

MITIGATION MONITORING AND REPORTING PROGRAM
Newark Areas 3 and 4 Specific Plan Recirculated EIR
February 2015

EXHIBIT C

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
TRANSPORTATION				
<p>Impact TRAN-1: Based upon 2014 traffic counts, current approved trip data from the cities of Newark and Fremont, and using the current City of Newark LOS acceptability threshold, the addition of project traffic would cause the intersection of Cherry Street/Mowry Avenue to degrade from a LOS D to an unacceptable LOS E during the AM peak hour.</p>	<p>MM TRAN-1.1: Implementation of the following measures would reduce this impact to a less than significant level:</p> <p>To mitigate the project impact at Cherry Street and Mowry Avenue, the intersection would require an additional left turn lane to the westbound Mowry Avenue approach. This mitigation measure would allow the intersection to operate at LOS C during the AM peak hour. This improvement would require the intersection be re-aligned on the eastbound and westbound approaches and extensive modifications to the existing traffic signal. Depending on the final design, it appears that these mitigation measures could be accommodated within the existing right-of-way. Modification of the intersection would be required concurrent with the development of Areas 3 & 4 at the developer's expense. This mitigation measure would return the intersection to LOS D (its LOS standard) during the AM peak hour.</p>	<p>The project developer is responsible for implementing mitigation measures MM TRAN-1.1 concurrent with project construction.</p>	<p>These measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a Certificate of Occupancy, the Community Development Director shall verify this measure is implemented.</p>	<p>Community Development Director</p>
AIR QUALITY				
<p>Impact AIR-1: Without incorporation of appropriate Transportation Control Measures</p>	<p>MM AIR-1.1: The Specific Plan shall incorporate the following measures, which would reduce transportation-related emissions. The measures listed in below are expected to include implementation of appropriate TCMs. Incorporation of these measures would reduce the impact to a less-than-significant level.</p>	<p>The project applicant is responsible for implementing mitigation measures MM</p>	<p>These measures shall be printed on all construction documents,</p>	<p>Community Development Director</p>

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the project would conflict with the 2005 Bay Area Ozone Strategy.	<ul style="list-style-type: none"> • Improve existing or construct new bus pullouts and transit stops at convenient locations along Cherry Street and Stevenson Boulevard. Pullouts shall be designed so that normal traffic flow on arterial roadways would not be impeded when buses are pulled over to serve riders. Bus stops shall include shelters, benches and posting of transit information; • Appropriate bicycle amenities shall be included. This would include bike lane connections throughout the project site. Off-site bicycle lane improvements shall be considered for roadways that would serve the project; • The City and project proponents shall explore and implement feasible means to bring transit or shuttle service to Area 4; • Provide pedestrian sidewalks or paths throughout the project site with convenient access to bus stops along adjacent arterials; • Consider providing pedestrian signs and signalization to make a pedestrian friendly environment. Include convenient pedestrian crossings at strategic areas with count-down signals at intersections that would enhance pedestrian use; • Review landscape plans to ensure that they provide new trees that would shade buildings and walkways in summer to reduce the cooling loads on buildings; • Develop and implement building practices for the project that that are based on energy efficient standards that exceed State building code. 	AIR-1.1 concurrent with project construction.	contracts, and project plans. The Community Development Director shall verify this measure is implemented.	
Impact AIR-3: Based upon the BAAQMD significance thresholds for construction activity, temporary daily emissions of ROG, PM ₁₀ and PM _{2.5} from	MM AIR-3.1: With incorporation of Mitigation Measure 4.2 (MM-4.2), the NOx emissions levels will be reduced by over 33 percent to a less than significant level impact.	During construction, the project contractor shall ensure these measures are implemented.	All measures shall be printed on all construction documents, contracts, and project plans. Prior to issuance of a grading permit within	Community Development Director

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<p>truck hauling, along with emissions from on-site equipment used to move fill material would have emissions below the BAAQMD daily thresholds. Construction activity NOx emissions would be above the significance thresholds. Because NOx emissions are above the BAAQMD significance threshold of 54 pounds per day, the effect of these emissions to the air basin would be significant.</p>			<p>Area 3, the developer shall submit a diesel particulate/ PM_{2.5} reduction plan to the Community Development Director for review and approval.</p>	
<p>Impact AIR-4: Without incorporation of construction mitigation</p>	<p>MM AIR-4.1: Implementation of the following measures listed below would reduce the air quality impacts associated with grading and new construction to a less- than-significant level.</p>	<p>During grading and construction, the project contractor shall</p>	<p>These measures shall be printed on all construction documents,</p>	<p>Community Development Director</p>

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<p>measures, development of the Areas 3 and 4 Specific Plan would temporarily expose sensitive receptors to substantial pollutant concentrations.</p>	<ul style="list-style-type: none"> • Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times. • Cover all hauling trucks or maintain at least two feet of freeboard. • Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas. • Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously-graded areas that are inactive for 10 days or more). • Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles. • Limit traffic speeds on any unpaved roads to 15 mph. • Replant vegetation in disturbed areas as quickly as possible. • Suspend construction activities that cause visible dust plumes to extend beyond the construction site. <p>MM AIR-4.2: Measures to reduce diesel particulate matter and PM2.5 from construction shall also be implemented to ensure that short-term health impacts to nearby sensitive receptors are avoided.</p> <ul style="list-style-type: none"> • All construction related activities within Area 3 shall provide a plan, for approval by the City, demonstrating that the heavy-duty (> 50 horsepower) mobile off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average that meet U.S. EPA Tier 3 emissions standards, and portable equipment operating on the site for more than two days continuously, will meet U.S. EPA Tier 4 emission standards. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or 	<p>ensure these measures are implemented.</p> <p>During construction, the project contractor shall ensure these measures are implemented.</p>	<p>contracts, and project plans. Prior to issuance of a grading permit, the developer shall submit a dust control management plan to the Community Development Director for review and approval. The BAAQMD construction dust control measures shall be incorporated in the plan.</p> <p>Prior to issuance of a grading permit within Area 3, the developer shall submit a diesel particulate/ PM2.5 reduction plan to the Community Development Director for</p>	

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	<p>other options as such become available.</p> <ul style="list-style-type: none"> Prohibit equipment with dirty emissions. The project shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. This measure means that equipment with continuous dark emissions is in violation of the requirement. Reduce equipment and vehicle idle times. Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite. Reduce vehicle emissions. Properly tune and maintain equipment for low emissions. Separate equipment and trucks from residences. Avoid staging equipment within 200 feet of residences (including newly built and occupied residences). 		review and approval.	
NOISE				
<p>Impact NOI-1: Future residential uses developed in Areas 3 and 4 would be exposed to exterior noise levels greater than 60 dBA Ldn, which exceeds the noise and land use compatibility standards contained in the City of Newark's General Plan. Interior noise</p>	<p>MM NOI-1.1: The following mitigation measures shall be implemented in Areas 3 and 4 to reduce noise impacts to a less-than-significant level:</p> <ul style="list-style-type: none"> Noise barriers shall be constructed to reduce noise levels at private use areas along Cherry Street, Stevenson Boulevard, and the railroad tracks. To be effective, the barriers shall be constructed solidly over the entire surface and at the base. Openings or gaps between barrier materials or the ground decrease the reduction provided by a noise barrier. Suitable material for barrier construction shall have a minimum surface weight of three pounds per square foot (such as one-inch thick wood, masonry block, concrete, or metal). Preliminary barrier designs are shown in on Figure 3.4-2. The final design of noise barriers shall be completed during construction-level review when detailed site plans and grading plans are available. Design of the residential units and educational buildings will be sufficient to adequately reduce interior noise levels to 45 dBA Ldn or 	During project design, the project contractor shall ensure the noise attenuation measures are incorporated into the project.	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of building permits, a project-specific acoustical analysis prepared by a</p>	Community Development Director

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<p>levels would be expected to exceed 45 dBA Ldn without the incorporation of noise insulation features into the future development projects' design.</p>	<p>lower. Building sound insulation requirements will include the provision of forced-air mechanical ventilation for all new units with direct line of sight to significant transportation noise sources or railroad lines in the project vicinity. Special building sound insulation treatments may be required. These treatments would include, but are not limited to, sound rated windows and doors, sound rated wall constructions, acoustical caulking, protected ventilation openings, etc. The specific determination of what treatments are necessary would be determined on a unit-by-unit basis. The results of the analysis, including the description of the necessary noise control treatments to achieve acceptable noise levels inside the living units, shall be submitted to the City along with the building plans and will be reviewed and approved by the Community Development Director prior to issuance of a building permit.</p>		<p>licensed professional shall be submitted to the Community Development Director for review and approval.</p> <p>Prior to issuing a Certificate of Occupancy, the Community Development Director will verify the approved noise attenuation measures were incorporated into the project.</p>	
<p>Impact NOI-2: Without incorporation of construction mitigation measures, development of the Areas 3 and 4 Specific Plan would result in significant temporary noise impacts.</p>	<p>MM NOI-2.1: Future development of the Areas 3 and 4 Specific Plan will include the following construction-noise mitigation measures, to reduce noise impacts from project construction to a less-than-significant level.</p> <ul style="list-style-type: none"> • Restrict noise-generating activities at the construction site or in areas adjacent to the construction site to the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday, and between 8:00 a.m. to 5:00 p.m. on Saturdays. Construction shall be prohibited on Sundays and holidays. • Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. • Unnecessary idling of internal combustion engines should be strictly prohibited. 	<p>The project contractor shall ensure the construction noise mitigation measures and management plan are implemented during all phases of development.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall submit to the</p>	<p>Community Development Director</p>

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	<ul style="list-style-type: none"> • Locate stationary noise generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. Construct temporary noise barriers to screen stationary noise generating equipment when located near adjoining sensitive land uses. Temporary noise barriers could reduce construction noise levels by 5 dBA. • Utilize “quiet” air compressors and other stationary noise sources where technology exists. • Route all construction traffic to and from the project site via designated truck routes where possible. Prohibit construction related heavy truck traffic in residential areas where feasible. • Control noise from construction workers’ radios to a point where they are not audible at existing residences bordering the project site. • The contractor shall prepare and submit to the City for approval a detailed construction plan identifying the schedule for major noise-generating construction activities. • Designate a “disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule. 		<p>Community Development Director for review and approval, the detailed construction noise attenuation plan.</p> <p>The noise disturbance coordinator shall ensure the construction noise mitigation measures are implemented.</p>	
BIOLOGICAL RESOURCES				
<p>Impact BIO-1: The project would result in the loss of up to 85.6 acres of wetland/marsh/aquatic habitat in Area 4. This would result in</p>	<p>MM BIO-1.1: Temporary disturbance to and permanent loss of all wetland and aquatic habitat in Area 4 will be avoided to the maximum extent feasible. All temporary staging areas and construction access roads, if necessary, will be located away from seasonal wetland and aquatic habitat abutting development areas will be clearly demarcated with Environmentally Sensitive Area fencing to avoid inadvertent disturbance during construction activities. Grading plans will be designed to avoid permanent impacts to wetland and aquatic habitat. Either Mitigation</p>	<p>Environmentally Sensitive Area shall be designated by a qualified biologist and fencing shall be installed prior to</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Community Development Director</p>

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<p>a substantial adverse effect on riparian habitat and on federally protected wetlands through the loss of these habitats. At the time project-specific applications are proposed for residential development in Area 4, the detailed plans will be subject to tiered environmental review, in conformance with CEQA Section 21094, including more detailed evaluation of wetland impacts and identification of mitigation measures.</p>	<p>Measure MM BIO-1.2A or MM BIO-1.2B, described below, shall be implemented.</p> <p>MM BIO-1.2A: To offset impacts to the wetland and aquatic habitat in Area 4, the future project proponent(s) will utilize a combination of on-site wetland creation and enhancement, and/or acquisition of existing wetlands located off site. The on-site component of the mitigation shall include creation of wetland and aquatic habitat within upland habitat that is currently disked and graded within Area 4 and will enhance portions of the remaining areas of agricultural field/seasonal wetland habitat within Area 4, as described below.</p> <p>Compensatory mitigation for impacts to these habitats shall consist of two parts: (1) creation of high quality wetland and aquatic habitat within Area 4 within upland habitat at an acreage ratio of 1:1 (habitat created/enhanced: habitat impacted) to prevent any net loss of habitat functions or values, and (2) enhancement of existing seasonal wetland habitat that is currently within agricultural production (mapped as agricultural field/seasonal wetland habitat) at an acreage ratio of 0.5:1 (such enhancement will include cessation of farming activities, seeding with appropriate seasonal wetland plant seeds, and may include minor earth moving activities). In summary, any impacts to seasonal wetlands, freshwater marsh, brackish marsh, detention basin, and aquatic habitat will be mitigated at a total acreage ratio of 1.5:1 (habitat created and enhanced: habitat impacted).</p> <p>A detailed mitigation plan shall be developed by a qualified biologist under contract to the landowner/applicant requesting permits for wetland fill (prior to grading). This plan will be submitted to and approved by appropriate regulatory agencies and the City of Newark prior to the initiation of grading within wetlands.</p> <p>The detailed mitigation plan will outline the necessary steps for mitigation; it will include a plan view graphic showing the target mitigation activities, a brief seeding plan (species palette and application techniques) to re-</p>	<p>issuance of a grading permit.</p> <p>The fencing shall be maintained and remain in place until construction is complete.</p> <p>If off-site wetland habitat is acquired, the developer shall acquire the wetland habitat, prior to the issuance of a grading permit.</p> <p>If the on-site creation and enhancement of wetland habitat is proposed, the project contractor shall implement the site-specific mitigation plan during project construction.</p>	<p>If off-site wetland habitat is acquired, the developer shall provide proof of the acquired habitat to the Community Development Director, prior to issuance of a grading permit.</p> <p>If the on-site mitigation is proposed, the developer shall submit a site-specific mitigation plan to the Community Development Director for review and approval, prior to issuance of a grading permit; prior to issuing a Certificate of Occupancy, the City will verify the approved</p>	

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	<p>vegetate the areas currently in agricultural production, and a monitoring and reporting plan with success criteria. The plan will include a recommended timeline for mitigation activities and the establishment of seeded native species. The mitigation work will begin in the same construction season as the initiation of grading within wetlands or aquatic habitats, and mitigation site grading will be completed within one year of initiation (or as otherwise determined by resource agency permits). Potential biological impacts associated with grading activities required for the mitigation of the seasonal wetlands have been considered during this current Specific Plan CEQA impact analysis and no additional significant impacts have been identified. All created/enhanced habitats will be protected in perpetuity through a conservation easement, deed restriction, conveyance to a qualified land trust or the Refuge, or through equivalent means.</p> <p>MM BIO-1.2B: Alternatively, at the discretion of the project developer(s), and as approved by the City of Newark, all or a portion of the mitigation requirements for impacts to seasonal wetland habitats may be satisfied through the acquisition and permanent preservation of existing wetlands at a ratio 1.5:1 (existing habitat: habitat impacted) at an approved wetland mitigation bank (i.e. offsite) or other private lands. These off-site locations shall currently support wetlands of sufficient quantity and quality to satisfy mitigation requirements. The off-site component of the wetland mitigation shall occur on lands located within 10 air miles of the current project site and shall be located along the eastern shore of south San Francisco Bay within the same geographic watershed, or as otherwise approved by the USACE and RWQCB.</p> <p>MM BIO-1.3: Monitoring and Performance Standards: Annual monitoring of the mitigation sites by a qualified biologist will determine if the project has met its mitigation obligation. Attainment of the quantitative performance and final success criteria outlined below will indicate that the mitigation site is well on its way towards meeting the long-term habitat goals with little chance of failure. When the final success criteria is met, a final report shall be submitted to the agencies for</p>		<p>onsite mitigation plan is implemented.</p> <p>Annual monitoring reports will be submitted to the Community Development Director.</p>	

