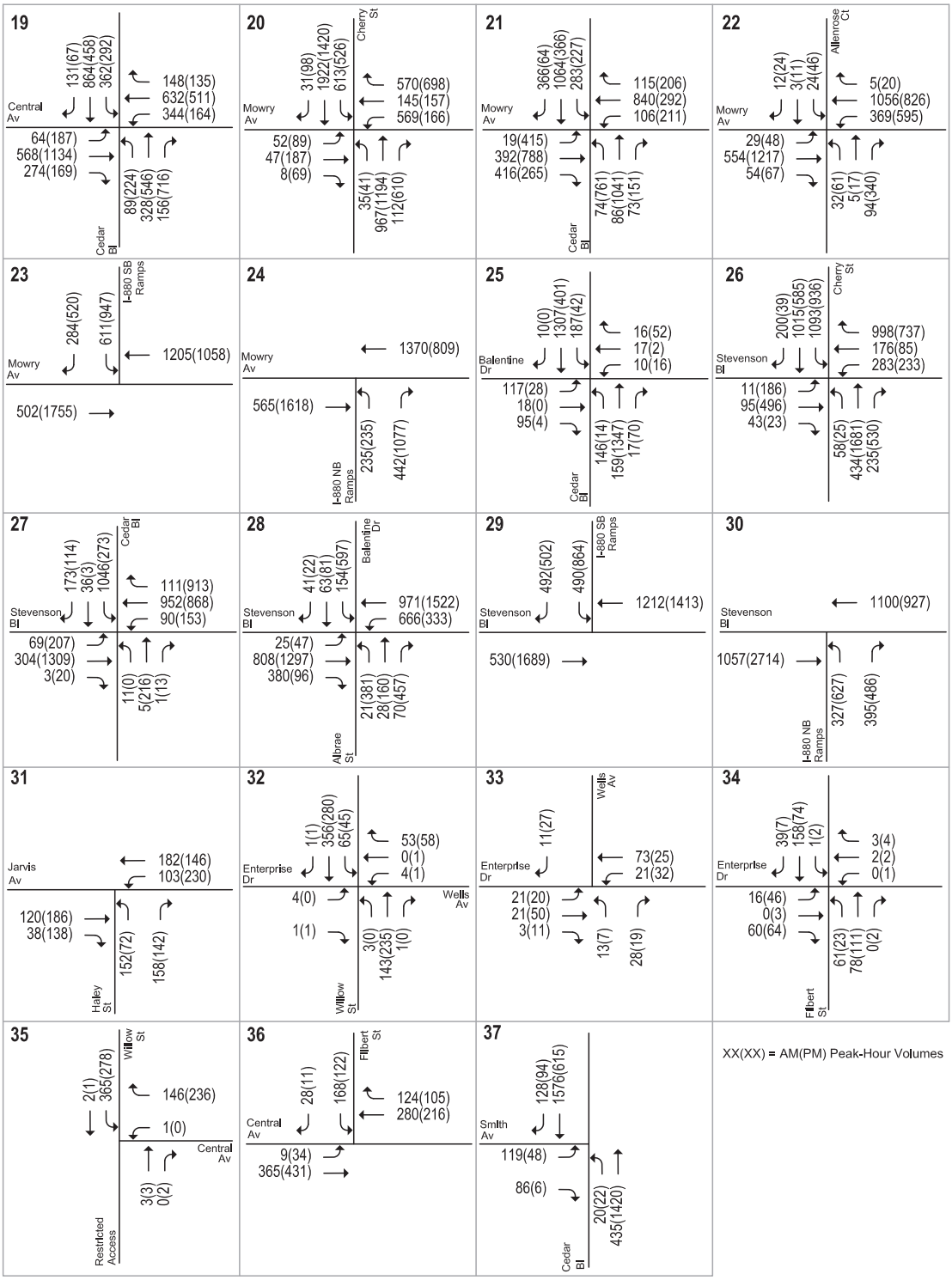
Future development under the proposed Plan would be subject to the City's Capital Facilities Fee established in the Newark Municipal Code, and as such new commercial, industrial, and single- and multi-family residential developments in the city would make a fair share contribution to funding as development is approved by the City. With implementation of Action T-5.J from the proposed Plan, all seven impacted intersections would operate at



Source: Hexagon Transportation Consultants, Inc., 2013.

Figure 4.13-5a

2035 AM and PM Peak Hour Turning Volumes Under the Proposed Plan



Source: Hexagon Transportation Consultants, Inc., 2013.

Figure 4.13-5b

2035 AM and PM Peak Hour Turning Volumes Under the Proposed Plan

TABLE 4.13-4 EXISTING AND PROJECTED 2035 INTERSECTION LEVELS OF SERVICE

					Existing		2035 Proposed Plan Buildout		
#	Signalized Intersections	Existing Control	Peak Hour	Count Date[a]	Average Delay[b]	LOS	Average Delay[b]	LOS	Increase in Delay
1	Paseo Padre Pkwy and SR 84 WB Ramps	Signal	AM	10/30/12	9.5	A	13.0	B	3.5
			PM	10/30/12	5.9	A	10.1	B	4.2
2	Thornton Ave and SR 84 EB Ramps	Signal	AM	10/30/12	16.8	B	20.7	C	3.9
			PM	10/30/12	18.7	B	31.6	C	12.9
3	Ardenwood Boulevard and SR 84 WB Ramps	Signal	AM	10/24/12	35.9	D	95.6	F	59.7
			PM	10/24/12	23.4	C	27.5	C	4.1
4	Newark Blvd and SR 84 EB Ramps	Signal	AM	10/24/12	9.6	A	21.1	C	11.5
			PM	10/24/12	54.2	D	156.4	F	102.2
5	Thornton Avenue and Gateway Blvd	Signal	AM	10/30/12	11.6	B	14.8	B	3.2
			PM	10/30/12	11.4	B	60.0	E	48.6
6	Fircrest St and Jarvis Ave	Signal	AM	10/30/12	19.2	B	19.3	B	0.1
			PM	10/30/12	19.4	B	19.0	B	-0.4
7	Newark Blvd and Jarvis Ave	Signal	AM	H.E.	26.6	C	31.7	C	5.1
			PM	H.E.	29.9	C	36.4	D	6.5
8	Newark Blvd and Cedar Blvd	Signal	AM	H.E.	20.1	C	35.4	D	15.3
			PM	10/24/12	19.7	B	29.5	C	9.8
9	Newark Blvd and Lafayette Ave	Signal	AM	10/24/12	20.2	C	26.2	C	6.0
			PM	10/24/12	12.4	B	10.3	B	-2.1

TABLE 4.13-4 EXISTING AND PROJECTED 2035 INTERSECTION LEVELS OF SERVICE

					Existing		2035 Proposed Plan Buildout		
#	Signalized Intersections	Existing Control	Peak Hour	Count Date[a]	Average Delay[b]	LOS	Average Delay[b]	LOS	Increase in Delay
10	Newark Blvd and Mayhews Landing Rd	Signal	AM	10/24/12	11.6	B	21.4	C	9.8
			PM	10/24/12	12.4	B	15.4	B	3.0
11	Willow St and Thornton Ave	Signal	AM	11/01/12	15.6	B	17.1	B	1.5
			PM	11/01/12	16.0	B	19.7	B	3.7
12	Sycamore St and Thornton Ave	Signal	AM	H.E.	26.3	C	23.9	C	-2.4
			PM	H.E.	23.6	C	44.4	D	20.8
13	Cherry St and Thornton Ave	Signal	AM	09/27/06	22.9	C	46.7	D	23.8
			PM	09/27/06	22.2	C	71.6	E	49.4
14	Newark Blvd and Thornton Ave	Signal	AM	09/27/06	20.1	C	22.1	C	2.0
			PM	09/27/06	21.0	C	34.1	C	13.1
15	Cedar Blvd and Thornton Ave	Signal	AM	H.E.	31.3	C	46.0	D	14.7
			PM	H.E.	33.7	C	41.7	D	8.0
16	I-880 SB Ramps and Thornton Ave	Signal	AM	10/30/12	10.1	B	10.5	B	0.4
			PM	H.E.	15.7	B	19.2	B	3.5
17	I-880 NB Ramps and Thornton Ave	Signal	AM	H.E.	12.2	B	14.0	B	1.8
			PM	H.E.	15.6	B	18.8	B	3.2
18	Cherry St and Central Ave	Signal	AM	10/05/06	21.2	C	35.5	D	14.3
			PM	10/30/12	24.8	C	49.6	D	24.8

TABLE 4.13-4 EXISTING AND PROJECTED 2035 INTERSECTION LEVELS OF SERVICE

					Existing		2035 Proposed Plan Buildout		
#	Signalized Intersections	Existing Control	Peak Hour	Count Date[a]	Average Delay[b]	LOS	Average Delay[b]	LOS	Increase in Delay
19	Cedar Blvd and Central Ave	Signal	AM	10/31/12	17.2	B	34.3	C	17.1
			PM	10/31/12	17.2	B	50.5	D	33.3
20	Cherry St and Mowry Ave	Signal	AM	11/01/12	31.1	C	79.4	E	48.3
			PM	10/03/06	24.9	C	32.3	C	7.4
21	Cedar Blvd and Mowry Ave	Signal	AM	10/02/06	24.9	C	26.2	C	1.3
			PM	10/02/06	26.6	C	40.6	D	14.0
22	Alpenrose Court and Mowry Ave	Signal	AM	11/01/12	18.5	B	17.5	B	-1.0
			PM	11/01/12	20.5	C	23.3	C	2.8
23	I-880 SB Ramps and Mowry Ave	Signal	AM	10/03/06	10.8	B	10.2	B	-0.6
			PM	10/03/06	12.1	B	12.2	B	0.1
24	I-880 NB Ramps and Mowry Ave	Signal	AM	10/31/12	10.3	B	9.0	A	-1.3
			PM	10/31/12	11.8	B	12.4	B	0.6
25	Cedar Blvd and Balentine Dr	Signal	AM	10/31/12	23.1	C	22.5	C	-0.6
			PM	10/31/12	17.4	B	21.2	C	3.8
26	Cherry St and Stevenson Blvd	Signal	AM	10/31/12	21.3	C	26.9	C	5.6
			PM	10/31/12	26.7	C	83.3	F	56.6
27	Cedar Blvd and Stevenson Blvd	Signal	AM	09/28/06	20.4	C	29.2	C	8.8
			PM	09/28/06	21.4	C	25.1	C	3.7

TABLE 4.13-4 EXISTING AND PROJECTED 2035 INTERSECTION LEVELS OF SERVICE

#	Signalized Intersections	Existing Control	Peak Hour	Count Date[a]	Existing Average Delay[b]	Existing LOS	2035 Proposed Plan Buildout Average Delay[b]	2035 Proposed Plan Buildout LOS	Increase in Delay
28	Balentine Dr and Stevenson Blvd	Signal	AM	10/18/06	20.3	C	21.4	C	1.1
			PM	10/18/06	24.3	C	35.6	D	11.3
29	I-880 SB Ramps and Stevenson Blvd	Signal	AM	10/18/06	10.4	B	10.1	B	-0.3
			PM	11/01/12	11.5	B	11.5	B	0.0
30	I-880 NB Ramps and Stevenson Blvd	Signal	AM	10/04/06	9.4	A	9.0	A	-0.4
			PM	10/04/06	8.6	A	10.7	B	2.1

#	Unsignalized Intersections	Existing Control[c]	Peak Hour	Count Date[a]	Existing Worst Delay[b]	Existing LOS	Existing Warrant Met?[d]	2035 Proposed Plan Buildout Worst Delay	2035 Proposed Plan Buildout LOS	2035 Proposed Plan Buildout Warrant Met?[d]
31	Haley St and Jarvis Ave	TWSC	AM	11/01/12	11.1	B	no	11.7	B	no
			PM	11/01/12	12.4	B	no	12.9	B	no
32	Willow St and Enterprise Dr	TWSC	AM	10/31/12	14.3	B	no	14.6	B	no
			PM	10/31/12	9.9	A	no	9.9	A	no
33	Wells Dr and Enterprise Dr	TWSC	AM	10/30/12	8.9	A	no	8.9	A	no
			PM	10/30/12	9.1	A	no	8.9	A	no
34	Filbert St and Enterprise Dr	TWSC	AM	10/31/12	10.0	B	no	10.0	B	no
			PM	10/31/12	9.7	A	no	9.7	A	no

TABLE 4.13-4 EXISTING AND PROJECTED 2035 INTERSECTION LEVELS OF SERVICE

#	Signalized Intersections	Existing Control	Peak Hour	Count Date[a]	Existing Average Delay[b]	Existing LOS	2035 Proposed Plan Buildout Average Delay[b]	2035 Proposed Plan Buildout LOS	Increase in Delay
35	Willow St and Central Ave	TWSC	AM	10/31/12	10.3	B	no	11.6	B	no
			PM	10/31/12	9.8	A	no	9.9	A	no
36	Filbert St and Central Ave	TWSC	AM	11/01/12	18.3	C	no	18.7	C	no
			PM	11/01/12	16.9	C	no	17.9	C	no
37	Cedar Blvd and Smith Ave	TWSC	AM	H.E.	20.0	C	no	575.7	F	yes
			PM	H.E.	15.9	C	no	41.6	E	no

Note: Significantly impacted intersections are shown in **bold**.
[a] H.E. = General Plan Housing Element Update Traffic Impact Analysis Report, Prepared by Omni Means Engineers & Planners, April 2009.
[b] At signalized intersections, the delay reported is the average delay experienced by all approaches to the intersection and at unsignalized intersections, the delay reported is the worst delay experienced by the minor street approach.
[c] TWSC = Two Way Stop Control.
[d] Warrant based on California MUTCD Warrant 3.
Source: Hexagon Transportation Consultants, Inc., 2013.

TABLE 4.13-5 FUTURE IMPROVEMENTS NEEDED TO MAINTAIN LOS D ON NEWARK ROADWAYS

Intersection	Projected LOS in 2035 Without Improvement	Improvement Needed	Projected LOS in 2035 After Improvement	Constraints
Ardenwood Boulevard and Hwy 84 WB Ramps	LOS F AM peak hour	Converting a through lane to a second left-turn lane on Ardenwood Blvd, south of the Highway 84 westbound ramps. Re-stripe the northbound approach (i.e., Ardenwood Blvd).	C	The westbound ramps are located in Fremont and are beyond Newark's jurisdiction
Newark Boulevard and State Route 84 EB Ramps	LOS F PM peak hour	Adding a right turn lane in addition to the shared through-right lane on the Highway 84 eastbound off-ramp at Newark Blvd. There is sufficient right-of-way for this improvement to be implemented through restriping and widening would not be required	D	Coordination with Caltrans would be required for this improvement
Thornton Avenue and Gateway Boulevard	LOS E PM peak hour	Adding a through lane on Thornton Av, from north of Gateway Blvd to approximately 1,000 feet south of Gateway Blvd. There is sufficient roadway right-of-way for this improvement to be implemented through restriping of Thornton Av without widening the roadway.	B	N/A
Cherry Street and Thornton Avenue	LOS E PM peak hour	Adding a through-lane on northbound Cherry St, south of Thornton Av. There is potentially sufficient right-of-way (ROW) on Cherry St south of Thornton for this improvement to be implemented with re-striping of Cherry St. On the north side of Thornton Av, Cherry St would need to be widened for approximately 450 feet, involving some ROW acquisition.	D	Some right-of-way acquisition required
Cherry Street and Mowry Avenue	LOS E AM peak hour	Adding a second left-turn lane on the westbound approach (Mowry Av) and realigning the intersection.	C	Some limitations to right-of-way on Mowry, such that implementing the improvement through re-striping of Cherry St alone could be difficult, depending on the desired lane widths and precision on the intersection alignment.
Cherry Street/ Boyce Road and Stevenson Boulevard	LOS F PM Peak hour	Adding a through lane on the northbound approach of Boyce Rd (Cherry St). There is potentially sufficient roadway right-of-way for this improvement to be implemented with restriping. Realignment of the intersection would be required. North of Stevenson Blvd, Cherry St would need to be restriped for approximately 800 feet.	D	The Boyce Rd segment of this intersection is located in Fremont and is beyond Newark's jurisdiction.
Cedar Boulevard and Smith Avenue	LOS F AM peak hour LOS E PM peak hour	Adding a traffic signal, if supported by signal warrant data	B	N/A

Source: Hexagon Transportation Consultants, Inc. 2013.

acceptable LOS in 2035; however, the Cherry Street/Boyce Road and Stevenson Boulevard intersection and the Ardenwood Boulevard and SR 84 WB Ramps intersection are located in the City of Fremont, and additionally the Ardenwood Boulevard and SR 84 WB Ramps and Newark Boulevard and SR 84 EB Ramps intersections are under the jurisdiction of Caltrans. Therefore, implementation of improvements at these three intersections is outside the jurisdiction of the City of Newark, and as there is no implementation plan in place for improvements at these three intersections, it is not reasonably foreseeable at this time that impacts would be reduced to less-than-significant levels with buildout of the proposed Plan in 2035. Consequently, impacts at these three intersections in 2035 would be significant prior to mitigation: Cherry Street/Boyce Road and Stevenson Boulevard; Ardenwood Boulevard and SR 84 WB Ramps; Newark Boulevard and SR 84 EB Ramps.

With implementation of Action T-5.J from the proposed Plan, impacts at these four intersections in 2035 would be less than significant: Thornton Avenue and Gateway Boulevard; Cherry Street and Thornton Avenue; Cedar Boulevard and Smith Avenue; and Cherry Street and Mowry Avenue.

Applicable Regulations:

- City of Newark intersection LOS standards.
- Alameda CTC intersection LOS standards.
- City of Newark Municipal Code, Chapter 3.24 Development Impacts Fees

Significance Before Mitigation: Significant.

TRANS-2	The proposed Plan would not conflict with the 2011 Alameda CTC Congestion Management Program.

The 2011 Alameda CTC Congestion Management Program (CMP) is the applicable CMP for the Plan Area and vicinity. Alameda CTC requires the evaluation and assessment of regional roadways within the Plan Area and its vicinity that are designated as CMP and Metropolitan Transportation System (MTS) facilities. CMP facilities are used to monitor conformance with the LOS Standards of the CMP while the MTS network is used for the land use analysis. As the proposed Plan would generate more than 100 net-new peak-hour vehicle trips, the Alameda CTC Countywide Transportation Demand Model was used to assess impacts to CMP facilities and MTS facilities contained therein.

The model assignment shows that most trips under the proposed Plan would travel on the major facilities such as Fremont Boulevard, Peralta Avenue, Paseo Padre Parkway, Thornton Avenue, and the I-880 freeway. In order to determine the impact of the Plan, traffic conditions without the proposed Plan were compared to traffic conditions with the proposed Plan for the 2035 horizon year. The resulting traffic volumes and levels of service on the affected MTS roadway segments with and without the proposed Plan are shown in Table 4.13-6 for the AM and Table 4.13-7 for the PM peak hours, respectively. The proposed Plan would cause a significant impact to roadway operations if the addition of Plan traffic, (a) causes a roadway segment on the MTS to operate at LOS F or, (b) increases the volume-to-capacity ratio (v/c) by 0.030 or more for a roadway segment that is operating at LOS F without the Plant.

As shown in Table 4.13-6, the following MTS roadway segments would operate at LOS F under 2035 conditions, with and without the addition of proposed Plan traffic: Stevenson Boulevard, east of I-880; Thornton Avenue, between I-880 and Highway 84; I-880 between Mission Boulevard and Stevenson Boulevard; and I-880 between Stevenson Boulevard and Highway 84. However, the increases in v/c ratios at these LOS F segments would be less than 0.03, when compared to the v/c ratios under the 2035 Cumulative No Project condition. Therefore, the addition of proposed Plan traffic would not make a cumulatively considerable contribution to these impacted roadway segments. Overall, modeling results indicated that the proposed Plan would not add traffic representing more than 1 percent of the roadway capacity to any of the MTS roadway segments in the Plan Area or its vicinity.

Additionally, the proposed Plan includes the following goals, policies, and actions that would help to reduce future congestion levels:

- Goal T-3: Support safe, affordable public transportation which provides an alternative means of travel through Newark and convenient access to destinations throughout the Bay Area.
- Policy T-3.1: Improving Transit Services. Work collaboratively with BART, AC Transit, VTA, other agencies, and the private sector to provide an improved transit system serving persons who live in Newark, work in Newark, and visit Newark. Transit should have service frequencies (headways) of no more than 20 minutes at high ridership locations.
- Policy T-3.3: Connecting to BART. Encourage improved transit connections between Newark and the BART stations in Fremont and Union City. A variety of strategies leveraging public and private resources should be explored to establish more frequent, reliable connections to BART.
- Policy T-3.4: Transbay Service. Support implementation of the Dumbarton Rail project between Newark and the Peninsula. Continued express bus service across the Dumbarton Bridge should be supported as an interim measure, but not as an ultimate replacement of the rail service.
- Action T-3.A: BART Shuttle. Study the feasibility of a private, public-private, or local transit shuttle that connects Newark's major employment centers, major shopping destinations, and other destinations (such as Ohlone College) with the BART stations in Fremont and/or Union City.
- Action T-3.B: Dumbarton Rail Design and Funding. Continue planning, design, and financing studies for the Dumbarton Rail between the Union City BART station and the Peninsula. Support phased implementation of the project, with Newark to the Peninsula as the first phase.
- Action T-3.C: Consultation with Local Transit. Work with the local transit provider to align transit routes in Newark in a way that better achieves the goals of the General Plan. This should include better connections between Newark's neighborhoods and shopping centers, including New Park Mall, Old Town Newark, and the Four Corners area, greater frequency, and more route clarity.
- Goal T-4: Reduce vehicle miles traveled (VMT) and dependency on motor vehicles through land use and transportation strategies.

TABLE 4.13-6 2035 AM PEAK HOUR CONGESTION MANAGEMENT PROGRAM (CMP) ROADWAY SEGMENT LOS

					2035 No Project Conditions			2035 With Proposed Plan		
Location	Direction	Seg	# of Lanes	Capacity	AM Peak Volume	V/C	LOS	AM Peak Volume	V/C	LOS
Stevenson Blvd – East of I-880	EB	1	2	2000	874	0.44	B	588	0.29	A
	WB	101	2	2000	2,009	1.00	F	2,002	1.00	F
Mowry Ave – East of I-880	EB	2	3	3150	820	0.26	A	923	0.29	A
	WB	102	3	3150	2,708	0.86	D	2,480	0.79	D
Thornton Ave – East of I-880	EB	8	2	2000	731	0.37	B	698	0.35	A
	WB	108	2	2000	1,697	0.85	D	1,581	0.79	D
Thornton Ave – between I-880 & SR 84	EB	12	1	1050	861	0.82	D	800	0.76	D
	WB	112	3	3150	876	0.28	A	910	0.29	A
Newark Blvd – between SR 84 & Thornton Ave	EB	13	2	2100	1,306	0.62	C	1,257	0.60	C
	WB	113	2	2100	1,476	0.70	C	1,477	0.70	C
SR 84 – between Thornton Ave & I-880	EB	15	3	6600	2,499	0.38	B	2,528	0.38	B
	WB	115	3	6600	4,152	0.63	C	4,173	0.63	C
I-880 – between Mission Blvd & Stevenson Blvd	EB	11	4	6600	7,474	1.13	F	7,400	1.12	F
	WB	111	4	7700	8,270	1.07	F	8,392	1.09	F
I-880 – between Stevenson Blvd & SR 84	EB	10	5	7700	8,969	1.16	F	8,967	1.16	F
	WB	110	4	6600	8,010	1.21	F	7,859	1.19	F

Note: LOS is based on guidance provided in Exhibit 15-2 Urban Street LOS By Class, Highway Capacity Manual, 2000.
Significantly impacted intersections are shown in **bold**.
Source: Hexagon Transportation Consultants, Inc., 2013.

TABLE 4.13-7 2035 PM PEAK HOUR CONGESTION MANAGEMENT PROGRAM (CMP) ROADWAY SEGMENT LOS

					2035 No Project Conditions			2035 With Proposed Plan		
Location	Direction	Seg	# of Lanes	Capacity	PM Peak Volume	V/C	LOS	PM Peak Volume	V/C	LOS
Stevenson Blvd – East of I-880	EB	1	2	2000	1,945	0.97	E	1,734	0.87	D
	WB	101	2	2000	1,318	0.66	C	1,178	0.59	C
Mowry Ave – East of I-880	EB	2	3	3150	2,438	0.77	D	2,347	0.75	C
	WB	102	3	3150	1,428	0.45	B	1,272	0.40	B
Thornton Ave – East of I-880	EB	8	2	2000	1,938	0.97	E	1,859	0.93	E
	WB	108	2	2000	1,145	0.57	B	1,089	0.54	B
Thornton Ave – between I-880 & SR 84	EB	12	1	1050	1,056	1.01	F	1,059	1.01	F
	WB	112	3	3150	791	0.25	A	695	0.22	A
Newark Blvd – between SR 84 & Thornton Ave	EB	13	2	2100	1,602	0.76	D	1,531	0.73	C
	WB	113	2	2100	1,611	0.77	D	1,597	0.76	D
SR 84 – between Thornton Ave & I-880	EB	15	3	6600	4,961	0.75	D	4,871	0.74	C
	WB	115	3	6600	3,688	0.56	B	3,746	0.57	B
I-880 – between Mission Blvd & Stevenson Blvd	EB	11	4	6600	8,314	1.26	F	8,299	1.26	F
	WB	111	4	7700	6,935	0.90	E	6,975	0.91	E
I-880 – between Stevenson Blvd & SR 84	EB	10	5	7700	8,832	1.15	F	8,694	1.13	F
	WB	110	4	6600	8,157	1.24	F	8,021	1.22	F

Note: LOS is based on guidance provided in Exhibit 15-2 Urban Street LOS By Class, Highway Capacity Manual, 2000.
Significantly impacted intersections are shown in **bold**.
Source: Hexagon Transportation Consultants, Inc., 2013.

- Policy T-4.1: Coordinating Land Use and Transportation. Support land use choices and transportation investments which result in a community that is more walkable and serviceable by public transportation. Land use and development decisions should reflect the existing and planned capacity of Newark's transportation system.
- Policy T-4.2: Transit-Oriented Development. Require that the densities and intensities of development in the vicinity of major transit hubs are high enough to capitalize on the investment that has been made in transit and to encourage and support transit use.
- Policy T-4.3: Co-Location of Housing and Services. Locate higher density housing and senior housing close to shopping, medical facilities, senior centers, and public transportation as a way of reducing trip lengths and increasing transportation options for residents of such developments.
- Policy T-4.4: Mixed-Use Development. Encourage mixed-use development (such as housing over retail uses) as a way of making it easier to live, work, and shop without owning a car, and as a strategy for reducing the number and length of vehicle trips.
- Policy T-4.5: Home Businesses. Encourage home-based businesses, home occupations, live-work development, and space for shared offices and office support uses as a way to make it easier for Newark residents to work from home or from local facilities, rather than commuting to distant employment centers.
- Policy T-4.6: Transportation Systems Management. Require new commercial and office development to implement Transportation System Management (TSM) measures to reduce trip generation and/or pay for traffic improvements through impact fees or assessment district financing.
- Policy T-4.7: Car Sharing and Bike Sharing. Promote car sharing and bike sharing as a viable means of transportation and an alternative to private auto and bike ownership.
- Policy T-4.8: Ridesharing. Encourage Newark employers to provide incentives for employees to carpool, vanpool, or use transit when traveling to work. These incentives could include preferential parking for carpools, employee rideshare and vanpool programs, bike parking areas, and shuttles to transit. It could also include the creation of additional park and ride lots in and around Newark.
- Policy T-4.9: Telecommuting and Flextime. Encourage Newark employers to reduce peak hour commute volumes by offering flexible work schedules and telecommute options for employees, and by providing facilities such as showers and locker rooms which make it more feasible for employees to bike to work.
- Action T-4:.A Car Sharing Programs. Work with private car share vendors to explore the feasibility of incorporating car sharing programs and providing preferential car share spaces in business parks, major shopping centers, and higher density residential developments.
- Action T-4.B: Regional Bike Share Program. Partner with ABAG, MTC, Alameda CTC, and other entities to implement a regional bike share system.
- Action T-4.C: 511.org Program. Continue to support the "511.org" program and other regional initiatives that help residents and workers find carpools, rides home from work, and other alternatives to driving alone.

- Action T-4.D: City Employee Trip Reduction Program. Evaluate ways to reduce driving by City employees, including alternative schedules, work from home programs, and incentives for walking or biking to work.
- Action T-4.E: Commuter Benefits Programs. Encourage Newark businesses to develop and implement commuter benefit programs, such as transit passes, eco-passes, and pre-tax transit benefits.
- Policy T-6.1: Regional Transportation Planning. Support regional transportation planning for Southern Alameda County and the Bay Area to ensure continued mobility between Newark and the region.
- Policy T-6.2: Freeway Improvements. Support improvements to Interstate 880 and SR 84 which improve Newark's connections to the region and provide the capacity needed for the City's continued economic growth.
- Policy T-6.4: Regional Passenger Rail Service. Promote improved passenger rail service between the Newark vicinity and other parts of the Bay Area and California, including improved Altamont Commuter Express (ACE) and Amtrak (Capital Corridor) service, as well as the BART extension to San Jose and the Dumbarton Rail project to the Peninsula.