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	<p>approval. Furthermore, the monitoring program is designed to provide feedback to ensure a successful restoration project. The performance criteria are based on vegetation trends observed at comparable restoration projects.</p> <p>The wetland mitigation sites shall be monitored for a 5-year period or until attainment of the final success criteria. During Years 1, 2, 3, and 5 the monitoring results shall be compared to performance criteria for vegetation establishment. Failure to meet the performance criteria will trigger an evaluation of the cause of poor performance and implementation of remedial actions. If the final success criteria have not been met, remedial actions shall be required and monitoring will continue until the final success criteria have been achieved.</p> <p>Monitoring of performance criteria will evaluate the extent to which the wetland mitigation site is incrementally developing high-quality wetland habitat values. Furthermore, this information shall be utilized in the maintenance program.</p> <p>Percent cover of wetland indicator species shall be monitored in Years 1, 2, 3, and 5 via quadrat sampling. At Years 2, 3, and 5 the percent cover values will have shown steady trends towards, or will have met the percent cover success criteria of wetland indicator species. The percent cover performance criteria for the mitigation site will be 15% for year 1, 35% for year 2, and 60% for year 3. No performance criterion for percent cover are set for Year 1 as cover will be limited to plantings. However, percent cover will still be quantified in Year 1 to obtain a baseline.</p> <p>Final success criteria will be used to determine if the mitigation goals have been met. Attainment of the final goals will indicate that the on-site mitigation is well on its way towards meeting the long-term habitat goals with little chance of failure. The performance of the mitigation site will be measured during the monitoring period to assess site development and influence management.</p>			

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	<p>Percent cover will be used as the primary quantitative indicator of successful establishment of wetland habitat. The final success criterion for percent cover is 60% cover of native wetland indicator species throughout the created, restored, and enhanced tidal wetland areas.</p> <p>An informal wetland delineation of the created jurisdictional habitats shall begin 3 years following site construction. The mitigation will be considered a success if the informal wetland delineation reveals that the requisite mitigation of wetlands was created. If the requisite acreage is not achieved in Year 3, a wetland delineation shall be undertaken at the site until the necessary wetland acreage is achieved or contingency measures are accepted by the agencies.</p>			
<p>Impact BIO-2: Development within Area 4 would result in substantial adverse effects on federally protected wetlands (seasonal wetlands) and associated special status species due to altering the hydrology on the project site.</p>	<p>MM BIO-2.1: Stormwater runoff for the proposed residential development and golf course within Area 4, shall continue to drain, post-project, from multiple discharge points and the velocity of discharge into the wetlands shall be designed to prevent erosion and channelization. This includes avoiding single-point source of water discharges from the proposed development. Rather, simulation of natural flow through a more dispersed discharge of collected runoff shall be designed for movement of water from hardscape within developed features into wetlands surrounded by or adjacent to development such that the existing hydrologic condition is not substantially changed.</p> <p>For every seasonal wetlands to be preserved that fronts the development envelope that is smaller than (1) acre, as shown on the habitat map (Figure 2.4-1), there will be at least one discharge point of stormwater flows and nuisance flows. For wetlands greater than one (1) acre there shall be a minimum of three (3) discharge points separated by no less than 200 feet and situated along the upslope perimeter of the wetlands.</p> <p>For each of the seasonal wetlands to be preserved, stormwater runoff and nuisance flows shall be designed to incorporate grassy swales, retention basins, and energy dissipaters to control discharge velocities in order to prevent erosion at the discharge point within wetlands and to prevent</p>	<p>During project design, the project civil engineers shall ensure there are multiple stormwater discharge points in order to meet the requirements of MM BIO-2.1 through MM BIO-2.5.</p> <p>The project contractor shall ensure these measures are incorporated into all plans and implemented</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The Community Development Director and Public Works Director shall review the project plans to ensure these measures are incorporated into the project.</p> <p>Annual monitoring</p>	<p>Community Development Director</p>

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	<p>channelization. Channel erosion at each of the outfall discharge points draining into seasonal wetlands shall be monitored annually for the first five (5) years. If any channel erosion is noted, remedial measures shall be taken to incorporate additional suitable water control structures to prevent further erosion. Once these remedial measures are implemented, the five (5) year monitoring phase will be restarted at that location.</p> <p>MM BIO-2.2: All grading and culvert sizing and installation shall be designed to ensure adequate drainage without draining wetlands more quickly than currently occurs and to allow water to pond for durations similar to the current existing condition.</p> <p>MM BIO-2.3: To prevent any significant decrease in the amount of water entering preserved wetland habitats in Area 4 during the winter months, native grass species shall be used in the proposed golf course. A species list for use on the golf course (including outside of the turf area) shall be developed by a qualified biologist in concert with golf course designers and approved by the City of Newark.</p> <p>MM BIO-2.4: The following measures shall be implemented to minimize any perennial ponding within the existing seasonal wetlands.</p> <ul style="list-style-type: none"> • Nuisance runoff from the proposed residential and golf course uses shall be minimized and controlled to reduce their input into the remaining natural habitat during the dry season. • Water use shall be limited to the minimum necessary for the golf course and landscaping, including that under private ownership, to decrease summer nuisance flow to negligible amounts and approximate the existing condition. • Drought tolerant plant species shall be planted within landscaped areas, including private lawns, which do not require water during the summer months. Where this is not feasible, proper irrigation using only the amount of water that can be taken up by the plants shall be implemented. • Water shall be applied at dawn to limit evaporation, thereby limiting the amount of water that must be applied and reducing the possibility 	<p>during construction of the project.</p> <p>A qualified geomorphologist or hydrologist shall annually monitor the outfall discharge points.</p> <p>A qualified biologist shall assist in the development of the golf course planting.</p> <p>Incorporated during landscape design and stormwater design by landscape architect and civil engineer.</p> <p>Incorporated into golf course landscape management plan</p>	<p>reports will be submitted to the Community Development Director.</p> <p>Community Development Director will approve the design and planting plan for the golf course.</p>	

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	<p>of over flow from the site as evapotranspiration takes place during the day.</p> <ul style="list-style-type: none"> • Implement the following University of California Integrated Pest Management Plan recommendations to maximize irrigation efficiency: <ul style="list-style-type: none"> ▪ Irrigate deeply, but infrequently. ▪ Irrigate early in the morning. At this time water loss from evaporation is minimal, distribution is usually good because of good water pressure and limited wind, and the risk of disease development is reduced. ▪ Avoid runoff by matching water application rates to soil infiltration rates (rate water enters soil) or by pulsing (i.e., applying a portion of the water, waiting for it to be absorbed in the soil, and then applying the next portion). ▪ Use less water in shaded areas than in open sun. ▪ Remove thatch in spring if it is more than 0.5 inch thick. ▪ Do not over fertilize; fertilize moderately according to the individual species and location. <p>MM BIO-2.5: Any remaining dry-season nuisance flows shall be retained within the development footprint by grading the site to drain internally, particularly within the golf course area, or by constructing berms or swales to confine these flows to the site to infiltrate or evaporate rather than flowing overland to salt marsh habitat.</p>	Completed by project civil engineer		
<p>Impact BIO-3: The project would result in significant impacts to federally protected wetlands in Area 4, including salt marsh habitat and associated special status species due to an</p>	<p>MM BIO-3.1: Implementation of mitigation measures MM BIO-2.1 through 2.5 described above will reduce the Specific Plan’s impacts in Area 4 associated with the discharge of freshwater runoff into salt marsh habitats to a less than significant level.</p>	Same as above.	Same as above.	Same as above.

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increase in freshwater flows as a result of the project.				
<p>Impact BIO-4: The project would result in the loss of burrowing owl habitat, a California species of special concern, and disturbance to existing owls on-site. This is a significant impact.</p>	<p><i>Area 3:</i> Any development activities within Area 3, Sub-Area A will require implementation of mitigation measures MM BIO-4.1 through MM BIO-4.3 to ensure against the possibility of take of individual owls, as applicable.</p> <p><i>Area 4:</i> Any development activities within Area 4 will require implementation of mitigation measure MM BIO-4.1 through MM BIO-4.6 below to ensure against the possibility of take of individual owls.</p> <p>MM BIO-4.1: Pre-construction surveys for burrowing owls shall be completed in areas planned for fill placement and construction areas in general conformance with the California Burrowing Owl Consortium’s and the CDFW Staff Report (2012) protocols. Because owls are known to occupy the site, these surveys shall be completed no more than 15 days prior (rather than 30 days prior, as per the Consortium’s protocol) to the start of importing fill and construction to minimize the probability of immigration of owls between the time surveys are completed and the initiation of grading. If the initial disturbance is followed by periods of inactivity exceeding 15 days, or if the development is phased spatially and/or temporally such that an area in which construction activities are to commence has not been disturbed by construction activities within the prior 15-day period, a new burrowing owl pre-construction survey will be completed prior to the start of disturbance. If burrowing owls are detected on or within 250 ft of the site, Mitigation Measures MM BIO-4.2 and MM BIO-4.3, described below, shall be implemented.</p> <p>MM BIO-4.2: For burrowing owls located during the non-breeding season (generally 1 September to 31 January), a 150-ft buffer zone will be maintained around the occupied burrow(s) if practicable. If such a buffer</p>	<p>The project contractor shall hire a qualified ornithologist to complete the pre-construction burrowing owl surveys.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>A report prepared by a qualified ornithologist documenting the results of the survey shall be submitted to the Community Development Director for review and approval, prior to the start of construction.</p>	<p>Community Development Director</p>

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	<p>is not practicable, then a buffer adequate to avoid injury or mortality of owls will be maintained, or the birds will be evicted as described for Mitigation Measure MM BIO-4.3 below. During the breeding season (generally 1 February to 31 August), a 250-ft buffer, within which no new activity will be permissible, will be maintained between project activities and occupied burrows. Owls on site after 1 February will be assumed to be nesting unless direct observations indicate otherwise. This protected buffer area will remain in effect until 31 August, or based upon monitoring evidence, until the young owls are foraging independently or the nest is no longer active.</p> <p>MM BIO-4.3: If construction will directly impact occupied burrows, eviction of owls may occur outside the nesting season to prevent injury or mortality of individual owls. No burrowing owls shall be evicted from burrows during the nesting season (1 February through 31 August) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season). Relocation of owls during the non-breeding season will be completed by a qualified biologist using one-way doors, which should be installed in all burrows within the impact area and left in place for at least two nights. These one-way doors will then be removed and the burrows backfilled immediately prior to the initiation of grading.</p> <p>MM BIO-4.4: To reduce impacts of the Specific Plan on the local (South Bay) burrowing owl population in Area 4, habitat shall be preserved and managed for burrowing owls on and/or off-site if and when development occurs in Area 4. California burrowing owl mitigation guidelines recommend that 6.5 acres of foraging habitat be preserved and managed per occupied burrowing owl burrow (whether by a pair or singly) in mitigation sites. Based upon the existing quality of burrowing owl habitat on the site and the impact to baseline conditions, future developers of Area 4 shall provide 26 acres of mitigation habitat. This habitat will be preserved and managed specifically for use by burrowing owls.</p>	<p>Burrowing owl mitigation habitat shall be designated by a qualified ornithologist and secured prior to issuance of any grading</p>	<p>Community Development Director and CDFG will review and approve mitigation habitat</p>	

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>Development on Area 4 is likely to occur in phases, and provision of burrowing owl habitat mitigation will likewise be phased according to the extent of habitat impacts. Habitat mitigation will be provided for any residential or recreational development on Area 4. Residential or recreational development affecting less than 100 acres will require mitigation for two pairs of owls, or 13 acres of habitat mitigation on-site and/or off-site. Residential or recreational development equaling or exceeding 100 acres, mitigation for two additional pairs of owls will be required, for a total of 26 acres of habitat mitigation. A combination of on-site and off-site mitigation is acceptable. However, on-site mitigation shall contribute toward the habitat mitigation requirement only if at least 6.5 acres of contiguous burrowing owl habitat is preserved and managed on-site. Either Mitigation Measure MM BIO-4.5A or MM BIO-4.5B, described below, shall be implemented.</p> <p>MM BIO-4.5A: If on-site (within Area 4) habitat is to be preserved, a mitigation and monitoring plan detailing the areas to be preserved for owls; the methods for managing on-site habitat for owls and their prey; methods for enhancing burrow availability within the mitigation site (potentially including the provision of artificial burrows, although long-term management for ground squirrels will be important as well); measures to minimize adverse effects of development on owls on-site; and a monitoring program and adaptive management program shall be prepared by a qualified biologist and submitted to the City of Newark and the CDFW for review and approval. At least 50 percent of the mitigation area must consist of upland habitat suitable for use by burrowing mammals, and no wetlands supporting tall vegetation shall be included within the mitigation site. The mitigation area must be contiguous with habitat that is permanently preserved as open space to avoid having the site surrounded by development in the future. The mitigation area will be protected in perpetuity through a conservation easement, deed restriction, conveyance to a qualified land trust or the Refuge, or through equivalent means.</p>	<p>permits in Area 4</p> <p>A mitigation and monitoring plan and adaptive management program shall be completed by a qualified biologist hired by the project proponents.</p>	<p>Community Development Director and CDFG will review and approve plan and program.</p>	

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>MM BIO-4.5B: If the project proponent elects to mitigate off-site, such mitigation may take the form of habitat preservation and management (in which case all the monitoring and habitat requirements in the preceding paragraphs would apply) or the purchase of credits in an off-site mitigation bank. Because the nearest burrowing owl mitigation banks are located outside of the South Bay, this mitigation may occur outside the region.</p> <p>Unless at least 13 acres of burrowing owl habitat mitigation occurs on-site, some on-site enhancements shall also be made to reduce impacts of the project on the local (South Bay) burrowing owl population. Such enhancements shall include the provision of artificial burrow complexes at the edge of the golf course or recreation area or on the outboard side of levees on the site and management of at least portions of levee side slopes around these burrow complexes to provide suitable conditions for burrowing owls and ground squirrels (e.g., periodic mowing to maintain short vegetation). If less than 13 acres of on-site habitat mitigation is provided, then:</p> <ul style="list-style-type: none"> • Residential or recreational development affecting less than 100 acres shall require the provision of two artificial burrow complexes. • Residential or recreational development equaling or exceeding 100 acres, shall require two additional burrow complexes be provided (for a total of four). These burrow complexes and the vegetation around them, shall be maintained regularly to maintain suitable on-site conditions for nesting and roosting owls. Given the extent of natural habitat with short vegetation, and the continued presence of seasonal wetlands on much of Area 4, providing and maintaining burrows for use by owls is expected to maintain some burrowing owl presence on the site even if most or all of the owl habitat mitigation occurs off-site. <p>MM BIO-4.6: As described in greater detail under Mitigation Measure MM BIO-9.2 below, signage shall be placed in appropriate locations on the golf course or recreation area to prohibit golfers/visitors from entering areas where the artificial burrow complexes will be located. If development occurs on Area 4, signage will be placed along the</p>	<p>For off-site habitat preservation: A mitigation and monitoring plan and adaptive management program shall be completed by a qualified biologist hired by the project proponent(s).</p> <p>For on-site enhancements: a qualified biologist hired by the project proponent(s) shall implement the burrowing enhancements.</p>		

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>ACFC&WCD Line D levees and the Mowry Slough levee to instruct recreational users of these levees against leaving the levee tops to protect sensitive species such as the burrowing owl.</p> <p>MM BIO-4.7: Indirect effects of development could include an increase in non-native and urban-adapted native species, and an increase in domestic animals such as cats and dogs, that could prey on more sensitive native species in the on-site conservation areas. To reduce this effect, a predator management program will be developed and implemented. This program will focus on education of occupants of the new residential areas regarding measures to minimize the potential for subsidizing predator species and to minimize the potential effects of pets on sensitive species and enforcement of the program’s measures, and restrictions on certain activities that could increase predation of sensitive species. The program will include, at a minimum, the following:</p> <ul style="list-style-type: none"> • Feeding pets outdoors will be prohibited so that pet food does not attract or subsidize the diets of nuisance species. • Pets will be prohibited from ranging freely (off-leash dogs will be prohibited in conservation areas and no free-roaming outdoor cats will be permitted), to prevent their entry into sensitive species habitat. • All food waste will be contained so that it does not attract or subsidize the diets of predators. <p>Any neighborhood association established for new residential areas will be responsible for disseminating this information, and the neighborhood association and City will be responsible for enforcing the program.</p>	<p>Signage shall be implemented by golf course/recreation developer prior to start of operation to the public.</p> <p>A predator management program shall be prepared by a qualified biologist. It shall be implemented and enforced through the neighborhood association or similar program and City of Newark.</p>		
<p>Impact BIO-5: Loss of eggs or young peregrine falcons, a species protected by the Migratory Bird Treaty Act</p>	<p>MM BIO-5.1: Construction, including any tower modifications and/or replacement in Area 4, shall occur during the non-breeding season (1 September to 31 January), to the maximum extent possible.</p> <p>MM BIO-5.2: If construction must commence between 1 February and 31 August, then pre-construction surveys for nesting peregrine falcons shall be completed by a qualified ornithologist to ensure that no nests will</p>	<p>The project contractor shall hire a qualified ornithologist to complete the pre-construction</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>(MBTA) and threatened under the California Endangered Species Act (CESA) would result in a significant impact.</p>	<p>be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of demolition/construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). During this survey, the ornithologist will inspect all power-line towers within 300 feet of impact areas for nests. If no peregrine falcon nests are detected within the Specific Plan area during this survey, further measures are not necessary. The survey results shall be provided to the Community Development Director for review and approval prior to the start of grading and construction.</p> <p>MM BIO-5.3: If an active nest is found within 300 feet of any construction activity, a 300-foot buffer, within which no new development-related activity will be permissible, will be maintained between development activities and the occupied nest. This protected area will remain in effect until the young falcons have fledged or the nest is no longer active.</p>	<p>peregrine falcon surveys.</p>	<p>A report prepared by a qualified ornithologist documenting the results of the survey shall be submitted to the Community Development Director for review and approval, prior to the start of construction.</p>	
<p>Impact BIO-6: The project could result in significant impacts to nesting colonies of tricolored blackbirds, a California species of special concern.</p>	<p>MM BIO-6.1: Construction shall commence during the non-breeding season (approximately 1 April through 31 July for this species), to the maximum extent possible.</p> <p>MM BIO-6.2: If construction must commence between 1 April and 31 July, then pre-construction surveys for nesting tricolored blackbirds will be completed by a qualified ornithologist to ensure that no nests will be disturbed during Specific Plan implementation. This survey shall be completed no more than 14 days prior to the initiation of demolition/construction activities. During this survey, the ornithologist will inspect all potential breeding habitat within 400 feet of impact areas for nests. If no tricolored blackbird colonies are detected within the Specific Plan area during this survey, further measures are not necessary.</p> <p>MM BIO-6.3: If an active colony is found within 400 ft of any construction activity, a 400-ft buffer, within which no new development-</p>	<p>The project contractor shall hire a qualified ornithologist to complete the pre-construction tricolored blackbird surveys.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>A report prepared by a qualified ornithologist documenting the results of the survey shall be submitted to the</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	related activity will be permissible, will be maintained between development activities and any occupied nests. This protected area shall remain in effect until the young have fledged or the colony is no longer active.		Community Development Director for review and approval, prior to the start of construction.	
<p>Impact BIO-7: The project could result in significant impacts to nesting colonies of pallid bats, a California species of special concern, and Yuma myotis bats, a rare species in the South Bay.</p>	<p>MM BIO-7.1: Survey for roosting bats shall be completed prior to the removal of any building or tree with potential for day-roosting by bats, or prior to the initiation of any construction activities within 250 ft of such potential roost sites. The survey shall be completed by a qualified bat biologist (i.e., a biologist holding a CDFW collection permit and a Memorandum of Understanding with CDFW allowing the biologist to handle and collect bats). If suitable roost sites are found but a visual survey is not adequate to determine presence or absence of bats (which would be particularly likely in the case of potential roost trees), acoustical equipment will be used to determine occupancy. This survey shall be completed prior to the beginning of the breeding season (i.e., prior to 1 March) in the year in which construction or demolition in a given area is scheduled to occur so that adequate measures can be implemented, if necessary, to evict the bats during the non-breeding season. The survey results shall be provided to the Community Development Director for review and approval prior to the start any construction related activities.</p> <p>MM BIO-7.2: Because the surveys in Mitigation Measure MM BIO-7.1 will be completed prior to the breeding season, several months may pass between that survey and the initiation of construction or demolition in a given area. Therefore, a second pre-demolition/pre-construction survey for roosting bats, following the methods described above, shall be completed within 15 days prior to the commencement of these activities in a given area to determine whether bats have occupied a roost in or near the development impact areas. This survey will be facilitated considerably by information (e.g., on potential roost trees) gathered during the previous survey. If bats are found to be roosting, additional mitigation as follows must be implemented.</p>	<p>Prior to removal of any structures or trees or prior any grading/ construction activities within 250 feet of a structure or tree, the project contractor shall hire a qualified bat biologist to complete the pre-construction roosting bat surveys.</p> <p>Within 15 days prior to the start of demolition or construction, a pre-demolition/ pre-construction survey shall be completed by a qualified bat biologist hired</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>A report prepared by a qualified bat biologist documenting the results of the survey shall be submitted to the Community Development Director for review and approval, prior to the start of construction.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>MM BIO-7.3: If a maternity roost of any bat species is found, the bat biologist shall determine the extent of a construction-free buffer around the active roost that will be maintained. This buffer would be maintained from 1 March until the young are flying, typically after 31 August.</p> <p>MM BIO-7.4: If a roost of any kind is found in an area (e.g., a building or tree) that will not be disturbed by construction, or that can be avoided, the roost structure will not be impacted.</p> <p>MM BIO-7.5: If a day roost is found in a building, or in a tree that is to be completely removed or replaced, individual bats will be safely evicted under the direction of a qualified bat biologist. Eviction of bats will occur at dusk, so that bats will have less potential for predation compared to daytime roost abandonment. Eviction will occur between 1 September and 31 March, outside the maternity season, but will not occur during long periods of inclement or cold weather (as determined by the bat biologist) when prey are not available or bats are in torpor. If a day roost is found within a building, eviction will occur by opening the roosting area to allow air flow through the cavity. Demolition may then follow no sooner than the following day (i.e., there must be no less than one night between initial disturbance for air flow and the demolition). This action should allow bats to leave during dark hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. If feasible, one-way doors will also be used to evict bats from tree roosts. If use of a one-way door is not feasible, or the exact location of the roost entrance in a tree is not known, the trees with roosts that need to be removed will first be disturbed by removal of some of the trees' limbs not containing the bats. Such disturbance will occur at dusk to allow bats to escape during the dark hours. These trees would then be removed the following day. All of these activities will be performed under the supervision of the bat biologist.</p> <p>MM BIO-7.6: If a day roost for pallid bats or Yuma myotis will be impacted, an alternative bat roost structure will be provided. The design</p>	<p>by the project contractor.</p> <p>Between 1 March to 31 August a construction-free buffer shall be maintained by project contractor if a maternity roost is found.</p>		

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>and placement of this structure will be determined by a qualified bat biologist based on the location of the original roost and which species is located. This bat structure will be erected at least one month (and preferably a year or more) prior to removal of the original roost structure. This structure will be checked during the breeding season for up the three years following completion of the development, or until it is found to be occupied by bats, to provide information for future development projects regarding the effectiveness of such structures in minimizing impacts to bats.</p>			
<p>Impact BIO-8: Project development would result in significant impacts due to the loss of federally and state listed endangered salt marsh harvest mouse and California species of special concern salt marsh wandering shrew individuals and habitat.</p>	<p>With the exception of trapping that previously occurred in the vicinity of the former Pintail Duck Club, it is unknown if any trapping that has been completed to determine the presence or absence of salt marsh harvest mice or salt marsh wandering shrews in specific portions of the Specific Plan area. In the absence of protocol-level presence/absence surveys, presence shall be assumed in the pickleweed-dominated locations.</p> <p>Incorporation of the following measures will reduce salt marsh harvest mouse and salt marsh wandering shrew individual and habitat impacts to a less than significant level:</p> <p>MM BIO-8.1: Temporary disturbance to and permanent loss of salt marsh harvest mouse and salt marsh wandering shrew habitat shall be avoided to the maximum extent practicable. Although avoidance of wetland impacts was previously described, further attempts to avoid impacts to pickleweed-dominated habitats shall be made. Prior to the issuance of building permits, all temporary staging areas and construction access roads shall be located away from suitable habitat for these species and limits of all wetlands that are to be avoided will be clearly demarcated by a qualified biologist with Environmentally Sensitive Area fencing to avoid inadvertent disturbance of any habitat outside of the designated construction areas during construction activities.</p> <p>MM BIO-8.2: Prior to issuance of grading permits and under the supervision of a qualified biological monitor, who is permitted by the</p>	<p>The project contractor shall hire a qualified biologist to complete these measures prior to grading the site and/or the onset of building activities.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>A report prepared by a qualified biologist documenting the completion of these measures shall be submitted to the Community Development Director for review and approval, prior to the issuance of grading</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>USFWS and CDFW to move salt marsh harvest mice out of the construction area, all salt marsh harvest mouse/wandering shrew habitat within the construction area shall be removed by hand (e.g., including weed-whacker if, with USFWS and CDFW approval, such equipment is used in such a way as to avoid impacting individual mice/shrews) within a given area of harvest mouse/wandering shrew habitat. Vegetation requiring hand removal will be limited to pickleweed and other associated plants, such as saltgrass or bulrush, within pickleweed-dominated areas considered to be potential habitat for these mammals as depicted on Figure 3.5-2. After at least 24 hours have elapsed since the removal of this pickleweed-dominated vegetation from harvest mouse/wandering shrew habitat areas, a barrier to exclude salt marsh harvest mice and salt marsh wandering shrews from impact areas will be installed at the perimeter of all project construction areas that are located within 50 feet of potential salt marsh harvest mouse and salt marsh wandering shrew habitat. This barrier, which will be constructed under the guidance of a qualified biologist, shall consist of a 3-foot tall, tight cloth or smooth plastic silt fence toed into the soil at least three inches deep and supported with stakes.</p> <p>MM BIO-8.3: Mitigation Measure MM BIO-8.2 will minimize the probability of salt marsh harvest mice and salt marsh wandering shrews entering the site but in addition, any individuals already in the impact areas shall be salvaged and translocated to the exterior of the construction exclusion area. Although detecting every individual on a site is not feasible due to these species' secretive habits, a qualified mammalogist should be on-site during removal of pickleweed-dominated vegetation, construction of the barrier fence, and initial clearing and grubbing within 10 feet of the barrier fence. The mammalogist would look for individual salt marsh harvest mice and salt marsh wandering shrews that may be within the Specific Plan area. Any individuals detected would be captured and translocated to a safe location within the closest suitable, pickleweed-dominated habitat. The mammalogist must possess all required USFWS and CDFW permits authorizing such capture and translocation.</p>		and/or building permits.	

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>Trapping and removal of salt marsh harvest mice has been required by the USFWS and CDFW in areas with a high likelihood that the species is located. The direct impact areas for the current Specific Plan contain narrow and/or small patches of habitat that likely support sparse salt marsh harvest mouse and wandering shrew populations, if the species are present at all, and thus we are not proposing to require trapping and relocation.</p> <p>MM BIO-8.4: Salt marsh harvest mouse and salt marsh wandering shrew habitat that is permanently lost due to fill, shading, or isolation due to the golf course access road will be mitigated at a 3:1 ratio by the creation or restoration of pickleweed-dominated salt marsh on Area 4. Habitat for these species that is indirectly impacted due to proximity to residential and golf course development (i.e., habitat that is not directly filled but that is located within 100 feet of direct impact areas) will be mitigated at a 2:1 ratio by on-site habitat restoration. This lower ratio is appropriate because habitat within 100 feet of developed areas will retain some habitat quality for mice and shrews. This habitat restoration can occur in the same locations as habitat creation, restoration, or enhancement performed for impacts to wetlands as long as suitable conditions for these two mammal species are targeted.</p> <p>A habitat mitigation and monitoring plan will be prepared that outlines the necessary steps for restoration; it will include a plan view graphic showing the target restoration activities, a brief seeding plan (species palette and application techniques) to re-vegetate the areas currently in agricultural production, and a monitoring and reporting plan with success criteria. The plan will include a recommended timeline for restoration activities and the establishment of suitable habitat. The mitigation and monitoring plan will be approved by the City of Newark, the USFWS, and the CDFW prior to issuance of grading and building permits. The restoration work will begin in the same construction season as the initiation of grading within suitable salt marsh harvest mouse/salt marsh wandering shrew habitat, and restoration site grading will be completed within one year of initiation (or as otherwise determined by resource agency permits). All created mitigation habitats will be protected in perpetuity and will be placed into a</p>			

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	land trust or under a conservation easement, or fee title will be transferred to the Refuge or a third-party non-profit entity that has been approved by the City and appropriate permitting agencies.			
<p>Impact BIO-9: Proposed recreational activities in Area 4 would impact sensitive habitats that are known to support special status species and large numbers of foraging and roosting waterbirds. The Specific Plan would result in significant impacts due to recreational activities on the site.</p>	<p>MM BIO-9.1: As the design of the golf course progresses disturbance by golfers of adjacent sensitive habitats and species. For example, high-use areas such as tees and greens shall be set back from the edge of the golf course, and broad rough/out-of-bounds areas shall occur along the interface between the golf course and sensitive habitats.</p> <p>MM BIO-9.2: On the golf course, areas that are “out of bounds” (which will include the artificial burrowing owl burrow complexes and all natural areas that are not directly filled during golf course construction) shall be clearly marked as such, explaining the importance of preserving the ecological integrity of the adjacent natural areas. Signs will be erected along the ACFC&WCD levees and along Mowry Slough describing the ecological value of adjacent wetland areas and instructing users to stay on the ACFC&WCD levee tops, stay out of sensitive habitats, and keep dogs on leashes.</p>	<p>The project contractor shall hire a qualified biologist to ensure these measures are completed during the design of the golf course and construction of the golf course.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The golf course plans shall be subject to review and approval by the Community Development Director prior to issuance of a grading permit for construction of the golf course.</p> <p>A report prepared by a qualified biologist documenting the measures have been implemented shall be</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
			submitted to the Community Development Director prior to operating the golf course.	
<p>Impact BIO-10: The proposed project would indirectly impact large numbers of foraging and roosting waterbirds, including species protected by the Migratory Bird Treaty Act (MBTA) in the wetland portions of the site. This is a significant impact.</p>	<p>MM BIO-10.1: Indirect impacts of residential and golf course development in Area 4 on birds using the undeveloped wetlands on the site shall be mitigated by the creation or enhancement of waterbird habitat on the site at a 0.5:1 ratio for a total of 9 acres of mitigation. Mitigation wetlands for these indirect impacts shall be located at least 300 feet from any development, to the maximum extent possible. The mitigation areas shall provide perennial or near-perennial water with a variety of depths ranging from very shallow water or exposed mud to water up to several feet deep to support the bird species currently using the former Pintail Duck Club. This mitigation can occur within the same wetland areas created as mitigation for permanent loss of wetlands as long as it is located at least 300 feet from any residential or golf course development.</p> <p>A mitigation plan shall be developed that outlines the proposed wetland creation/enhancement for indirect impacts to waterbird use of wetlands on the site. It will include a plan showing the target mitigation activities and a monitoring and reporting plan with success criteria. The plan shall include a recommended timeline for mitigation activities. This plan will be submitted to and approved by staff of the City of Newark prior to the initiation of any fine grading or construction on the site. The mitigation work will begin in the same construction season as the initiation of grading or construction, and mitigation site grading will be completed within one year of initiation. All created/enhanced habitats shall be protected in perpetuity and will be placed into a land trust or under a conservation easement, or fee title will be transferred to the Refuge or a third-party non-profit entity that has been approved by the City and appropriate permitting agencies.</p>	The project contractor shall implement the mitigations measures concurrent with construction of the project.	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The mitigation plan shall be prepared by a qualified biologist and submitted to the Community Development Director for review and approval prior to the issuance of a grading permit.</p>	Community Development Director