Therefore, overall, the proposed Plan would not conflict with the Alameda CTC Congestion Management Program and associated impacts would be less-than-significant.

Applicable Regulations:

- Alameda CTC Congestion Management Program.

Significance Before Mitigation: Less than significant.

TRANS-3	The proposed Plan would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

As described above, there are no public or private airports in Newark. The closest airport to the site is the Palo Alto airport, approximately 4 miles to the southwest of the Plan Area, and the closest airfield is Moffett Federal Airfield, approximately 4 miles to the south of the Plan Area. No area of Newark is within the bounds of or subject to the Airport Land Use Compatibility Plans of these facilities. Additionally, there are no public or private helipads within the city of Newark, and the nearest helicopter facilities are located approximately 1.7 miles or greater from the Plan Area. Moreover, landings at these helipads are relatively infrequent, and as such, there would be no substantial safety risks related to changes in air traffic patterns, and impacts would be less than significant.

Significance Before Mitigation: Less than significant.

TRANS-4	The proposed Plan would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Future development under the proposed Plan would be subject to the design and safety standards specified in the Newark Municipal Code, the State Building Code, and the State-referenced provisions of the International Fire

Code. As discussed above in Section 4.13.1.1, Regulatory Framework, of this chapter, these codes contain regulations pertaining to minimum design standards for characteristics such as street width, intersection design, and acceptable street grades. As with current practice, future roadways would be designed and reviewed in consultation with the Newark City Engineer to determine their compliance with these various codes and regulations in regard to ensuring user safety.

Additionally, the proposed Plan contains numerous policies intended to promote safe vehicular, pedestrian, and bicycle circulation including:

- Policy T-1.6: Traffic Calming. Use traffic design features and traffic calming techniques to improve safety and maintain the quality of life in Newark neighborhoods. Traffic calming should be incorporated into urban design and streetscape plans so that a safer environment is provided for all users.
- Action T-1.B: Best Practices in Street Design. Follow the City's adopted standards for the design of streets. As appropriate, update the City's street classification and engineering design standards to ensure that the roadway system accommodates all users.
- Policy T-2.7: Pedestrian and Bicycle Safety. Improve actual and perceived pedestrian and bicycle safety. Make use of the latest technologies available to provide increased safety measures. Special attention should be given to facilitating the safety of children walking or bicycling to school.
- Policy T-2.8: Safety Awareness and Health Benefits. Encourage bicycle and pedestrian safety training in schools and through City recreation programs. Such programs should aim to reduce the rate of bicycle and pedestrian accidents while increasing awareness of available facilities and the health benefits of bicycling and walking.
- Policy T-5.11: Hazardous Street Conditions. Identify and correct any hazardous street conditions, including obstructed sight lines, on a regular basis.

Compliance with applicable standards described above and implementation of the above-listed proposed Plan policies would ensure that roadway hazard impacts under the Plan would be less than significant.

Applicable Regulations:

- California Building Code
- City of Newark Municipal Code, Chapter 16.12 Streets and Lots
- Newark Traffic Calming Program

Significance Before Mitigation: Less than significant.

TRANS-5 Implementation of the proposed Plan would not result in inadequate emergency access.

Future developments under the proposed Plan would be subject to the design and emergency standards specified in the Newark Municipal Code, the State Building Code, and the State-referenced provisions of the International Fire Code. As discussed above in Section 4.13.1.1 Regulatory Framework, at the beginning of this chapter, these codes contain regulations pertaining to minimum design standards for characteristics such as street width,

intersection design, and acceptable street grades. As with current practice, future roadways would be designed and reviewed in consultation with the Newark City Engineer to determine their compliance with these various codes and regulations in regard to ensuring adequate emergency access.

Additionally, the proposed Plan contains policies and actions intended to ensure adequate emergency access and efficient circulation, including:

- Policy T-5.9: Emergency Access. Improve the street system as necessary to facilitate emergency vehicle response and to provide multiple route options in the event a road is blocked by an emergency or is otherwise made impassable.
- Policy T-5.1: Road Hierarchy. Maintain a hierarchy of arterial, collector, and local streets in Newark, and adopt revised design and engineering standards which ensure that each of these streets serves their intended functions.
- Action T-1.B: Best Practices in Street Design. Follow the City's adopted standards for the design of streets. As appropriate, update the City's street classification and engineering design standards to ensure that the roadway system accommodates all users.

Compliance with applicable standards described above and implementation of the above-listed proposed Plan policies would ensure that emergency access-related impacts under the Plan would be less than significant.

Applicable Regulations:

- California Building Code
- City of Newark Newark Municipal Code, Chapter 16.12 Streets and Lots

Significance Before Mitigation: Less than significant.

TRANS-6	Implementation of the proposed Plan would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

California AB 1358, the Complete Streets Act, requires cities to ensure that local streets meet the needs of all users, when updating their general plans. Additionally, the City of Newark has adopted a Complete Streets Policy requiring that transportation improvements in Newark be planned, funded, designed, constructed, operated, and maintained to provide safe mobility for all users appropriate to the function and context of the facility. The proposed Plan includes numerous policies and programs that support AB 1358 and the Newark Complete Streets Policy, including:

- Goal T-1: Plan, fund, design, construct, operate, and maintain all transportation improvements to provide mobility for all users, appropriate to the function and context of each facility.
- Policy T-1.1: Improving Travel Mobility for All. Create and maintain "complete" streets that provide safe, comfortable, and convenient travel for all categories of users, including pedestrians, bicyclists, transit riders

and operators, movers of commercial goods and freight, emergency responders, children, youth, seniors, and persons with disabilities.

- Policy T-1.3: Incorporating Complete Streets Elements in Transportation Projects. Incorporate complete streets elements in the planning, funding, design, approval and implementation of all transportation projects. Any construction, reconstruction, retrofit, maintenance, operations, alteration, or major repair of the street network should consider ways to make streets safer for all users. Exceptions to this policy may be considered, consistent with the Complete Streets Resolution adopted by the City Council in March 2013.
- Policy T-1.6: Traffic Calming. Use traffic design features and traffic calming techniques to improve safety and maintain the quality of life in Newark neighborhoods. Traffic calming should be incorporated into urban design and streetscape plans so that a safer environment is provided for all users.
- Action T-1.B: Best Practices in Street Design. Follow the City's adopted standards for the design of streets. As appropriate, update the City's street classification and engineering design standards to ensure that the roadway system accommodates all users.
- Action T-1.C: Complete Streets Procedures. Take the following steps to implement the City's Complete Streets policy: (a) Maintain, plan, and design future transportation projects so that they are consistent with all adopted local plans; and (b) Develop or clearly define a process to allow for early stakeholder involvement in the design of new transportation projects.
- Action T-1.D: Performance Measures. Regularly evaluate how well Newark's transportation network is serving each category of user by establishing performance measures, collecting baseline data, and collecting follow up data on a regular basis.

Additionally, the proposed Plan is consistent with the Newark Transportation System Management Ordinance, adopted to manage employment-related travel demand. The Plan contains the following policy that supports the objectives of the Ordinance:

- Policy T-4.6: Transportation Systems Management. Require new commercial and office development to implement Transportation System Management (TSM) measures to reduce trip generation and/or pay for traffic improvements through impact fees or assessment district financing.

The City of Newark is also in the process of preparing a Draft Pedestrian and Bicycle Master Plan to set forth a blueprint for completing a system of bikeways and support facilities within the City of Newark. The Draft Pedestrian and Bicycle Master Plan will also establish design standards for bicycle facilities, as well education and safety programs. Although the Draft Pedestrian and Bicycle Master Plan is not publicly available and has not been adopted by the City of Newark, the proposed Plan contains policies and actions that support the development of the bicycle network and associated facilities, including:

- Goal T-2: Create a citywide pedestrian and bicycle network that provides safe access to destinations within the city, connects to an integrated regional network, and is accessible to users of all ages, abilities, and means.
- Policy T-2.1: Promoting Bicycling and Walking. Promote bicycling and walking as viable modes of transportation for everyday trips as well as for recreation to increase the number of people of all ages, abilities, and means who bicycle and walk.

- Policy T-2.3: Bicycle Network. Maintain and expand an interconnected network of bicycle routes, paths and trails, serving the City's neighborhoods, shopping districts, workplaces, and park and open space areas. The existing bicycle network should be expanded to provide connections to developing areas, including the Dumbarton Transit-Oriented Development (TOD), the Southwest Residential and Recreational Project, Old Town Newark, and the NewPark Mall vicinity.
- Policy T-2.4: Bicycle and Pedestrian Project Funding. Apply for grants and other funding sources to implement pedestrian and bicycle improvements.
- Policy T-2.5: Connecting to the Region. Develop bicycle and pedestrian facilities that connect across City boundaries, integrate with larger regional systems, and improve intermodal connections to local and regional public transportation systems.
- Policy T-2.6: Pedestrian and Bicycle Provisions within New Development. Ensure safe and convenient pedestrian and bicycle access to and through new public and private developments. The City will use the development review process to ensure—and where appropriate to require—provisions for pedestrians and bicycles in new development areas.
- Policy T-2.7: Pedestrian and Bicycle Safety. Improve actual and perceived pedestrian and bicycle safety. Make use of the latest technologies available to provide increased safety measures. Special attention should be given to facilitating the safety of children walking or bicycling to school.
- Policy T-2.8: Safety Awareness and Health Benefits. Encourage bicycle and pedestrian safety training in schools and through City recreation programs. Such programs should aim to reduce the rate of bicycle and pedestrian accidents while increasing awareness of available facilities and the health benefits of bicycling and walking.
- Policy T-2.9: Recreational Trails. Develop and maintain trails in parks and open space areas, and between Newark neighborhoods and the City's open spaces.
- Policy T-2.10: Railroad Crossings. Ensure that any future grade separated railroad crossings include sidewalks and designated lanes for bicycles.
- Policy T-2.11: Bicycle Parking. Provide secure, adequate, and easily accessible bicycle parking at key destinations throughout the city, including municipal facilities, schools, and new development. The style and design of bike racks should contribute to overall neighborhood and architectural aesthetics.
- Policy T-2.12: Trails Along Railroads and Utilities. Consider the use of railroad, flood control, and utility rights of way for jogging, biking, and walking trails, provided that safety and operational issues can be fully addressed.
- Policy T-2.13: Bicycle Events. Support special bicycle events and activities which showcase Newark's bike trails and amenities, especially facilities providing access to shoreline trails and open spaces.
- Action T-2.A: Pedestrian and Bicycle Master Plan. Adopt the Draft Newark Pedestrian and Bicycle Master Plan, and proceed with implementation of its priority projects. Periodically update the list of projects as capital improvements are completed. Update the entire Pedestrian and Bicycle Plan every five years.

- Action T-2.B: Cedar Boulevard Pedestrian and Bicycle Trail. Convert the linear tract of land formerly reserved for a southerly extension of Cedar Boulevard between Haley St. and Willow St. into a bicycle and pedestrian parkway, including a bicycle and pedestrian bridge over the Union Pacific Railroad. The City will apply for grants and pursue other funding sources to construct this project.
- Action T-2.C: Safe Routes to School. Apply for grant funding on a regular basis to prepare and implement a comprehensive Safe Routes to School program. Such a program should be developed collaboratively with the Newark Unified School District.
- Action T-2.D: Utilize Technology to Improve Safety. Evaluate and implement alternative safety measures for bicyclists and pedestrians using the latest technologies available.
- Action T-2.E: Trail and Bikeway Design Standards. Establish design guidelines for the comprehensive and consistent design of trail and bikeway improvements.
- Action T-2.F: Pedestrian Facilities and Bikeway Maintenance Program. Continue ongoing maintenance and upgrades of the City's sidewalk and wheelchair accessible ramp infrastructure and bikeway system. Develop a maintenance program for the City's planned off-street trail networks.
- Action T-2.H: Wayfinding Signage. Implement a bicycle signage and wayfinding program, including directional signs to indicate major destinations.
- Action T-2.I: Bicycle and Pedestrian Improvements at Signalized Intersections. Implement improvements at existing and future traffic signals to accommodate bicyclists and pedestrians, including striping modifications, dedicated bicycle detector loops, pedestrian countdown signal heads, auditory signals, ramp modifications, and improved signage.
- Action T-2.J: Bicycle Parking Requirements. Consider adopting bicycle parking requirements for residential and commercial projects.

Therefore, overall, the proposed Plan would not conflict with adopted plans, policies, or programs related to public transit, bicycle, or pedestrian facilities. Associated impacts would be less than significant.

Applicable Regulations:

- California Complete Streets Act of 2008 (AB 1358)
- Newark Complete Streets Policy
- City of Newark Municipal Code, Chapter 16.12 Streets and Lots
- City of Newark Municipal Code, Chapter 10.56 Transportation System Management

Significance Before Mitigation: Less than significant.

4.13.4 CUMULATIVE IMPACTS

TRANS-7	Implementation of the proposed Plan, in combination with past, present, and reasonably foreseeable projects, would not result in additional cumulatively considerable impacts.

The analysis of the proposed Plan, above, addresses cumulative impacts to the transportation network in the City of Newark and the surrounding area. Projected 2035 traffic impacts at Plan buildout were calculated using data from Alameda CTC's Travel Demand Forecast model, which incorporates county and regional growth projections from ABAG; these data were then adjusted to account for growth in Newark under the proposed Plan. As such, cumulative impacts would be the same as Plan-specific impacts.

Cumulative impacts to transportation and traffic resulting from implementation of the proposed Plan are addressed locally, through specific road improvements, as well as through implementation of the goals, policies, and actions of the proposed Plan itself. These policies seek to reduce existing vehicle trips, minimize the addition of new vehicle trips, and lower per capita VMT. Additionally, the potential cumulative impacts of the proposed Plan at the regional level are examined through analysis related to the Alameda CTC Congestion Management Program.

4.13.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

TRANS-1	Implementation of the proposed Plan would cause intersection operation to degrade to unacceptable LOS F at the a) Ardenwood Boulevard and SR 84 westbound ramps intersection during the AM peak hour in 2035, b) the Newark Boulevard and SR 84 eastbound ramps intersection during the PM peak hour in 2035, and c) the Cherry Street/Boyce Road and Stevenson Boulevard intersection during the PM peak hour in 2035.

Mitigation Measure TRANS-1a: To mitigate this impact, the Ardenwood Boulevard and SR 84 westbound ramps intersection would require converting a through lane to a second left-turn lane on Ardenwood Boulevard, south of the Highway 84 westbound ramps. Re-striping of the northbound approach (i.e., Ardenwood Boulevard) would be necessary. LOS calculations show that with implementation of these improvements, the intersection would operate at an acceptable LOS C under proposed Plan conditions in 2035. However, because this mitigation measure is for an intersection under the jurisdiction of Caltrans and located in the City of Fremont, implementation is outside the jurisdiction of the City of Newark. The City of Newark will work with Caltrans and the City of Fremont to implement the mitigation measure and contribute on a fair-share basis; however until such time as there is an implementation plan in place and funding is secured, this impact is considered significant and unavoidable.

Mitigation Measure TRANS-1b: To mitigate this impact, the Newark Boulevard and SR 84 eastbound ramps intersection would require adding a right turn lane in addition to the shared through-right lane on the Highway 84 eastbound off-ramp at Newark Boulevard. There is sufficient roadway right-of-way for this

improvement, therefore the improvement could be implemented with re-striping of the off-ramp and roadway widening would not be necessary. LOS calculations show that with implementation of these improvements, the intersection would operate at an acceptable LOS D during the PM peak-hour under proposed Plan conditions in 2035. However, because this mitigation measure is for an intersection under the jurisdiction of Caltrans, implementation is outside the jurisdiction of the City of Newark. The City of Newark will work with Caltrans to implement the mitigation measure and contribute on a fair-share basis; however until such time as there is an implementation plan in place and funding is secured, this impact is considered significant and unavoidable.

Mitigation Measure TRANS-1c: To mitigate this impact, the Cherry Street/Boyce Road and Stevenson Boulevard intersection would require an additional through lane on the northbound approach (Boyce Road/Cherry Street is considered the north-south street for this intersection). There is potentially sufficient roadway right-of-way on Boyce Road/Cherry Street for this improvement; therefore, the improvement could be implemented with re-striping of Cherry Street. The northbound approach (e.g., south leg) of the intersection is located in Fremont. It would also require that the intersection be re-aligned. On the north side of Stevenson Boulevard, Cherry Street would need to be re-striped for approximately 800 feet. The implementation of these improvements would improve intersection LOS to an acceptable LOS D during the PM peak hour under proposed Plan conditions in 2035. Implementation of the above measure would improve conditions at the intersection to LOS D during the PM peak hour, which would be acceptable. However, because this mitigation measure is for an intersection located partly in the City of Fremont, full implementation is outside the jurisdiction of the City of Newark. The City of Newark will work with the City of Fremont to implement the mitigation measure and contribute on a fair-share basis; however until such time as there is an implementation plan in place and funding is secured, this impact is considered significant and unavoidable.

Significance After Mitigation: Significant and unavoidable.

4.14 UTILITIES AND SERVICE SYSTEMS

This chapter describes the existing utilities and services systems in Newark and evaluates the potential impacts from buildout of the Plan on those services and facilities. Wastewater, water supply, stormwater, and solid waste are each addressed in a separate section of this chapter. In each section, a summary of the relevant regulatory setting and existing conditions is followed by a discussion of project-specific and cumulative impacts.

4.14.1 WATER

This section outlines the regulatory setting, describes existing conditions, and discusses potential impacts from build out of the Plan with regard to local water supply, treatment, and distribution. The analysis in this section is based on the Alameda County Water District's (ACWD's) 2010 Urban Water Management Plan (UWMP), except where noted otherwise.

4.14.1.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal and State Regulations

The following are federal and State regulations that affect water service at the Plan Area.

<u>Federal Safe Drinking Water Act</u>

The Safe Drinking Water Act authorizes the EPA to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Department of Health Services conducts most enforcement activities. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

<u>California Porter-Cologne Water Quality Control Act</u>

Under the Porter-Cologne Water Quality Control Act (Porter-Cologne), which was passed in California in 1969, the State Water Resources Control Board (SWRCB) has the ultimate authority over State water rights and water quality policy. Porter-Cologne also establishes nine Regional Water Quality Control Boards (RWQCBs) to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality

functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater.[1] Newark is overseen by the San Francisco Bay RWQCB.

California Senate Bill (SB) 610 and 221

SB 610 and SB 221 amended State law to ensure better coordination between local water supply and land use decisions and confirm that there is an adequate water supply for new development. Both statutes require that detailed information regarding water availability be provided to City and County decision-makers prior to approval of large development projects. SB 610 requires the preparation of a water supply assessment (WSA) for certain types of projects, as defined by Water Code §10912, that are subject to the California Environmental Quality Act (CEQA).[2] Projects required to prepare a WSA are defined as follows:

- Residential development of more than 500 dwelling units.
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor area.
- Hotel or motel, or both, having more than 500 rooms.
- Industrial, manufacturing, or processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- Mixed-use project that includes one or more of the projects specified above.
- Project that would demand an amount of water equivalent to, or greater than, the amount of water required for 500 dwelling units.

SB 221 establishes consultation and analysis requirements related to water supply planning for residential subdivisions including more than 500 dwelling units.[3] Written verification by the water supplier that sufficient water is available for the project is required before construction begins. The document used to determine compliance with both SB 610 and SB 221 is the Urban Water Management Plan (UWMP).

California Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt an UWMP and update it every five years. This requirement applies to all suppliers providing water to more than 3,000 customers or supplying more than 3,000 acre-feet (AF)[4] of water annually. The Act is intended to support conservation and efficient use of urban water supplies at the local level. The Act requires that total projected water use be compared to water supply sources over the next 20 years in

[1] California Wetlands Information System, *Summary of the Porter-Cologne Water Quality Control Act*, http://ceres.ca.gov/wetlands/permitting/Porter_summary.html, accessed on September 23, 2011.

[2] Bill Number: SB 610 Chartered, http://info.sen.ca.gov/pub/01-02/bill/sen/sb_0601-0650/sb_610_bill_20011009_chaptered.html, accessed on September 23, 2011.

[3] Bill Number: SB 221, Bill Analysis, http://info.sen.ca.gov/pub/01-02/bill/sen/sb_0201-0250/sb_221_cfa_20010426_132334_sen_comm.html, accessed on September 23, 2011.

[4] 1 acre-foot is the amount of water required to cover 1 acre of ground (43,560 square feet) to a depth of 1 foot.

five year increments, that planning occur for single and multiple dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses.[5]

California Groundwater Management Act

The Groundwater Management Act of the California Water Code (AB 3030) provides guidance for applicable local agencies to develop voluntary Groundwater Management Plans (GMP) in State-designated groundwater basins. GMPs can allow agencies to raise revenue to pay for measures influencing the management of the basin, including extraction, recharge, conveyance, facilities' maintenance, and water quality.[6]

The Water Conservation Act of 2009 (Senate Bill X7-7)[7]

Senate Bill X7-7, which was enacted in 2009, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water by 20 percent by 2020, with an interim goal of a 10 percent reduction in per capita water use by 2015.

State Updated Model Landscape Ordinance (Assembly Bill 1881 [2006])[8]

The updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by January 31, 2010 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance (MO). The City of Newark has not yet adopted a landscape water conservation ordinance. Until such time as the City adopts its own ordinance, the provisions of the MO are in effect.

Regional and Local Regulations

The Integrated Resources Planning Study

The Integrated Resources Planning Study (IRP), adopted by the Alameda County Water District (ACWD) in 1995, provides guidance for water supply and demand planning based on an integrated approach. This integrated resource planning is intended to help the ACWD's decision making on managing facilities and resources. As part of the IRP, the ACWD developed a long-term water supply strategy with consideration of supply-side and demand-side resources, which was incorporated into the ACWD's Urban Water Management Plan (UWMP). ACWD's IRP strategy also includes provisions for a potential future recycled water project. The planned implementation of a recycled water project in the ACWD service area is still at least ten years away. However, as part of the Water Supply Assessments for new developments in the potential recycled water service area, ACWD has required that these developments: 1) install separate distribution systems for the use of recycled water for

[5] Department of Water Resources, *About Urban Water Management,* http://www.water.ca.gov/urbanwatermanagement/, accessed on September 23, 2011.

[6] Department of Water Resources Planning and Local Assistance Central District, Groundwater, *Groundwater Management*, http://www.cd.water.ca.gov/groundwater/gwab3030.cfm, accessed on September 23, 2011.

[7] Department of Water Resources, Senate Bill SBX7-7 2009 Information, http://www.water.ca.gov/wateruseefficiency/sb7/, accessed on September 23, 2011.

[8] http://www.water.ca.gov/wateruseefficiency/landscapeordinance/.

landscape irrigation purposes; and 2) accept recycled water (when it becomes available) for landscape irrigation in-lieu of potable water.

Urban Water Management Plan[9]

The ACWD updated and adopted its UWMP in 2011 for the period of 2010 through 2015, in accordance with the SB-X7-7 and the Urban Water Management Planning Act, by ACWD Board of Directors Resolution No. 11-037. One of the purposes of the UWMP is to identify measures to meet SB-X7-7 requirements that mandate a 20 percent reduction of per capita water use and agricultural water use throughout the State by 2020. To achieve this and to prepare for the event of water supply shortfalls, the UWMP incorporates water supply strategies recommended in the Integrated Resources Planning Study and addresses demand, reliability, and management strategies. In addition, the UWMP evaluates water supply capacity and projected water demands over a 25-year planning horizon based on future land use conditions projected in the Cities' general plans. A range of water supply scenarios were modeled, including 1) normal, 2) single-dry, and 3) multiple-dry water year conditions.

25-Year Capital Improvement Program[10]

The ACWD adopted its 25-Year Capital Improvement Program (CIP) in 2011 to continue providing a reliable supply of high quality water to its customers. The CIP incorporates the ACWD's IRP Study, UWMP, and Engineering Reports, which establish criteria for water production and groundwater, water quality, transmission mains, storage facilities, and booster pump stations. The CIP also includes schedule and costs for 117 planned projects, including main replacement and pipeline relocation. The Program EIR was certified, but not all projects were included in the Program EIR, as the IRP and Engineering Reports are periodically updated. ACWD may prepare project-specific EIRs or Mitigated Negative Declarations, as appropriate.

ACWD Development Fees and Charges[11]

On January 10, 2013, the ACWD Board of Directors adopted a new Policy Governing Water Services and the Extension and Improvement of the Water Distribution System and Facilities (Development Policy) to maintain fair and sustainable financing of improvements required to support development. This Development Policy became effective on April 1, 2013. All ACWD customers are subject to pay installation and capacity charges, public water system extension engineering fees, special service area connection charges in special tank zones, costs associated with the relocation of existing ACWD facilities, new public water main extensions, and the installation of fire hydrants, as determined by the ACWD.

Newark Green Ordinance[12]

The City of Newark has adopted the Green Ordinance in 2007. Chapter 15.44, Green Building and Construction and Demolition Debris Recycling, of the Newark Municipal Code regulates the design, construction, and

[9] Alameda County Water District, 2011, *Urban Water Management Plan*.
[10] Alameda County Water District, 2011, *25-Year Capital Improvement Program*.
[11] Alameda County Water District, http://www.acwd.org/index.aspx?NID=466, March 11, 2013.
[12] City of Newark, http://library.municode.com/index.aspx?clientId=16521, accessed on January 30, 2013.

operation of buildings and landscaping in Newark. Section 15.44.080, Bay Friendly Landscaping Practices, requires all projects that are subject to development review and approval by the City and that involve landscaping follow the City of Newark's Bay Friendly Landscape Guide in the design of landscaped areas.

Existing Conditions

This section describes water supply sources, water supply infrastructure, water treatment facilities, as well as projected demand and supply through 2035.

Water Supply Sources

The ACWD supplies water to 328,325 customers, covering approximately 104.8 square miles, encompassing the Cities of Fremont, Newark, and Union City.[13] ACWD's primary water sources include the State Water Project (SWP), San Francisco Regional Water System (RWS), and local sources. The SWP provides approximately 40 percent of the ACWD's water, the RWS provides approximately 20 percent, and local sources provide approximately 40 percent.[14] The following are summary descriptions of these water sources:

- **State Water Project.** The SWP is a water storage and delivery system of 28 dams and reservoirs, 26 pumping and generating plants, and 660 miles of aqueducts. The ACWD currently participates in the Semitropic Groundwater Banking Program, which allows the ACWD to secure water for dry years.[15]
- **San Francisco Regional Water System.** The San Francisco Public Utilities Commission (SFPUC) operates the RWS. Water in the RWS is predominantly from the Sierra Nevada and delivered through the Hetch Hetchy aqueduct. It also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties. The ACWD receives water under the 2009 Water Supply Agreement with the SFPUC (a 25-year term). The 2009 Water Supply Agreement sets water rates and allocates water supply.[16]
- **Local Sources.** Local water sources include fresh groundwater from the Niles Cone Groundwater Basin, desalinated brackish groundwater, and surface water from the Del Valle Reservoir.

Table 4.14-1 shows existing water supply availability for the ACWD.