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>Impact BIO-11: Implementation of the project would result in significant impacts to sensitive habitats and special status species due to the potential spread of non-native, invasive plant species on the site.</p>	<p>MM BIO-11.1: Prior to issuance of any building or grading permits, the project shall develop and implement an Invasive Species Management Plan to reduce the presence and spread of non-native, invasive plant species for the area to be developed. The Plan shall be developed prior to importing any fill material required to elevate building sites and prior to grading any areas on the Specific Plan site. The overarching goal of this mitigation is to halt the further expansion of existing invasive species and introduction of new invasives into sensitive habitats on site. The Invasive Species Management Plan shall include, but not be limited to, the following, summarized below:</p> <ul style="list-style-type: none"> • Prior to construction, map populations of invasive species within all areas proposed to be graded; quantify the extent and location of invasive populations in sensitive habitats. • Areas identified to have weed infestations shall be treated prior to ground disturbance according to weed control methods detailed below and Best Management Practices within all upland areas to be graded, after review and approval of methodologies by the City of Newark. • Weed control treatments shall include all legally permitted herbicide, manual, and mechanical methods approved for application. The timing of the weed control treatment shall be determined for each plant species with the goal of controlling populations before they start producing seeds and/or encroach into adjacent areas from rhizomatous shoots. Consultation with a City of Newark approved wildlife biologists or plant ecologist shall be required prior to weed control treatments in sensitive habitats with the intent of avoiding any adverse impacts to special-status species in the area. • Surveying and monitoring for weed infestations shall occur annually while grading operations are occurring for a Project. Treatment of all identified weed populations shall occur at a minimum of once annually. • Once grading ceases, invasive plant populations within all sensitive habitats to be preserved shall be mapped and the aerial extent and location of invasive populations documented on an annual basis for a minimum of three years following grading operations. 	<p>The project contractor shall hire a qualified biologist to implement the mitigation measures prior to grading the site and during construction of the project.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The Invasive Species Management Plan shall be prepared by a qualified biologist and submitted to the Community Development Director for review and approval prior to the issuance of a grading permit.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<ul style="list-style-type: none"> If, in any monitoring year, the size of existing populations within sensitive habitats expands by 20% or greater in terms of surface area from populations documented prior to construction, weed control measures shall be implemented as outlined above within sensitive habitats. During Project construction, all seeds and straw materials used on site shall be weed-free rice straw, and all gravel and fill material shall be certified weed free. During Project construction, vehicles and all equipment shall be washed before and after entering the Project area. 			
<p>Impact BIO-12: The proposed Specific Plan would result in significant impacts to biological resources associated with water quality impacts during construction.</p>	<p>MM BIO-12.1: Prior to the issuance of grading permits, future development projects will incorporate Best Management Practices (BMPs) for water quality to minimize impacts in the surrounding wetland environment, sloughs and channels, and the San Francisco Bay during construction. These BMPs will include numerous practices that will be outlined within the Stormwater Pollution Prevention Plan (SWPPP), but will include measures such as:</p> <ul style="list-style-type: none"> No equipment shall be operated in live flow in any of the sloughs or channels or ditches on or adjacent to the site. No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into aquatic or wetland habitat. Standard erosion control and slope stabilization measures will be required for work performed in any area where erosion could lead to sedimentation of a water body. For example, silt fencing will be installed just outside the limits of grading and construction in any areas where such activities will occur upslope from, and within 50 feet of, any wetland, aquatic, or marsh habitat. This fencing shall be inspected and maintained regularly throughout the duration of construction. Machinery shall be refueled at least 60 feet from any aquatic habitat, and a spill prevention and response plan shall be developed and approved by the City of Newark. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. 	<p>During construction, the project contractor shall implement all measures identified in the SWPPP.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall provide the SWPPP to the Community Development Director for review and approval.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>MM BIO-12.2: Soil stockpiling, equipment staging, construction access roads, and other intensively soil-disturbing activities shall not occur immediately adjacent to any wetlands that are to be avoided. The limits of the construction area shall be clearly demarcated with Environmentally Sensitive Area fencing by a qualified biologist to avoid inadvertent disturbance outside the fence during construction activities.</p> <p>MM BIO-12.3: Dust suppression (e.g., using watering trucks) shall be implemented during all grading, construction, and soil stockpiling activities that have the potential to mobilize dust to keep dust from being transported to vegetated wetlands nearby. If soil stockpiles are to remain on the site for long periods of time prior to the start of grading, they shall be hydroseeded so that vegetation will suppress dust and inhibit erosion.</p> <p>MM BIO-12.4: All mitigation measures for containing contamination from the auto wrecking yard removal will be followed (see <i>Hazardous Materials</i> and <i>Water Quality</i> sections of this EIR).</p>			
<p>Impact BIO-13: The proposed Specific Plan would result in significant impacts to biological resources associated with long- term water quality impacts.</p>	<p>MM BIO-13.1: All development projects within the Specific Plan shall comply with the National Pollution Discharge Elimination System (NPDES) permit requirements, the Alameda County Clean Water Program standards, the City of Newark's ordinances, policies, and processes, and other applicable local, state, and federal requirements.</p> <p>All development projects within the Specific Plan shall prepare a SWMP that includes post-construction water quality BMPs that control pollutant levels as required under Section C.3 of the NPDES Municipal Stormwater Permit issued by the RWQCB. Neighborhood- and/or lot-level BMPs to promote "green" treatment of storm runoff shall be emphasized, consistent with Regional Board guidance for NPDES Phase 2 permit compliance. The purpose of these measures will be to ensure that water leaving the site and entering seasonal wetland and marsh habitats, including ACFC&WCD Line D and Mowry Slough, will be of the same quality (or better) than currently enters these habitats from the site. These measures include the</p>	<p>During construction, the project contractor shall implement all measures identified in the SWMP.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall provide the SWMP to the Community Development</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	design and construction of features to remove particulates and contaminants from runoff. Such features may include mechanical treatment; the use of grassy swales to capture contaminants from the golf course, landscaping or residences as water infiltrates/percolates to the surrounding wetland habitat; the use of “planter boxes” within private development to treat individual residential runoff; the use of surface materials (where practicable) to allow for infiltration on private property (including permeable driveway material); and the retention of water on the site, when possible (in addition, see <i>MM HYD-1.1 through 1.4</i> in this EIR).		Director for review and approval.	
<p>Impact BIO-14: The proposed Specific Plan could result in the loss of City of Newark ordinance-size trees. This is a significant impact.</p>	<p>MM BIO-14.1: Implementation of the Specific Plan shall incorporate preservation of existing trees with emphasis on ordinance-size or larger native species and in good or better condition, to the maximum extent practicable, to the satisfaction of the City’s Community Development Director.</p> <p>MM BIO-14.2: In locations where preservation of existing trees is not feasible due to site constraints, trees to be removed by the project shall be replaced at a 3:1 ratio unless the City’s Community Development Director determines that a higher ratio is required. 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 replacement species must be native to the project area of the San Francisco Bay area.</p> <p>MM BIO-14.3: The species and exact number of trees to be planted on the site during the construction phase shall be determined in consultation with the City Arborist and to the satisfaction of the Community Development Director.</p> <p>MM BIO-14.4: In the event the developed portion of the development site does not have sufficient area to accommodate the required tree mitigation, one or more of the following measures shall be implemented at the development permit stage:</p>	During construction, the project contractor shall implement the tree mitigation measures.	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall provide a tree removal and planting plan to the Community Development Director for review and approval.</p>	Community Development Director

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<ul style="list-style-type: none"> An alternative site(s) shall be identified for additional tree planting. Alternative sites may include local parks or schools, or installation of trees on adjacent properties for screening purposes, to the satisfaction of the City’s Community Development Director. The size of a 15-gallon replacement tree can be increased to 24-inch box and count as two replacement trees. 			
<p>Impact BIO-15: The health of the trees to be preserved could be significantly impacted in the short-term by construction activities and in the long-term due to the proposed Specific Plan development.</p>	<p>MM BIO-15.1: Prior to the issuance of any construction-phase permit, a construction-phase Tree Preservation Plan shall be prepared by a certified arborist to the satisfaction of the City’s Community Development Director for all areas with trees. The construction-phase Tree Preservation Plan shall include the following tree protection measures which are based on guidelines established by the International Society of Arboriculture:</p> <ul style="list-style-type: none"> Establish Tree Protection Zones Protect Tree Root Systems Install Wood Bark Mulch Install and Maintain Protection Zone Fencing Prune Tree Roots and Crowns Only as Necessary Irrigate Trees <p>This Tree Protection Zone is established to protect the tree trunk, canopy and root system from damage during construction activities and to ensure the long-term survival of the protected trees. The Tree Protection Zone shall: (1) ensure that no structures or buildings, that might restrict sunlight relative to the existing condition, will be constructed in close proximity to the trees; and (2) that no improvements are constructed on the ground around the tree within the Tree Protection Zone, thus ensuring that there is sufficient undisturbed native soil surrounding the tree to provide adequate moisture, soil nutrients and oxygen for healthy root growth.</p> <p>MM BIO-15.2: A certified arborist will monitor construction when work is done around any trees to be preserved. In areas where the construction-phase tree protection measures, described above under MM BIO-5-1, are not feasible, all trees affected shall be replaced with 15-gallon replacement trees at a ratio based upon the size of the tree removed. The rationale for</p>	<p>During construction, the project contractor shall implement the measures identified in the Tree Preservation Plan.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall provide the Tree Preservation Plan to the Community Development Director for review and approval.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>the replacement ratio is based upon the anticipated loss of tree canopy from tree removal. In addition, all mitigation described above under MM BIO-14.3 AND MM BIO-14.4 shall be implemented.</p> <p>MM BIO-15.3: A certified arborist will review the development areas after all construction has been completed. In areas where the improvements associated with development have encroached within 1-1/2 times the diameter of the tree canopy drip line, or the trees are otherwise injured or damaged, all trees affected shall be replaced with 15-gallon replacement trees at a ratio based upon the size of the tree affected. In addition, all mitigation described above under MM BIO-14.3 AND MM BIO-14.4 shall be implemented.</p>			
CULTURAL RESOURCES				
<p>Impact CUL-1: Implementation of the proposed Areas 3 and 4 Specific Plan may impact paleontological deposits through excavation of previously undisturbed alluvial sediments.</p>	<p>MM CUL-1.1: The following measures shall be completed during all development activities that include excavation or disturbance of existing ground surfaces, installation of utility lines, or other subsurface trenching.</p> <p>If paleontological resources are discovered during project activities, all work within 25 feet of the discovery would be redirected and a qualified paleontologist contacted to assess the finds, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Project personnel would not move or collect any paleontological resources. If adverse effects to paleontological resources cannot be avoided, they would be assessed to determine their significance. If the resources are not significant, avoidance is not necessary. If the paleontological resources are significant, they would need to be avoided, or adverse effects must be mitigated. Treatment would be consistent with SVP guidelines and may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection.</p> <p>Upon completion of the assessment, the paleontologist would prepare a report documenting the methods and results and provide recommendations for the treatment of the paleontological resources discovered. This report</p>	<p>During construction, the project contractor will implement the mitigation measures, if needed.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>would be submitted to the Director of the City Community Development Department. Recovery of fossil remains and associated specimen data and corresponding geologic and geographic site data would reduce impacts to a less than significant level.</p>			
<p>Impact CUL-2: Based upon the current known extent of unique cultural materials on Area 4, it is unlikely that total avoidance of impacts is possible within Area 4 of the Specific Plan. Area 4 development will impact unique archaeological resources and disturb human remains, including those interred outside of formal cemeteries through compression of soils and excavation of existing soils.</p> <p>Mechanical and hand-excavated testing completed on Area 3 in conformance with</p>	<p>MM CUL-2.1: The following mitigation measures shall be completed prior to issuance of a grading permit and prior to any earth moving activities in those areas of the Specific Plan Area 4 already identified as potentially containing archaeological resources based upon the research and survey work completed by <i>Holman & Associates</i>. This mitigation measure was already completed on Area 3.</p> <ul style="list-style-type: none"> • A limited program of hand excavation shall be undertaken by a professional archaeologist certified by the Register of Professional Archaeologists (RPA) subject to the following standards: <ul style="list-style-type: none"> ○ If specimens are collected, a system for identifying and recording their proveniences must be maintained. ○ Uncollected entities such as environmental or cultural features, depositional strata, and the like, must be fully and accurately recorded by appropriate means, and their location recorded. ○ The methods employed in data collection must be fully and accurately described. Significant stratigraphic and/or associational relationships among artifacts, other specimens, and cultural and environmental features must also be fully and accurately recorded. ○ All records should be intelligible to other archaeologists. If terms lacking commonly held referents are used, they should be clearly defined. ○ During accessioning, analysis, and storage of specimens and records in the laboratory, the archaeologist must take precautions to ensure that correlations between the specimens and the field records are maintained, so that provenience contextual relationships and the like are not confused or obscured. ○ Specimens and research records resulting from a project must be deposited at an institution with permanent curatorial facilities, unless otherwise required by law. 	<p>Prior to any earth moving activities, the project contractor shall hire a professional archaeologist certified by the Register of Professional Archaeologists (RPA) to complete these measures.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to the issuance of a grading permit, the project plans shall be reviewed and approved by a professional archaeologist certified by the RPA and the Community Development Director to ensure the known resources have been adequately avoided.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>EIR mitigation measures MM CUL-2.1 and MM CUL-2.2 has determined there is a low-to-moderate potential for significant, unidentified prehistoric or historic archaeological deposits in Sub-Area A of Area 3.</p>	<ul style="list-style-type: none"> ○ The archaeologist has responsibility for appropriate dissemination of the results of her/his research to the appropriate constituencies with reasonable dispatch. ● The hand excavation must take place at the locations of the three burials and two cultural features in order to verify the presence of midden soils. Hand excavation will verify this, and will provide the researchers with the information needed to determine the aerial extent of the deposits. <p>MM CUL-2.2: Prior to any future development in areas of Area 4 identified as potentially containing archeological resources based upon the research and survey work completed by <i>Holman & Associates</i> or areas for which any additional information has been gathered through hand excavations under MM CUL-2.1, plans shall be designed to avoid impacting known cultural resources.¹ Development plans shall be reviewed and approved by a professional archaeologist certified by the RPA and the City of Newark to ensure the known resources have been adequately avoided. Final mitigation recommendations shall depend on the amount and nature of earthmoving activities which will occur inside those areas which are mapped as intact archaeological deposits after completion of the hand excavation program described above. For example, mitigation of impacts to archaeological deposits found inside the proposed golf course area may possibly be achieved simply by redesigning the course in proximity to the borders of the archaeological deposit, as determined by the professional archaeologist’s hand excavation and subsequent mechanical subsurface presence/absence testing program. This mitigation measure was already completed on Area 3.</p> <p>MM CUL-2.3: All grading and/or construction activities shall, to the extent feasible, avoid all areas identified as potentially containing archeological resources based upon the research and survey work</p>			

¹ It should be noted that “capping” or covering the known archaeological resources would not mitigate the impacts to cultural resources because all grading activities, placement of fill, and compaction of the soil would crush and destroy the known cultural resource deposits.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>completed by <i>Holman & Associates</i> or areas for which any additional information has been gathered through hand excavations under MM CUL-2.1. However, to the extent that these areas cannot be avoid, then mitigation for burial resources shall be achieved through either preservation in place pursuant to CEQA Guidelines Section 15126.4(B)(3)(a) or a program of data recovery pursuant to CEQA Guidelines Section 15126.4(B)(3)(c) combining limited hand excavation to retrieve significant archaeological data and material and to remove the known human remains to protect them from additional damage. This program shall be designed by a professional archaeologist and reviewed and approved by the City of Newark. Depending on the findings of the proposed evaluative hand excavation, a data retrieval program may also be done by carefully stripping those areas where additional cultural materials are expected utilizing heavy equipment under the direction of a professional archaeologist. Soils would be removed to the depth of the archaeological deposit in selected areas (a percentage of the anticipated deposit). In the event, that archaeological materials and in particular, human burials, are encountered extending out of the areas designated for stripping, additional data retrieval work shall be required.</p> <p>MM CUL-2.4: The following measures shall be completed during all development activities in both Area 3 and 4 that include excavation or disturbance of existing ground surfaces, installation of utility lines, or other subsurface trenching:</p> <ul style="list-style-type: none"> • A professional archaeological monitor certified by the RPA shall monitor with authority to direct and halt earthmoving activities as deemed necessary by the monitor, if and when cultural materials area encountered. In accordance with CEQA Guidelines Section 15064.5(f), if any previously unknown historic or prehistoric resources are discovered during grading, trenching, or other on-site excavation, earthwork within 100 feet of these resources shall be stopped until the professional archaeologist has an opportunity to evaluate the significance of the find and suggest appropriate mitigation as determined necessary to protect the resource. 			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<ul style="list-style-type: none"> • Given the low to moderate potential for significant cultural materials to be present within Area 3 Sub-Area A, archaeological monitoring should be discontinued as soon as the archaeologist is satisfied that construction will not disturb important archaeological deposits. • In the event that Native American human remains or funerary objects are discovered, the provisions of the California Health and Safety Code shall be followed. Section 7050.5(b) of the California Health and Safety Code states: <ul style="list-style-type: none"> ▪ In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. <p>Based upon the current known extent of unique cultural materials on Area 4 of the site, it is unlikely that total avoidance of impacts is possible with implementation of the proposed Specific Plan. While incorporation of the above measures will partially reduce the cultural resources impact, the overall implementation of Area 4 elements of the Specific Plan will destroy archaeological deposits through placement of fill and soil compression and, therefore, result in a significant unavoidable impact. (Significant Unavoidable Impact – Area 4)</p>			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>Previous mechanical and hand-excavated testing completed on Area 3 in conformance with MM CUL-2.1 and MM CUL-2.2 determined there is a low to moderate potential for significant, unidentified archaeological deposits in Sub-Area A of Area 3. Archaeological monitoring will be completed during construction on Area 3 to ensure the project does not impact buried, as yet undisturbed, archaeological resources. (Less than Significant Impact with Mitigation – Area 3)</p>			
GEOLOGY AND SOILS				
<p>Impact GEO-1: The development of Areas 3 and 4 could result in adverse impacts associated with settlement during strong seismic ground shaking due to potentially liquefiable soils.</p>	<p>MM GEO-1.1: Prior to issuance of grading permits, construction-level study will be required to characterize the lot-specific lateral extent and magnitude of potential liquefaction-induced settlement for design of new structures and improvements within Areas 3 and 4. The project geotechnical engineer shall coordinate with ACWD prior to beginning any soil improvement measures to ensure impacts on groundwater resources are minimized. The results of the investigation shall be submitted to the Director of Public Works for review and approval. Structures will need to be supported on rigid foundations designed to tolerate the anticipated total and differential settlements. Alternatively, deep foundations may be required to support structures on firm soil below potentially liquefiable layers. Ground improvement techniques could also be used to mitigate liquefaction-induced differential settlement.</p>	<p>During construction, the recommendations in the design-level geotechnical investigations shall be implemented by the project contractor.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the design-level geotechnical investigations to the Director of Public Works for review and approval, prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
			will verify that all measures in the design-level geotechnical investigations were implemented.	
<p>Impact GEO-2: Any construction improvements near the ACFC&WCD drainage channels could result in adverse seismically-induced lateral spreading impacts associated with future development of the proposed Specific Plan.</p>	<p>MM GEO-2.1: Prior to issuance of building permits, design-level geotechnical investigations for specific site improvements such as residential developments, bridges, or school development shall be completed and submitted to the Director of Public Works for review and approval, once construction-level plans are available. Geotechnical observation and testing services shall be completed during earthwork and foundation construction.</p>	<p>During construction, the recommendations in the design-level geotechnical investigations shall be implemented by the project contractor.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the design-level geotechnical investigations to the Director of Public Works for review and approval, prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that all measures in</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
			the approved design-level geotechnical investigations were implemented.	
<p>Impact GEO-3: The development of Area 4 could result in adverse impacts associated with settlement due to placement of fill and building loads.</p>	<p>MM GEO-3.1: Settlement due to fill and building loads can be mitigated by supporting lightly loaded structures on rigid foundations designed to resist differential settlement. As an alternative, buildings could be supported on deep foundations. Design ground improvement techniques, such as surcharging, rammed aggregate piers, or soil/cement mixing, to mitigate settlement. If surcharging is considered, this would include installing vertical wick drains and surcharging building areas with additional imported fill to allow the settlement to occur at an increased rate. If this option is pursued, the Geotechnical Engineer shall work with ACWD during preparation of the design-level geotechnical report. The wick drain design approach shall include the following:</p> <ul style="list-style-type: none"> • Wick drains shall be confined within the compressible clay zone (upper 20 feet of soil profile). Additional subsurface exploration during the design-level geotechnical investigation shall confirm the depth of the compressible soil zone. • Wick drains shall extend no further than 10 feet from the top of slope of the planned areal fill. This will provide at least 5 feet of soil between final grade and the tops of the wick drains, which would be installed prior to areal fill placement. • This will reduce the potential for surface water to access the wick drains. • Horizontal strip drains that are placed at the surface to collect water from the wick drains shall be connected to solid pipes that extended beyond the toe of the areal fill slopes. The horizontal strip drain/solid pipe transitions shall be at the outer row of wick drains. At the completion of the surcharge program, the solid pipes shall be grouted in place to abandon them. 	<p>During construction, the settlement mitigation approach shall be implemented by the project contractor.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the settlement mitigation approach to the Director of Public Works for review and approval, prior to issuance of grading and building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	The settlement mitigation approach shall be reviewed and approved by the Director of Public Works, prior to issuance of grading and building permits and the process for implementation of the settlement mitigation will be included on all construction bid documents.		the settlement mitigation approach was implemented.	
<p>Impact GEO-4: Differential settlement could occur between the abutments of the proposed Stevenson Boulevard Overpass, due to compressible Area 4 soils.</p>	<p>MM GEO-4.1: A site specific investigation shall be prepared for the proposed Stevenson Boulevard Bridge to determine the potential for differential settlement and the detailed approach to mitigate such settlement. The investigation and proposed measures shall be reviewed and approved by the Director of Public Works prior to issuance of grading and building permits. Bridge foundations shall be designed to account for potential differential settlement, as well as the approached slabs and asphalt pavement sections constructed on the embankments.</p>	<p>During construction of the Stevenson Boulevard Bridge, the measures identified in the site specific investigation shall be implemented by the project contractor.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the site specific investigation to the Director of Public Works for review and approval, prior to issuance of grading and building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that the measures identified in the site specific</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
			investigation were implemented.	
<p>Impact GEO-5: Possible undocumented fill within Areas 3 and 4 could result in adverse impacts to future development associated with the proposed Specific Plan.</p>	<p>MM GEO-5.1: Construction-level evaluation of undocumented fills shall be undertaken as necessary as part of the lot-specific geotechnical evaluation. The undocumented fills shall be over-excavated and recompactd or removed and replaced with engineered fill material as required to stabilize each lot in accordance with standard engineering practice prior to site development. The Director of Public Works shall review and approve the specified approach for all undocumented fill area prior to issuance of grading permits.</p>	<p>During construction, the project contractor shall implement the undocumented fill mitigation approach for the areas of undocumented fill.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the mitigation approach to the Director of Public Works for review and approval, prior to issuance of grading permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that the undocumented fill mitigation was implemented.</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>Impact GEO-6: The development of Areas 3 and 4 could result in adverse impacts associated with expansive soils.</p>	<p>MM GEO-6.1: Slabs-on-grade shall have sufficient reinforcement and shall be supported on a layer of non-expansive fill; footings shall extend below the zone of seasonal moisture fluctuation. Moisture changes shall be limited in the expansive surficial soils by using positive drainage away from buildings and improvements, as well as limiting landscaping watering. The Director of Public Works shall review and approve the design-specific geotechnical investigation prior to issuance of building permits.</p>	<p>During construction, the recommendations in the design-level geotechnical investigations shall be implemented by the project contractor.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the design-level geotechnical investigations to the Director of Public Works for review and approval, prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that all measures in the approved design-level geotechnical investigations were implemented.</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>Impact GEO-7: The shallow groundwater located throughout Areas 3 and 4 could result in adverse impacts associated with grading and installing underground utilities.</p>	<p>MM GEO-7.1: Design underground improvements for potential hydrostatic uplift pressures. The Director of Public Works shall review and approve all underground improvements prior to issuance of building permits. Groundwater losses due to dewatering shall be measured and the amount of water that may be extracted by dewatering shall be estimated and documented. Substantial groundwater losses due to dewatering may be subject to an ACWD replenishment assessment fee.</p>	<p>During construction, the project contractor shall install the approved underground improvements.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the groundwater loss estimates to ACWD prior to issuance of grading permits.</p> <p>The Director of Public Works shall review and approve the underground improvements, prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that the approved underground improvements</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
			were installed correctly.	
<p>Impact GEO-8: The soils and shallow groundwater conditions within Areas 3 and 4 could result in adverse impacts associated with corrosive soils.</p>	<p>MM GEO-8.1: Soil corrosion testing shall be performed in Areas 3 and 4 during construction-level phases of investigation to ensure fill soils and native soils are not corrosive. This testing results shall be reviewed and approved by the Director of Public Works prior to issuance of building permits. It will be necessary to consult with a corrosion engineer to determine appropriate mitigation measures for site improvements. Special requirements for corrosion protection could be considered to protect metal pipelines, such as cathodic protection or specially coated pipes. In addition, if near-surface soils contain moderate to high levels of soluble sulfates, then buried concrete structures in contact with these soils may require special concrete mix design, such as using Type II cement and a higher compressive strength or Type V cement, to mitigate impacts from sulfate attack.</p>	<p>During construction, the project contractor shall implement the necessary corrosion protection measures.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the corrosive soil testing results to the Director of Public Works for review and approval prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that the approved corrosion protection measures were implemented.</p>	<p>Director of Public Works</p>
HYDROLOGY AND WATER QUALITY				