Water Supply Infrastructure

The ACWD distributes water to customers via a series of 12 reservoirs/tanks and 825 miles of pipelines.[17] Before supplying water to ACWD customers, the source water supplies are treated to meet or surpass all State and Federal drinking water standards. ACWD operates two surface water treatment plants – Mission San Jose Water Treatment

[13] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report,* Chapter 8, Public Facilities.
[14] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report,* Chapter 8, Public Facilities.
[15] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report,* Chapter 8, Public Facilities.
[16] Alameda County Water District, 2011, *Urban Water Management Plan.*
[17] Alameda County Water District, 2011. *Annex to 2011 Association of Bay Area Governments Local Hazards Mitigation Plan – Taming Natural Disasters.*

TABLE 4.14-1 SUMMARY OF WATER SUPPLY AVAILABILITY FOR EXISTING SUPPLIES (AF/YR)

	Estimated Water Supply Availability			
Supply Component	Median Year[a] (1936 Hydrologic Conditions)	Long-Term Average[b]	Maximum Availability[c]	Minimum Availability[d]
Imported Supplies				
State Water Project	27,500	25,500	42,000	4,000
San Francisco Regional	15,400	15,000	15,400	8,500
Local Supplies				
Groundwater Recharge[e]	24,500	23,300	44,400	7,500
Groundwater Storage	N/A	N/A	10,000	0
Del Valle	5,800	7,100	18,500	0
Desalination[f]	5,100	5,100	5,600	5,100
Banking/Transfers				
Semitropic Banking[g]	N/A	N/A	33,500	13,500
Total Supply	78,300	76,000	N/A	N/A

[a] Median Year values represent the median projected supply availability considering the sum of all of ACWD existing supplies and are based on the 1922-2003 historical hydrologic conditions (assuming 2010 operating conditions). The water supply availability under the year 1936 hydrologic conditions is utilized for the Median Year. Local Groundwater Storage and Semitropic Banking are not included in the Median Year because these supply components are used solely for dry year supplies and not under Median Year conditions.
[b] Long-term Average values represent the average water supply availability based on the 1922-2003 historical hydrologic conditions. Local Groundwater Storage and Semitropic Banking are not included in the Long-term Average because these supply components only provide dry year supplies and are based on a balanced "put" and "take" over the long-term.
[c] Maximum Availability represents the maximum quantity of supply from each supply component. For the imported supplies, these quantities represent the maximum contractual amount that ACWD can receive from these sources. For local supplies, the maximum quantities represent the maximum amount projected to be available based on the 1922-2003 historical hydrologic conditions. For Groundwater Storage, the maximum assumes that the groundwater basin is within normal operating levels in the beginning of the year. For Semitropic Banking, the maximum amount is based on maximum contractual return capacity to ACWD assuming 100% SWP allocation. The Maximum supply quantities listed above are not additive because the availability of these individual supplies may not occur under the same year/hydrologic condition.
[d] Minimum Availability represents the minimum quantity of supply from each supply component. These quantities represent the minimum projected supply availability based on the 1922-2003 historical hydrologic conditions. San Francisco Regional minimum estimated by ACWD based on Tier Two drought allocation formula and SFPUC reliability data. For Groundwater Storage, the minimum quantity assumes that the groundwater basin was at the minimum operating groundwater elevation in the beginning of the year and there is no usable groundwater storage available. For Semitropic Banking, the minimum quantity assumes that only Semitropic "pumpback" capacity is available to return banked water to ACWD. The Minimum Availability quantities are not additive because the availability of these individual supplies may not occur under the same year/hydrologic condition.
[e] Groundwater Recharge is calculated as recharge from deep percolation of rainfall and applied water plus recharge at ACWD's groundwater percolation facilities (with local runoff from the Alameda Creek Watershed) less "Other Outflows" (as described in ACWD's annual Groundwater Survey Reports). Groundwater Recharge values in Table 3-1 do not include recharge from SWP or Del Valle Reservoir supplies.
[f] Maximum Availability of Desalination based on 5 mgd annual average permeate production capacity. Peak month permeate capacity may be up to 10 mgd. Median Year availability is based on 10% outage. Minimum Availability based on modeling analyses with 2010 supply/demand conditions and long-term hydrologic conditions (1922-2003).
[h] Mitigation Measure CUM PU-1 of the Patterson Ranch Planned District Final EIR, requires the project proponent to secure up to 300 AF of additional recovery capacity from the Semitropic Groundwater Banking (or equivalent mitigation measure). As of March 2011 this additional recovery capacity has not been secured. Because of uncertainties regarding timing of this mitigation (or potential implementation of an alternate equivalent mitigation measure), this additional recovery capacity is not included in this UWMP.
Source: ACWD, 2011, Urban Water Management Plan, page 3-4.

Plant (WTP) and WTP No. 2 – that treat the water obtained from the SWP and local surface water from Del Valle Reservoir. The Newark Desalination Facility treats brackish groundwater from the Aquifer Reclamation Program (ARP) groundwater wells to remove salts and other impurities prior to delivery to the distribution system. The Blending Facility blends San Francisco RWS water with local fresh groundwater that has a higher hardness value to provide a blended supply with overall lower hardness. These four WTPs treat and distribute approximately 89.5 million gallons per day (MGD) of water. According to the most current available data, in fiscal year 2011-2012, the ACWD supplied 82,533 customers with 43,857 AF of water.[18]

Water Demand and Supply Projections

The ACWD will have sufficient water supply to meet water demand by the year 2035 during normal year conditions, as shown in Table 4.14-2. However, as shown in Table 4.14-3, water supplies during single and multiple dry years may not meet the water demand. Under single dry year conditions, the ACWD would experience a shortage of up to 10 percent in 2035. In such cases, ACWD would secure additional supplies through a California Department of Water Resources (DWR) drought water bank or similar water purchase/transfer program. In addition, the ACWD would also implement the drought contingency plan, which contains measures that will reduce demands by up to 50 percent in the case of drought or emergency.[19]

Standards of Significance

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on water service if it would:

1. Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.
2. Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

4.14.1.2 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to water.

UTIL-1	Implementation of the proposed Plan would increase Water Demand, however, sufficient water supplies are available to serve the project from existing entitlements and resources.

Buildout of the proposed Plan would have a significant impact if it results in insufficient water supplies from existing entitlements and resources, or new or expanded entitlements would be required.

[18] Alameda County Water District, October 2012, *ACWD Fact Sheet*, http://www.acwd.org/index.aspx?nid=93, accessed on June 10, 2013.

[19] Alameda County Water District, 2011, *Urban Water Management Plan*.

TABLE 4.14-2 PROJECTED NORMAL YEAR WATER SUPPLY AND DEMAND COMPARISON (AFY)

	Year				
Supply/Demand	2015	2020	2025	2030	2035
Supply Component					
Imported Supplies					
State Water Project	27,500	27,500	27,500	27,500	27,500
San Francisco Regional	15,400	15,400	15,400	15,400	15,400
Total Imported Supplies	42,900	42,900	42,900	42,900	42,900
Local Supplies					
Groundwater Recharge	24,500	24,500	24,500	24,500	24,500
Groundwater Storage	0	0	0	0	0
Del Valle	5,800	5,800	5,800	5,800	5,800
Desalination	5,100	5,100	5,100	5,100	5,100
Recycled Water	0	0	0	0	0
Total Local Supplies	35,400	35,400	35,400	35,400	35,400
Banking/Transfers					
Semitropic Banking	0	0	0	0	0
TOTAL SUPPLY	78,300	78,300	78,300	78,300	78,300
Demand Component					
Distribution System Demand	50,900	53,000	54,800	57,000	58,000
Additional Conservation Savings	(800)	(1,400)	(1,400)	(1,400)	(1,400)
Groundwater System Demands	16,200	16,200	16,200	16,200	16,200
TOTAL DEMAND	66,300	67,800	69,600	71,800	72,800
Supply and Demand Comparison					
Supply Totals	78,300	78,300	78,300	78,300	78,300
Demand Totals	66,300	67,800	69,600	71,800	72,800
Difference	12,000	10,500	8,700	6,500	5,500
Difference as % of Supply	15%	13%	11%	8%	7%
Difference as % of Demand	18%	15%	13%	9%	8%

Notes:
1. Normal Year conditions are based on the median supply availability based on a review of 1922-2003 historical hydrologic conditions. The year 1936 was selected as it is the closest year to the statistical median for each individual water supply source.
2. Groundwater System Demands include: (1) ARP groundwater production, (2) private groundwater pumping, and (3) saline groundwater outflows.
3. ACWD expanded the Newark Desalination Facility from 5 mgd to 10 mgd in the year 2010. Depending on groundwater conditions, the expanded desalination facility may provide up to 11,200 acre-feet per year (AFY) of production in a given year.
4. Under Normal Year conditions, ACWD does not anticipate utilizing Groundwater Storage (groundwater use in excess of recharge) or Semitropic Groundwater Banking. These supplies would be used under dry year conditions when imported and local supply availability would be reduced.
5. As documented in ACWD's 2001-2005 UWMP, ACWD's long-term planning is based on conservation savings of 2,900 AF/Yr to be achieved by the year 2020. Of the 2,900 AFY estimated savings, it is estimated that 1,500 AFY of savings has already been achieved due to conservation program implementation between the years 2000 and 2010. This existing level of conservation savings (1,500 AFY) is already accounted for in the demand projections. Therefore, this 2011-2015 Urban Water Management Plan assumes that the remaining balance of 1,400 AFY savings (or 2,900 AFY minus 1,500 AFY) will be achieved by the year 2020.
Source: ACWD, 2011, *Urban Water Management Plan,* page 9-6.

TABLE 4.14-3 PROJECTED SINGLE AND MULTIPLE DRY YEAR WATER SUPPLY AND DEMAND COMPARISON (AFY)

	2015	2020	2025	2030	2035
Single Dry Year Period Supply and Demand Comparison					
Supply Totals	61,700	61,500	61,300	61,100	60,800
Demand Totals	64,200	64,600	65,500	66,700	66,800
Difference	(2,500)	(3,100)	(4,200)	(5,600)	(6,000)
Difference as % of Supply	-4%	-5%	-7%	-9%	-10%
Difference as % of Demand	-4%	-5%	-6%	-8%	-9%
Multiple Dry Year Period Supply and Demand Comparison					
Supply Totals	60,200	61,400	62,600	63,800	65,000
Demand Totals	59,300	60,900	62,800	65,000	66,100
Difference	900	500	(200)	(1,200)	(1,100)
Difference as % of Supply	1%	1%	0%	-2%	-2%
Difference as % of Demand	2%	1%	0%	-2%	-2%

Notes:
1. Single Dry Year conditions are based on the projected supply availability under 1977 drought conditions, and Multiple Dry Year conditions are based on the projected supply availability under 1987-91 drought conditions.
2. Groundwater system demands include: (1) ARP groundwater production, (2) private groundwater pumping, and (3) saline groundwater outflows. Under dry year conditions ACWD's groundwater system demands may be reduced from Normal Year conditions due to a reduction in saline groundwater outflows as local groundwater elevations are temporarily lowered.
3. ACWD expanded the Newark Desalination Facility from 5 mgd to 10 mgd in the year 2010. Depending on groundwater conditions, the expanded desalination facility may provide up to 11,200 AFY of supply in a given year.
4. As documented in ACWD's 2001-2005 UWMP, ACWD's long-term planning is based on conservation savings of 2,900 AFY to be achieved by the year 2020. Of the 2,900 AFY estimated savings, it is estimated that 1,500 AFY of savings has already been achieved due to conservation program implementation between the years 2000 and 2010. This existing level of conservation savings (1,500 AFY) is already accounted for in the demand projections. Therefore, this 2011-2015 Urban Water Management Plan assumes that the remaining balance of 1,400 AFY savings (or 2,900 AFY minus 1,500 AFY) will be achieved by the year 2020.
Source: ACWD, 2011, *Urban Water Management Plan,* pages 9-8 and 9-9.

The Plan Area is located within the ACWD's water service area. As shown in Table 4.14-3 above, the ACWD anticipates a total water capacity of 78,300 AFY in 2035 for its service area. The projected demand for the service area is 72,800 AFY under normal year conditions. As described above, this demand projection is based on future land use conditions projected in the current General Plan and does not take into account some of planned new development under the General Plan Update. However, the planned development for the Dumbarton Transit-Oriented Development (TOD) Focus Area and Southwest Newark Residential and Recreational Focus Area was included in the ACWD's latest UWMP and is accounted for the water demand projections. As shown in Table 4.14-4, the proposed Plan would result in an increase in total water demand of 557 AFY at buildout, which was not accounted for in the ACWD's UWMP. These estimates are based on the increase in residents and employees within the City of Newark for the year 2035. Adding 557 AFY to the ACWD's

TABLE 4.14-4 PROJECTED WATER DEMANDS IN PLAN AREA

Parameter	2012	2035	Increase
Residents – Newark	43,930	60,510	16,580
Employment – Newark	19,727	22,609	2,882
Residential Indoor Water Use (gallons per day (gpd) per capita)[a]	70	55	-15
Landscape Water Use (gpd per capita)[b]	63.7	50	-13.7
Total Residential Water Use (Indoor + Landscape) – gpd per capita	133.7	105	-28.7
Employee Water Use (Commercial, Industrial, Institutional) – gpd per capita	35.5	31.9	-3.6
Total Newark Water Use – Residents + Employees – gallons/year	2.40×10^9	2.58×10^9	1.8×10^8
Water Usage – AFY	7,364	7,921	557

[a] Alameda County Water District, 2010, *Urban Water Management Plan 2010-2015.* Reduction in per capita water use in 2035 takes into account mandated water conservation practices to be implemented by 2020 as per the Water Conservation Bill of 2009 (SBX7-7)
[b] Landscape water use is based on residential and mixed-use customers and dedicated landscape accounts (e.g., City parks, ROW, open space, etc.). Landscape water also includes system loss of 8.4%.
Source: Alameda County Water District, 2010, *Urban Water Management Plan 2010-2015.* The modeling and analysis in this table was based on 2010 UWMP data and assumptions and SB X7-7's per capita consumption goal.

projected water demand of 72,800 AFY, the estimated water demand of 73,357 AFY would not exceed the ACWD's water supply capacity of 78,300 AFY. Therefore, buildout of the proposed Plan would not result in insufficient water supplies from existing entitlements and resources under normal year conditions.

In addition, the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element have already been assessed for water supply through the preparation of Water Supply Assessments (WSAs) and each project's CEQA review process. Development under the Areas 3 and 4 Specific Plan would be required to comply with the Specific Plan's Water Conservation Standards. Also, while the EIRs conclude that the impacts from the Dumbarton TOD Specific Plan and the Areas 3 and 4 Specific Plan would be less than significant without mitigation, the EIR of the 2010 Housing Element identifies mitigation measures to mitigate the impact from buildout of the 2010 Housing Element on water supplies, in particular, housing projects identified in the Housing Element would be required to secure a "will serve" letter from the ACWD and install low-flow plumbing fixtures, high efficiency clothes washers and dishwashers, drought tolerant, native plant materials, and automatic irrigation systems. With implementation of these measures, water supply impacts in these areas would be less than significant.

Although ACWD's water supplies are projected to be sufficient to meet the future demands in the service area under normal year conditions, during single and multiple dry years, the ACWD may experience water supply shortages according to ACWD's UWMP. As described above, in such cases, ACWD would secure additional supplies through a DWR drought water bank or similar water purchase/transfer program. In addition, the ACWD would also implement the drought contingency plan, which contains measures that will reduce demands by up to

50 percent in the case of drought or emergency. These measures would ensure that the ACWD would have adequate water supply under severe drought conditions.

Furthermore, the following goal and policies contained in the proposed Plan would ensure that new development projects under the proposed Plan contribute to reducing water demands in the ACWD service area.

- Goal CS-3: Conserve and enhance Newark's water resources.
- Policy CS-3.2: Water Conservation Standards. Promote water conservation through development standards, building requirements, irrigation requirements, landscape design guidelines, and other applicable City policies and programs.
- Policy CS-3.3: ACWD Conservation Incentives. Support Alameda County Water District (ACWD) incentives, which encourage Newark residents and businesses to conserve water.
- Policy CS-3.9: Reclaimed or Non-Potable Water. Plan for the eventual use of reclaimed water to supplement the local water supply and reduce the necessity of using potable water for landscaping, irrigation, and non-domestic purposes.
- Action CS-3.B: Development Review. Use the development review process to ensure that water conservation measures are incorporated in new projects.
- Policy CSF-5.1: Water Supply. Work with the Alameda County Water District to ensure a stable supply of clean, safe drinking water for existing and future development in Newark.
- Policy CSF-5.3: Reclaimed and/or Non-Potable Water. Continue to work with the Alameda County Water District (ACWD) and the Union Sanitary District (USD) in the development of a reclaimed water program. The use of reclaimed or non-potable water sources should be encouraged in order to reduce the use of domestic water for landscaping and other non-potable uses.
- Policy CSF-5.6: Green Infrastructure. Encourage sustainable, environmentally friendly practices by water, sewer, drainage, and energy utility service providers. The City supports "greener" approaches to infrastructure, such as the use of earthen channels rather than concrete culverts, and porous pavement rather than impervious surfaces.
- Policy CSF-5.7: Involving Utility Agencies in Development Review. Engage local water, sewer, and stormwater service providers in the review of new development projects to ensure that infrastructure, including water supply and wastewater treatment capacity, is available or will be made available to meet development-related needs.
- Policy CSF-5.8: Infrastructure Cost. Ensure that the cost of infrastructure improvements required for new development is the financial responsibility of that development and is allocated based on each project's expected impacts.
- Action CSF-5.A: UWMP Updates. Encourage the Alameda County Water District to complete regular updates of the state-mandated Urban Water Management Plan to reflect current forecasts, water supply conditions, and best practices in water management.

- Action CSF-5.B: Ensuring Water Availability. Coordinate with the Alameda County Water District to conduct water supply assessments or take other steps to ensure that water is available or can be made available to meet current and anticipated needs. Special precautions should be taken to ensure that adequate water supplies are available during drought periods.

Lastly, existing regulations, which are listed below, would further reduce potential impacts on water supplies. New development under the proposed Plan would be required by Newark's Green Ordinance to follow the City of Newark's Bay Friendly Landscape Guide to reduce irrigating water. Development under the Areas 3 and 4 Specific Plan would be required to comply with the Specific Plan's Water Conservation Standards. As described above, housing projects identified in the Housing Element would be required to implement the mitigation measures, which require securing a "will serve" letter from the ACWD and installing low-flow plumbing fixtures, high efficiency clothes washers and dishwashers, drought tolerant, native plant materials, and automatic irrigation systems. Development within the Plan area would include the latest technology in water efficient plumbing fixtures and irrigation systems, as specified in the 2010 California Plumbing Code and the ACWD's Water Efficiency Measures for New Residential and Commercial Development. In addition, new development within the City would use non-potable groundwater or recycled water for non-potable uses when supply becomes available.

Applicable Regulations:

- Green Ordinance and Bay Friendly Landscape Guide
- SB-X7-7 and ACWD's water supply and demand management strategies and water shortage contingency plan identified in the UWMP
- 2010 California Plumbing Code that requires water conserving fixtures and ACWD's Water Efficiency Measures for New Residential and Commercial Development
- Areas 3 and 4 Specific Plan's Water Conservation Standards

In summary, buildout of the proposed Plan would not result in insufficient water supplies under normal year conditions. During severe dry year conditions, the ACWD may experience water supply shortages, but with the proposed General Plan policies and existing water conservation regulations in place, buildout of the proposed Plan would not result in a significant impact on ACWD's water supply.

Significance Before Mitigation: Less than significant.

UTIL-2	The proposed Plan would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

As discussed above (UTIL-1), the water demand associated with the proposed Plan would be served with available water supplies provided by the ACWD as described in its UWMP. Consequently, buildout of the proposed Plan would not require the construction of new water facilities or the expansion of existing facilities. In addition, the water demand from the proposed Plan would not exceed the treatment and distribution capacity of the water treatment plants (89.5 MGD). Therefore, the proposed Plan would not require the construction or expansion of water treatment facilities, beyond what is currently planned in the 25-Year CIP, as described in the Regulatory Framework section above.

In addition, new development under the proposed Plan would be located within already-developed urban areas and therefore would connect to an existing water distribution system. Future development would be required to pay fees to the ACWD for system maintenance and capital upgrades. Furthermore, the following General Plan goals, policies, and programs would ensure that impacts to water facilities would be adequately addressed:

- Policy CSF-5.7: Involving Utility Agencies in Development Review. Engage local water, sewer, and stormwater service providers in the review of new development projects to ensure that infrastructure, including water supply and wastewater treatment capacity, is available or will be made available to meet development-related needs.
- Policy CSF-5.8: Infrastructure Cost. Ensure that the cost of infrastructure improvements required for new development is the financial responsibility of that development and is allocated based on each project's expected impacts.
- Action CSF-5.B: Ensuring Water Availability. Coordinate with the Alameda County Water District to conduct water supply assessments or take other steps to ensure that water is available or can be made available to meet current and anticipated needs. Special precautions should be taken to ensure that adequate water supplies are available during drought periods.

Applicable Regulations:

- 25-Year Capital Improvement Program
- ACWD Development Fees and Charges

In summary, buildout of the proposed Plan would not result in water demands that would require the construction of new water treatment facilities or the expansion of existing facilities.

Significance Before Mitigation: Less than significant.

4.14.1.3 CUMULATIVE IMPACTS

UTIL-3	The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to water supply.

This section analyzes potential impacts to water supply that could occur from the proposed Plan in combination with other reasonably foreseeable projects in the surrounding area. The geographic scope of this cumulative analysis is taken as the ACWD service area. While the proposed Plan would contribute to an increased cumulative demand for water supply, the increased demand would not exceed the long-term supply under normal circumstances, as discussed above. Additionally, ACWD's UWMP determines that the water supply of 78,300 AFY will be sufficient to accommodate future demand in the ACWD service area through 2035 under normal circumstances. In the multiple dry years, shortages are projected, but with ACWD's drought contingency plan in place, the shortages would be managed through demand reductions of up to 50 percent. However, it is possible that water demands from other jurisdictions within the ACWD service area may exceed what has been projected in ACWD's UWMP, resulting in insufficient District-wide water supplies. However, with SB X7-7 and the State Updated Model Landscape Ordinance in place, each jurisdiction would be required to conserve its water use

through establishing water efficiency measures in its City Ordinances or General Plan Policies. In addition, pursuant to SB 610 and SB 221, WSAs would be prepared for individual large development projects prior to approval of each project to ensure adequate water supply for new development.

In terms of water infrastructure, the ACWD has implemented its CIP to continue providing a reliable supply of water to its customers. Because cumulative water demands would not require an additional water supply, the construction or expansion of water treatment facilities, beyond what is currently planned in the CIP, would be unnecessary. In addition, all development in the ACWD service area would be required to pay development fees and charges to mitigate impacts to the ACWD facilities.

Applicable Regulations:

- SB 610 and SB 221
- SB-X7-7
- State Updated Model Landscape Ordinance
- ACWD's water shortage contingency plan identified in the UWMP
- 25-Year Capital Improvement Program
- ACWD Development Fees and Charges

Overall, cumulative water demands would neither exceed planned levels of supply nor require building new water treatment facilities or expanding existing facilities beyond what is currently planned in the CIP. In addition, future development would be required to pay development fees, which would offset the costs of system maintenance and capital upgrades to support the new development in the ACWD service area. Therefore, the cumulative impact would be less than significant.

Significance Before Mitigation: Less than significant.

4.14.1.4 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The Plan would not result in any significant Plan-specific or cumulative impacts to water supply services and therefore no mitigation measures are required.

4.14.2 SANITARY WASTEWATER (SEWER)

This section describes the existing conditions and potential impacts of the proposed Plan with regard to wastewater collection and treatment facilities.

4.14.2.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

The federal government regulates wastewater treatment and planning through the Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), as well as through the National Pollutant Discharge Elimination System (NPDES) permit program, both of which are discussed in further detail below.

Clean Water Act (CWA)

The CWA regulates the discharge of pollutants into watersheds throughout the nation. The CWA consists of two parts, one being the provisions which authorize federal financial assistance for municipal sewage treatment plant construction. The other is the regulatory requirements that apply to industrial and municipal dischargers. Under the CWA, the United States Environmental Protection Agency (EPA) implements pollution control programs and sets wastewater standards.

National Pollutant Discharge Elimination System (NPDES)

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

State Regulations and Agencies

Wastewater treatment and planning is regulated at the State level. Specific regulations relevant to the proposed Project are described below.

State Water Resources Control Board

On May 2, 2006 the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan (SSMP). The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

The SWRCB has delegated authority to nine RWQCBs to enforce these requirements within their region. The City of Newark is within the jurisdiction of the San Francisco Bay RWQCB. The San Francisco Bay RWQCB issues NPDES permits to wastewater generators who discharge to surface waters, such as streams, channels, and San Francisco Bay. As discussed below, the Union Sanitary District (USD) is responsible for issuing permits to wastewater generators who discharge to the sanitary sewer system. In addition, to NPDES permits, the San Francisco Bay RWQCB also requires waste discharge requirements (WDRs) for additional categories of discharges, such as wastewater recycled for reuse and wastewater discharged to land, including onsite treatment systems. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts and enforces the Districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater.[20] The Act was amended in 1949 to allow the Districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

Local Regulation

Newark Basin Master Plan

The Union Sanitary District (USD) updated its Newark Basin Master Plan in November 2000. The Newark Basin comprises the central portion of the USD's service area, which also includes the Alvarado and Irvington Basins in Fremont. The Newark Basin includes most of the City of Newark and the central portion of the City of Fremont. The goal of the Newark Basin Master Plan is to develop a long-term capital improvement program for an approximate 20-year planning horizon in order to provide adequate hydraulic capacity in the system and to address maintenance and structural problems in the sewers in the Newark Basin. Land use projections for the Newark Basin were based on the land use designations from the General Plans of the Cities of Newark and Fremont. Since the basin is inspected every six years, a separate Master Plan update is scheduled to be prepared on the same six year cycle. The 2000 Master Plan for the Newark Basin is the third such update and contains a capital improvement program (CIP) for the Newark Basin to address existing system deficiencies and necessary improvements.

The CIP projects have been divided into three phases or "Priority Groups" to facilitate capital budgeting and scheduling. The priorities reflect the relative need for the projects in terms of severity of existing deficiencies.

USD Ordinances

The USD has established ordinances with requirements for users that discharge to the Publicly Owned Treatment Works (POTW) of USD. This enables USD to comply with the applicable State and Federal laws, including the Clean Water Act and the General Pretreatment Requirements, as well as the water quality requirements set by the San Francisco Bay RWQCB and the SWRCB. Ordinance No. 36 lists prohibited discharges, establishes limitations on wastewater strength, and requires commercial and industrial dischargers to apply to the USD for a Wastewater

[20] California Health and Safety Code, http://leginfo.ca.gov/cgi-bin/calawquery?codesection=hsc, accessed on November 18, 2011.

Discharge Permit.[21] The permit may include effluent limitations, monitoring and sampling requirements, record keeping requirements, volume discharge limits, and fees based on the discharge quantities. In addition, Ordinance 31.35 and Ordinance 35.19 establishes sewer service charges and capacity fees from new and existing users in order to fund the construction and expansion of facilities as necessary to maintain or increase system capacity.[22] Finally, Ordinance 34.06 establishes standards for plan submittals, issuance of permits for sewer construction and connection, inspection sewer installations, and collection of fees for this service.[23]

Existing Conditions

The Union Sanitary District (USD) is a special district that provides wastewater collection, treatment, and disposal services to the residents and businesses in the cities of Fremont, Newark, and Union City. The USD serves an area of approximately 60.2 square miles, including with a combined population of approximately 331,387.[24] The USD currently serves 43,041 people within the City of Newark. The USD is a member of East Bay Dischargers Authority (EBDA). The EBDA is a Joint Powers Agency, which consists of five local agencies: the USD, the City of Hayward, the City of San Leandro, the Oro Loma Sanitary District, and the Castro Valley Sanitary District. The EBDA was formed to collectively manage the wastewater treatment and disposal from these agencies.

Wastewater (Sewer) Collection

The USD owns and maintains over 783 miles of sanitary sewer pipelines, four lift stations that serve low lying developments, three major pump stations, and 13 miles of dual force mains that transport wastewater to the Alvarado Wastewater Treatment Plant (AWWTP) in Union City.[25]

The Plan Area is located within the Newark Basin. Wastewater generated within the Plan Area is collected and conveyed by gravity sewers to the Newark Pump Station and then to the AWWTP. The USD completed an $11 million expansion project at the Newark Pump Station in 2010. The USD expects this upgrade will help accommodate any increases in flow rates in the foreseeable future. When wastewater flows exceed the pump station capacity, the USD plans to convert land adjacent to the station to construct a wastewater detention facility. The USD also plans to construct a third force main between the Newark Pump Station and the AWWTP in its long range plans.[26]

Wastewater (Sewer) Treatment and Disposal

Sanitary wastewater generated in the Plan Area is treated at the AWWTP, transported to EBDA's system for final dechlorination, and discharged to the EBDA Common Outfall in San Leandro, which ultimately discharges into Lower San Francisco Bay.

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[21] Union Sanitary District, Ordinance 36, *Pretreatment Ordinance and Technically Based Local Limits*.

[22] Union Sanitary District, Ordinance 31.35, *Sewer Service Charge Ordinance*, and Ordinance 35.19, *New Connections Ordinance*.

[23] Union Sanitary District, Ordinance 34.06, *Plan Review/Permitting Ordinance*.

[24] Union Sanitary District, http://www.unionsanitary.com/mission.htm, accessed on April 11, 2013.

[25] California Regional Water Quality Control Board, NPDES No. CA0037869, http://www.waterboards.ca.gov/rwqcb2/board_decisions/adopted_orders/2012/R2-2012-0004.pdf, accessed on March 11, 2013.

[26] City of Newark, May 2011, *Dumbarton TOD Specific Plan Draft EIR*, page 4.12-5.

The AWWTP has the capacity to treat an average dry weather flow (ADWF) of up to 33 MGD, but is currently treating 24 MGD.[27] As specified in the NPDES permit, discharges of up to 33 MGD are allowed.[28] The NPDES permit allows the ADWF limit to be increased to 38 MGD upon completion of its planned new treatment plant facilities, completion of an Effluent Characterization Study and Report, and approval by the Executive Officer.[29]

4.14.2.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on wastewater service if it would:

1. Exceed wastewater treatment requirements of the applicable RWQCB.
2. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

4.14.2.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to sanitary wastewater (sewer).

UTIL-4	The proposed Plan would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB).

Sanitary wastewater treatment requirements are established in the NPDES Permit issued by the San Francisco Bay RWQCB, which currently allows discharges of up to 33 MGD. The NPDES Permit also sets out a framework for compliance and enforcement. As the discharger named in the NPDES Permit (Order No. R2-2012-0004),[30] the EBDA, including the USD, implements and enforces a pretreatment program for effluent discharged into San Francisco Bay. Additionally, as discussed below, the projected wastewater generated from potential future development under the Plan would not exceed the AWWTP's capacity. Therefore, the wastewater treatment requirements of the San Francisco Bay RWQCB would not be exceeded from buildout of the proposed Plan, resulting in a *less-than-significant* impact.

[27] Union Sanitary District, http://www.unionsanitary.com/mission.htm, accessed on January 30, 2013.

[28] California Regional Water Quality Control Board, NPDES No. CA0037869, http://www.waterboards.ca.gov/rwqcb2/board_decisions/adopted_orders/2012/R2-2012-0004.pdf, accessed on March 11, 2013.

[29] California Regional Water Quality Control Board, NPDES No. CA0037869, http://www.waterboards.ca.gov/rwqcb2/board_decisions/adopted_orders/2012/R2-2012-0004.pdf, accessed on March 11, 2013.

[30] California Regional Water Quality Control Board, NPDES No. CA0037869, http://www.waterboards.ca.gov/rwqcb2/board_decisions/adopted_orders/2012/R2-2012-0004.pdf, accessed on March 11, 2013.

Applicable Regulations:

- NPDES Permit (Order No. R2-2012-0004)

Significance Before Mitigation: Less than significant.

UTIL-5	The proposed Plan would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Buildout of the proposed Plan would have a significant impact if it results in the construction of new wastewater treatment facilities or expansion of existing facilities.

The projected wastewater generation rate at buildout would be approximately 3.78 MGD, as shown in Table 4.14-5, which would be an increase of approximately 270,000 gallons from current flow rates. This projection is based on the 2010 UWMP and SB X7-7's per capita consumption goal. The AWWTP is currently operating at approximately 73 percent of its capacity. Adding to the existing demand of 24 MGD an increase of 270,000 gallons at buildout, the plant would still be operating at only 74 percent of its capacity. Therefore, buildout would not exceed the AWWTP's treatment capacity of 33 MGD and would not require expansion of the AWWTP.

While the AWTTP has sufficient capacity to accommodate new development in the Plan Area, the USD's sewer collection system may not be sufficient to accommodate buildout of the proposed Plan. As described above, the USD's Newark Basin Master Plan includes collection system improvements to support future development in its service area, and is planned to be updated every six years. However, new development under the proposed Plan has not been accounted in the buildout assessment of the current Newark Basin Master Plan.[31] As a result, some areas would require additional improvements beyond what is included in the Newark Basin Master Plan. For the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element, the impacts to the USD's existing wastewater collection facilities have been assessed through each project's CEQA review process. While the Draft EIRs of the 2010 Housing Element and the Areas 3 and 4 Specific Plan conclude that impacts from these projects would be less than significant without mitigation, the Draft EIR of the Dumbarton TOD Specific Plan identifies a mitigation measure to reduce the impact from buildout of the Dumbarton TOD Specific Plan on the USD's collection system. With implementation of the measure, the impacts on the USD's collection system in the Dumbarton TOD Specific Plan area would be reduced to a less-than-significant level.

Furthermore, all development applicants would be required to comply with the USD's Capacity Charge Ordinance and the City of Newark's Municipal Code Chapter 3.24, Development Impact Fees. The Capacity Charge Ordinance requires all development applicants to pay capacity fees and be subject to the development review

[31] The Newark Basin Master Plan (2010) predates the Dumbarton TOD Specific Plan, the Areas 3 and 4 Specific Plan, and the 2010 Housing Element. Further, the Master Plan assumed a buildout based on land use diagrams from the Newark and Fremont General Plans available while the report was being written. The 1992 Newark General Plan envisioned 4,688 new dwelling units and a projected population of 51,942 by 2008; Union Sanitary District, November 2000, Newark Basin Master Plan, page 2; City of Newark, 1992, General Plan, page 3-4.

TABLE 4.14-5 PROJECTED WASTEWATER GENERATION RATES IN PLAN AREA

Parameter	2012	2035	Increase
Residents – Newark	43,930	60,510	16,580
Employment – Newark	19,727	22,609	2,882
Residential Indoor Water Use (gpd per capita)[a]	70	55	-15
Commercial, Industrial, Institutional Indoor Water Use (gpd per capita)[b]	22.0	19.8	-2.2
Total Newark Wastewater Generation (mgd)[c]	3.51	3.78	0.27
Wastewater Treatment Plant Capacity (mgd)	24	33	9

[a] Alameda County Water District, 2010, *Urban Water Management Plan 2010-2015.* Reduction in per capita water use in 2035 takes into account mandated water conservation practices to be implemented by 2020 as per the Water Conservation Bill of 2009 (SBX7-7).
[b] Modeling conservatively assumes that 62 percent of the commercial, industrial, and institutional water use is indoor water that would require wastewater treatment (The Pacific Institute, 2003, Waste Not Want Now: the Potential for Urban Water Conservations in California, Appendix E, Details of Commercial Water Use and Potential Savings, Appendix F, details of Industrial Water Use and Potential Savings).
[c] mgd = million gallons/day.
Source: Alameda County Water District, 2010, *Urban Water Management Plan 2010-2015.* The modeling and analysis in this table was based on 2010 UWMP data and assumptions and SB X7-7's per capita consumption goal.

process, during which the Newark Public Works and USD staff would require the applicant to upgrade or expand the USD's collection system if the USD determines the demand from the project would exceed the USD's conveyance system capacity. Similarly, Municipal Code Chapter 3.24, requires new single-family, multi-family, commercial, and industrial development to pay a fee towards the construction of facilities that are required by the new development. In addition, the proposed Plan would support the provision of adequate collection and treatment systems through multiple policies and actions, including:

- Policy CSF-5.2: Sanitary Sewer. Work with the Union Sanitary District to ensure that the sewer system is expanded to serve Newark's new development areas, existing facilities are regularly maintained, sufficient wastewater capacity is provided to meet projected growth, and wastewater effluent is treated to meet all state and federal standards.
- Policy CSF-5.3: Reclaimed and/or Non-Potable Water. Continue to work with the Alameda County Water District (ACWD) and the Union Sanitary District (USD) in the development of a reclaimed water program. The use of reclaimed or non-potable water sources should be encouraged in order to reduce the use of domestic water for landscaping and other non-potable uses.
- Policy CSF-5.7: Involving Utility Agencies in Development Review. Engage local water, sewer, and stormwater service providers in the review of new development projects to ensure that infrastructure, including water supply and wastewater treatment capacity, is available or will be made available to meet development-related needs.
- Policy CSF-5.8: Infrastructure Cost. Ensure that the cost of infrastructure improvements required for new development is the financial responsibility of that development and is allocated based on each project's expected impacts.

- Action CSF-5.C: USD Master Facilities Plan Updates. Coordinate with the Union Sanitary District to complete regular updates of the District's Master Plan to ensure that it reflects development plans and forecasts for Newark and responds to changing needs and requirements.

Additionally, any impacts from collection system improvements or relating to the expansion of existing and construction of new facilities would be project-specific, and would require permitting and review in accordance with CEQA, which would ensure that any environmental impacts are disclosed and mitigated to the extent possible. This Draft EIR is a programmatic document and does not evaluate the environmental impacts of any project-specific development. Also, as mentioned in above, the proposed Plan contains several policies directing the City to ensure the development and provision of an efficient sanitary sewer system and adequate wastewater treatment and sewer infrastructure capacity. Since it is unknown at this time exactly where or when new facilities will be constructed or existing facilities expanded, the specific related environmental impacts cannot be determined at this time.

Applicable Regulations:

- USD Newark Basin Master Plan and USD Ordinances
- City of Newark and USD Development Review Process
- USD Capacity Fees
- City of Newark Municipal Code, Chapter 3.24 Development Impact Fees

Overall, because future development under the proposed Plan would not substantially impact the capacity of the wastewater treatment system, and because the facilities would be expanded to accommodate future growth in the service areas as needed, the future development under the proposed Plan would not require the construction of new wastewater treatment facilities. Therefore, the proposed Plan would have a *less-than-significant* impact on wastewater treatment service.

Significance Before Mitigation: Less than significant.

UTIL-6	The proposed Plan would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Buildout of the proposed Plan would have a significant impact if future projected demand exceeds the USD's wastewater service capacity. As discussed above, future demands from the proposed Plan would not exceed the capacity of the AWWTP. The potential impacts to the USD's collection system would be addressed through applicable policies and measures as identified above (UTIL-5). In addition, the payment of fees in compliance with the USD's Capacity Fee Ordinance, Municipal Code Chapter 3.24 Development Impact Fees, and the City of Newark's development review process would ensure that demands from individual projects in the Plan Area would not impact the USD's wastewater treatment service. As a result, the impact would be a *less-than-significant*.

Significance Before Mitigation: Less than Significant.

4.14.2.4 CUMULATIVE IMPACTS

UTIL-7	The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to wastewater.

This section analyzes potential impacts to sanitary wastewater that could occur from the Plan in combination with reasonably foreseeable growth within the USD service area.

Buildout of the Plan would increase the volume of wastewater for treatment at the AWWTP. However, this increase represents only a small percentage (less than 1 percent) of the available treatment capacity and it would occur incrementally over a period of 20 years. Therefore, it would not be cumulatively considerable. Because the cumulative demand would not substantially impact the existing or planned capacity of the USD's wastewater treatment system, the construction of new wastewater treatment facilities would not be necessary. Furthermore, as described above, the USD has a plan to expand the capacity of the AWWTP to 38 MGD from 33 MGD, as demands in the service area increase.

Additionally, the proposed Plan contains multiple policies that would serve to ensure provision of adequate wastewater facilities; these policies include:

- Policy CSF-5.2: Sanitary Sewer. Work with the Union Sanitary District to ensure that the sewer system is expanded to serve Newark's new development areas, existing facilities are regularly maintained, sufficient wastewater capacity is provided to meet projected growth, and wastewater effluent is treated to meet all state and federal standards.
- Policies CSF-5.7: Involving Utility Agencies in Development Review. Engage local water, sewer, and stormwater service providers in the review of new development projects to ensure that infrastructure, including water supply and wastewater treatment capacity, is available or will be made available to meet development-related needs.
- Policy CSF-5.8: Infrastructure Cost. Ensure that the cost of infrastructure improvements required for new development is the financial responsibility of that development and is allocated based on each project's expected impacts.

Moreover, each project would be subject to the payment of appropriate fees and the development review process to mitigate any effects to wastewater treatment services on a project-by-project basis. Future development would also be required to comply with all applicable regulations and ordinances protecting wastewater treatment services.

As previously stated, as the discharger named in the NPDES Permit, the USD implements and enforces a pretreatment program for effluent discharged into San Francisco Bay. Consequently, wastewater from cumulative projects would be treated according to the wastewater treatment requirements enforced by the San Francisco RWQCB. Therefore, cumulative projects would not exceed wastewater treatment requirements, and cumulative impacts to sanitary wastewater service would be *less than significant*.

Applicable Regulations:

- NPDES Permit

- USD Newark Basin Master Plan and USD Ordinances
- City of Newark and USD Development Review Process
- USD Capacity Fees

Significance Before Mitigation: Less than significant.

4.14.2.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The Plan would not result in any significant Plan-specific or cumulative impacts to wastewater service and therefore no mitigation measures are required.

4.14.3 STORMWATER DRAINAGE

This section describes the potential impacts of the proposed Plan on drainage facilities.

4.14.3.1 ENVIRONMENTAL SETTING

Regulatory Framework

This section briefly describes the regulatory setting with regard to stormwater drainage in Newark. Please refer to Section 4.8, Hydrology and Water Quality, of this Draft EIR, for a detailed description of the regulatory setting.

Federal and Regional Regulations

<u>Clean Water Act and National Pollutant Discharge Elimination System</u>

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems (MS4s).

<u>State Water Resources Control Board and Regional Water Quality Control Board</u>

In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs.

<u>Statewide General Permit (Water Quality Order No. 2003-0005-DWQ)</u>

The California SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0005-DWQ) for Small Municipal Separate Storm Sewer System (MS4s) operators to efficiently regulate stormwater discharges

under a single permit.[32] Permittees must develop and implement a Stormwater Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable.

SWRCB Construction General Permit

Construction activities that disturb one or more acres of land that could impact hydrologic resources must comply with the requirements of the SWRCB Construction General Permit (2009-0009-DWQ, which was amended by 2010-0014-DWQ in 2010).[33] Under the terms of the permit, applicants must file Permit Registration Documents (PRDs), including a Notice of Intent (NOI), risk assessment, annual fee, and a signed certification statement with the SWRCB. Applicants must also demonstrate conformance with applicable best management practices (BMPs) and prepare a Storm Water Pollution Prevention Plan (SWPPP), containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection, discharge points, and general topography both before and after construction, as well as drainage patterns across the project site. The operative Construction General Permit requires stormwater pollution prevention controls, including the imposition of minimum BMPs and the development and implementation of Rain Event Action Plans for certain sites.

NPDES Municipal Regional Stormwater Permit

Newark is covered under the regulations of the new Municipal Regional Stormwater NPDES Permit (MRP) issued by the RWQCB. This Permit falls under Order R2-2009-0074, adopted on October 14, 2009.[34] The municipalities have to require both private and public projects to implement post-construct stormwater controls as part of their obligations under Provision C.3 of the MRP. Above and beyond post-construction stormwater management practices, the permit also requires municipalities to adopt trash and street sweeping programs to regulate discharges into storm drain systems or directly into waters of the United States.

Local Regulations

Alameda Countywide Clean Water Program

Fourteen cities, Alameda County unincorporated areas, the Alameda County Flood Control and Water Conservation District (ACFC), and the Zone 7 Water Agency share one NPDES Permit through the Alameda Countywide Clean Water Program (ACCWP), which aims to facilitate local compliance with the Federal Clean Water Act. The ACCWP also provides C.3 Stormwater Technical Guidance for developers, builders, and project applicants to design and build low impact development projects. As defined by Provision C.3.b.ii of the MRP, projects that create and/or replace 10,000 square feet or more of impervious surface, and restaurants, retail gasoline outlets, auto service facilities, and uncovered parking lots (stand-alone or part of another use) that create

[32] State Water Resources Control Board, *Order No. 2003-0005-DWQ*, http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/final_ms4_permit.pdf, accessed on September 28, 2012.

[33] State Water Resources Control Board, *Order No. 2010-0014-DWQ*, http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_factsheet.pdf, accessed on September 28, 2012.

[34] California Regional Water Quality Control Board, San Francisco Bay Region, *Municipal Regional Stormwater NPDES Permit, Order R2-2009-0074 NPDES Permit No. CAS612008*, October 14, 2009, http://www.swrcb.ca.gov/rwqcb2/board_decisions/adopted_orders/2009/R2-2009-0074.pdf, accessed on September 28, 2012.

and/or replace 5,000 square feet or more of impervious surface are regulated by Provision C.3. Single-family homes that are not part of a larger plan of development are excluded.

Alameda County Flood Control and Water Conservation District[35]

The ACFC, a division of the Alameda County Public Works Agency, provides flood protection for Alameda County residents and businesses. The ACFC plans, designs, constructs, and maintains flood control projects, such as natural creeks, channels, levees, pump stations, dams, and reservoirs. The ACFC is in the process of developing a Hydrology and Hydraulics Manual to provide guidance for new developments and modifications of existing flood control systems. The ACFC also requires all facilities that are part of the FEMA Flood Insurance Study to be designed to convey a 100-year storm based on FEMA criteria.

Newark Municipal Code[36]

Chapter 8.36, *Stormwater Management and Discharge Control,* implements the Alameda County Urban Water Runoff Clean Water Program and contains regulations intended to control and eliminate non-stormwater discharges to the City storm sewer and reduce pollutants in stormwater discharges.

Existing Conditions

The ACFC provides the storm water collection system for the City of Newark. Alameda County is divided into nine flood control zones. The Plan Area lies in Zone 5, which covers approximately 45,440 acres and 37 miles of natural waterways.[37] The stormwater system in Newark is managed through a joint partnership between the ACFC and the Newark Public Works Department. The ACFC is responsible for planning and constructing flood control infrastructure while the Newark Public Works Department is responsible for monitoring storm drain inlets.[38]

Stormwater in the City of Newark is managed through a system of gutters, storm drains, channels, and culverts that direct runoff to local creeks and the San Francisco Bay without treatment. All of the storm drain catch basins and storm drain systems in Newark eventually connect to one of the following flood control channels:[39]

- The C & D Line pass under the Nimitz Freeway immediately behind the cinema complex, passes into an underground culvert under Balentine Drive behind TJ Maxx, and then is an open channel along the south side of Newark Memorial High School.
- The B Line is an open channel that crosses Cedar Boulevard just north of Moores Avenue and passes through the Mowry West subdivision, crossing Cherry Street near Smith Avenue.

[35] Alameda County Flood Control and Water Conservation District, http://acfloodcontrol.org/about-the-district & http://acfloodcontrol.org/projects-and-programs/hydrology-and-hydraulics, accessed on February 1, 2013.

[36] City of Newark, http://library.municode.com/index.aspx?clientId=16521, accessed on April 12, 2013.

[37] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 8, Public Facilities.

[38] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 8, Public Facilities.

[39] City of Newark, Storm Drain Channels, http://www.newark.org/images/uploads/pubwks/pdfs/Storm_Drain_Channels.pdf, accessed on January 30, 2013.

- The F Line is an open channel that passes under Cedar Boulevard north of Central Avenue, turns north after crossing under Newark Boulevard, and then follows along the south side of the railroad tracks along Baine Avenue.
- The I Line is an open channel following Mayhews Landing Road east of Thornton Avenue near the Bay. However, it starts at I-880 as a large underground culvert, passing behind Newark Square Shopping Center and making its way past the Old Town Shopping Center.
- The H Line drains into the new San Francisco Wildlife Refuge property on the east side of Thornton Avenue near Jarvis Avenue after passing along the north side of Lincoln School. Upstream, just before crossing under the railroad tracks, the channel splits into two branches, one of which serves the Lido Faire area and the other which, via open channel and underground pipes, serves the Lake and Rosemont areas.

Natural creeks and water features are also part of the City's drainage infrastructure. The natural features include Plummer Creek as well as Newark and Mowry Sloughs.

Stormwater collected from the storm drains flows through 50 miles of closed conduit (storm drain pipes) and over 6 miles of concrete channels and culverts, directing water to Zone 5's two pumping stations, J-2 and J-3. The capacity of the J-2 pumping station is 107,712 gallons per minute (GPM) and the capacity of the J-3 pumping station is 45,920 GPM. These two pumping stations pump water that discharges into the Bay during periods of high tide.[40] In addition, the ACFC has a holding pond, Quail Run, which provides additional flood control by receiving overflow water from Alameda Creek, which lies outside of Zone 5.[41]

In 2008, flood control improvements were constructed along Line F-1 at Cherry Street, Sycamore Street, and Filbert Street in Newark to increase flood control conveyance capacity.[42] The ACFC has a list of Capital Improvement Projects (CIPs) for Zone 5 as follows:[43]

- Culvert crossing improvement on Zone 5 Line H at the UPRR crossing and upstream of Bettencourt Street.
- Raising the existing culvert headwall and extending wingwalls on Zone 5 Line D at Balentine Drive.

These two projects are tentatively programmed for design in 2015 and construction in summer 2016 or 2017. The ACFC is also planning to develop a Drainage Master Plan Study for Zone 5 in late 2014, which may identify additional CIPs.[44]

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[40] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 8, Public Facilities.

[41] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report*, Chapter 8, Public Facilities.

[42] Alameda County Flood Control & Water Conservation District, *Report to the Community, Fiscal Year 2008 and 2009*. Website: http://acfloodcontrol.org/files/pdf/acfcd2008-09report.pdf, accessed on March 18, 2013.

[43] Moses Tsang, Alameda County Flood Control District, Email correspondence with The Planning Center | DC&E, February 28, 2013.

[44] Rohin Saleh, MS. PE., Supervising Civil Engineer, Alameda County Flood Control District, Email correspondence with The Planning Center | DC&E, February 27, 2013.

4.14.3.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on drainage facilities if it would:

1. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4.14.3.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to stormwater drainage.

UTIL-8	The proposed Plan would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Future development under the proposed Plan would cause significant impacts if it would result in an increase in stormwater runoff to the extent that requires the construction of new storm water drainage facilities or expansion of existing facilities.

Development under the proposed Plan has the potential to increase stormwater runoff associated with construction activities and create impermeable surfaces, thereby placing greater demands on the stormwater drainage system. Runoff from developed surfaces, building roofs, parking lots and roads also contains impurities and has the potential to increase flooding. However, as described above, the projects are regulated by C.3 Provisions and would be required to provide sufficient treatment area to meet the requirements for compliance with these provisions. Construction projects that disturb one or more acres of land would be required to comply with the requirements of the SWRCB Construction General Permit. Project applicants would prepare a SWPPP and implement BMPs to prevent excessive stormwater runoff from construction activity. As a result, buildout under the proposed Plan would not substantially increase either the volume or the velocity of stormwater flowing into the existing storm drain system.

In addition, the Plan proposes the following policies and actions to minimize impacts to the stormwater system:

- Policy CSF-5.4: Flood Control. Coordinate with Alameda County Flood Control and Water Conservation District (ACFCWCD) and Alameda County Public Works to ensure that stormwater runoff is managed in a way that reduces flood hazards..
- Policy CSF-5.5: Drainage within New Development. Ensure that new development provides drainage and flood protection improvements which reduce on-site and downstream hazards such as ponding, flooding, and erosion. New development areas should be designed to minimize impervious surfaces in order to reduce associated site runoff and maximize groundwater recharge
- Policy CSF-5.6: Green Infrastructure. Encourage sustainable, environmentally friendly practices by water, sewer, drainage, and energy utility service providers. The City supports "greener" approaches to infrastructure,

such as the use of earthen channels rather than concrete culverts, and porous pavement rather than impervious surfaces. Storm drain catch basins should be designed to capture sediment and debris and should reduce the transport of pollutants to the Bay. Stormwater management strategies should direct water away from buildings and foundations and maintain natural hydrological functions to the greatest extent possible.

- Policy CSF-5.7: Involving Utility Agencies in Development Review. Engage local water, sewer, and stormwater service providers in the review of new development projects to ensure that infrastructure, including water supply and wastewater treatment capacity, is available or will be made available to meet development-related needs.
- Policy CSF-5.8: Infrastructure Cost. Ensure that the cost of infrastructure improvements required for new development is the financial responsibility of that development and is allocated based on each project's expected impacts.
- Action CSF-5.D: Stormwater Management Plans. Require the preparation of stormwater pollution prevention plans and stormwater management master plans for large scale developments. Such plans should determine runoff control and treatment measures, identify drainage improvements to be constructed, and address funding and maintenance responsibilities for the storm drainage system.
- Action CSF-5.E: ACFCWD Fee Program. Continue the Alameda County Flood Control and Water Conservation District Drainage Area Fee Program to fund flood control and drainage improvements in newly developing areas.
- Action CS-3.G: Countywide Clean Water Program. Continue to participate in the Alameda Countywide Clean Water Program, in accordance with the federal National Pollution Discharge Elimination System (NPDES) permit. The City will work with Alameda County and other participating jurisdictions to carry out measures to monitor stormwater pollution, regulate construction runoff, sweep local streets, clean storm drain inlets, promote education and outreach, enforce regulations and penalties for illicit discharges, and participate in County meetings to discuss water quality issues.
- Policy CS-6.5: Minimizing Impervious Surface Coverage. Minimize impervious surface coverage and related stormwater runoff in new development areas by allowing narrower roads and shared driveways, and by encouraging the use of pervious materials on driveways and parking areas. Other means of reducing urban runoff, such as rain barrels and bioswales, also should be encouraged.
- Action CS-3.H: Stormwater Controls. Implement stormwater runoff and retention controls in new development and construction projects that reduce pollution discharges to surface waters, and reduce the rate of runoff to storm drain system. Such controls should encourage greater use of pervious pavement and surfaces.
- Policy CS-6.4: Green Roofs. Encourage the use of green roofs and cool roofs as a way of reducing heating and cooling costs, and reducing stormwater runoff.

Furthermore, as described above, the ACFC has a list of CIPs and plans to develop a Drainage Master Plan Study to address existing deficiencies and accommodate future development in Zone 5.

With the proposed General Plan Policies, the ACCWP, and RWQCB C.3 provisions in place, future development would not substantially increase demands on the stormwater drainage system. Based on the ACFC's CIPs, stormwater facilities would be upgraded and expanded, as necessary to support future development in Newark. As a result, a *less-than-significant* impact would occur on stormwater treatment facilities.

Applicable Regulations:

- Alameda County Clean Water Program
- RWQCB C.3 provisions
- ACFC Drainage Master Plan Study (in progress)
- ACFC Capital Improvement Program

Significance Before Mitigation: Less than significant.

4.14.3.4 CUMULATIVE IMPACTS

UTIL-9	The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to stormwater facilities.

This section analyzes potential impacts to stormwater systems that could occur from the proposed Plan in combination with other reasonably foreseeable projects in the surrounding area. The geographic area considered for the cumulative analysis is Zone 5 in the ACFC service area.

With implementation of the policies and stormwater control requirements described above, future development under the proposed Plan would not substantially increase either the volume or the velocity of stormwater flowing into the storm sewer system. With the proposed General Plan Policies, the ACCWP, and RWQCB C.3 provisions in place, other cumulative projects would also not increase demands on the stormwater handling system. Additionally, based on the ACFC's CIPs and future Drainage Master Plan Study (when prepared and adopted), stormwater facilities would be upgraded and expanded as necessary to support development in Newark. Therefore, the proposed Plan, in combination with other reasonably foreseeable projects, would not create or contribute runoff exceeding the capacity of the storm sewer system, and by extension, would not result in the need for new or expanded storm sewer infrastructure. Associated cumulative impacts would be less than significant.

Applicable Regulations:

- Alameda County Clean Water Program
- RWQCB C.3 provisions
- ACFC Drainage Master Plan Study (in progress)
- ACFC Capital Improvement Program

Significance Before Mitigation: Less than significant.

4.14.3.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant project-specific or cumulative impacts to stormwater facilities and therefore no mitigation measures are required.

4.14.4 SOLID WASTE

This section describes existing conditions related to solid waste disposal services and the potential impacts of the proposed Plan.

4.14.4.1 ENVIRONMENTAL SETTING

Regulatory Framework

State Regulations

California Integrated Waste Management Act

California's Integrated Waste Management Act of 1989 (AB 939) requires that cities and counties divert 50 percent of all solid waste from landfills as of January 1, 2000 through source reduction, recycling, and composting. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity. To help achieve this, the act requires that each city and county prepare a Source Reduction and Recycling Element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle), a new department within the California Natural Resources Agency, which administers programs formerly managed by the State's Integrated Waste Management Board and Division of Recycling.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is calculated as a jurisdiction's reported total disposal of solid waste divided by a jurisdiction's population. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capital disposal rate.[45]

In 2011, Assembly Bill 341 was passed that sets a State policy goal of not less than 75 percent of solid waste that is generated to be source reduced, recycled, or composted by the year 2020. CalRecycle must submit a report to the legislature by January 1, 2014 outlining the strategy that will be used to achieve this policy goal.

[45] California Integrated Waste Management Board, http://www.calrecycle.ca.gov/LGCentral/Basics/PerCapitaDsp.htm #Jurisdiction, accessed on November 1, 2011.

California Solid Waste Reuse and Recycling Access Act of 1991[46]

The California Solid Waste Reuse and Recycling Access Act of 1991 required CalRecycle to develop by March 1, 1993 a model ordinance for adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or an ordinance of their own, that establishes standards that include space allocation for the collection and loading of recyclable materials in new development projects by September 1, 1993.

Mandatory Commercial Recycling Measure[47]

Pursuant to the California Global Warming Solutions Act of 2006 which set the 2020 greenhouse gas (GHG) emissions reduction into law, the Air Resources Board (ARB) adopted the Assembly Bill 32 Scoping Plan, which includes the Mandatory Commercial Recycling Measure. The Mandatory Commercial Recycling Measure focuses on increasing commercial waste diversion as a way to reduce GHG emissions. Its goal is to reduce GHG emissions by 5 million metric tons of carbon dioxide (CO2) equivalents. To achieve the measure's objective, an additional 2 to 3 million tons of materials annually will need to be recycled from the commercial sector by the year 2020 and beyond.

CalRecycle adopted the regulation at its January 17, 2012 Monthly Public Meeting. The regulation was approved by the Office of Administrative Law on May 7, 2012 and became effective immediately. On June 27, 2012 the Governor signed Senate Bill 1018, which included an amendment that requires businesses that generate 4 cubic yards or more of commercial solid waste per week or a multifamily residential dwelling with five or more units to arrange for recycling services. This requirement became effective on July 1, 2012. Businesses or multi-family residential dwellings can meet this requirement by:

- Self-haul.
- Subscribe to a hauler.
- Arrange for pickup of the recyclable materials.
- Subscribe to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation.