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>Impact HYD-1: The proposed project could provide substantial sources of polluted runoff and degrade water quality downstream of the Specific Plan site.</p>	<p>MM HYD-1.1: All development projects within the Specific Plan shall comply with the National Pollution Discharge Elimination System (NPDES) permit requirements, the City of Newark's ordinances, policies, and processes, and other applicable local, state, and federal requirements.</p> <p>MM HYD-1.2: All development projects within the Specific Plan include post-construction water quality BMPs that control pollutant levels directed by the City of Newark or Alameda County as Permittees of NPDES Municipal Stormwater Permit issued by the RWQCB. Provision C.3 of the Municipal Stormwater Permit is applicable to new development within the Specific Plan Area. The development of a golf course clubhouse shall include applicable post-construction water quality BMPs that control pollutant levels as required under Section C.4 of the NPDES Municipal Stormwater Permit issued by the RWQCB. Golf course maintenance facilities shall be developed and operated to include applicable post-construction water quality BMPs that control pollutant levels as required under Section C.2.f of the NPDES Municipal Stormwater Permit issued by the RWQCB.</p> <p>The use of low impact development (LID) techniques as required by Section C.3.c shall be emphasized. The City of Newark shall require the golf course operators to prepare, implement, and maintain a Stormwater Pollution Prevention Plan (SWPPP) for all corporation yards, vehicle maintenance, parking areas, and material storage facilities that comply with water quality standards by incorporating all applicable BMPs as described herein.</p> <p>Post-construction water quality treatment BMPs typically will include infiltration basins and trenches, rain gardens, grassy swales, media filters, and biofiltration features. Since the Specific Plan Area is mostly underlain by soils of low permeability and there is a high groundwater table, BMPs that enhance water quality without relying on infiltration are most appropriate for development sites within the Specific Plan Area.</p>	<p>During construction, the project contractor shall ensure the stormwater treatment systems are constructed as shown in the approved Stormwater Drainage Study.</p> <p>The ongoing maintenance of stormwater will be completed by the property owners.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the Stormwater Drainage Study to the Community Development Director for review and approval prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Community Development Director will verify that the post-construction BMPs were implemented.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>Water quality source control measures, site design elements, and post-construction treatment measures may include the following:</p> <ul style="list-style-type: none"> • “No Dumping” signs at appropriate locations. • Stenciled storm drain inlets to prevent the ignorant disposal of pollutants and warn against the intentional dumping of pollutants into the storm drain system. • Runoff from roofs, sidewalks, paving and other hardscape areas directed into landscape areas rather than directly connected to storm drain systems. • Minimizing impervious surfaces to the maximum extent practicable and using permeable pavements where practical. • Locating and designing trash enclosures (all shall be covered) to and materials handling areas to prevent the discharge of pollutants into the streets and storm drain collection systems. <p>The transport of turfgrass chemicals shall be minimized by the proposed computerized irrigation system that will be connected to an on-site weather station, which shall minimize runoff and percolation to the groundwater table. The irrigation system shall include the features described below.</p> <ul style="list-style-type: none"> • The weather station shall monitor daily average evapotranspiration (ET) conditions and automatically adjust sprinkler rates so that ET rates are matched; • The irrigation system shall also include multiple controls cycles so that sprinklers can be turned on and off, matching soil percolation rates with application rates; • The layout of the irrigation system shall be designed to avoid watering all moisture-sensitive habitat areas, roadways, and waterways. <p>A long-term stormwater management and monitoring program. The stormwater at the outlets leaving the site shall be sampled on a first flush basis, once a year for the lifetime of the project. If the post-project sample results indicate that the quality of stormwater leaving the site has degraded from the base conditions, then the SWPPP shall be reviewed and revised, based upon consultation with the Regional Water Quality Control Board. A minimum of six parameters including pH, total suspended solids, oil and</p>			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>grease, nitrogen, and appropriate pesticide constituents should be analyzed. In addition, the typical metals found in municipal stormwater shall be sampled and analyzed, such as copper, lead, or zinc, or bacteria.</p> <p>To prevent potential runoff of chemicals, the application of fertilizers, herbicides, and pesticides shall be avoided during periods of expected rainfall and immediately prior to schedule golf course irrigation.</p> <p>The golf course superintendent shall maintain a log of all pesticide and herbicide purchase and application, which shall be submitted periodically to the City Community Development Department for review.</p> <p>MM HYD-1.3: BMPs shall be designed in accordance with engineering criteria in the California Stormwater BMP Handbook for New and Redevelopment (California Storm Water Quality Association, 2003, California Storm Water Best Management Practice Handbook – New Development and Redevelopment) or other accepted guidance and designs shall be reviewed and approved by the City prior to issuance of grading or building permits for the roadway or driveways.</p> <p>MM HYD-1.4: All development projects within the Specific Plan shall implement storm water management program measures, such as street sweeping and litter control, outreach regarding appropriate fertilizer and pesticide use practices, and managed disposal of hazardous wastes. The project proponent shall prepare a clearly defined operations and maintenance plan for post-construction water quality and quality control measures. The design and maintenance documents shall include measures to limit vector concerns, especially with respect to control of mosquitoes. The project proponent shall identify the responsible parties and provide adequate funding to operate and maintain stormwater improvements (through a HOA, Geological Hazard Abatement District, CSD, CFD or similar organization). If lot-level BMPs are accepted by the City as a suitable control measure, the project proponent shall establish a mechanism for enforcement to assure that BMP functioning is being maintained as designed. The project proponent shall also establish</p>			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	financial assurances, as deemed appropriate by the Department of Resource Management, enabling the City to maintain the stormwater improvements should the HOA or other entity disband or cease to perform its maintenance responsibilities.			
<p>Impact HYD-2: Construction activities could contaminate runoff from the Specific Plan site.</p>	<p>MM HYD-2.1: All development projects within the Specific Plan shall file a Notice of Intent (NOI) with the State of California Water Resource Quality Control Board (SWRCB) and prepare a Storm Water Pollution Prevention Plan (SWPPP) prior to commencement of construction.</p> <p>MM HYD-2.2: The SWPPP shall 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 provision for revegetation or mulching. The plan would also prescribe treatment measures to trap sediment once it has been mobilized, at a scale and density appropriate to the size and slope of the catchment. These measures typically include inlet protection, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing, and siltation or sediment ponds.</p> <p>MM HYD-2.3: The Specific Plan developer(s) shall implement Best Management Practices (BMPs) for reducing the volume of runoff and pollution in runoff to the maximum extent practicable during demolitions, site excavation, grading, and construction. All measures shall be included in the project's SWPPP and printed on all construction documents, contracts, and project plans.</p> <ul style="list-style-type: none"> • Restrict grading to the dry season or meet City requirements for grading during the rainy season. • Use effective, site-specific erosion and sediment control methods during the construction periods. Provide temporary cover of all disturbed surfaces to help control erosion during construction. Provide permanent cover as soon as is practical to stabilize the disturbed surfaces after construction has been completed. 	<p>Prior to construction, the project contractor shall file the NOI with the SWRCB.</p> <p>During construction, the project contractor shall implement all measures identified in the SWPPP.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall provide the SWPPP to the Community Development Director for review and approval.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<ul style="list-style-type: none"> • Cover soil, equipment, and supplies that could contribute non-visible pollution prior to rainfall events or perform monitoring of runoff. Cover stockpiles with secure plastic sheeting or tarp. • Implement regular maintenance activities such as sweeping driveways between the construction area and public streets. Clean sediments from streets, driveways, and paved areas on-site using dry sweeping methods. Designate a concrete truck washdown area. • Dispose of all wastes properly and keep site clear of trash and litter. Clean up leaks, drips, and other spills immediately so that they do not contact stormwater. • Place fiber rolls or silt fences around the perimeter of the site. Protect existing storm and sewer inlets in the project area from sedimentation with filter fabric and sand or gravel bags. <p>MM HYD-2.4: BMPs shall be implemented in accordance with criteria in the California Stormwater BMP Handbook for Construction (California Storm Water Quality Association, 2003, California Storm Water Best Management Practice Handbook – Construction) or other accepted guidance and shall be reviewed and approved by the County prior to issuance of grading or building permits.</p> <p>MM HYD-2.5: The Specific Plan developer(s) shall identify the SWPPP Manager who will be the responsible party during the construction phase to ensure proper implementation, maintenance, and performance of the BMPs.</p>			
HAZARDS AND HAZARDOUS MATERIALS				
<p>Impact HAZ-1: Implementation of the proposed Area 3 residential component of the Specific Plan may create a significant hazard to the public</p>	<p>MM HAZ-1.1: Implementation of the following measures will reduce impacts to a less than significant level:</p> <p>A Remediation Plan shall be developed and approved by the City, ACWD, and DTSC prior to issuance of grading permits for the residential development. There are several options available for the mitigation of residual organochlorine pesticides, including 1) capping the impacted soil with ‘clean’ material: 2) using compounds, such as Gene Expression</p>	<p>During construction, the project contractor will implement the measures in the approved</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>or the environment from existing hazardous materials contamination by exposing future occupants or users of the site to contamination in excess of soil cleanup goals developed for the site.</p>	<p>Factor, to biologically degrade the pesticides; 3) consolidating and capping the impacted soil beneath privately owned areas; and 4) capping the impacted soil with the proposed development so that there would be no significant exposure pathways to future residents. Selection of the most appropriate mitigation method shall be completed with the oversight of the City and an appropriately identified regulatory agency, in this case, DTSC. The oversight agency shall be responsible for overseeing and directing all site investigation and cleanup activities in a manner that ensures that the standards and requirements of the State of California are fully addressed.</p>	<p>Remediation Plan.</p>	<p>Prior to issuance of a grading permit, the Remediation Plan shall be reviewed and approved by the City, ACWD, and DTSC.</p>	
<p>Impact HAZ-2: Without remediation, development of the Area 3 school site would construct a school on a property that is subject to hazards from hazardous materials contamination from presence of pesticides in the shallow soil layers.</p>	<p>MM HAZ-2.1: Prior to any approval of the potential school site by the Newark Unified School District, the District shall coordinate with DTSC and all available data pertaining to the proposed school site shall be provided to them, so that an appropriate plan for further site evaluation and/or remediation can be developed. The DTSC's School Property Evaluation and Cleanup Division is responsible for assessing, investigating, and cleaning-up proposed school sites. 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 on the proposed Area 3 school site 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. Options for remediation of pesticide impacted soils would be similar to those described above for MM HAZ-1.1.</p>	<p>Prior to the approval of a school site by the Newark Unified School District, the school site shall be subject to DTSC's School Property Evaluation and Cleanup Division review process.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Newark Unified School District</p>
<p>Impact HAZ-3: The proposed residential use of Specific Plan Area 4, may create a significant hazard</p>	<p>MM HAZ-3.1: Implementation of the following measures will reduce Area 4 hazardous material contamination impacts to residential uses to a less than significant level:</p> <ul style="list-style-type: none"> All additional testing and remediation described below shall be completed under oversight by the City and an appropriate regulatory agency, DTSC and/or ACWD, prior to issuance of grading permits 	<p>During construction, the project contractor will implement the measures in the</p>	<p>All measures shall be printed on all construction documents,</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>to the public or the environmental from existing hazardous materials contamination by exposing future users to contamination related to the former duck club, agricultural activities, and undocumented fill on the site, and the adjacent landfill.</p>	<p>for the residential development. The oversight agency shall be responsible for overseeing and directing all site investigation and cleanup activities in a manner that ensures that the standards and requirements of the State of California are fully addressed.</p> <ul style="list-style-type: none"> • Prior to the start of any subsurface drilling activities, the project proponent(s) shall obtain a drilling permit from ACWD. Application for a permit may be obtained from ACWD's Engineering Department, at 43885 South Grimmer Boulevard, Fremont or online at http://www.acwd.org/engineering/drillin8-Permit.php5. All permitted work requires scheduling for inspection; therefore, all drilling activities must be coordinated with ACWD prior to the start of any field work. • The area of the former duck club and associated ponds shall be evaluated for lead from lead shot. The results shall be provided to the City of Newark and the regulatory oversight to determine the appropriate remediation, if necessary. This investigation is only necessary in the event on-site mitigation (such as habitat restoration) will occur in this Sub-Area E. • Former fill soil quality of the duck club ponds shall be evaluated prior to issuance of grading permits for the residential development in Area 4. The results shall be provided to the City of Newark and the appropriate regulatory oversight to determine the appropriate remediation, if necessary. This investigation is only necessary in the event on-site mitigation (such as habitat restoration) will occur in this Sub-Area E. • All pesticide impacted soil shall be remediated to ensure all levels are below residential screening levels; • Additional soil samples shall be collected near existing and known former farm structures to test for residual levels of pesticides. The results shall be provided to the City of Newark and the regulatory oversight to determine the appropriate remediation, if necessary. • Soil quality adjacent to on-site wells shall also be analyzed for spilled chemicals including pesticides. The results shall be provided to the City and the appropriate regulatory oversight to determine the appropriate remediation, if necessary. Prior to issuance of a grading 	<p>approved Remediation Plan.</p>	<p>contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the Remediation Plan shall be reviewed and approved by the City, ACWD, and DTSC.</p>	

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>permit, the project proponent(s) and ACWD shall identify all abandoned wells within the project boundary. Any wells identified or discovered during construction shall be appropriately destroyed in accordance with ACWD specifications and local standards prior to issuance of a grading permit.</p> <ul style="list-style-type: none"> • Prior to any ground disturbance and issuance of grading permits at the unnamed parcel located to the west of the southern terminus of Stevenson Boulevard, shall be further evaluated to assess the current environmental conditions of this area. This evaluation shall be provided to the City and ACWD for review and to determine the appropriate remediation, if warranted. • All imported soil to raise the elevation on the site shall document the source and quality of the soil. This documentation shall be provided and approved by the City of Newark, prior to issuance of a grading permit. The DTSC's October 2001 Clean Fill Advisory provides guidance on evaluating imported fill. • The property owner shall periodically review the monitoring data from the TCRDF shall be to assess whether there are any significant changes to the Area 4 conditions. The monitoring results shall be annually provided to the City of Newark. The Perry/Arrillaga property shall be evaluated for soil vapor for contaminants that may have migrated from TCRDF unless monitoring data from the landfill shows that further evaluation is unnecessary. 			
<p>Impact HAZ-4: Implementation of the proposed Area 4 golf course uses may create a significant hazard to the public or the environment from existing hazardous materials contamination</p>	<p>MM HAZ-4.1: Implementation of the following measures will reduce impacts to the golf course to a less than significant level:</p> <ul style="list-style-type: none"> • Soil and ground water quality investigations shall be completed at the auto wrecking operation properties prior to issuance of any demolition permits. If impacted soil or groundwater is detected that exceeds commercial screening levels, these parcels shall be remediated under oversight by the City and an appropriate regulatory agency, in this case likely DTSC and/or ACWD. The oversight agency shall be responsible for overseeing and directing all site investigation and cleanup activities in a manner that ensures that the standards and requirements of the State of California are fully addressed. 	<p>During construction, the project contractor will implement the measures in the approved Remediation Plan.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>result in exposure of construction workers or future uses to hazardous material impacts.</p>	<ul style="list-style-type: none"> • Any future golf course development activities at the 10-acre Mowry Avenue property shall be coordinated with the City and the appropriate regulatory agency, DTSC and/or ACWD. Additionally, prior to issuance of grading permits, methane monitoring shall be completed at this property and results shall be provide to the City and the regulatory agency. If impacted methane levels exceeds commercial screening levels, these parcels shall be remediated under oversight by the City and in this case, likely DTSC. • The depth and quality of the former fill areas [Pick-N-Pull Parcel 1, Ace Auto Wrecker’s property, and 115-acre Rogers property (filled ponds)] shall be investigated prior to issuance of grading permits. This investigation shall be provided to the City and/or ACWD for review and approval. Options for remediating impacted fill include capping, relocation, over-excavation and off-site disposal, and/or completing a risk assessment to evaluate whether this material is a risk to human health or the environment under the future golf course redevelopment plan. • Prior to any demolition of the existing buildings (Pick-N-Pull, Ace Auto Wrecker’s), an asbestos survey is required by local authorities and/or National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable Asbestos-Containing Building Material (ACBMs) prior to building demolition or renovation that may disturb the ACBM. The results of the survey shall be submitted to the City for review and approval, prior to issuance of demolition permits. 		<p>Remediation Plan shall be reviewed and approved by the City, ACWD, and DTSC.</p>	
<p>Impact HAZ-5: The operation and maintenance of the golf course, if improperly designed and/or managed, could create a significant hazard to the public</p>	<p>MM HAZ-5.1: With implementation of the following measures, the proposed golf course operation would not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment:</p> <ul style="list-style-type: none"> • As required through an operational permit issued by the City, a golf course operations plan will be developed prior to opening of the golf course. This plan shall be reviewed and approved by the City prior to 	<p>During operation of the golf course, the golf course operator shall implement the measures in the approved</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>or the environment as a result of the routine transport, use or disposal of hazardous materials, or through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment.</p>	<p>issuance of building permits. The plan will include the following elements:</p> <ul style="list-style-type: none"> ▪ Proper storage, handling, and disposal of chemicals; ▪ Limited use of chemicals; ▪ Strict adherence to manufacturer’s recommendations and procedures involving chemical applications; ▪ Application of chemicals only by State-licensed personnel; and ▪ Use of only short-lived pesticides and herbicides <ul style="list-style-type: none"> • The golf course superintendent shall maintain a log of all herbicide and pesticide purchases and application. • The proposed gasoline storage tanks will be installed and maintained per City, State, and Federal requirements • The proposed golf cart barn and electric golf cart battery charging facilities shall be designed, constructed, and managed to prevent buildup of hydrogen gas and the potential for explosion. The design of the golf cart barn shall be reviewed and approved by the City Fire Department. • Batteries shall be stored in a safe manner, pursuant to current California Building Code and Fire Code requirements. 	<p>Course Operations Plan.</p>	<p>Prior to issuance of building permits, the golf course operator shall provide the City the Course Operations Plan for review and approval.</p>	
ENERGY				
<p>Impact ENR-1: Construction could result in a wasteful and inefficient consumption of energy associated with fuel usage and therefore, would result in a significant energy impact.</p>	<p>MM ENR-1.1: The project shall utilize local and regional building material in order to reduce energy consumption associated with transporting materials over long distances. This shall be enforced by specifying on construction bid documents that 20 to 50 percent of building materials be manufactured within 500 miles of the project site.</p> <p>MM ENR-1.2: Local construction sites shall be utilized for the source of fill material necessary for the development of Area 4. The Community Development Director shall approve all fill source sites to ensure travel distances are local distances. In addition, designated travel routes from the fill source site to the project site shall be determined by the construction manager and approved by the Community Development Director to ensure the haul-truck utilize most fuel-efficient travel path.</p>	<p>During construction, the project contractor will implement the mitigation measures.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>MM ENR-1.3: Reduce equipment and vehicle idle times. Enforce current state law idling restrictions from diesel-fueled trucks by conspicuously posting signs that prohibit excess idling. Construction superintendents shall inform truck drivers to turn engines off when idling times have exceeded or are expected to exceed the idling restrictions (currently five minutes). This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite.</p> <p>MM ENR-1.4: Reduce vehicle emissions. Properly tune and maintain equipment for low emissions.</p>			
CUMULATIVE IMPACTS				
CUMULATIVE TRANSPORTATION				
<p>Impact C-TRAN-1: Under cumulative no project conditions, the intersection of Cherry Street/Mowry Avenue would operate at LOS D during the AM peak hour. With the addition of project traffic, the intersection would degrade to LOS E and the average intersection delay would increase by more than 4 seconds during the</p>	<p>MM C-TRAN-1: Cherry Street and Mowry Avenue mitigation: Add an additional left turn lane on the westbound Mowry Avenue approach and realignment of the intersection. This mitigation measure would return the intersection to an acceptable LOS.</p>	<p>Prior to issuance of a Certificate of Occupancy, the project developer shall make a “fair share” monetary contribution for the improvements.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans. Prior to issuance of a Certificate of Occupancy, the Community Development Director shall verify the “fair share” monetary contribution has been made.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>AM peak hour. This exceeds the City of Newark's LOS threshold of acceptability and therefore would make a cumulatively considerable contribution to cumulative traffic impacts.</p>				
<p>Impact C-TRAN-2 Under cumulative no project conditions, the intersection of Cherry Street-Boyce Road/Stevenson Boulevard would operate at LOS D during the PM peak hour. With the addition of project traffic, the intersection would degrade to LOS F and the average intersection delay would increase by more than 4 seconds.</p>	<p>MM C-TRAN-2: Pay a fair share contribution through the City's Traffic Impact Fee program to add a through lane on the northbound approach of Cherry Street and re-align the intersection. This improvement was identified in the <i>City of Newark General Plan Tune Up TIA</i> dated June 7, 2013. There is potentially sufficient roadway right-of-way on Boyce Road/Cherry Street for this improvement. Therefore, the improvement could be implemented by re-striping Cherry Street. Because this impact would occur under cumulative, but not under project conditions, this impact is mitigated by a "fair share" monetary contribution paid from the project to the City's Traffic Impact Fee program toward these improvements. This mitigation would return the intersection to LOS D, the LOS standard.</p>	<p>Concurrent with the development of Areas 3 and 4, the developer shall ensure this measure is implemented.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a Certificate of Occupancy, the Community Development Director shall verify this measure is implemented.</p>	<p>Community Development Director</p>
<p>CUMULATIVE NOISE</p>				