CALGreen Building Code

The California Green Building Standards Code (CALGreen Code) became effect for all projects beginning after January 1, 2011. Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The Code requires that all applicants have a waste management plan for on-site sorting of construction debris. The plan:

- Identifies the materials to be diverted from disposal by recycling, reuse on the project, or salvage for future use or sale.

[46] CalRecycle, http://www.calrecycle.ca.gov/LGCentral/Library/localdocs/policy.htm, accessed on April 15, 2013.
[47] CalRecycle, http://www.calrecycle.ca.gov/climate/recycling/, accessed on January 30, 2013.

- Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.
- Identifies the diversion facility where the material collected will be taken.
- Identifies construction methods employed to reduce the amount of waste generated.
- Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.

Local Policies and Regulations

County Integrated Waste Management Plan[48]

The California Integrated Waste Management Act of 1989 (Assembly Bill 939) was passed due to concerns about increases in waste and a decrease in landfill capacity. AB 939 mandated jurisdictions to divert 50 percent of their landfill waste by the year 2000 and establish a disposal reporting system and solid waste facility compliance. requires that each County prepare and adopt a Countywide Integrated Waste Management Plan (IWMP). The Alameda County Waste Management Authority (now known as Stopwaste.org) and the Alameda County Recycling Board were created through a Joint Powers Agreement among the County of Alameda, the 14 incorporated cities within the County including Newark, and two sanitary districts. Stopwaste.org is responsible for preparation and implementation of the Alameda County IWMP, which includes the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE), and the Non-Disposal Facility Element (NDFE). Waste reduction and disposal facilities in the county that require Solid Waste Facility Permits must conform to policies and siting criteria contained in the Alameda County IWMP. The Alameda County IWMP was first adopted in 1997 and most recently amended in December 2011. Funding is provided by per ton disposal and waste import mitigation fees.

Alameda County Source Reduction and Recycling Plan[49]

Alameda County voters passed Measure D (the Alameda County Waste Reduction and Recycling Initiative Charter Amendment) in 1990, setting a countywide goal of reducing the waste going to landfills by 75 percent by the year 2010. To achieve this goal, the Alameda County Source Reduction and Recycling Board (Recycling Board) was created to develop programs to promote source reduction, residential and commercial recycling, recycled product procurement, and market development. The Recycling Board is also tasked with preparing and periodically updating the Alameda County Source Reduction and Recycling Plan (SRRP). The SRRP identifies specific programs, objectives, and strategies for the County to reach the 75 percent landfill diversion rate. The SRRP is intended to serve as a guiding document together with the IWMP. The SRRP was adopted in January 2003 and updated in 2006. The Authority and Recycling Boards adopted the updated SRRP in March 2007. Program funding is provided by a per ton disposal surcharge at the Altamont and Vasco Road landfills.

[48] Stopwaste, https://www.stopwaste.org/home/index.asp?page=514, accessed on January 31, 2013.
[49] Stopwaste, https://www.stopwaste.org/docs/recycling_plan_-_2006_revised.pdf, accessed on January 31, 2013.

Alameda County Landfill Ban (Ordinance 2008-01)[50]

This ban, which was passed by the Alameda County Waste Management Authority in 2009, prohibits the disposal of plant debris in County landfills. Plant debris must be separated from all garbage and deposited in the disposal facility's designated "clean green" area or in a designated "organics" cart or collection bin. The ban applies to any person or organization generating significant amounts of plant debris that hauls the material to Alameda County disposal facilities or places material in bins for collection, including residential and commercial landscapers and gardeners, community and residential property managers, municipalities and institutions, and commercial customers. This landfill ban is to help Alameda County meet the voter mandated goal of 75 percent waste diversion from landfills by the end of 2010.

Newark Green Ordinance[51]

The City of Newark adopted the Green Ordinance in 2007. Chapter 15.44 of the Newark Municipal Code, *Green Building and Construction and Demolition Debris Recycling*, regulates the design, construction, and operation of buildings and landscaping in Newark. The purpose of this ordinance is to minimize the use of natural resources and mitigate the environmental, economic, and social impacts of building construction. All construction projects whose total costs are greater than $100,000, or structure demolition projects whose total costs are greater than $20,000, or pavement demolition projects involving over 1,000 square feet of removed pavement are required to divert 100 percent of all Portland cement concrete and asphalt concrete and an average of no less than 50 percent of all remaining construction and/or demolition debris. As part of a building or demolition permit application, project applicants must complete a waste management plan, including the volume of construction/demolition debris that will be recycled, landfilled, or reused, and identification of the receiving facility.

Newark Climate Action Plan[52]

In January 2010, the City of Newark approved its Climate Action Plan (CAP) to reduce GHG emissions at the local level. The CAP outlines actions that the City has already taken towards the reduction of GHG emissions; summarizes the 2005 emissions inventory; presents actions that the City, residents, and businesses can take to further reduce emissions; sets reduction goals; and describes a monitoring plan. The CAP actions related to solid waste include:

- Residential Community Action Item 4.5 – Increase Residential Recycling and Composting.
- Business Community Action Item 5.2 – Increase Commercial and Business Recycling, Composting and Waste Reduction.
- Business Community Action Item 5.3 – Consider Plastic Bag and Styrofoam Bans.
- Business Community Action Item 5.4 – Green Building Standards.

[50] Stopwaste.org, http://www.stopwaste.org/home/index.asp?page=942, accessed on April 16, 2013.
[51] City of Newark, http://library.municode.com/index.aspx?clientId=16521, accessed on January 30, 2013.
[52] City of Newark, 2010, *Newark Climate Action Plan*.

Existing Conditions

As of June 1, 2013, Republic Services[53] of Alameda County became the municipal solid waste (MSW) provider for the City of Newark under a 10-year contract.[54] The three-cart collection system for residents or three container collection system for commercial and multi-family residences is used with the separation of trash, recyclables, and organics in each cart or container. Waste from Newark residents and commercial customers is transported to the Fremont Recycling and Transfer Station for sorting and recycling and non-recyclable waste is then transported to the Altamont Landfill.

Newark's residential disposal rate in 2011 was 4.0 pounds of waste per person per day and 10.8 pounds of waste per employee per day, which were well below the target rate of 7.3 and 16.0, respectively.[55] According to Stopwaste.org's report on diversion rates by jurisdiction, the percentage of Newark's waste diverted from landfills increased from 27 percent of the waste stream in 1995 to 72 percent of the waste stream in 2011. This is equivalent to the Alameda County average of 72 percent.

Fremont Recycling and Transfer Station

Materials collected by Republic Services of Alameda County will be transferred to the Fremont Recycling and Transfer Station, which is located on 13.5 acres at 41149 Boyce Road in the City of Fremont. The facility has been in operation since 2006. Operations include sorting curbside recyclables and municipal solid waste, separating them into recyclable groupings, consolidating them for efficient transport and transporting them to secondary materials processing facilities. Recovery operations include the following:

- Buy-back center.
- Household hazardous waste collection.
- Construction and demolition (C&D) separating and pre-processing.
- Wood and green waste consolidation for off-site composting.
- Recyclable segregation and preparation for market.
- Education center.

The Fremont Recycling and Transfer Station has a permitted capacity of 2,400 tons per day, but is currently operating at about 50 percent of capacity.[56] Non-recyclable material is taken to the Altamont Landfill for ultimate disposal and green waste/plant debris is transported to several composting facilities in the area.

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[53] The Republic Services of Alameda County was formerly known as Allied Waste.

[54] City of Newark, January 15, 2013, City of Newark/Allied Waste Franchise Agreement, http://www.newark.org/images/uploads/ctymgr/pdfs/AgendasPackets/2013/Jan%2024%202013%20agd%20F4%20Part%204-011713.pdf, accessed on June 20, 2013.

[55] CalRecycle, http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx, accessed on February 22, 2013.

[56] Telephone conversation with Mr. Rich Dubiel, General Manager, Fremont Recycling and Recovery Facility, on April 16, 2013.

Altamont Landfill

As noted above, all non-recyclable solid waste is disposed of at the Altamont Landfill, which is located at 10840 Altamont Pass Road in Livermore. The Altamont Landfill, which is operated by Waste Management of Alameda County (WMAC), covers 2,130 acres, of which 472 acres are permitted for disposal. The landfill is permitted to receive up to 11,150 tons of waste per day and currently receives approximately 7,000 tons of waste per day.[57] In 2011, Altamont Landfill received 1.13 million tons, of which 22,006 tons (approximately 2 percent) were from Newark.[58] As of 2008, the landfill has a total capacity of 65 million cubic yards (87.1 million tons) and a remaining capacity of over 54.7 million cubic yards (43 million tons).[59] Based on remaining capacity, WMAC anticipates its closure date to be 2040.[60]

Recycling

Republic Services of Alameda County will provide recycling services in Newark starting on July 1, 2013. The company will provide single-stream recycling collection for the following recyclables: mixed paper, cardboard, metal, glass, and plastic.[61] As of 2011, Newark had a diversion rate of 72 percent, which is equivalent to the Alameda County diversion rate of 72 percent.[62]

4.14.4.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact on solid waste disposal if it would:

1. Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
2. Be out of compliance with federal, State, and local statues and regulations related to solid waste.

4.14.4.3 IMPACT DISCUSSION

This section discusses the Plan-specific and cumulative impacts related to solid waste.

UTIL-10	The proposed Plan would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

[57] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report,* Chapter 8, Public Facilities.

[58] CalRecycle, http://www.calrecycle.ca.gov/, accessed on April 16, 2013.

[59] California Integrated Waste Management Board, http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0009/Detail/, accessed on November 28, 2012. & Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report,* Chapter 8, Public Facilities.

[60] Cal Poly, 2012, *City of Newark Community Plan 2040 Background Report,* Chapter 8, Public Facilities.

[61] Republic Services of Alameda County, http://www.alliedwasteac.com/newark.cfm, accessed on April 16, 2013.

[62] Stopwaste.org, http://www.stopwaste.org/docs/diversion.pdf, accessed on April 16, 2013.

The proposed Plan would result in a significant impact if solid waste disposal needs from the proposed Plan result in insufficient landfill capacity.

As described above, the Altamont Landfill has a remaining capacity of over 54.7 million cubic yards (43 million tons) and an expected closure date of 2040. In 2011, the City of Newark disposed of approximately 22,006 tons of solid waste in the landfill, which is equivalent to 2 percent of the 1.13 million tons/year transported to the landfill. Using CalRecycle's calculated waste generation rates for Newark and assuming that buildout of the proposed Plan would result in 60,510 residents and 22,609 jobs in 2035, Table 4.14-6 shows the amount of solid waste that would be generated annually in the Plan Area at buildout.

TABLE 4.14-6 PROJECTED SOLID WASTE GENERATION RATES IN PLAN AREA

Parameter	2011	2035	Increase
Residents – Newark	42,764	60,510	16,580
Employment – Newark	15,801	22,609	2,882
Residential Disposal Rate (pounds/person/day)[a]	4	4	--
Employee Disposal Rate (pounds/person/day)[a]	10.8	10.8	--
Calculated Newark Disposal Rate (tons/year)	62,361	88,735	--
Actual/Predicted Disposal Rate to Altamont Landfill (tons/year)	22,006	22,184	178
Diversion Rate (percent)[b]	0.65	0.75	--

[a] Disposal rates of 4.0 lb/day/person for residents and 10.8 lb/day/person were obtained from CalRecycle website – Online Disposal Rate Calculator.
[b] Diversion rate of 75 percent mandated by Alameda County Ordinance by 2010.
Source: The Planning Center | DC&E, 2013.

This represents an increase of 178 tons/year more than the amount of waste that was generated by the City of Newark in 2011. Newark generates a small percent (2%) of the total amount of yearly waste disposed in the Altamont landfill and there is a small increase in the amount of waste generated within the City of Newark by the year 2035, due to recycling ordinances and diversion of plant debris for composting. In addition, the Altamont Landfill has a remaining life of 43 million tons with a predicted closure date of 2040. Therefore, the Altamont Landfill would have sufficient capacity to accommodate the Plan's solid waste disposal needs through 2035.

In addition, the proposed Plan includes numerous goals and policies which would further reduce waste generation and the demand for landfill capacity; these goals, policies, and actions include:

- Goal CS-8: Reduce landfilled waste through recycling, composting, and source reduction.
- Policy CS-8.1: Recycling Program. Actively promote recycling, composting, and waste reduction in order to minimize the amount of waste requiring disposal in landfills. Provide for residential recycling and green waste containers and weekly curbside recycling pickup, to make it as easy and convenient as possible for residents to reduce the volume of trash requiring landfill disposal.

- Policy CS-8.4: Increasing Commercial, Industrial, and Multi-Family Recycling. Increase recycling rates by the commercial, industrial, and multi-family residential sectors, including apartment buildings, offices, restaurants, hotels, retail stores, and other businesses. Retail centers and multifamily residential development should be required to provide on-site shared collection bins for recyclable waste.
- Policy CS-8.2: Interagency Coordination in Waste Reduction. Promote inter-jurisdictional cooperation, coordination, and planning in the development of recycling and waste management programs.
- Policy CS-8.3: Maximizing Reuse. Manage solid waste in a way that maximizes the reclamation and reuse of resources. The City encourages the use of salvaged and recycled materials, rather than the disposal of such materials in landfills.
- Action CS-8.A: Reduction Targets. In collaboration with StopWaste.org, implement programs to achieve a 75 percent waste diversion rate by 2015, and to achieve an ultimate target of zero waste.
- Action CS-8.B: Waste Reduction Program. Maintain a solid waste reduction and management program that is coordinated with and consistent with the Countywide StopWaste.org program. The program should include regularly scheduled trash collection, compost and recycling collection, bulk waste and e-waste collection events, household hazardous materials disposal provisions, education and outreach to promote waste diversion, and other components, which minimize landfilled waste.
- Action CS-8.C: Source Reduction and Diversion for New Construction. As part of the development review process, require major new projects to prepare solid waste source reduction and diversion programs before building permits are issued.
- Action CS-8.D: Construction and Demolition Debris. Reduce the amount of construction and demolition debris being disposed in landfills through mandatory construction and demolition recycling requirements.

Applicable Regulations:

- California Integrated Waste Management Act
- Mandatory Commercial Recycling Measure
- CALGreen Building Code
- County Integrated Waste Management Plan
- Alameda County Source Reduction and Recycling Plan
- Alameda County Landfill Ban
- Newark Green Ordinance
- Newark Climate Action Plan

In summary, the Altamont Landfill would have sufficient capacity to accommodate the Plan's solid waste disposal needs, and with the applicable State and local regulations in place, buildout of the Plan would not result in a significant impact with regard to landfill capacity.

Significance Before Mitigation: Less than significant.

UTIL-11	The proposed Plan would comply with federal, State, and local statues and regulations related to solid waste.

The proposed Plan would result in a significant impact if the proposed Plan would not comply with federal, State, and local statues and regulations related to solid waste.

As previously described, the City of Newark is currently meeting the target per capita disposal rates set forth by CalRecycle. Newark's residential disposal rate in 2011 was 4.0 pounds of waste per person per day and 10.8 pounds of waste per employee per day, which were well below the target rates of 7.3 and 16.0, respectively.[63] New development under the proposed Plan could have a significant impact if it results in exceeding these target per capita disposal rates. However, as discussed above (UTIL-10), the proposed Plan includes goals and policies to comply with State requirements and to reduce the volume of solid waste through recycling and reuse of solid waste.

In addition to the State requirements, Measure D has established the County-mandated 75 percent recycling goal, as described above. To achieve this goal, the proposed Plan includes Action CS-8.A, which calls for implementing solid waste reduction programs to achieve a 75 percent waste diversion rate by 2015. Additionally, the Alameda County Waste Management Authority, including the City of Newark, has adopted a SRRP, which identifies specific programs, objectives, and strategies to reach a 75 percent and beyond diversion rate. Together with the aforementioned Alameda County IWMP, these strategies and programs would be sufficient to ensure that future development in Newark would not compromise the ability to meet or exceed the State and the County mandated targets. Furthermore, the proposed Plan proposes Actions CS-8.C, CS-8.D, and CS-8.F, which seek to comply with the Newark Green Ordinance and the Newark Climate Action Plan. The proposed Plan would comply with applicable statutes and regulations and the impact would be less than significant.

Applicable Regulations:

- California Integrated Waste Management Act
- County Integrated Waste Management Plan
- Alameda County Source Reduction and Recycling Plan
- Newark Green Ordinance
- Newark Climate Action Plan

In summary, the City of Newark is currently in compliance with all applicable State and County solid waste regulations and buildout of the Plan would not result in any violations of Federal, State, and local regulations related to solid waste.

Significance Before Mitigation: Less than significant.

[63] CalRecycle, http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx, accessed on February 22, 2013.

4.14.4.4 CUMULATIVE IMPACTS

UTIL-12	The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to solid waste.

This section analyzes potential impacts to solid waste services that could occur from a combination of the proposed Plan with other reasonably foreseeable projects in the surrounding area. The geographic scope of this cumulative analysis is taken to be the service area for Altamont Landfill. While buildout of the Plan Area would result in an increase in solid waste generation, as shown in Table 4.14-6, the increase for the buildout year (2035) is minimal (178 tons/year), due to waste source reduction and diversion programs that include recycling, composting, mandatory construction and demolition (C&D) debris recycling, and mandatory commercial recycling. In 2011, the City of Newark transported 22,006 tons to Altamont Landfill, which is less than 2 percent of the total 1.13 million tons received by Altamont Landfill in that year. In addition, Altamont Landfill had a remaining capacity of 43 million tons as of 2008 and anticipates that the landfill will remain open until 2040. With State and County regulations and ordinances that set waste diversion rates of 75 percent, require mandatory commercial and C&D debris recycling, and prohibit the landfill of plant debris in County landfills, it is possible that Altamont Landfill may be able to delay its anticipated closure date of 2040, even with an increase in population with Alameda County.

The proposed Plan would not make a significant contribution to cumulative impacts relating to solid waste management or disposal and cumulative impacts would be *less than significant*.

Applicable Regulations:

- California Integrated Waste Management Act
- Mandatory Commercial Recycling Measure
- CALGreen Building Code
- County Integrated Waste Management Plan
- Alameda County Source Reduction and Recycling Plan
- Alameda County Landfill Ban
- Newark Green Ordinance
- Newark Climate Action Plan

In summary, the City of Newark is currently in compliance with all applicable State and County solid waste regulations and contributes only a minimal amount (2 percent) of the municipal solid waste transported to Altamont landfill. Buildout of the Plan Area would not result in a significant cumulative impact with regard to solid waste.

Significance Before Mitigation: Less than significant.

4.14.4.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The Plan would not result in any significant Plan-specific or cumulative impacts to solid waste and therefore no mitigation measures are required.

5. *Significant Unavoidable Adverse Impacts*

Chapter 1, Executive Summary, contains Table 1-1, which summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. While policies and actions from the proposed Plan and mitigation measures, where available, would reduce the level of impact, the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

5.1 AESTHETICS

- *AES-3*. **Significant.** The proposed Plan would result in a significant impact to the visual character of the Southwest Newark Residential and Recreational Focus Area, as determined in previous environmental review.. The Area 3 and 4 Specific Plan EIR concluded that raising the existing elevation 10 to 14 feet for residential development, and adding residences, streets, and landscaping as well as a golf course and an overpass to the primarily agricultural, open landscape west of the Union Pacific railway tracks would constitute a significant and unavoidable impacts to the visual character of this portion of the Focus Area. Additionally, the 2009-2014 Housing Element EIR determined that the conversion of vacant sites to urban uses with the construction of new housing throughout the Focus Area, even if such development included on-site open space and landscaping, would change the open, undeveloped character of the area in a manner that could not be mitigated to a less-than-significant level. In both cases, previous environmental review determined that there is no mitigation available to reduce these impacts to less-than-significant levels. Consequently, AES-3 would remain significant and unavoidable and a Statement of Overriding Considerations would be required.

5.2 AIR QUALITY

- *AIR-1*. **Significant.** While the proposed Plan would support the primary goals of the 2010 Bay Area Clean Air Plan, buildout of the proposed Plan would not be consistent with the Clean Air Plan because the projected VMT increase from buildout of the proposed Plan would be greater than the projected population increase. Numerous goals, policies, and actions contained in the proposed Plan address future increase in VMT and criteria air pollutants under the Plan; however, the projected growth in VMT in the Plan Area would still exceed the rate of population growth. There are no additional measures that would reduce this impact. Consequently, AIR-1 would remain significant and unavoidable and a Statement of Overriding Considerations would be required.

5.3 CULTURAL RESOURCES

- *CULT-2.* **Significant.** Construction activities associated with buildout of the proposed Plan would cause a significant impact to archaeological resources in the Southwest Newark Residential and Recreational Focus Area, as a result of damage or disturbance of as yet undiscovered archaeological deposits through the placement of fill and soil compression. Regulatory compliance and implementation of proposed Plan policies would reduce but not eliminate the potential for damage or disturbance. No additional feasible mitigation exists to further reduce this impact. Consequently, CULT-2 would remain significant and unavoidable and a Statement of Overriding Considerations would be required.

- *CULT-4.* **Significant.** Construction activities associated with buildout of the proposed Plan would cause a significant impact to Native American human remains in the Southwest Newark Residential and Recreational Focus Area, as a result of damage or disturbance of as yet undiscovered remains through the placement of fill and soil compression. Regulatory compliance and implementation of proposed Plan policies would reduce but not eliminate the potential for damage or disturbance. No additional feasible mitigation exists to further reduce this impact. Consequently, CULT-4 would remain significant and unavoidable and a Statement of Overriding Considerations would be required.

5.4 GREENHOUSE GAS EMISSIONS

- *GHG-1.* **Significant.** GHG emissions under the proposed Plan in 2035 are projected to be 5.1 MTCO2e per service population, which would exceed the efficiency target of 4.0 MTCO2e per service population for Newark derived for the proposed Plan based on the long-term GHG reduction target for 2050 interpolated from Executive Order S-03-05. Mitigation Measure GHG-1 would address this impact; however, there is no plan past 2020 that achieves the long-term GHG reduction goal established under Executive Order S-03-05 and as identified by the California Council on Science and Technology, the State cannot meet the 2050 goal without major advancements in technology. There are no additional measures available to mitigate this impact to a less-than-significant level. Consequently, GHG-1 would remain significant and unavoidable and a Statement of Overriding Considerations would be required.

5.5 NOISE

- *NOISE-3.* **Significant.** Increases in vehicular traffic resulting from implementation of the proposed Plan in conjunction with regional growth would result in permanent increases to ambient noise levels that would exceed applicable standards along ten major roadway segments in the Plan Area. Proposed Plan policies and actions would reduce associated impacts to some extent. Although the most effective mitigations such as soundwalls or earthern berms may theoretically be capable of reducing increases to ambient noise to levels below the above standards, such reductions cannot be guaranteed; and, in many cases, other considerations will prevent the use of these noise-attenuating features. Therefore, there are no additional measures available

to reduce the associated impacts to a less-than-significant level. Consequently, NOISE-3 would remain significant and unavoidable and a Statement of Overriding Considerations would be required.

5.6 TRAFFIC

- *TRANS-1a.* **Significant.** Implementation of the proposed Plan would cause intersection operation to degrade to unacceptable LOS F at the Ardenwood Boulevard and SR 84 westbound ramps intersection during the AM peak hour in 2035. To mitigate this impact, the Ardenwood Boulevard and SR 84 westbound ramps intersection would require converting a through lane to a second left-turn lane on Ardenwood Boulevard, south of the Highway 84 westbound ramps. Re-striping of the northbound approach (i.e., Ardenwood Boulevard) would be necessary. LOS calculations show that with implementation of these improvements, the intersection would operate at an acceptable LOS C under proposed Plan conditions in 2035. However, because this mitigation measure is for an intersection under the jurisdiction of Caltrans and located in the City of Fremont, implementation is outside the jurisdiction of the City of Newark. The City of Newark will work with Caltrans and the City of Fremont to implement the mitigation measure and contribute on a fair-share basis; however until such time as there is an implementation plan in place and funding is secured, this impact is considered significant and unavoidable. A Statement of Overriding Considerations would be required.

- *TRANS-1b.* **Significant.** Implementation of the proposed Plan would cause intersection operation to degrade to unacceptable LOS F at the Newark Boulevard and SR 84 eastbound ramps intersection during the PM peak hour in 2035. To mitigate this impact, the Newark Boulevard and SR 84 eastbound ramps intersection would require adding a right turn lane in addition to the shared through-right lane on the Highway 84 eastbound off-ramp at Newark Boulevard. There is sufficient roadway right-of-way for this improvement, therefore the improvement could be implemented with re-striping of the off-ramp and roadway widening would not be necessary. LOS calculations show that with implementation of these improvements, the intersection would operate at an acceptable LOS D during the PM peak-hour under proposed Plan conditions in 2035. However, because this mitigation measure is for an intersection under the jurisdiction of Caltrans, implementation is outside the jurisdiction of the City of Newark. The City of Newark will work with Caltrans to implement the mitigation measure and contribute on a fair-share basis; however until such time as there is an implementation plan in place and funding is secured, this impact is considered significant and unavoidable. A Statement of Overriding Considerations would be required.

- *TRANS-1c.* **Signifcant.** Implementation of the proposed Plan would cause intersection operation to degrade to unacceptable LOS F at the Cherry Street/Boyce Road and Stevenson Boulevard intersection during the PM peak hour in 2035. To mitigate this impact, the Cherry Street/Boyce Road and Stevenson Boulevard intersection would require an additional through lane on the northbound approach (Boyce Road/Cherry Street is considered the north-south street for this intersection). There is potentially sufficient roadway right-of-way on Boyce Road/Cherry Street for this improvement; therefore, the improvement could be implemented with re-striping of Cherry Street. The northbound approach (e.g., south leg) of the intersection is located in

Fremont. It would also require that the intersection be re-aligned. On the north side of Stevenson Boulevard, Cherry Street would need to be re-striped for approximately 800 feet. The implementation of these improvements would improve intersection LOS to an acceptable LOS D during the PM peak hour under proposed Plan conditions in 2035. Implementation of the above measure would improve conditions at the intersection to LOS D during the PM peak hour, which would be acceptable. However, because this mitigation measure is for an intersection located partly in the City of Fremont, full implementation is outside the jurisdiction of the City of Newark. The City of Newark will work with the City of Fremont to implement the mitigation measure and contribute on a fair-share basis; however until such time as there is an implementation plan in place and funding is secured, this impact is considered significant and unavoidable. A Statement of Overriding Considerations would be required.

6. Alternatives

The proposed Plan is described and analyzed in Chapters 4.0 through 4.14 of this EIR with an emphasis on potentially significant impacts and recommended mitigation measures to avoid those impacts. The California Environmental Quality Act (CEQA) Guidelines require the description and comparative analysis of a range of alternatives to the proposed Plan that could feasibly attain the objectives of the Plan, while avoiding or substantially lessening potential impacts. CEQA Guidelines also require that the environmentally superior alternative be designated. If the alternative with the least environmental impact is the No Project Alternative, then the EIR must also designate the next most environmentally superior alternative.

The following discussion is intended to inform the public and decision makers of the feasible alternatives that would avoid or substantially lessen any significant effects of the Plan, and to compare such alternatives to the proposed Plan. Section 15126.6 of the CEQA Guidelines states that:

> *An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.*

The following discussion includes an evaluation of three alternatives to the proposed Plan. CEQA Guidelines Section 15126.6(e) requires consideration of a "No Project Alternative" in every EIR. In the case of the Newark General Plan Tune Up, the No Project Alternative is a scenario in which the proposed Plan is not adopted and implementation of existing plans and policies continues until 2035. Consistent with CEQA Guidelines Section 15126.6(b), the other two alternatives selected for consideration in this analysis "focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project." The three alternatives are as follows:

- **No Project Alternative.** Under this alternative, the Newark General Plan Tune Up would not be adopted and future development in Newark would occur under the goals, policies, programs, and land use designations set forth in the existing General Plan. Existing plans and policies, including Dumbarton Transit-Oriented Development (TOD) Specific Plan, the Area 3 and 4 Specific Plan, the 2009-2014 Housing Element, and the Climate Action Plan would continue to be implemented. The No Project Alternative could result in up to 17,900 housing units in Newark by 2035, including approximately 10,950 single-family homes and 6,950 multi-family units, as well as approximately 20,600 jobs.
- **Reduced Residential Alternative.** Under the Reduced Residential Alternative, the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area would not be developed as envisioned in the respective specific plans for those sectors of the city and instead the 1992 General Plan land use designations would apply. Consequently, residential development would not be permitted in the

Dumbarton TOD Focus Area and that area would allow general industrial uses through 2035. In the Southwest Newark Residential and Recreational Focus Area, low density housing at between 4 and 8 units per acre would be permitted in the larger sector formerly known as Area 4 as under the 1992 General Plan; however, residential development would not be permitted in Area 3, which would allow special industrial business park uses. Additionally, under this scenario, the land use designations in the vicinity of NewPark Mall would remain as under the 1992 General Plan and the diversification and intensification of uses in this area envisioned in the proposed Plan would not occur. Development in the Old Town Focus Area would occur as under the proposed Plan. The goals, policies, and actions contained in the proposed Plan would apply under this alternative as well, with the exception of goals, policies, and actions specific to the Dumbarton TOD Focus Area and the smaller noncontiguous sector of the Southwest Newark Residential and Recreational Focus Area that would not be developed as under the Plan. The Reduced Residential Alternative could result in up to 16,280 housing units by 2035, including 11,981 single-family homes and 4,299 multi-family homes. This alternative could result in up to 24,800, jobs in Newark, concentrated largely in the northwestern part of the city and in existing industrial areas along its western edge.

- **Restricted Growth Alternative.** Under this alternative, future growth in environmentally sensitive areas along the western edge of Newark would be restricted. Future growth would occur entirely on previously developed land in the urbanized portion of the city. Development in the Old Town Focus Area and the Greater NewPark Focus Area would take place as under the proposed Plan; however, the Dumbarton TOD Focus Area and the larger sector of the Southwest Newark Residential and Recreational Focus Area south of Cherry Street would be designated as Open Space. The smaller sector formerly known as Area 3 would be developed with two- and three-story residential structures at an intensity of 18 dwelling units per acre, as well as an elementary school. Overall, this alternative could result in up to 16,995 housing units in Newark by 2035, including 9,635 single-family homes and 7,360 multi-family units, as well as up to 22,300 jobs. The goals, policies, and actions contained in the proposed Plan would apply under this alternative as well, with the exception of goals, policies, and actions specific to the Dumbarton TOD Focus Area and the smaller non-contiguous sector of the Southwest Newark Residential and Recreational Focus Area that would not be developed as under the proposed Plan.

The estimated buildout of each alternative, as well as the proposed Plan, is provided in Table 6-1. A comparison of the potential impacts of each alternative is provided in Table 6-2.

TABLE 6-1 COMPARISON OF ESTIMATED BUILDOUT OF ALTERNATIVES AND PROPOSED PLAN

		Housing Units			
	Residents	Single-Family (% of Total)	Multi-Family (% of Total)	Total	Jobs
Proposed Plan	60,510	10,948 (56%)	8,751 (44%)	19,699	22,609
No Project Alternative	56,985	10,950 (61%)	6,950 (39%)	17,900	20,600
Reduced Residential Alternative	52,434	11,981 (74%)	4,299 (26%)	16,280	24,800
Restricted Growth Alternative	53,875	9,635 (57%)	7,360 (43%)	16,995	22,300

TABLE 6-2 COMPARISON OF ALTERNATIVES

Topic	No Project Alternative	Reduced Residential Alternative	Restricted Growth Alternative
Aesthetics	– –	=	+ +
Air Quality	+	=	+
Biological Resources	–	=	+
Cultural Resources	=	=	+ +
Geology and Soils	=	=	=
Greenhouse Gas Emissions	=	–	–
Hazards and Hazardous Materials	–	–	–
Hydrology and Water Quality	=	=	+
Land Use and Planning	–	– –	– –
Noise	– –	+	+
Population and Housing	– –	–	+
Public Services and Recreation	+	+	+
Transportation and Traffic	– –	=	=
Utilities and Services Systems	+	+	+

++ Substantial improvement compared to the proposed Plan.
\+ Slight improvement compared to the proposed Plan.
= Similar to the proposed Plan.
– Slight deterioration compared to the proposed Plan.
– – Substantial deterioration compared to the proposed Plan.

6.1 NO PROJECT ALTERNATIVE

6.1.1 PRINCIPAL CHARACTERISTICS

Under this alternative, the General Plan Tune Up would not be adopted and future development in Newark would be subject to existing policies and land use designations in the existing General Plan, as amended through July 2013. Under the No Project Alternative, existing plans and policies, including the Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, the 2009-2014 Housing Element, and the Climate Action Plan, would continue to be implemented. Under this scenario, buildout of the Specific Plans and the Housing Element opportunity sites would occur as under the proposed Plan. However, the No Project Alternative would not involve redevelopment of the Greater NewPark Focus Area and, therefore, the diversification and intensification of uses in this sector of

the city envisioned in the proposed Plan would not occur. Some growth of existing commercial uses in the NewPark Mall area would occur.

Overall, residential and non-residential growth under this alternative would be less than under the proposed Plan. The No Project Alternative could result in up to 17,900 housing units in Newark by 2035, including approximately 10,950 single-family homes and 6,950 multi-family units, as well as up to 20,600 jobs.

6.1.2 IMPACT DISCUSSION

The No Project Alternative would have the following impacts relative to the proposed Plan:

6.1.2.1 AESTHETICS

As discussed in Chapter 4.1, Aesthetics, of this Draft EIR, the proposed Plan would result in a significant and unavoidable impact associated with the degradation of visual character of the Southwest Newark Residential and Recreational Focus Area, as determined in previous environmental review conducted for the 2009-2014 Housing Element and the Area 3 and 4 Specific Plan. Under the No Project Alternative, the Area 3 and 4 Specific Plan and the 2009-2014 Housing Element adopted by the City in 2010 would be implemented, and therefore the same significant and unavoidable impact would result from this alternative.

The proposed Plan would have less than significant impacts related to scenic vistas, scenic resources, and light and glare as a result of policies contained in the proposed Plan. Under the No Project Alternative, Policies LU-4.12, LU-4.13, and PROS-1.6, which would address impacts to scenic vistas and scenic resources, would not be adopted. Additionally, Policy LU-4.7 and Policy PROS-3.5, which address potential light and glare impacts from street lighting, parks, and recreational facilities in the city, would not be adopted. Therefore, the No Project Alternative would not contain policy support for protection of water and hillside views and preservation of undeveloped hillsides, and this alternative would result in new significant impacts associated with impacts to scenic vistas and scenic resources.

Overall, because the No Project Alternative would not avoid the significant and unavoidable impact of the proposed Plan and would result in new significant impacts, the No Project Alternative would be a substantial deterioration in comparison to the proposed Plan.

6.1.2.2 AIR QUALITY

The proposed Plan would not be consistent with the Clean Air Plan because the projected VMT increase from buildout of the proposed Plan would be greater than the projected population increase, and as such, a significant and unavoidable impact would result. Proposed Plan policies and actions, including Action HW-1.G (Construction-Related Pollutants), Action HW-1.F (Health Risk Assessments), Action HW-1.H (Nuisance Odors), and Action HW-1.I (Standard Conditions of Approval), would ensure that impacts associated with construction and operational air quality standard violations, cumulatively considerable increases in criteria pollutants, siting of new

sources of air pollution proximate to sensitive receptors, and exposure of substantial numbers of people to objectionable odors would be less than significant.

The proposed Plan would generate approximately 9 percent more development than the current adopted General Plan. As such, by comparison, the No Project Alternative would result in a proportional reduction in long-term emissions from stationary and mobile sources, and from short-term emissions from construction activities associated with new development. Therefore, the No Project Alternative would result in a slight improvement in emissions in comparison to the proposed Plan. Additionally, a reduction in development under this alternative in comparison to the proposed Plan would reduce short-term emissions related to construction activities under the proposed Plan. Contributions of volatile organic compounds (VOC), NOx, PM_{10}, and $PM_{2.5}$ would cumulatively contribute to the San Francisco Bay Area Air Basin (SFBAAB) nonattainment designations for O_3, PM_{10}, and $PM_{2.5}$. Although this alternative would reduce both long- and short-term pollutant emissions generated in the City of Newark, it would not eliminate the significant criteria pollutant impact associated with consistency with the Bay Area Clean Air Plan. Recent land use changes enacted by the city of Newark with the adoption of the DTOD Specific Plan and A34 Specific Plan were not accounted for in the clean air plan, and as such, the rate of growth in VMT would continue to exceed the rate of population and employment growth under the No Project Alternative. In comparison to the proposed Plan, the No Project Alternative would reduce but not eliminate short- and long-term air quality impacts. Therefore, the No Project Alternative would be a slight improvement over the proposed Plan.

6.1.2.3 BIOLOGICAL RESOURCES

Under the No Project Alternative, the Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, and the 2009-2014 Housing Element adopted by the City in 2010 would all be implemented, as under the proposed Plan. As such, development in proximity to sensitive biological resources could occur under this alternative, resulting in significant impacts related to special-status species, wetlands, and Basin Plan conflicts prior to mitigation. Previous environmental review described in Chapter 4.3 concluded that these significant impacts could be mitigated to less-than-significant levels.

The proposed Plan would not involve any additional development in the Dumbarton TOD Focus Area or the Southwest Newark Residential and Recreational Focus Area over and above that which is envisioned in the previously adopted specific plans applicable to those sectors of the city. Implementation of proposed Plan policies and actions, including Action CS T-2.B (Wetland Delineation and Protection) and Action CS-2.C (Impacts on Special Status Species), would reduce impacts related to special-status species, wetlands, and Basin Plan conflicts to less-than-significant levels. However, these policies and actions would not be implemented and therefore development in proximity to sensitive natural resources located outside of Dumbarton TOD Focus Area or the Southwest Newark Residential and Recreational Focus Area could potentially result in significant impacts. Therefore, the No Project Alternative would be a slight deterioration as compared to the proposed Plan.

6.1.2.4 CULTURAL RESOURCES

Under the No Project Alternative, the Dumbarton TOD Specific Plan and the Area 3 and 4 Specific Plan adopted by the City in 2010 would be implemented, as under the proposed Plan. As such, construction activities associated with buildout of the Area 3 and 4 Specific Plan could still result in significant and unavoidable impacts to archaeological deposits and human remains as a result of soil compression due to fill. Impacts to historical resources and paleontological resources would be less than significant and equivalent to the proposed Plan. Therefore, overall, this alternative would result in similar impacts to cultural resources as under the proposed Plan.

6.1.2.5 GEOLOGY AND SOILS

Geology and soils impacts under the proposed Plan would be less than significant with the implementation of State and local regulations and policies. Under the No Project Alternative, proposed General Plan policies would not be adopted, including Policies S-2.1 through S-2.4, which require development and new roads and infrastructure to meet integrity standards, encourage seismic retrofitting, inform the public of earthquake-related hazards, as well as Action CS-1.B, which requires new construction to incorporate best management practices (BMPs) to minimize soil erosion.

Overall, the No Project Alternative could result in about 9 percent less growth in residential and non-residential development than the proposed Plan. Development under this alternative would be subject to the same local and State regulations regarding erosion, seismic hazards, and life safety, including the California Building Code, California Seismic Hazards Mapping Act, and City of Newark Municipal Code sections on Erosion Control and Grading Permit Requirements. These regulations would ensure that new development is built to meet current building code and site preparation requirements for grading and erosion control. Therefore, impacts under the No Project Alternative would also be less than significant.

Neither the proposed Plan nor the No Project Alternative would involve the use of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact associated with these uses under either the proposed Plan or the No Project Alternative.

Overall, geology and soils impacts under the No Project Alternative would be *similar* to the proposed Plan.

6.1.2.6 GREENHOUSE GAS EMISSIONS

As described in Section 4.7, Greenhouse Gas Emissions, the proposed Plan would result in one significant and unavoidable impact, because long-term growth would generate a substantial increase in greenhouse gas (GHG) emissions. The No Project Alternative would slightly reduce GHG emissions from transportation, energy use, water use/wastewater generation, waste generation, and areas sources. As shown in Table 6-1, buildout projections for the No Project Alternative are about 9 percent lower than the proposed plan; therefore, the No Project Alternative would result in a substantial reduction in the magnitude of emissions. However, this alternative would likely have similar GHG emissions per service population. This alternative would be *similar* and would not eliminate the long-term GHG emissions impacts.

6.1.2.7 HAZARDS AND HAZARDOUS MATERIALS

As described in Section 4.7, Hazards and Hazardous Materials, hazards and hazardous materials impacts under the proposed Plan would be less than significant with adherence to applicable regulations and adoption of proposed policies in the proposed Plan. Under the No Project Alternative, applicable regulations would continue to apply to future development but proposed policies would not be adopted. Although many of the proposed policies discussed in Section 4.7 are contained in the 1992 General Plan and therefore would remain in place under the No Project Alternative, without the adoption of proposed new policies adverse effects under the No Project Alternative could be increased. For example, under the No Project Alternative, Action S-4.J, which requires a Phase I Environmental Site Assessment when a property changes from an existing use to a more sensitive use, would not be adopted. In addition, Action S-A.K, which calls for hazardous building materials abatement provision to be incorporated into building permits and approvals, would not be adopted. Without the adoption of proposed policies that aim to reduce hazards, the No Project Alternative represents a *slight deterioration* in comparison to the proposed Plan.

6.1.2.8 HYDROLOGY AND WATER QUALITY

Hydrology and water quality impacts under the proposed Plan would be less than significant with the implementation of mitigation measures from the Newark Housing Element, Dumbarton TOD, and Newark Areas 3 and 4 Specific Plan EIR. In addition, development under the proposed Plan would be subject to federal, State, and local regulations that would prevent significant impacts, including, among others, Federal Emergency Management Agency (FEMA) floodplain regulations, the Association of Bay Area Governments (ABAG) Multi-Jurisdictional Local Hazard Mitigation Plan, National Pollutant Discharge Elimination System (NPDES) permit requirements, and the City of Newark Municipal Code. Overall, the No Project Alternative would involve less residential and non-residential development than the proposed Plan. New development under the No Project Alternative would be subject to these same regulations. Compliance with these regulations would restrict development in flood hazard areas, prevent erosion, and protect water quality and groundwater supply. Therefore, impacts under the No Project Alternative would also be less than significant, and this alternative would be *similar* to the proposed Plan in regards to hydrology and water quality.

6.1.2.9 LAND USE AND PLANNING

The proposed Plan would not physically divide an existing community, nor would its implementation result in significant conflicts with applicable land use plans or policies. Under the No Project Alternative, the Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, and the 2009-2014 Housing Element adopted by the City in 2010 would all be implemented, as under the proposed Plan. However, the numerous goals, policies, and actions from the proposed Plan that support ecological protection, interagency coordination, and other objectives of the Bay Plan and the Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan would not be implemented under the No Project Alternative.

While some development and redevelopment in the vicinity of the NewPark Mall would occur under the No Project Alternative, this area would not be re-envisioned as under the proposed Plan and the diversification and intensification of uses would not occur. Although this would not pose a land use impact, under the No Project Alternative, policies contained in the proposed Plan would not be adopted, including Policy LU-2.5, which requires that transitional land uses be used as buffers between incompatible land uses, and Action LU-2.A, which requires development regulations to ensure that development is compatible with adjacent uses. This policy and action would help to prevent future land use conflicts.

Overall, while the No Project Alternative would not result in new significant impacts in comparison to the proposed Plan, this alternative would not involve the adoption of goals, policies, and actions from the proposed Plan designed to minimize or prevent land use conflicts. Therefore, the No Project Alternative represents a *slight deterioration* in comparison to the proposed Plan.

6.1.2.10 NOISE

Under the No Project Alternative, the Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, and the 2009-2014 Housing Element adopted by the City in 2010 would all be implemented, as under the proposed Plan. Therefore, as under the proposed Plan, it is anticipated that a substantial permanent increase in ambient noise levels in the Plan Area would occur, resulting in a significant and unavoidable impact, as under the Plan. However, proposed Plan policies and actions addressing construction noise and vibration within 200 feet of an active railway line would not be adopted. Consequently, the No Project Alternative could result in new significant impacts that would not occur under the proposed Plan. Therefore, the No Project Alternative represents a *substantial deterioration* over the proposed Plan.

6.1.2.11 POPULATION AND HOUSING

The regional growth forecasts contained in the Bay Area's Sustainable Community Strategy (SCS) for the Bay Area, adopted by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) on July 18, 2013, does not include population growth projections; however, under both the proposed Plan and the No Project Alternative housing growth projections for Newark would exceed the level of housing growth anticipated in the SCS and by extension it is likely that population growth would also exceed the level of growth forecast in the SCS. Under both the proposed Plan and the No Project alternative, future growth in Newark would be focused in areas of opportunity for infill, including the Dumbarton TOD Focus Area/Specific Plan Area and the Old Town Focus Area, which contains numerous housing opportunity sites identified in the 2009-2014 Housing Element. Both of these locations are identified as Priority Development Areas (PDAs) in the SCS.

The proposed Plan contains numerous goals, policies, and actions that seek to foster a compact, walkable living environment and promote use of transportation modes other than vehicles would not be implemented. These goals, policies, and actions – which are consistent with key regional planning objectives identified in the SCS – would not be implemented under the No Project Alternative. As such, the No Project Alternative would be a substantial deterioration as compared to the proposed Plan.

6.1.2.12 PUBLIC SERVICES AND RECREATION

The proposed Plan would not result in significant impacts related to the provision of public services, including fire and police services, schools, parks, recreational facilities, or libraries. The No Project Alternative would result in a lower service population and a lower resident population in 2035 than under the proposed Plan. Therefore, the No Project Alternative would reduce impacts that are already less than significant. Although this alternative would not include implementation of proposed Plan policies that call for coordination with the Alameda County Fire Department (ACFD), the Newark Police Department (NPD), and the Newark Unified School District (NUSD), the No Project Alternative would nonetheless represent a *slight improvement* over the proposed Plan.

6.1.2.13 TRANSPORTATION AND TRAFFIC

The proposed Plan would result in level of service impacts at seven intersections in the Plan Area and its vicinity in 2035, as described in Chapter 4.13 of this Draft EIR. Impacts at four of these intersections would be reduced to a less-than-significant level through the implementation of policies and actions, including Action T-5.J (Improvements to Maintain LOS "D"), contained in the proposed Plan. Impacts at the remaining three of the seven impacted intersections would remain significant and unavoidable as those intersections are located wholly or partly outside of the jurisdiction of the City of Newark and the City would not have the authority to implement the mitigation measures needed to restore the impacted intersections to acceptable levels of service in 2035.

The No Project Alternative would allow for less residential development and less employment growth than the proposed Plan, resulting in lower vehicle trip generation than the Plan, as shown in Table 6-3. Although a model run would be required to determine level of service impacts at specific intersections under the No project Alternative, it is estimated that the No Project Alternative could result in an acceptable levels of service in 2035 at some or all of the same seven intersections as under the proposed Plan. However, the policies and actions contained in the proposed Plan that reduce impacts at four of the seven impacted intersections to less-than-significant levels would not be implemented under the No Project Alternative. Additionally, the numerous policies and actions contained in the proposed Plan that would promote the use of alternative modes of transportation and reduce vehicle miles travelled under the proposed Plan would also not be implemented under the No Project Alternative. Therefore, this alternative would represent a *substantial deterioration* in comparison to the proposed Plan.

6.1.2.14 UTILITIES AND SERVICE SYSTEMS

The No Project Alternative would result in less residential and non-residential growth than under the proposed Plan, and therefore the service population in the Plan Area in 2035 would be lower under this alternative. Impacts from the proposed Plan related to water service, sanitary sewer service, stormwater drainage facilities, and solid waste disposal would be less than significant, as discussed in Chapter 4.14, Utilities and Service Systems, of this Draft EIR. As such, the No Project Alternative, with its lower service population in 2035, would reduce already less-than-significant impacts. Although, the goals, policies, and actions intended to promote water conservation, reduce waste generation, and encourage use of stormwater management BMPs contained in the proposed Plan would not be implemented under the No Project Alternative, compliance with relevant State and local regulations, including SB-X7-X, the California Integrated Waste Management Act, CALGreen Building Code, the Alameda

TABLE 6-3 EXISTING, PROPOSED PLAN, AND NO PROJECT ALTERNATIVE TRIP GENERATION

Scenario	Estimated AM Trips	Estimated PM Trips
Proposed Plan	23,526	26,774
Existing	18,842	21,386
Difference from proposed Plan	-4,684	-5,387
% difference from proposed Plan	-19.9%	-20.1%
No Project Alternative	21,645	24,735
Difference from proposed Plan	-1,881	-2,039
% difference from proposed Plan	-8.0%	-7.6%

Note: Rates used are from the ITE Trip Generation, 9th edition, "Single Family Detached" (210), "Apartments" (220), and "General Office Building" (710).
Source: Hexagon Transportation Consultants, 2013.

County Clean Water Program, Regional Water Quality Control Board (RWQCB) C.3 provisions, the Alameda County Flood Control District (ACFC) Capital Improvement Program, Newark Municipal Code Chapter 8.36, Stormwater Management and Discharge Control, and other regulations cited in Chapter 4.14, Utilities and Service Systems, of this Draft EIR would still apply to development under the No Project Alternative. Additionally, the City's Climate Action Plan, which contains measures to reduce water consumption and solid waste generation would still be implemented. Therefore, overall, this alternative would represent a *slight improvement* over the proposed Plan.

6.2 REDUCED RESIDENTIAL ALTERNATIVE

6.2.1 PRINCIPAL CHARACTERISTICS

Under the Reduced Residential Alternative, the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area buildout would not occur as envisioned in the respective specific plans for those sectors of the city and instead the 1992 General Plan land use designations would apply. Residential development would not be permitted in the Dumbarton TOD Focus Area and that area would contain general industrial uses through 2035. Without residential redevelopment in the Dumbarton TOD Focus Area under this alternative, remediation of existing contamination in this area would not occur to the same standard as under the proposed Plan. In the Southwest Newark Residential and Recreational Focus Area, low density housing at between 4 and 8 units per acre would be permitted in the larger sector known as Area 4 as under the 1992 General Plan. Residential development would not be permitted in the smaller sector known as Area 3, which would contain

special industrial business park uses. Additionally, under this alternative, the land use designations in the vicinity of the NewPark Mall would remain as under the 1992 General Plan and the diversification and intensification of uses in this area envisioned in the proposed Plan would not occur.

In summary, under this alternative, the Dumbarton TOD Focus Area would develop with general industrial land uses, the Southwest Newark Residential and Recreational Focus Area would develop with a mix of business park uses and low density housing, and the Greater NewPark Focus Area would see growth of existing commercial uses. Overall, the Reduced Residential Alternative would result in fewer housing units and more jobs than the proposed Plan. This alternative could result in up to 16,280 housing units by 2035, including 11,981 single-family homes and 4,299 multi-family homes. This alternative could result in up to 24,800 jobs in Newark, concentrated largely in the northwestern part of the city and in existing industrial areas along its western edge.

6.2.2 IMPACT DISCUSSION

The Reduced Residential Alternative would have the following impacts relative to the proposed Plan:

6.2.2.1 AESTHETICS

As discussed in Chapter 4.1, Aesthetics, of this Draft EIR, the proposed Plan would result in a significant and unavoidable impact associated with the degradation of visual character of the Southwest Newark Residential and Recreational Focus Area, as determined in previous environmental review conducted for the 2009-2014 Housing Element and the Area 3 and 4 Specific Plan. Under the proposed Plan, Policies LU-4.12, LU-4.13, and PROS-1.6 would prevent impacts to scenic vistas and scenic resources, while Policy LU-4.7 and Policy PROS-3.5 would ensure that potential light and glare impacts from street lighting, parks, and recreational facilities in the city would be less than significant.

Under the Reduced Residential Alternative, goals, policies, and actions contained in the proposed Plan would apply, with the exception of goals, policies, and actions specific to the Dumbarton TOD Focus Area and the smaller non-contiguous sector of the Southwest Newark Residential and Recreational Focus Area, which would not be developed as under the Plan. Therefore, impacts related to scenic vistas, scenic resources, and light and glare would be less-than-significant, as under the proposed Plan. New development and redevelopment would still occur under the Reduced Residential Alternative although the level and type of development would be different than under the proposed Plan. The Dumbarton TOD Focus Area would see development of general industrial uses, as allowed under the 1992 General Plan, rather than with residential and commercial uses as envisioned in Dumbarton TOD Specific Plan and the proposed Plan. Similarly, the smaller non-contiguous sector of the Southwest Newark Residential and Recreational Focus Area would be developed with business park and light industrial uses as allowed under the 1992 General Plan, rather than with residential uses as envisioned in the Area 3 and 4 Specific Plan. Additionally, the Greater NewPark Focus Area would see the growth of existing commercial uses only, rather than the diversification and intensification of uses envisioned under the proposed Plan. Consequently, these areas of the city would still be developed with urban uses under the Reduced Residential Alternative, and this would represent a significant and unavoidable degradation of the visual of the Southwest Newark Residential and Recreational Focus Area as under the proposed Plan.

Overall, the Reduced Residential Alternative would neither avoid nor exacerbate the impacts of the proposed Plan and therefore would result in *similar* impacts in comparison to the proposed Plan.

6.2.2.2 AIR QUALITY

The proposed Plan would not be consistent with the Clean Air Plan because the projected VMT increase from buildout of the proposed Plan would be greater than the projected population increase, and as such, a significant and unavoidable impact would result. Proposed Plan policies and actions, including Action HW-1.G (Construction-Related Pollutants), Action HW-1.F (Health Risk Assessments), Action HW-1.H (Nuisance Odors), and Action HW-1.I (Standard Conditions of Approval, would ensure that impacts associated with construction and operational air quality standard violations, cumulatively considerable increases in criteria pollutants, siting of new sources of air pollution proximate to sensitive receptors, and exposure of substantial numbers of people to objectionable odors would be less than significant.

The proposed Plan would generate approximately 17 percent more residential development but 10 percent less non-residential development than the Reduced Residential Alternative. Based on this difference in the level and type of development that would occur under this alternative, it is anticipated that the Reduced Residential Alternative would result in a proportional reduction in emissions from transportation, natural gas use, and area sources. This alternative would also proportionally reduce long-term emissions from stationary and mobile sources, and short-term emissions from construction activities associated with new development. Contributions of VOC, NO_x, PM_{10}, and $PM_{2.5}$ would cumulatively contribute to the SFBAAB nonattainment designations for O_3, PM_{10}, and $PM_{2.5}$. Although this alternative would reduce both long- and short-term pollutant emissions generated in the City of Newark, it would not eliminate the significant criteria pollutant impact associated with consistency with the Bay Area Clean Air Plan. Recent land use changes enacted by the City of Newark with adoption of the Dumbarton TOD Specific Plan and the Area 3 and 4 Specific Plan were not accounted for in the Clean Air Plan, and as such, the rate of growth in VMT would continue to exceed the rate of population and employment growth under this alternative. However, it should be noted that industrial sources of emissions could increase if general industrial land uses are developed in the Dumbarton TOD Focus Area. Consequently, localized community risk and hazards may increase under the Reduced Density Alternative compared to the proposed Project. Overall, this alternative would be *similar* to the proposed Plan.

6.2.2.3 BIOLOGICAL RESOURCES

Under the Reduced Residential Alternative, the type of new development and redevelopment that would occur differs from that which would occur under the proposed Plan, but the general location of development is the same as under the proposed Plan. Under this alternative, development of general industrial uses in the Dumbarton TOD Focus Area, business park and light industrial uses in the Southwest Newark residential and Recreational Focus Area, and growth of existing commercial uses in the vicinity of the NewPark Mall would occur. Consequently, development in proximity to sensitive biological resources would also take place under this alternative, resulting in significant impacts related to special-status species, wetlands, and Basin Plan conflicts prior to mitigation. However, federal, State, and local regulations established for the protection of biological resources - including the Federal Endangered Species Act, the Federal Clean Water Act, the Migratory Bird Treaty Act, the

California Endangered Species Act, the California Fish and Game Code, the California Native Plant Protection Act, the Marine Life Protection Act, the Porter-Cologne Water Quality Control Act, and the City of Newark Municipal Code (Title 8, Health and Safety and Title 17, Zoning) – would apply to development under the Reduced Residential Alternative, as under the proposed Plan. Additionally, as under the proposed Plan, implementation of policies and actions, including Action CS T-2.B (Wetland Delineation and Protection) and Action CS-2.C (Impacts on Special Status Species), would reduce impacts related to special-status species, wetlands, and Basin Plan conflicts to less-than-significant levels. Therefore, overall, this alternative would result in *similar* impacts in comparison to the proposed Plan.

6.2.2.4 CULTURAL RESOURCES

Development under the Reduced Residential Alternative would take place in the same locations as under the proposed Plan. The same level and type of development is envisioned in the Old Town Focus Area under this alternative. As described above, new development and redevelopment would take place in the Dumbarton TOD Focus Area and the Southwest Newark residential and Recreational Focus Area, and growth of existing commercial uses in the vicinity of the NewPark Mall would occur. Therefore, impacts to historical resources and paleontological resources would be less than significant and equivalent to the proposed Plan. Additionally, construction activities in the Southwest Newark residential and Recreational Focus Area could still result in significant and unavoidable impacts to archaeological deposits and human remains as a result of soil compression due to fill. Overall, the Reduced Residential Alternative would neither avoid nor exacerbate the impacts of the proposed Plan and therefore would result in *similar* impacts in comparison to the proposed Plan.