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>Impact C-NOI-4: Implementation of the proposed Specific Plan would measurably contribute to significant cumulative traffic noise increases.</p>	<p>MM C-NOI-4: A combination of mitigation measures would help reduce impacts to affected property owners along Cherry Street between Stevenson Boulevard and Mowry Avenue and along Stevenson Boulevard between Cherry Street and Cedar Boulevard from project-generated cumulative traffic noise. These noise reduction measures include the following:</p> <ul style="list-style-type: none"> • Noise barriers required under MM NOI 1.1 will reduce noise levels by 5 dBA Ldn for project residents. Final design of such barriers, shall be completed during construction-level project design. Single-family residential receivers east of Cherry Street and north of Stevenson Boulevard (off-site) could be provided with new or larger noise barriers to provide the additional necessary noise attenuation in private outdoor use areas. Typically, increasing the height of an existing barrier results in about one (1) dBA of attenuation per one (1) foot of additional barrier height. The design of such would require additional analysis. • Sound insulation treatments to the impacted buildings, such as sound-rated windows and doors, would reduce noise levels in interior spaces. Affected residential receivers along affected roadways off-site could be provided with sound insulation treatments. • In addition, alternative noise reduction techniques for off-site receivers shall be considered in coordination with the City of Newark. Such techniques could include: installation of traffic calming measures to slow traffic; coordination of routing and other traffic control measures; repaving the affected roadways with “quiet” pavement types such as Open-Grade Asphalt Concrete. The replacement of dense grade asphalt (standard type) with open-grade or rubberized asphalt can reduce traffic noise levels along residential-type streets by 2 to 3 dBA. A possible noise reduction of 2 dBA would be expected using conservative engineering assumptions. Opportunities to lower noise levels through pavement surface treatments can only be identified after an assessment of the current roadway surface with respect to noise. • Final design of such barriers and/or treatments, including an assessment of their feasibility and reasonableness, shall be completed during construction level review. 	<p>Prior to full-buildout a qualified acoustical specialist retained by the project developer will complete an assessment of the feasibility and reasonableness of different sound treatments. Alternative noise reduction techniques shall be considered in coordination with the City of Newark.</p>	<p>The Community Development Director will determine if that the mitigation is feasible, clear and detailed documentation in the record will be provided.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>Each of these mitigation measures involves other non-acoustical considerations. While the project noise mitigation measures will also mitigate for on-site cumulative noise levels, the project may not be able to mitigate off-site cumulative noise impacts. Other engineering issues may dictate continued use of dense grade asphalt. Therefore, it may not be reasonable or feasible to reduce project-generated cumulative traffic noise at all affected receivers. If the City of Newark determines that the mitigation is feasible, then with implementation of the mitigation measures, the impact would be less than significant. However, if the City of Newark determines that the mitigation is not feasible, the impact would be considered significant and unavoidable.² Due to the uncertainty regarding the feasibility of this mitigation, the impact would be considered significant and unavoidable.</p>			

AVOIDANCE MEASURES

Visual and Aesthetic Resources

AM VIS-1.1: The following avoidance measures shall further reduce light and glare impacts of the Specific Plan. All of these avoidance measures shall be incorporated into the City of Newark’s development regulations and design review procedures to reduce potential light and glare impacts to non-significant levels. Design review procedures shall include the following:

- Use of low pressure sodium lights where security needs permit;
- Restricting height of exterior lighting fixtures to minimize light spill;
- Directing exterior lighting on-site to minimize spill-over;
- Shielding for exterior lights;
- Minimizing use of highly reflective exterior building materials;
- Restricting hours of non-security exterior lighting for commercial, industrial, and institutional uses.

Energy Resources

AM ENR-1.1: All residential subdivisions and new commercial buildings within the Specific Plan shall incorporate as many green practices as appropriate and feasible in buildings and structures constructed subject to approval of the City of Newark.

² If the City of Newark determines that the mitigation is not feasible, they should provide clear and detailed documentation in the record.

AM ENR-2.2: All public landscaping areas within the Specific Plan shall follow the City of Newark’s Bay Friendly Landscape Guide. Future homeowners associations or similar entity shall be encouraged to incorporate as many bay friendly landscape practices as appropriate and feasible.

Global Climate Change

AM C-GCC-1: All residential subdivisions and new commercial buildings within the Specific Plan shall incorporate as many green practices as appropriate and feasible in buildings and structures constructed subject to approval of the City of Newark.

AM C-GCC-2: All public landscaping areas within the Specific Plan shall follow the City of Newark’s Bay Friendly Landscape Guide. Future homeowners associations or similar entity shall be encouraged to incorporate as many bay friendly landscape practices as appropriate and feasible.

AM C-GCC-4.1: The following avoidance measures shall further reduce greenhouse gas emissions. All of these avoidance measures shall be incorporated into the City of Newark’s development regulations and design review procedures to reduce potential greenhouse gas emission impacts to non-significant levels.

All residential subdivisions and new commercial buildings within the Specific Plan shall incorporate as many green practices as appropriate and feasible in buildings and structures constructed subject to approval of the City of Newark. These measures shall include, but are not limited to:

- Pre-wire (or equivalent most current technology) residences and commercial buildings to facilitate the installation of solar power.
- LEED certification or equivalent for commercial buildings.
- Include plug-ins (or equivalent most current technology) in residences to facilitate the use of electric and hybrid vehicles.

AM C-GCC-4.2: All public landscaping areas within the Specific Plan shall follow the City of Newark’s Bay Friendly Landscape Guide. Future homeowners associations or similar entity shall be encouraged to incorporate as many bay friendly landscape practices as appropriate and feasible. These practices shall include, but are not limited to:

- No lawn areas less than 8 foot wide.
- Where practical, utilize underground irrigation systems rather than surface applied irrigation to reduce evaporative loss.
- Minimize mowed lawn areas in residential development neighborhoods and use mowed lawn areas only for active recreation areas in park spaces
- Minimize use of plants that require extensive pruning and/or generate large amounts of green waste.
- Utilize “Integrated Pest Management” principals in the landscape maintenance of the project.
- Employ recycled materials for landscape materials such as headers, paving, street furniture, and mulch wherever practical.
- Landscape lighting to respect dark sky principals, i.e. no light directed up-ward.

MITIGATION MONITORING AND REPORTING PROGRAM
Area 4 – Sanctuary West Residential Project Compliance Checklist
October 2019

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
AIR QUALITY				
<p>Impact AIR-1: Without incorporation of appropriate Transportation Control Measures the project would conflict with the 2005 Bay Area Ozone Strategy.</p>	<p>MM AIR-1.1: The Specific Plan shall incorporate the following measures, which would reduce transportation-related emissions. The measures listed in below are expected to include implementation of appropriate TCMs. Incorporation of these measures would reduce the impact to a less-than-significant level.</p> <ul style="list-style-type: none"> • Improve existing or construct new bus pullouts and transit stops at convenient locations along Cherry Street and Stevenson Boulevard. Pullouts shall be designed so that normal traffic flow on arterial roadways would not be impeded when buses are pulled over to serve riders. Bus stops shall include shelters, benches and posting of transit information; • Appropriate bicycle amenities shall be included. This would include bike lane connections throughout the project site. Off-site bicycle lane improvements shall be considered for roadways that would serve the project; • The City and project proponents shall explore and implement feasible means to bring transit or shuttle service to Area 4; • Provide pedestrian sidewalks or paths throughout the project site with convenient access to bus stops along adjacent arterials; • Consider providing pedestrian signs and signalization to make a pedestrian friendly environment. Include convenient pedestrian crossings at strategic areas with count-down signals at intersections that would enhance pedestrian use; • Review landscape plans to ensure that they provide new trees that would shade buildings and walkways in summer to reduce the cooling loads on buildings; • Develop and implement building practices for the project that that are based on energy efficient standards that exceed State building code. 	<p>The project applicant is responsible for implementing mitigation measures MM AIR-1.1 concurrent with project construction.</p>	<p>These measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The Community Development Director shall verify this measure is implemented.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
BIOLOGICAL RESOURCES				
<p>Impact BIO-2: Development within Area 4 would result in substantial adverse effects on federally protected wetlands (seasonal wetlands) and associated special status species due to altering the hydrology on the project site.</p>	<p>MM BIO-2.1: Stormwater runoff for the proposed residential development within Area 4, shall continue to drain, post-project, from multiple discharge points and the velocity of discharge into the wetlands shall be designed to prevent erosion and channelization. This includes avoiding single-point source of water discharges from the proposed development. Rather, simulation of natural flow through a more dispersed discharge of collected runoff shall be designed for movement of water from hardscape within developed features into wetlands surrounded by or adjacent to development such that the existing hydrologic condition is not substantially changed.</p> <p>For every seasonal wetland to be preserved that fronts the development envelope that is smaller than (1) acre, as shown on the habitat map (Figure 4.4-2), there will be at least one discharge point of stormwater flows and nuisance flows. For wetlands greater than one (1) acre there shall be a minimum of three (3) discharge points separated by no less than 200 feet and situated along the upslope perimeter of the wetlands.</p> <p>For each of the seasonal wetlands to be preserved, stormwater runoff and nuisance flows shall be designed to incorporate grassy swales, retention basins, and energy dissipaters to control discharge velocities in order to prevent erosion at the discharge point within wetlands and to prevent channelization. Channel erosion at each of the outfall discharge points draining into seasonal wetlands shall be monitored annually for the first five (5) years. If any channel erosion is noted, remedial measures shall be taken to incorporate additional suitable water control structures to prevent further erosion. Once these remedial measures are implemented, the five (5) year monitoring phase will be restarted at that location.</p> <p>MM BIO-2.2: All grading and culvert sizing and installation shall be designed to ensure adequate drainage without draining wetlands more quickly than currently occurs and to allow water to pond for durations similar to the current existing condition.</p>	<p>During project design, the project civil engineers shall ensure there are multiple stormwater discharge points in order to meet the requirements of MM BIO-2.1 through MM BIO-2.5.</p> <p>The project contractor shall ensure these measures are incorporated into all plans and implemented during construction of the project.</p> <p>A qualified geomorphologist or hydrologist shall annually monitor the outfall discharge points.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The Community Development Director and Public Works Director shall review the project plans to ensure these measures are incorporated into the project.</p> <p>Annual monitoring reports will be submitted to the Community Development Director.</p>	<p>Community Development Director</p>

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	<p>MM BIO-2.3: To prevent any significant decrease in the amount of water entering preserved wetland habitats in Area 4 during the winter months, native grass species shall be used. A species list shall be developed by a qualified biologist in concert with designers and approved by the City of Newark.</p> <p>MM BIO-2.4: The following measures shall be implemented to minimize any perennial ponding within the existing seasonal wetlands.</p> <ul style="list-style-type: none"> • Nuisance runoff from the proposed residential uses shall be minimized and controlled to reduce their input into the remaining natural habitat during the dry season. • Water use shall be limited to the minimum necessary for landscaping, including that under private ownership, to decrease summer nuisance flow to negligible amounts and approximate the existing condition. • Drought tolerant plant species shall be planted within landscaped areas, including private lawns, which do not require water during the summer months. Where this is not feasible, proper irrigation using only the amount of water that can be taken up by the plants shall be implemented. • Water shall be applied at dawn to limit evaporation, thereby limiting the amount of water that must be applied and reducing the possibility of over flow from the site as evapotranspiration takes place during the day. • Implement the following University of California Integrated Pest Management Plan recommendations to maximize irrigation efficiency: <ul style="list-style-type: none"> ▪ Irrigate deeply, but infrequently. ▪ Irrigate early in the morning. At this time water loss from evaporation is minimal, distribution is usually good because of good water pressure and limited wind, and the risk of disease development is reduced. ▪ Avoid runoff by matching water application rates to soil infiltration rates (rate water enters soil) or by pulsing (i.e., applying a portion of the water, waiting for it to be absorbed in the soil, and then applying the next portion). ▪ Use less water in shaded areas than in open sun. 	<p>Incorporated during landscape design and stormwater design by landscape architect and civil engineer.</p>		

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	<ul style="list-style-type: none"> ▪ Remove thatch in spring if it is more than 0.5 inch thick. ▪ Do not over fertilize; fertilize moderately according to the individual species and location. <p>MM BIO-2.5: Any remaining dry-season nuisance flows shall be retained within the development footprint by grading the site to drain internally, or by constructing berms or swales to confine these flows to the site to infiltrate or evaporate rather than flowing overland to salt marsh habitat.</p>			
<p>Impact BIO-3: The project would result in significant impacts to federally protected wetlands in Area 4, including salt marsh habitat and associated special status species due to an increase in freshwater flows as a result of the project.</p>	<p>MM BIO-3.1: Implementation of mitigation measures MM BIO-2.1 through 2.5 described above will reduce the Specific Plan’s impacts in Area 4 associated with the discharge of freshwater runoff into salt marsh habitats to a less than significant level.</p>	Same as above.	Same as above.	Same as above.
<p>Impact BIO-4: The project would result in the loss of burrowing owl habitat, a California species of special concern, and disturbance to existing owls on-</p>	<p>Any development activities within Area 4 will require implementation of mitigation measure MM BIO-4.1 through MM BIO-4.6 below to ensure against the possibility of take of individual owls.</p> <p>MM BIO-4.1: Pre-construction surveys for burrowing owls shall be completed in areas planned for fill placement and construction areas in general conformance with the California Burrowing Owl Consortium’s and the CDFW Staff Report (2012) protocols. Because owls are known to occupy the site, these surveys shall be completed no more than 15 days prior (rather than 30 days prior, as per the Consortium’s protocol) to the</p>	The project contractor shall hire a qualified ornithologist to complete the pre-construction burrowing owl surveys.	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>A report prepared by a</p>	Community Development Director