6.2.2.5 GEOLOGY AND SOILS

Geology and soils impacts under the proposed Plan would be less than significant with the implementation of State and local regulations and policies. Under the Reduced Residential Alternative, proposed General Plan policies would be adopted, including various proposed policies that require adherence to integrity standards, encourage seismic retrofitting, inform the public of earthquake-related hazards, and aim to minimize soil erosion. In addition, development under Reduced Residential Alternative would be subject to the same local and State regulations regarding erosion, seismic hazards, and life safety, including the California Building Code, California Seismic Hazards Mapping Act, and City of Newark Municipal Code sections on Erosion Control and Grading Permit Requirements. These regulations would ensure that new development is built to meet current building code and site preparation requirements for grading and erosion control. Therefore, impacts under the Reduced Residential Alternative would also be less than significant.

Neither the proposed Plan nor the Reduced Residential Alternative would involve the use of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact associated with these uses under either the proposed Plan or the Reduced Residential Alternative.

Overall, geology and soils impacts under the Reduced Residential Alternative would be *similar* to the proposed Plan.

6.2.2.6 GREENHOUSE GAS EMISSIONS

As described in Section 4.7, Greenhouse Gas Emissions, the proposed Plan would result in one significant and unavoidable impact because the Plan would generate a substantial increase in GHG emissions in excess of the long-term 2050 GHG reduction target interpolated from Executive Order S-03-05. The Reduced Residential Alternative would generate approximately 17 percent less residential development but 10 percent more non-residential development than the proposed Plan by 2035. As such, the Reduced Residential Alternative would result in a substantial reduction in the magnitude of emissions from transportation, energy use, water use/wastewater generation, waste generation, and areas sources, although the Reduced Residential Alternative would likely have similar GHG emissions per service population. However, while the Reduced Residential Alternative would concentrate future housing growth in the Old Town PDA as envision in the SCS, it would not focus future residential growth in the Dumbarton TOD PDA as under the proposed Plan. Further, this alternative would not promote the development of a compact, walkable neighborhood in the Dumbarton TOD PDAs, as would the proposed Plan. Consequently, the Reduced Residential Alternative would not support the objectives of the SCS as well as the proposed Plan would.

Overall, because the Reduced Residential Alternative would also result in a significant and unavoidable impact related to GHG emissions in excess of the long-term 2050 GHG reduction target interpolated from Executive Order S-03-05 and because this alternative would not support the objectives of the SCS as well as the proposed Plan would, the Reduced Residential Alternative would represent a *slight deterioration* in comparison to the proposed Plan.

6.2.2.7 HAZARDS AND HAZARDOUS MATERIALS

As described in Section 4.7, Hazards and Hazardous Materials, hazards and hazardous materials impacts under the proposed Plan would be less than significant with adherence to applicable regulations and adoption of proposed policies in the proposed Plan. Under the Reduced Residential Alternative, applicable regulations and proposed policies would also to apply to future development, as under the proposed Plan. However, under this alternative the Dumbarton TOD focus area would not be redeveloped with residential and commercial uses as envisioned in the Dumbarton TOD Specific Plan and the proposed Plan. Future development under the reduced Residential Alternative would involve a continuation of general industrial uses and redevelopment to accommodate additional general industrial uses. As such, contaminated sites within the Dumbarton TOD Focus Area would not be remediated to levels consistent with applicable standards for residential use under the Reduced Residential Alternative. Further, the continuation and expansion of industrial uses in this sector of the city would mean a greater potential for the accidental release of hazardous materials involved in industrial activities, although compliance with applicable federal, State, and local regulations would minimize this risk to the maximum extent practicable. Consequently, this alternative represents a *slight deterioration* in comparison to the proposed Plan.

6.2.2.8 HYDROLOGY AND WATER QUALITY

Hydrology and water quality impacts under the proposed Plan would be less than significant with implementation of mitigation measures from the Newark Housing Element EIR, Dumbarton TOD Specific Plan EIR, and the

Newark Area 3 and 4 Specific Plan EIR. In addition, development under the proposed Plan would be subject to federal, State, and local regulations that would prevent significant impacts, including, among others, FEMA floodplain regulations, the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan, NPDES permit requirements, and the City of Newark Municipal Code. New development under the Reduced Residential Alternative would be subject to these same regulations. Under this alternative, the Dumbarton TOD Focus Area could develop with general industrial land uses, the Southwest Newark Residential and Recreational Focus Area could develop with a mix of business park uses and low density housing, and the Greater NewPark Focus Area could see growth of existing commercial uses. Although development would be at a lesser density, a similar extent of land area could be developed, with a similar potential to affect drainage patterns, water quality, and water resources. As under the proposed Plan, compliance with applicable regulations would restrict development in flood hazard areas, prevent erosion, and protect water quality and groundwater supply. Therefore, impacts under the Reduced Residential Alternative would also be less than significant, and this alternative would be *similar* to the proposed Plan in regards to hydrology and water quality.

6.2.2.9 LAND USE AND PLANNING

The proposed Plan would not physically divide an existing community, nor would its implementation result in significant conflicts with applicable land use plans or policies. Under the Reduced Residential Alternative, low density residential development would be allowed in the larger non-contiguous sector of the Southwest Newark Residential and Recreational Focus Area; however, residential development would not be permitted in the Dumbarton TOD Focus Area, which would be designated for industrial land uses, or on the smaller non-contiguous sector of the Southwest Newark Residential and Recreational Focus Area adjacent to Cherry Street, which would be envisioned for office park uses. With the exception of policies specific to the Dumbarton TOD Focus Area, the same goals, policies, and actions from the proposed Plan intended to support ecological protection and interagency coordination and help to prevent future land use conflicts would be adopted and implemented under the Reduced Residential Alternative.

However, the Reduced Residential Alternative would not be consistent with the adopted specific plans applicable to the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area because it would involve development and redevelopment of industrial uses in those sectors of the city, rather than the residential neighborhoods envisioned in the specific plans and the proposed Plan. This would constitute a new significant impact in comparison to the proposed Plan until such time as the plans are amended. Further, as discussed above, the Reduced Residential Alternative would not result in the development of compact, walkable neighborhoods in the vicinity of the Dumbarton TOD PDA, and as such, this alternative would not support the objectives of the SCS as fully as the proposed Plan. Therefore, this alternative represents a substantial deterioration in comparison to the proposed Plan.

6.2.2.10 NOISE

Proposed Plan standards, policies, and actions, including Action EH7.E (Vibration-Intensive Construction) and Action EH7.F (New Development Near Railroads), would ensure that impacts related to construction noise, interior and exterior noise standard violations, and vibration within 200 feet of an active railway line are less than

significant. However, the Plan would result in a substantial permanent increase in ambient noise levels in the Plan Area would occur, which would constitute a significant and unavoidable impact.

Under buildout projections, Reduced Residential Alternative could generate up to 17 percent less residential development and 10 percent more non-residential development than the proposed Plan by 2035. Under this alternative, goals, policies, and actions contained in the proposed Plan would also apply, with the exception of goals, policies, and actions specific to the Dumbarton TOD Focus Area and the smaller non-contiguous sector of the Southwest Newark Residential and Recreational Focus Area, which would not be developed as under the Plan. As such, under this alternative, the already less-than-significant impacts related to construction noise, interior and exterior noise standard violations, and vibration within 200 feet of an active railway line would be further reduced. However, this alternative would still result in an increase in ambient noise levels in the Plan Area in 2035 as compared to existing conditions, primarily due to increased traffic that would accompany buildout of the Reduced Residential Alternative. Although, this alternative would generate fewer vehicle trips in 2035 than the proposed Plan, the increase in trips would still contribute to a substantial permanent increase in ambient noise levels in the Plan Area in 2035 as compared to existing conditions, resulting in a significant and unavoidable impact as under the proposed Plan.

Therefore, overall, this alternative would represent a *slight improvement* over the proposed Plan.

6.2.2.11 POPULATION AND HOUSING

The Reduced Residential Alternative would result in 52,434 residents, 16,280 homes, and 24,800 jobs in Newark in 2035. Housing growth under this alternative is generally consistent with the housing growth projections contained in the SCS; however because the Reduced Residential Alternative would not involve residential development in the Dumbarton TOD Focus Area or the smaller non-contiguous sector of the Southwest Residential and Recreational Focus Area and would instead allow the continuation and expansion of industrial and light industrial uses in those areas, this alternative would result in more job growth than the proposed Plan and substantially more job growth than projected in the SCS.

One of the key aims of the SCS is to offer more housing opportunities within existing Bay Area communities. The Bay Area is currently jobs rich – meaning that there are more jobs than residents – and therefore by striving to more housing options affordable to an array of income demographics in the Bay Area, the SCS seeks to reduce the in-commute from communities outside the Bay Area and by extension to reduce overall vehicle miles travelled. While housing growth under the reduced Residential Alternative would be generally consistent with the level foreseen in the SCS, job growth would substantially exceed regional projections for Newark. As such, the Reduced Residential Alternative would not support the regional aim of providing more housing options to an array of income demographics in the Bay Area as fully as the proposed Plan.

Under the Reduced Residential Alternative, goals, policies, and actions that seek to direct future growth into infill opportunity areas and to promote the provision of housing for seniors and low-income populations contained in the proposed Plan would still be implemented. Additionally, the provisions of the City's Affordable Housing Program would also apply. Therefore, impacts related to the displacement of housing and the displacement of people would be less than significant as under the proposed Plan. Nevertheless, because the Reduced Residential

Alternative would not support the regional objectives articulated in the SCS as fully as the proposed Plan, this alternative represents a *slight deterioration* in comparison to the proposed Plan.

6.2.2.12 PUBLIC SERVICES AND RECREATION

Buildout projections for the Reduced Residential Alternative could result in up to 52,434 residents and 24,800 jobs in Newark in 2035, for a service population of 77,234. By comparison, the proposed Plan could result in up to 60,510 residents and 22,609 jobs, for a service population of 83,119 in 2035. The lower service population under the Reduced Residential Alternative would generate fewer calls for fire protection and police protection service than under the proposed Plan. Additionally, the lower service and resident populations in Newark in 2035 under this alternative could also result in a lower student enrollment and lower demand for parks, recreational facilities, and library services in comparison to the proposed Plan. Associated impacts under the Reduced Residential Alternative would be less than significant, as under the proposed Plan; however, as it would reduce already less-than-significant impacts under the proposed Plan, the Reduced Residential Alternative would represent a *slight improvement* over the proposed Plan.

6.2.2.13 TRANSPORTATION AND TRAFFIC

Future buildout under the proposed Plan could result in increased level of service impacts at seven intersections in the Plan Area and its vicinity in 2035, as described in Chapter 4.13 of this Draft EIR. Impacts at four of these intersections would be reduced to a less-than-significant level through implementation of policies and actions, including Action T-5.J (Improvements to Maintain LOS "D"), contained in the proposed Plan. Impacts at the remaining three of the seven impacted intersections would remain significant and unavoidable as those intersections are located wholly or partly outside of the jurisdiction of the City of Newark and the City would not have the authority to implement the mitigation measures needed to restore the impacted intersections to acceptable levels of service in 2035.

The Reduced Residential Alternative would allow for fewer new housing units and more employment generating space than the proposed Plan. This alternative would also result in lower vehicle trip generation than the proposed Plan, as shown in Table 6-4. As shown, the Reduced Residential Alternative would result in approximately 2 percent fewer trips in the AM peak hour in 2035 and approximately 3 percent fewer trips in the PM peak hour in 2035 than under the proposed Plan. While the reduction in allowable residential and increase in industrial and light industrial development associated with this alternative could result in localized changes to roadway segment volumes in the Plan Area, these changes are likely to be minor in nature; therefore, overall transportation-related impacts would not be substantially different than those identified for the proposed Plan. Additionally, the goals, policies, and actions intended to improve the efficiency of the circulation system, to promote the use of transit, cycling, and walking, and to reduce vehicle miles travelled would all be implemented under this alternative as under the proposed Plan. Therefore, associated impacts under the Reduced Residential Alternative would be similar when compared to the proposed Plan.

TABLE 6-4 EXISTING, PROPOSED PLAN, AND REDUCED RESIDENTIAL ALTERNATIVE TRIP GENERATION

Scenario	Estimated AM Trips	Estimated PM Trips
Proposed Plan	23,526	26,774
Existing	18,842	21,386
Difference from proposed Plan	-4,684	-5,387
% difference from proposed Plan	-19.9%	-20.1%
Reduced Residential	23,082	26,054
Difference from proposed Plan	-444	-719
% difference from proposed Plan	-1.9%	-2.7%

Note: Rates used are from the ITE Trip Generation, 9th edition, "Single Family Detached" (210), "Apartments" (220), and "General Office Building" (710).
Source: Hexagon Transportation Consultants, 2013.

6.3.1.1 UTILITIES AND SERVICE SYSTEMS

Buildout projections for the Reduced Residential Alternative could result in a service population of 77,234 in Newark in 2035, as compared to a service population of 83,119 in 2035 under the proposed Plan. Impacts from the proposed Plan related to water service, sanitary sewer service, stormwater drainage facilities, and solid waste disposal would be less than significant, as discussed in Chapter 4.14, Utilities and Service Systems, of this Draft EIR. As such, the Reduced Residential Alternative, with its lower service population in 2035, would reduce already less-than-significant impacts. Additionally, the goals, policies, and actions intended to promote water conservation, reduce waste generation, and encourage use of stormwater management BMPs contained in the proposed Plan would also be implemented under this Alternative and compliance with relevant State and local regulations, including SB-X7-X, the California Integrated Waste Management Act, CALGreen Building Code, the Alameda County Clean Water Program, RWQCB C.3 provisions, the ACFC Capital Improvement Program, Newark Municipal Code Chapter 8.36, Stormwater Management and Discharge Control, and other regulations cited in Chapter 4.14 of this Draft EIR would still apply to development under the Reduced Residential Alternative. Further, the City's Climate Action Plan, which contains measures to reduce water consumption and solid waste generation, would still be implemented. Therefore, overall, this alternative would represent a slight improvement over the proposed Plan.

6.4 RESTRICTED GROWTH ALTERNATIVE

6.4.1 PRINCIPAL CHARACTERISTICS

Under the Restricted Growth Alternative, future growth would be limited to previously developed land in the urbanized portion of the city. Development in the Old Town Focus Area and the Greater NewPark Focus Area would take place as under the proposed Plan; however, the Dumbarton TOD Focus Area and the larger sector of the Southwest Newark Residential and Recreational Focus Area south of the Union Pacific Railway tracks would be designated as Open Space. This alternative envisions restoration of key areas with potential for high habitat values; however, although these areas would be designated as Open Space, the underlying zoning would continue to permit economically viable uses such as agriculture. The smaller sector of the Southwest Newark Residential and Recreational Focus Area, formerly known as Area 3, would be developed with two- and three-story residential structures at an intensity of 18 dwelling units per acre, yielding approximately 1,260 multi-family units. Additionally, an elementary school capable of accommodating up to 600 students would be constructed in this portion of the Southwest Newark Residential and Recreational Focus Area, as under the proposed Plan. Overall, this alternative could result in fewer housing units and jobs than the proposed Plan. This alternative could result in up to 16,995 housing units in Newark by 2035, including 9,635 single-family homes and 7,360 multi-family units, as well as approximately 22,300 jobs.

6.4.2 IMPACT DISCUSSION

The Restricted Growth Alternative would have the following impacts relative to the proposed Plan:

6.4.2.1 AESTHETICS

Under the proposed Plan, Policies LU-4.12, LU-4.13, and PROS-1.6 would prevent impacts to scenic vistas and scenic resources, while Policy LU-4.7 and Policy PROS-3.5 would ensure that potential light and glare impacts from street lighting, parks, and recreational facilities in the city would be less than significant. However, as discussed in Chapter 4.1, Aesthetics, of this Draft EIR, the proposed Plan would result in a significant and unavoidable impact associated with the degradation of visual character of the Southwest Newark Residential and Recreational Focus Area, as determined in previous environmental review conducted for the 2009-2014 Housing Element and the Area 3 and 4 Specific Plan.

With the Restricted Growth Alternative, residential development would not occur in the Dumbarton TOD Focus Area or the larger sector of the Southwest Newark Residential and Recreational Focus Area south of Cherry Street. Both of these areas would be designated as Open Space. Consequently, the significant and unavoidable impact associated with the degradation of visual character of the Southwest Newark Residential and Recreational Focus Area would be avoided under this alternative. As under the proposed Plan, policies addressing impacts to scenic vistas and scenic resources and to minimize potential light and glare impacts from street lighting, parks, and recreational facilities in the city would be implemented, ensuring that associated impacts would be less than

significant, as under the proposed Plan. Nevertheless, by avoiding a significant and unavoidable impact that would occur under the proposed Plan, the Restricted Growth Alternative would represent a *substantial improvement* in comparison to the proposed Plan.

6.4.2.2 AIR QUALITY

The proposed Plan would not be consistent with the Clean Air Plan because the projected VMT increase from buildout of the proposed Plan would be greater than the projected population increase, and as such, a significant and unavoidable impact would result. Proposed Plan policies and actions, including Action HW-1.G (Construction-Related Pollutants), Action HW-1.F (Health Risk Assessments), Action HW-1.H (Nuisance Odors), and Action HW-1.I (Standard Conditions of Approval, would ensure that impacts associated with construction and operational air quality standard violations, cumulatively considerable increases in criteria pollutants, siting of new sources of air pollution proximate to sensitive receptors, and exposure of substantial numbers of people to objectionable odors would be less than significant.

Buildout projections under the Restricted Growth Alternative could generate up to 14 percent less residential development and slightly less (1 percent) non-residential development than the proposed Plan. Based on this reduced development footprint, the Restricted Growth Alternative would result in a substantial reduction in emissions from transportation, natural gas use, and area sources. This alternative would substantially reduce long-term emissions from stationary and mobile sources, and short-term emissions from construction activities associated with new development. Contributions of VOC, NOx, PM_{10}, and $PM_{2.5}$ would cumulatively contribute to the SFBAAB nonattainment designations for O_3, PM_{10}, and $PM_{2.5}$. Although this alternative would reduce both long- and short-term pollutant emissions generated in the City of Newark, it would not eliminate the significant criteria pollutant impact associated with consistency with the Bay Area Clean Air Plan because the rate of growth in VMT would continue to exceed the rate of population and employment growth. Overall, this alternative would be a *slight improvement* over the proposed Plan as it would reduce but not eliminate short- and long-term air quality impacts in comparison to the proposed Plan.

6.4.2.3 BIOLOGICAL RESOURCES

Under the proposed Plan, development in proximity to sensitive biological resources in the Dumbarton TOD Focus Area or the Southwest Newark Residential and Recreational Focus Area would result in significant impacts related to special-status species, wetlands, and Basin Plan conflicts prior to mitigation. Previous environmental review conducted by the City of Newark for the Dumbarton TOD Specific Plan, the Area 3 & 4 Specific Plan, and the 2009-2014 housing Element has determined that these significant impacts could be mitigated to less than significant levels. Further, goals, policies, and actions contained in the proposed Plan, including Action CS T-2.B (Wetland Delineation and Protection) and Action CS-2.C (Impacts on Special Status Species), would ensure that adverse effects on sensitive biological resources citywide would be less than significant.

The Restricted Growth Alternative would not involve development in the Dumbarton TOD Focus Area or the Southwest Newark Residential and Recreational Focus Area as envisioned in the proposed Plan or the respective specific plans. Instead, these areas would be designated as open space, although the underlying zoning would

continue to permit economically viable uses such as agriculture. Consequently, this alternative would avoid the need for mitigation required to reduce impacts to less-than-significant levels as determined in environmental review conducted for the specific plans and the housing element. In other areas of the city, federal, State, and local regulations protecting biological resources would apply to future development and redevelopment, as would the relevant goals, policies, and actions from the proposed Plan pertaining to the protection of sensitive biological resources. Therefore, the Restricted Growth Alternative would result in less than significant impacts to biological resources as would the proposed Plan. However, because this alternative would avoid the need for implementation of mitigation measures from previous EIRs, the Restricted Growth Alternative would represent a *slight improvement* over the proposed Plan.

6.4.2.4 CULTURAL RESOURCES

Under the proposed Plan, construction activities associated with buildout of the larger sector of the Southwest Newark residential and Recreational Focus Area would result in significant and unavoidable impacts to archaeological deposits and human remains as a result of soil compression due to fill. The Restricted Growth Alternative, however, would not involve development in this sector of the city, which would be designated as open space. Therefore, a significant and unavoidable impact that would occur under the proposed Plan would be avoided under this alternative. The same goals, policies, and actions protecting cultural resources would apply to future development under this alternative, as would the applicable federal, State, and local regulations described in Chapter 4.4 of this Draft EIR. Therefore, impacts to historical resources and paleontological resources in the Plan Area would be less than significant under this alternative, as under the proposed Plan. However, because the Restricted Growth Alternative would avoid a significant and unavoidable impact of the proposed Plan, this alternative represents a *substantial improvement* in comparison to the proposed Plan.

6.4.2.5 GEOLOGY AND SOILS

Geology and soils impacts under the proposed Plan would be less than significant with the implementation of State and local regulations and policies. Under the Restricted Growth Alternative, proposed General Plan policies would be adopted, including various proposed policies that require adherence to integrity standards, encourage seismic retrofitting, inform the public of earthquake-related hazards, and aim to minimize soil erosion. In addition, development under Reduced Residential Alternative would be subject to the same local and State regulations regarding erosion, seismic hazards, and life safety, including the California Building Code, California Seismic Hazards Mapping Act, and City of Newark Municipal Code sections on Erosion Control and Grading Permit Requirements. These regulations would ensure that new development is built to meet current building code and site preparation requirements for grading and erosion control. Therefore, impacts under the Restricted Growth Alternative would also be less than significant.

Neither the proposed Plan nor the Restricted Growth Alternative would involve the use of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact associated with these uses under either the proposed Plan or the Restricted Growth Alternative.

Overall, geology and soils impacts under the Restricted Growth Alternative would be *similar* to the proposed Plan.

6.4.2.6 GREENHOUSE GAS EMISSIONS

As described in Section 4.7, Greenhouse Gas Emissions, the proposed Plan would result in one significant and unavoidable impact because the Plan would generate a substantial increase in GHG emissions in excess of the long-term 2050 GHG reduction target interpolated from Executive Order S-03-05. The Restricted Growth Alternative would generate approximately 14 percent less residential development slightly (1 percent) less non-residential development than the proposed Plan by 2035. As such, the Restricted Growth Alternative would result in a substantial reduction in the magnitude of emissions from transportation, energy use, water use/wastewater generation, waste generation, and areas sources, although the Restricted Growth Alternative would likely have similar GHG emissions per service population. However, while the Restricted Growth Alternative would concentrate future housing growth in the Old Town PDA as envisioned in the SCS, it would not focus future residential growth in the Dumbarton TOD PDA as under the proposed Plan and the SCS. Further, this alternative would not promote the development of a compact, walkable neighborhood in the Dumbarton TOD PDAs as would the proposed Plan and the SCS, and consequently, the Reduced Residential Alternative would not support the objectives of the SCS as well as the proposed Plan would.

Overall, because the Restricted Growth Alternative would also result in a significant and unavoidable impact related to GHG emissions in excess of the long-term 2050 GHG reduction target interpolated from Executive Order S-03-05 and because this alternative would not support the objectives of the SCS as well as the proposed Plan would, the Restricted Growth Alternative would represent a *slight deterioration* in comparison to the proposed Plan.

6.4.2.7 HAZARDS AND HAZARDOUS MATERIALS

As described in Section 4.7, Hazards and Hazardous Materials, hazards and hazardous materials impacts under the proposed Plan would be less than significant with adherence to applicable regulations and adoption of proposed policies in the proposed General Plan. Under the Restricted Growth Alternative, applicable regulations and proposed policies would to apply to future development, as under the proposed Plan. However, under this alternative the Dumbarton TOD focus area would not be redeveloped with residential uses and would be designated for Open Space. Therefore, remediation of existing contamination in this area would not occur. Therefore, this alternative represents a *slight deterioration* in comparison to the proposed Plan.

6.4.2.8 HYDROLOGY AND WATER QUALITY

Hydrology and water quality impacts under the proposed Plan would be less than significant with the implementation of mitigation measures from the Newark 2009-2014 Housing Element EIR, Dumbarton TOD Specific Plan EIR, and the Newark Area 3 and 4 Specific Plan EIR. In addition, development under the proposed Plan would be subject to federal, State, and local regulations that would prevent significant impacts, including, among others, FEMA floodplain regulations, the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan, NPDES permit requirements, and the City of Newark Municipal Code. New development under the Restricted Growth Alternative would be subject to these same regulations. As under the proposed Plan, compliance with applicable regulations would restrict development in flood hazard areas, prevent erosion, and protect water quality

and groundwater supply. Under this alternative, development in the Old Town Focus Area and the Greater NewPark Focus Area would take place as under the proposed Plan; however, the Dumbarton TOD Focus Area and the larger sector of the Southwest Newark Residential and Recreational Focus Area south of Cherry Street would be designated as Open Space. The smaller sector of the Southwest Newark Residential and Recreational Focus Area would be developed with 2- and 3-story residential structures. Although Open Space areas could be developed with public facilities and other structures permitted under zoning, overall this alternative would involve the urban development of a lesser extent of land area in comparison to the proposed Plan. Therefore, a reduced area would be subject to the potential to affect drainage patterns, water quality, and water resources and this alternative would represent a *slight improvement* over the proposed Plan in regards to hydrology and water quality.

6.4.2.9 LAND USE AND PLANNING

The proposed Plan would not physically divide an existing community, nor would its implementation result in significant conflicts with applicable land use plans or policies. Under the Restricted Growth Alternative, future growth would be limited to previously developed land in the urbanized portion of the city and the Dumbarton TOD Focus Area and the larger sector of the Southwest Newark Residential and Recreational Focus Area south of the Union Pacific Railway line would be designated as Open Space. Citywide goals, policies, and actions from the proposed Plan intended to support ecological protection and interagency coordination and help to prevent future land use conflicts would be adopted and implemented under the Restricted Growth Alternative.

However, the Restricted Growth Alternative would not be consistent with the adopted specific plans applicable to the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area because it would not allow development as envisioned in the respective plans. This would constitute a new significant impact in comparison to the proposed Plan until such time as the plans are amended. Further, as discussed above, the Restricted Growth Alternative would not result in the development of compact, walkable neighborhoods in the vicinity of the Dumbarton TOD PDA, and as such, this alternative would not support the objectives of the SCS as fully as the proposed Plan. Therefore, this alternative represents a substantial deterioration in comparison to the proposed Plan.

6.4.2.10 NOISE

Proposed Plan standards, policies, and actions, including Action EH7.E (Vibration-Intensive Construction) and Action EH7.F (New Development Near Railroads), would ensure that impacts related to construction noise, interior and exterior noise standard violations, and vibration within 200 feet of an active railway line are less than significant. However, the Plan would result in a substantial permanent increase in ambient noise levels in the Plan Area would occur, which would constitute a significant and unavoidable impact.

The Restricted Growth Alternative would generate approximately 14 percent less residential development and about 1 percent more non-residential development than the proposed Plan by 2035. Under this alternative, goals, policies, and actions contained in the proposed Plan would also apply, with the exception of goals, policies, and actions specific to the Dumbarton TOD Focus Area and the smaller non-contiguous sector of the Southwest Newark Residential and Recreational Focus Area, which would not be developed as under the Plan. As such, under

this alternative, the already less-than-significant impacts related to construction noise, interior and exterior noise standard violations, and vibration within 200 feet of an active railway line would be further reduced. However, this alternative would still result in an increase in ambient noise levels in the Plan Area in 2035 as compared to existing conditions, primarily due to increased traffic that would accompany buildout of the Restricted Growth Alternative. Although, this alternative would generate fewer vehicle trips in 2035 than the proposed Plan, the increase in trips would still contribute to a substantial permanent increase in ambient noise levels in the Plan Area in 2035 as compared to existing conditions, resulting in a significant and unavoidable impact as under the proposed Plan.

Therefore, overall, this alternative would represent a *slight improvement* over the proposed Plan.

6.4.2.11 POPULATION AND HOUSING

Buildout projections for the Restricted Growth Alternative could result in up to 53,875 residents, 16,995 housing units, and 22,300 in Newark in 2035. This growth is generally consistent with the projections for Newark contained in the SCS, which forecasts 16,627 homes and 23,090 jobs in the city by 2040. (However, as noted above, the Restricted Growth Alternative would not involve the development of the Dumbarton TOD PDA as envisioned in the SCS and therefore would not support regional land use planning objectives as fully as the proposed Plan). Additionally under this alternative, goals, policies, and actions that seek to direct future growth into infill opportunity areas and to promote the provision of housing for seniors and low income populations contained in the proposed Plan would still be implemented. The provisions of the City's Affordable Housing Program would also apply. Therefore, impacts related to the displacement of housing and the displacement of people would be less than significant as under the proposed Plan. However, while both the proposed Plan and the Restricted Growth Alternative would result in less than significant impacts with respect to population and housing, the Restricted Growth Alternative would represent a *slight improvement* over the proposed Plan because it would result in growth that is generally consistent with the SCS.

6.4.2.12 PUBLIC SERVICES AND RECREATION

Buildout projections for the Restricted Growth Alternative could result in up to 53,875 residents and 22,300 jobs in Newark in 2035, for a service population of 76,175. By comparison, the proposed Plan could result in up to 60,510 residents and 22,609 jobs, for a service population of 83,119 in 2035. The lower service population under the Restricted Growth Alternative would generate fewer calls for fire protection and police protection service than under the proposed Plan in 2035. Further, the lower service population under this alternative would also result in a lower increase in student enrollment and lower demand for parks, recreational facilities, and library services in comparison to the proposed Plan. Associated impacts under the Restricted Growth Alternative would be less than significant, as under the proposed Plan; however, as it would reduce already less-than-significant impacts under the proposed Plan, the Restricted Growth Alternative would represent a *slight improvement* over the proposed Plan.

6.4.2.13 TRANSPORTATION AND TRAFFIC

The proposed Plan would result in level of service impacts at seven intersections in the Plan Area and its vicinity in 2035, as described in Chapter 4.13 of this Draft EIR. Impacts at four of these intersections would be reduced

to a less-than-significant level through the implementation of policies and actions, including Action T-5.J (Improvements to Maintain LOS "D"), contained in the proposed Plan. Impacts at the remaining three of the seven impacted intersections would remain significant and unavoidable as those intersections are located wholly or partly outside of the jurisdiction of the City of Newark and the City would not have the authority to implement the mitigation measures needed to restore the impacted intersections to acceptable levels of service in 2035.

The Restricted Growth Alternative would allow for fewer new housing units and slightly less employment generating space than the proposed Plan. Consequently, this alternative would also result in lower vehicle trip generation than the proposed Plan.. As shown on Table 6-5, the Restricted Growth Alternative would result in approximately 8 percent fewer trips in the AM peak hour in 2035 and approximately 9 percent fewer trips in the PM peak hour in 2035 than under the proposed Plan. While the overall reduction in trips generated with this alternative could result in localized changes to roadway segment volumes in the Plan Area, these changes are likely to be relatively minor in nature so that overall transportation related impacts would not be substantially different than those identified for the proposed Plan. Additionally, the goals, policies, and actions intended to improve the efficiency of the circulation system, to promote the use of transit, cycling, and walking, and to reduce vehicle miles travelled would all be implemented under this alternative as under the proposed Plan. Therefore, associated impacts under the Restricted Growth Alternative would be *similar* when compared to the proposed Plan.

TABLE 6-5 EXISTING, PROPOSED PLAN, AND RESTRICTED GROWTH ALTERNATIVE TRIP GENERATION

Scenario	Estimated AM Trips	Estimated PM Trips
Proposed Plan	23,526	26,774
Existing	18,842	21,386
Difference from proposed Plan	-4,684	-5,387
% difference from proposed Plan	-19.9%	-20.1%
Reduced Residential	21,684	24,456
Difference from proposed Plan	-1,842	-2,318
% difference from proposed Plan	-7.8%	-8.7%

Note: Rates used are from the ITE Trip Generation, 9th edition, "Single Family Detached" (210), "Apartments" (220), and "General Office Building" (710).
Source: Hexagon Transportation Consultants, 2013.

6.4.2.14 UTILITIES AND SERVICE SYSTEMS

The Restricted Growth Alternative could result in a service population of 76,175 in Newark in 2035, as compared to a service population of 83,119 in 2035 under the proposed Plan. Impacts from the proposed Plan related to water service, sanitary sewer service, stormwater drainage facilities, and solid waste disposal would be less than

significant, as discussed in Chapter 4.14, Utilities and Service Systems, of this Draft EIR. As such, the Restricted Growth Alternative, with its lower service population in 2035, would reduce already less-than-significant impacts. Additionally, the goals, policies, and actions intended to promote water conservation, reduce waste generation, and encourage use of stormwater management BMPs contained in the proposed Plan would also be implemented under this alternative and compliance with relevant State and local regulations, including SB-X7-X, the California Integrated Waste Management Act, CALGreen Building Code, the Alameda County Clean Water Program, RWQCB C.3 provisions, the ACFC Capital Improvement Program, Newark Municipal Code Chapter 8.36, Stormwater Management and Discharge Control, and other regulations cited in Chapter 4.14 of this Draft EIR would still apply to development under the Restricted Growth Alternative. Further, the City's Climate Action Plan, which contains measures to reduce water consumption and solid waste generation, would still be implemented. Therefore, overall, this alternative would represent a *slight improvement* over the proposed Plan**.**

6.5 PROJECT OBJECTIVES

As described in Chapter 3, Project Description, of this Draft EIR, the Newark City Council and the Planning Commission have identified the following objectives for the proposed General Plan Tune Up:

- Focus future growth in key areas of opportunity for development and redevelopment while preserving the character of existing residential neighborhoods.
- Meet the regional need for housing, as defined in State Legislation and the SCS and provide a wide range of housing opportunities for all housing types and income levels.
- Provide new, higher density housing options that address the needs of senior citizens and cater to the preferences of younger generations, while maintaining the single-family residential neighborhoods that Newark residents value.
- Continue to provide adequate and varied recreational opportunities
- Foster the creation of new high-quality recreational open spaces and the enhancement of existing recreational facilities and open spaces.
- Promote public health and safety.
- Develop a more sustainable and healthy community and promote walking and biking through focused Transit Oriented Development and focused high-density housing in proximity to commercial uses.
- Sustain NewPark Mall as a regional commercial attraction, while exploring opportunities for redevelopment of the surrounding area with civic and other uses supportive of the Mall.
- Redefine citywide transportation priorities to better balance the needs of all modes of travel.
- Facilitate clean-up of hazardous contamination sites in the City.
- Embrace Newark's bayfront location.

6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of the environmentally superior alternative in an EIR. Based on the above analysis, summarized in Table 6-2, the environmentally superior alternative is the Restricted Growth Alternative. By restricting growth to previously developed land within the urbanized portion of the city, the Restricted Growth Alternative would avoid significant and unavoidable impacts associated with aesthetics and cultural resources that would otherwise occur under the proposed Plan. Additionally, because this alternative would result in less residential and non-residential growth than the proposed Plan by 2035, the Restricted Growth Alternative would also reduce already less-than-significant impacts related to biological resources, noise, population and housing, public services and recreation, and utilities and service systems.

Whereas the proposed Plan meets all the project objectives described above and in Chapter 3, Project Description, of this Draft EIR, the Restricted Growth Alternative only fully meets seven of the eleven objectives. Specifically, the Restricted Growth Alternative would not facilitate clean-up of hazardous contamination sites in Newark, nor would it foster TOD, focus growth in key areas of opportunity for development, or embrace Newark's bayfront location to the same extent as the proposed Plan.

Additionally, the Restricted Growth Alternative would conflict with the City's recent major planning initiatives, including the recently adopted Dumbarton TOD Specific Plan, the Area 3 and 4 Specific Plan, and the 2009-2014 Housing Element. Further, as this alternative would not involve development in the Dumbarton TOD Focus Area, it would not promote the development of compact, walkable neighborhood in this sector of the city, which is identified as a priority development area (PDA) in the SCS. Development in PDAs is integral to the land use concept plan for the region articulated in the SCS. The SCS allocates well over two-thirds of all regional growth in the Bay Area through 2040 within PDAs, and PDAs are expected to accommodate 80 percent (or over 525,570 units) of new housing and 66 percent (or 744,230) of new jobs in the region over that same time frame. Consequently, because the Restricted Growth Alternative would not satisfy all the project objectives, because it would conflict with specific plans previously adopted by the City of Newark, and because it would not support development of the Dumbarton TOD PDA as envisioned in the SCS, the Restricted Growth Alternative is considered infeasible.

7. CEQA Mandated Sections

This chapter provides an overview of the impacts of the proposed Plan based on the analyses presented in Chapters 4.0 through 6.0 of this Draft EIR. The topics covered in this chapter include impacts found not to be significant, significant irreversible changes, and growth inducement. A more detailed analysis of the effects the proposed Plan would have on the environment and proposed mitigation measures to minimize significant impacts is provided in Chapters 4.0 through 4.14.

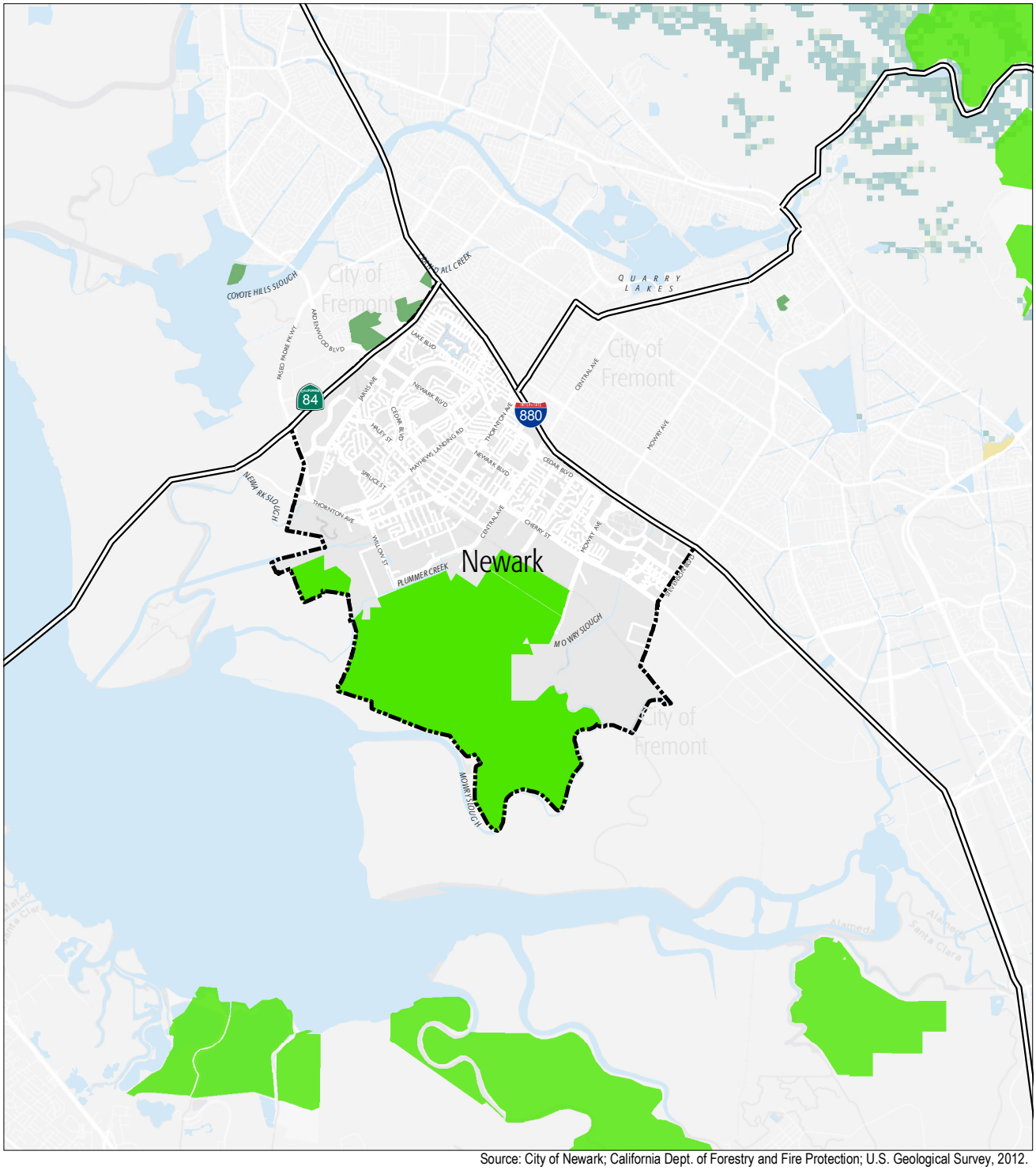
7.1 IMPACTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines Section 15128 allows environmental issues for which there is no likelihood of significant impact to be "scoped out" and not analyzed further in the EIR. This section explains the reasoning by which it was determined that impacts to agricultural, forestry, and mineral resources potentially resulting from buildout of the proposed Plan would be less than significant.

7.1.1 AGRICULTURE AND FORESTRY RESOURCES

The City of Newark is located near the southern part of San Francisco Bay in a highly urbanized sector of Alameda County. There are no forest resources or timberland resource zones in Newark or the surrounding area, and there is no active timberland production in the general vicinity of the Plan Area. As such, buildout of the proposed Plan would have no impact on forest land or forestry resources.

As shown in Figure 7-1, there are some Williamson Act parcels in the Plan Area; however, there is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as mapped by the California resources Agency within the City of Newark. State-designated Prime Farmland on the Ardenwood Historic Farm and Patterson Ranch property in the City of Fremont is physically separated from the Plan Area by the elevated State Route (SR) 84, which forms the northern boundary of Newark and would not be affected by buildout of the proposed Plan. The Williamson Act parcels within the Plan Area comprise approximately 3,000 acres of privately owned properties used for salt harvesting, including the land holdings of the Cargill Salt Company on the western side of the city. Under the proposed Plan, the Agriculture/Resource Production designation which currently applies to these parcels would be renamed Salt Harvesting in order to more accurately reflect the nature of activities taking place on the land. The underlying zoning would remain the same and salt harvesting activities would continue with implementation of the Plan. Additionally, previous environmental review conducted by the City of Newark for the Area 3 and 4 Specific Plan has concluded that the conversion to non-agricultural uses of portions of the Southwest Newark Residential and Recreational Focus Area that are currently used for agriculture with buildout of the applicable specific plan would not would not make a cumulatively considerable contribution to the loss of



Source: City of Newark; California Dept. of Forestry and Fire Protection; U.S. Geological Survey, 2012.

City Limit
Williamson Act
Prime Farmland
Unique Farmland

Tree Density
60 to 100%
40 to 59%
25 to 39%
10 to 24%

Figure 7-1

Agricultural Resources in the Vicinity of the Plan Area

agricultural lands in the surrounding area. Therefore, overall, implementation of the proposed Plan would result in a less-than-significant impact with respect to agricultural resources.

7.1.2 MINERAL RESOURCES

There are no mineral recovery sites in Newark and implementation of the Plan would not affect locally important mining operations. The State Board of Mining and Geology has identified mineral resource zones (MRZ) containing sand, gravel, and stone deposits used for concrete aggregate underlying almost all of the Plan Area. Identified MRZs include land classified as MRZ-2 (areas where significant mineral deposits are present or likely present) and MRZ-3 (areas containing mineral deposits, the significance of which cannot be evaluated from available data). However, given the extent of urban development in Newark and the proximity of sensitive environmental resources in the Don Edwards San Francisco Bay National Wildlife Refuge future mineral extraction in the Plan Area is unlikely. Additionally, according to the Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region (1996), an area of alluvial deposit near Mowry Landing in the City of Newark that was previously designated as containing extractable aggregate deposits is no longer considered to be underlain by aggregate resources.[1] As such, impacts related to the loss of mineral resource availability from Plan implementation would be less than significant. Overall, implementation of the proposed Plan would result in a less-than-significant impact with respect to mineral resources.

7.2 SIGNIFICANT IRREVERSIBLE CHANGES

Section 15126.2(c) of the CEQA Guidelines requires an EIR to discuss the extent to which a proposed project or plan would commit nonrenewable resources to uses that future generation would probably be unable to reverse. The three CEQA-required categories of irreversible changes are discussed below.

7.2.1 LAND USE CHANGES THAT COMMIT FUTURE GENERATIONS

As described in detail in Chapter 3, Project Description, of this Draft EIR, the proposed Plan generally maintains the land use pattern of the existing General Plan, as amended through 2012. The proposed Plan incorporates the visions for the Dumbarton Transit-Oriented Development (TOD) Focus Area and the Southwest Newark Residential and Recreational Focus Area articulated in the specific plans applicable to those areas previously adopted by the City and the Plan does not propose additional land use changes over and above those already incorporated into the existing General Plan at the time the Dumbarton TOD Specific Plan and the Area 3 and 4 Specific Plan were adopted by Newark City Council in 2010. Development in other areas of Newark under the proposed Plan would generally involve development and redevelopment of previously disturbed sites in urbanized

[1] California Department of Conservation, Division of Mines and Geology, 1996, *Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region,* DMG Open-File Report 96-03.

sectors of the city. Nevertheless, the proposed Plan would support implementation of the Dumbarton TOD Specific Plan and the Area 3 and 4 Specific Plan, both of which would involve the transformation of undeveloped/open space to a suburban/urban environment. From a practical perspective, this would likely represent an irreversible change.

7.2.2 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Irreversible changes to the physical environment could occur from accidental release of hazardous materials associated with development activities; however, compliance with the applicable regulations and implementation of the goals, policies, and actions in the proposed Plan, as discussed in Chapter 4.7, Hazards and Hazardous Materials, would reduce this potential impact to a less-than-significant level. No other irreversible damage is expected to result from the adoption and implementation of the proposed Plan.

7.2.3 LARGE COMMITMENT OF NON-RENEWABLE RESOURCES

Implementation of development allowed under the proposed Plan would result in the commitment of limited, renewable resources such as lumber and water. In addition, development allowed by the proposed Plan would irretrievably commit nonrenewable resources for the construction of buildings, infrastructure, and roadway improvements. These nonrenewable resources include mined minerals such as sand, gravel, steel, lead, copper, and other metals. Buildout of the proposed Plan also represents a long-term commitment to the consumption of fossil fuels, natural gas, and gasoline. Increased energy demands would be used for construction, lighting, heating, and cooling of residences, and transportation of people within, to, and from Newark. However, the proposed Plan includes several policies and actions to encourage energy and water conservation, alternative energy use, waste reduction, alternatives to automotive transportation, and green building, including, but not limited to, the following:

- Policy CS-3.2 Water Conservation Standards. Promote water conservation through development standards, building requirements, irrigation requirements, landscape design guidelines, and other applicable City policies and programs.
- Policy CS-3.9 Reclaimed Water. Plan for the eventual use of reclaimed water to supplement the local water supply and reduce the necessity of using potable water for landscaping, irrigation, and non-domestic purposes.
- Policy CS-5.3 Alternative Fuel Vehicles. Encourage the use of alternative fuel vehicle and development of the necessary infrastructure for such vehicles to be viable in Newark.
- Policy CS-6.1 Municipal Green Building. Lead by example by incorporating green design methods and materials in new City projects, including the design of new municipal buildings and the renovation of existing buildings. Long-term planning for a new Newark City Hall should take into consideration such factors as energy and water conservation, design for reclaimed water use, incorporation of recycled materials, and other green building components.

- Policy CS-6.2 Encouraging Greener Construction. Encourage greener construction methods and greater use of recycled-content materials in new residential, commercial, and industrial construction projects.
- Policy CS-6.3 Green Retrofits. Encourage and support Newark property owners seeking to retrofit their buildings to make them greener, more water-efficient, and more energy-efficient.
- Policy CS-7.1 Reducing Energy Use. Support measures to reduce energy consumption and increase energy efficiency in residential, commercial, industrial, and public buildings.
- Policy CS-7.2 Renewable Energy Sources. Support the expanded use of renewable energy sources such as wind and solar by Newark residents and businesses, the City of Newark, and other government agencies.
- Policy CS-8.1 Recycling Program. Actively promote recycling, composting, and waste reduction in order to minimize the amount of waste requiring disposal in landfills. Provide for residential recycling and green waste containers and weekly curbside recycling pickup, to make it as easy and convenient as possible for residents to reduce the volume of trash requiring landfill disposal.
- Policy CS-8.3 Maximizing Reuse. Manage solid waste in a way that maximizes the reclamation and reuse of resources. The City encourages the use of salvaged and recycled materials, rather than the disposal of such materials in landfills.
- Policy CS-8.4 Increasing Commercial, Industrial, and Multi-Family Recycling. Increase recycling rates by the commercial, industrial, and multi-family residential sectors, including apartment buildings, offices, restaurants, hotels, retail stores, and other businesses. Retail centers and multifamily residential development should be required to provide on-site shared collection bins for recyclable waste.
- Policy T-4.7 Car Sharing and Bike Sharing. Promote car sharing and bike sharing as a viable means of transportation and an alternative to private auto and bike ownership.
- Policy T-4.8 Ridesharing. Provide incentives for employees to carpool, vanpool, or use transit when traveling to work. These incentives could include preferential parking for carpools, employee rideshare and vanpool programs, bike parking areas, and shuttles to transit. It could also include the creation of additional park and ride lots in and around Newark.
- Policy T-4.9 Telecommuting and Flextime. Encourage Newark employers to reduce peak hour commute volumes by offering flexible work schedules and telecommute options for employees, and by providing facilities such as showers and locker rooms which make it more feasible for employees to bike to work.

Further, future development under the Plan would be required to comply with all applicable building and design requirements, including those set forth in Title 24 relating to energy conservation. In compliance with CALGreen, the State's Green Building Standards Code, future development would be required to reduce water consumption by 20 percent, divert 50 percent of construction waste from land-fills, and install low pollutant-emitting materials. The Plan would also encourage future development to incorporate low impact design (LID) principles and water efficient best management practices into landscape plans, and implementation of policies and actions included in the proposed Plan would promote the application of environmentally sustainable standards for demolition, construction, and operation.

Additionally, the proposed Plan includes numerous policies and actions that seek to reduce vehicle miles travelled. These proposed policies and actions are described in detail in Chapter 4.6, Greenhouse Gas Emissions, and Chapter 4.13, Transportation and Traffic, of this Draft EIR. Implementation of these policies and actions would minimize increased consumption of fossil fuels that would occur with buildout of the proposed Plan.

Therefore, although the construction and operation of future development under the Plan would involve the use of nonrenewable resources, compliance with applicable standards and regulations and implementation of Plan policies would minimize the use of nonrenewable resources to the maximum extent practicable, and as such, the Plan would not represent a large commitment of nonrenewable resources in comparison to a business as usual situation.

7.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED PLAN

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Typical growth inducing factors might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major barriers to development. This section evaluates the proposed Project's potential to create such growth inducements. Not all aspects of growth inducement are negative; rather, negative impacts associated with growth inducement occur only where the projected growth would cause adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct or indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect, or secondary growth-inducing impacts consist of growth induced in the region by additional demands for housing, goods, and services associated with the population increase caused by, or attracted to, a new project.

The City of Newark is located in a predominantly urbanized portion of southern Alameda County, well served by existing roadway and utility infrastructure. Buildout of the proposed Plan is projected to result in approximately 60,510 residents, 19,699 housing units, and 22,609 jobs in Newark by 2035. Future growth under the proposed Plan would be concentrated primarily in the four focus areas, as described in Chapter 3 of this Draft EIR. The Old Town and Greater NewPark Focus Area, as well as portions of the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area, are previously developed and as such, future development under the Plan would consist largely of redevelopment of previously disturbed lands in urbanized sectors of the city. Where new development on vacant and previously undeveloped land would occur, as envisioned under the Dumbarton TOD and Area 3 and 4 Specific Plans, the extension of existing utility lines and the construction of new roadways would be required, and associated impacts have been analyzed and mitigated in previous EIRs prepared by the City of Newark for the respective specific plans. Undeveloped lands in the Dumbarton TOD Focus Area and the Southwest Newark Residential and Recreational Focus Area represent the last large undeveloped tracts of land in Newark. As such, the Plan would not be considered to have substantial adverse growth-inducing impacts.

Growth under the proposed Plan would have beneficial effects as well. Growth under the Plan would provide additional housing for people working in Newark and other surrounding South Bay communities, including the

Silicon Valley communities of Palo Alto, Menlo Park, and Mountain View across the Dumbarton Bridge. State law requires the City to promote the production of housing to meet its fair share of the regional housing needs distribution made by ABAG, and implementation of the Plan would allow the City to satisfy these requirements. Additionally, the Plan includes policies that would facilitate provision of a range of housing options affordable for a variety of socio-economic groups. Consistent with regional planning objectives articulated in Plan Bay Area, future growth would be focused largely into infill opportunity areas, including the Old Town and Dumbarton TOD PDAs identified in Plan Bay Area, and future development and redevelopment under the Plan would be pedestrian-friendly, use land efficiently, and promote transportation alternatives. Additionally, as described above, numerous policies and actions proposed in the Plan would serve to minimize the increase in vehicle miles travelled and energy consumption that would result from buildout of the Plan, consistent with regional planning initiatives to address air quality and greenhouse gas (GHG) emissions concerns.

Overall, while implementation of the Plan would induce growth, this growth would occur incrementally over a period of 20 years and there is a policy framework in place at the local and regional level to ensure that adequate planning occurs to accommodate it.

8. *Organizations and Persons Consulted*

8.1 LEAD AGENCY

CITY OF NEWARK

Terrence Grindall
Community Development Director

Soren Fajeau, Senior Civil Engineer
Department of Public Works

James Leal
Police Commander, Newark Police Department

8.2 AGENCIES AND CONSULTANTS

ALAMEDA COUNTY FIRE DEPARTMENT

Robert Eaton
Division Chief

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Rohin Saleh
Supervising Civil Engineer

Moses Tsang
Supervising Civil Engineer

CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF LAND RESOURCE PROTECTIONS, WILLIAMSON ACT PROGRAM

Heather Anderson
Environmental Planner

CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF MINES AND GEOLOGY

David Lushbaugh

FREMONT RECYCLING AND RECOVERY FACILITY

Rich Dubiel
General Manager

H.T. HARVEY & ASSOCIATES

Patrick Boursier
Principal, Plant Ecology

Stephen C. Rottenborn
Principal, Wildlife Ecology

NEWARK POLICE DEPARTMENT

Chief James Leal
Newark Police Department

NEWARK UNIFIED SCHOOL DISTRICT

Elaine Neilsen, Chief Business Official
Newark Unified School District

PG&E

John Joseph
Expert Strategic Analyst , Government and Community Partnerships

8.3 REPORT PREPARERS AND QUALIFICATIONS

William Halligan, Esq.
Vice President, Environmental Services
BA, Social Ecology, University of California, Irvine
JD, Chapman University School of Law, Orange, CA
David Early
Principal
BA, Community Studies, University of California, Santa Cruz
Master of City Planning, University of California, Berkeley
Master of Architecture, University of California, Berkeley

Steve Noack
Principal
BS, Urban and Regional Government, Willamette University, Salem, OR

Andrew Hill
Associate
Honors BA in History and English Literature, University of Western Ontario, Canada
Master of Urban Planning (MUP), McGill University, Montreal, Canada

William Hass
BS, Civil and Environmental Engineering, South Dakota State University, Brookings, SD
Master of Public Administration, University of Southern California, Los Angeles

Cathy Fitzgerald
Senior Engineer
BA, Biology, University of California, Los Angeles
MA, Marine Biology, University of California, Santa Barbara
Doctor of Environmental Science & Engineering, University of California, Los Angeles

Nicole Vermillion
Associate Principal
BA with Honors, Environmental Studies, University of California, Santa Cruz
BS with Honors, Ecology & Evolutionary Biology, University of California, Santa Cruz
Master of Urban & Regional Planning, University of California, Irvine

Bob Mantey
Manager, Noise, Vibration & Acoustics
BS, Engineering, Harvey Mudd College, Claremont, CA

Fernando Sotelo
Senior Planner, Noise and Air Quality
BS, Naval Engineering, University of Sao Paulo, Brazil
MS, Civil Engineering, University of Southern California

Alexis Lynch
Associate
BA, Vassar College, Poughkeepsie, NY
Master of City and Regional Planning, University of California, Berkeley

Rob Mazur
Assistant GIS Manager
BA, Geography, Edinboro University, Edinboro, PA

Stuart Michener
Senior Geologist
BA, Environmental Studies, Colby College, Waterville, ME
Graduate work in Hydrogeology, Waste Management Program, Colorado School of Mines
MS, Geology, University of Massachusetts, Amherst

Phil Brylski
Senior Scientist
BS, Forestry & Resource Management, University of California, Berkeley
Master of Forest Science, Yale University, New Haven, CT
PhD, Zoology, University of California, Berkeley

Steve Bush
Assistant Scientist
BS, Chemical Engineering, University of California, Santa Barbara
MS, Chemical Engineering, University of California, Los Angeles

Eric Panzer
Project Planner
BS, Environmental Science, University of California, Berkeley

Melissa McDonough
Project Planner
BA, Public Policy, Mills College, Oakland, CA
Master of Public Policy, Mills College, Oakland, CA

Seung Yen Hong
Project Planner
Bachelor of Fine Arts, Industrial Design, Seoul National University, Korea
Master of City Planning, Urban Design and Transportation, University of California, Berkeley

Kelly Cha
Planner
BA, Architecture, University of California Berkeley

Akshay Newgi
Assistant Planner, Air Quality/GHG and Noise
BS, Civil Engineering, University of Mumbai, India
MS, Environmental Engineering, Old Dominion University, Norfolk, VA

Grant Reddy
Graphic Design Specialist
Bachelor of Environmental Design, University of Colorado, Boulder, CO
Cubic Program Graduate, Leeds School of Business, Boulder CO

ORGANIZATIONS AND PERSONS CONSULTED

THE PLANNING CENTER
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Community Planning | Design | Environmental Services
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