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<p>site. This is a significant impact.</p>	<p>start of importing fill and construction to minimize the probability of immigration of owls between the time surveys are completed and the initiation of grading. If the initial disturbance is followed by periods of inactivity exceeding 15 days, or if the development is phased spatially and/or temporally such that an area in which construction activities are to commence has not been disturbed by construction activities within the prior 15-day period, a new burrowing owl pre-construction survey will be completed prior to the start of disturbance. If burrowing owls are detected on or within 250 ft of the site, Mitigation Measures MM BIO-4.2 and MM BIO-4.3, described below, shall be implemented.</p> <p>MM BIO-4.2: For burrowing owls located during the non-breeding season (generally 1 September to 31 January), a 150-ft buffer zone will be maintained around the occupied burrow(s) if practicable. If such a buffer is not practicable, then a buffer adequate to avoid injury or mortality of owls will be maintained, or the birds will be evicted as described for Mitigation Measure MM BIO-4.3 below. During the breeding season (generally 1 February to 31 August), a 250-ft buffer, within which no new activity will be permissible, will be maintained between project activities and occupied burrows. Owls on site after 1 February will be assumed to be nesting unless direct observations indicate otherwise. This protected buffer area will remain in effect until 31 August, or based upon monitoring evidence, until the young owls are foraging independently or the nest is no longer active.</p> <p>MM BIO-4.3: If construction will directly impact occupied burrows, eviction of owls may occur outside the nesting season to prevent injury or mortality of individual owls. No burrowing owls shall be evicted from burrows during the nesting season (1 February through 31 August) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season). Relocation of owls during the non-breeding season will be completed by a qualified biologist using one-way doors, which should be installed in all burrows within the impact area and left in place for at least two nights. These one-way doors will then be</p>		<p>qualified ornithologist documenting the results of the survey shall be submitted to the Community Development Director for review and approval, prior to the start of construction.</p>	

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>removed and the burrows backfilled immediately prior to the initiation of grading.</p> <p>MM BIO-4.4: To reduce impacts of the Specific Plan on the local (South Bay) burrowing owl population in Area 4, habitat shall be preserved and managed for burrowing owls on and/or off-site if and when development occurs in Area 4. California burrowing owl mitigation guidelines recommend that 6.5 acres of foraging habitat be preserved and managed per occupied burrowing owl burrow (whether by a pair or singly) in mitigation sites. Based upon the existing quality of burrowing owl habitat on the site and the impact to baseline conditions, future developers of Area 4 shall provide 26 acres of mitigation habitat. This habitat will be preserved and managed specifically for use by burrowing owls.</p> <p>Development on Area 4 is likely to occur in phases, and provision of burrowing owl habitat mitigation will likewise be phased according to the extent of habitat impacts. Habitat mitigation will be provided for any residential or recreational development on Area 4. Residential or recreational development affecting less than 100 acres will require mitigation for two pairs of owls, or 13 acres of habitat mitigation on-site and/or off-site. Residential or recreational development equaling or exceeding 100 acres, mitigation for two additional pairs of owls will be required, for a total of 26 acres of habitat mitigation. A combination of on-site and off-site mitigation is acceptable. However, on-site mitigation shall contribute toward the habitat mitigation requirement only if at least 6.5 acres of contiguous burrowing owl habitat is preserved and managed on-site. Either Mitigation Measure MM BIO-4.5A or MM BIO-4.5B, described below, shall be implemented.</p> <p>MM BIO-4.5A: If on-site (within Area 4) habitat is to be preserved, a mitigation and monitoring plan detailing the areas to be preserved for owls; the methods for managing on-site habitat for owls and their prey; methods for enhancing burrow availability within the mitigation site (potentially including the provision of artificial burrows, although long-term management for ground squirrels will be important as well);</p>	<p>Burrowing owl mitigation habitat shall be designated by a qualified ornithologist and secured prior to issuance of any grading permits in Area 4.</p> <p>A mitigation and monitoring plan and adaptive management program shall be completed by a qualified biologist hired by the project proponents.</p> <p>For off-site habitat</p>	<p>Community Development Director and CDFW will review and approve mitigation habitat</p> <p>Community Development Director and CDFW will review and approve plan and program.</p>	

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>measures to minimize adverse effects of development on owls on-site; and a monitoring program and adaptive management program shall be prepared by a qualified biologist and submitted to the City of Newark and the CDFW for review and approval. At least 50 percent of the mitigation area must consist of upland habitat suitable for use by burrowing mammals, and no wetlands supporting tall vegetation shall be included within the mitigation site. The mitigation area must be contiguous with habitat that is permanently preserved as open space to avoid having the site surrounded by development in the future. The mitigation area will be protected in perpetuity through a conservation easement, deed restriction, conveyance to a qualified land trust or the Refuge, or through equivalent means.</p> <p>MM BIO-4.5B: If the project proponent elects to mitigate off-site, such mitigation may take the form of habitat preservation and management (in which case all the monitoring and habitat requirements in the preceding paragraphs would apply) or the purchase of credits in an off-site mitigation bank. Because the nearest burrowing owl mitigation banks are located outside of the South Bay, this mitigation may occur outside the region.</p> <p>Unless at least 13 acres of burrowing owl habitat mitigation occurs on-site, some on-site enhancements shall also be made to reduce impacts of the project on the local (South Bay) burrowing owl population. Such enhancements shall include the provision of artificial burrow complexes on the outboard side of levees on the site and management of at least portions of levee side slopes around these burrow complexes to provide suitable conditions for burrowing owls and ground squirrels (e.g., periodic mowing to maintain short vegetation). If less than 13 acres of on-site habitat mitigation is provided, then:</p> <ul style="list-style-type: none"> • Residential or recreational development affecting less than 100 acres shall require the provision of two artificial burrow complexes. • Residential or recreational development equaling or exceeding 100 acres, shall require two additional burrow complexes be provided (for a total of four). These burrow complexes and the vegetation around 	<p>preservation: A mitigation and monitoring plan and adaptive management program shall be completed by a qualified biologist hired by the project proponent(s).</p> <p>For on-site enhancements: a qualified biologist hired by the project proponent(s) shall implement the burrowing enhancements.</p> <p>Signage shall be implemented by recreation developer prior to start of operation to the public.</p> <p>A predator management program shall be prepared by a qualified</p>		

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	<p>them, shall be maintained regularly to maintain suitable on-site conditions for nesting and roosting owls. Given the extent of natural habitat with short vegetation, and the continued presence of seasonal wetlands on much of Area 4, providing and maintaining burrows for use by owls is expected to maintain some burrowing owl presence on the site even if most or all of the owl habitat mitigation occurs off-site.</p> <p>MM BIO-4.6: As described in greater detail under Mitigation Measure MM BIO-9.2 below, signage shall be placed in appropriate locations on the recreation area to prohibit visitors from entering areas where the artificial burrow complexes will be located. If development occurs on Area 4, signage will be placed along the ACFC&WCD Line D levees and the Mowry Slough levee to instruct recreational users of these levees against leaving the levee tops to protect sensitive species such as the burrowing owl.</p> <p>MM BIO-4.7: Indirect effects of development could include an increase in non-native and urban-adapted native species, and an increase in domestic animals such as cats and dogs, that could prey on more sensitive native species in the on-site conservation areas. To reduce this effect, a predator management program will be developed and implemented. This program will focus on education of occupants of the new residential areas regarding measures to minimize the potential for subsidizing predator species and to minimize the potential effects of pets on sensitive species and enforcement of the program’s measures, and restrictions on certain activities that could increase predation of sensitive species. The program will include, at a minimum, the following:</p> <ul style="list-style-type: none"> • Feeding pets outdoors will be prohibited so that pet food does not attract or subsidize the diets of nuisance species. • Pets will be prohibited from ranging freely (off-leash dogs will be prohibited in conservation areas and no free-roaming outdoor cats will be permitted), to prevent their entry into sensitive species habitat. • All food waste will be contained so that it does not attract or subsidize the diets of predators. 	<p>biologist. It shall be implemented and enforced through the neighborhood association or similar program and City of Newark.</p>		

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	Any neighborhood association established for new residential areas will be responsible for disseminating this information, and the neighborhood association and City will be responsible for enforcing the program.			
<p>Impact BIO-5: Loss of eggs or young peregrine falcons, a species protected by the Migratory Bird Treaty Act (MBTA) and threatened under the California Endangered Species Act (CESA) would result in a significant impact.</p>	<p>MM BIO-5.1: Construction, including any tower modifications and/or replacement in Area 4, shall occur during the non-breeding season (1 September to 31 January), to the maximum extent possible.</p> <p>MM BIO-5.2: If construction must commence between 1 February and 31 August, then pre-construction surveys for nesting peregrine falcons shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of demolition/construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). During this survey, the ornithologist will inspect all power-line towers within 300 feet of impact areas for nests. If no peregrine falcon nests are detected within the Specific Plan area during this survey, further measures are not necessary. The survey results shall be provided to the Community Development Director for review and approval prior to the start of grading and construction.</p> <p>MM BIO-5.3: If an active nest is found within 300 feet of any construction activity, a 300-foot buffer, within which no new development-related activity will be permissible, will be maintained between development activities and the occupied nest. This protected area will remain in effect until the young falcons have fledged or the nest is no longer active.</p>	The project contractor shall hire a qualified ornithologist to complete the pre-construction peregrine falcon surveys.	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>A report prepared by a qualified ornithologist documenting the results of the survey shall be submitted to the Community Development Director for review and approval, prior to the start of construction.</p>	Community Development Director
<p>Impact BIO-6: The project could result in significant impacts to nesting</p>	<p>MM BIO-6.1: Construction shall commence during the non-breeding season (approximately 1 April through 31 July for this species), to the maximum extent possible.</p>	The project contractor shall hire a qualified ornithologist to	All measures shall be printed on all construction	Community Development Director

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colonies of tricolored blackbirds, a California species of special concern.	<p>MM BIO-6.2: If construction must commence between 1 April and 31 July, then pre-construction surveys for nesting tricolored blackbirds will be completed by a qualified ornithologist to ensure that no nests will be disturbed during Specific Plan implementation. This survey shall be completed no more than 14 days prior to the initiation of demolition/construction activities. During this survey, the ornithologist will inspect all potential breeding habitat within 400 feet of impact areas for nests. If no tricolored blackbird colonies are detected within the Specific Plan area during this survey, further measures are not necessary.</p> <p>MM BIO-6.3: If an active colony is found within 400 ft of any construction activity, a 400-ft buffer, within which no new development-related activity will be permissible, will be maintained between development activities and any occupied nests. This protected area shall remain in effect until the young have fledged or the colony is no longer active.</p>	complete the pre-construction tricolored blackbird surveys.	<p>documents, contracts, and project plans.</p> <p>A report prepared by a qualified ornithologist documenting the results of the survey shall be submitted to the Community Development Director for review and approval, prior to the start of construction.</p>	
<p>Impact BIO-8: Project development would result in significant impacts due to the loss of federally and state listed endangered salt marsh harvest mouse and California species of special concern salt marsh wandering shrew individuals and habitat.</p>	<p>With the exception of trapping that previously occurred in the vicinity of the former Pintail Duck Club, it is unknown if any trapping that has been completed to determine the presence or absence of salt marsh harvest mice or salt marsh wandering shrews in specific portions of the Specific Plan area. In the absence of protocol-level presence/absence surveys, presence shall be assumed in the pickleweed-dominated locations.</p> <p>Incorporation of the following measures will reduce salt marsh harvest mouse and salt marsh wandering shrew individual and habitat impacts to a less than significant level:</p> <p>MM BIO-8.1: Temporary disturbance to and permanent loss of salt marsh harvest mouse and salt marsh wandering shrew habitat shall be avoided to the maximum extent practicable. Although avoidance of wetland impacts was previously described, further attempts to avoid impacts to pickleweed-dominated habitats shall be made. Prior to the</p>	The project contractor shall hire a qualified biologist to complete these measures prior to grading the site and/or the onset of building activities.	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>A report prepared by a qualified biologist documenting the completion of these measures shall be</p>	Community Development Director

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>issuance of building permits, all temporary staging areas and construction access roads shall be located away from suitable habitat for these species and limits of all wetlands that are to be avoided will be clearly demarcated by a qualified biologist with Environmentally Sensitive Area fencing to avoid inadvertent disturbance of any habitat outside of the designated construction areas during construction activities.</p> <p>MM BIO-8.2: Prior to issuance of grading permits and under the supervision of a qualified biological monitor, who is permitted by the USFWS and CDFW to move salt marsh harvest mice out of the construction area, all salt marsh harvest mouse/wandering shrew habitat within the construction area shall be removed by hand (e.g., including weed-whacker if, with USFWS and CDFW approval, such equipment is used in such a way as to avoid impacting individual mice/shrews) within a given area of harvest mouse/wandering shrew habitat. Vegetation requiring hand removal will be limited to pickleweed and other associated plants, such as saltgrass or bulrush, within pickleweed-dominated areas considered to be potential habitat for these mammals as depicted on Figure 3.5-2. After at least 24 hours have elapsed since the removal of this pickleweed-dominated vegetation from harvest mouse/wandering shrew habitat areas, a barrier to exclude salt marsh harvest mice and salt marsh wandering shrews from impact areas will be installed at the perimeter of all project construction areas that are located within 50 feet of potential salt marsh harvest mouse and salt marsh wandering shrew habitat. This barrier, which will be constructed under the guidance of a qualified biologist, shall consist of a 3-foot tall, tight cloth or smooth plastic silt fence toed into the soil at least three inches deep and supported with stakes.</p> <p>MM BIO-8.4: Salt marsh harvest mouse and salt marsh wandering shrew habitat that is permanently lost due to fill, shading, or isolation will be mitigated at a 3:1 ratio by the creation or restoration of pickleweed-dominated salt marsh on Area 4. Habitat for these species that is indirectly impacted due to proximity to residential development (i.e., habitat that is not directly filled but that is located within 100 feet of direct impact areas)</p>		submitted to the Community Development Director for review and approval, prior to the issuance of grading and/or building permits.	

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>will be mitigated at a 2:1 ratio by on-site habitat restoration. This lower ratio is appropriate because habitat within 100 feet of developed areas will retain some habitat quality for mice and shrews. This habitat restoration can occur in the same locations as habitat creation, restoration, or enhancement performed for impacts to wetlands as long as suitable conditions for these two mammal species are targeted.</p> <p>A habitat mitigation and monitoring plan will be prepared that outlines the necessary steps for restoration; it will include a plan view graphic showing the target restoration activities, a brief seeding plan (species palette and application techniques) to re-vegetate the areas currently in agricultural production, and a monitoring and reporting plan with success criteria. The plan will include a recommended timeline for restoration activities and the establishment of suitable habitat. The mitigation and monitoring plan will be approved by the City of Newark, the USFWS, and the CDFW prior to issuance of grading and building permits. The restoration work will begin in the same construction season as the initiation of grading within suitable salt marsh harvest mouse/salt marsh wandering shrew habitat, and restoration site grading will be completed within one year of initiation (or as otherwise determined by resource agency permits). All created mitigation habitats will be protected in perpetuity and will be placed into a land trust or under a conservation easement, or fee title will be transferred to the Refuge or a third-party non-profit entity that has been approved by the City and appropriate permitting agencies.</p>			
<p>Impact BIO-9: Proposed recreational activities in Area 4 would impact sensitive habitats that are known to support special status species and large numbers of</p>	<p>MM BIO-9.2: Areas that are “out of bounds” (which will include the artificial burrowing owl burrow complexes and all natural areas that are not directly filled during construction) shall be clearly marked as such, explaining the importance of preserving the ecological integrity of the adjacent natural areas. Signs will be erected along the ACFC&WCD levees and along Mowry Slough describing the ecological value of adjacent wetland areas and instructing users to stay on the ACFC&WCD levee tops, stay out of sensitive habitats, and keep dogs on leashes.</p>	<p>The project contractor shall hire a qualified biologist to ensure these measures are completed during the design and</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>A report prepared by a</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>foraging and roosting waterbirds. The Specific Plan would result in significant impacts due to recreational activities on the site.</p>		<p>construction phases.</p>	<p>qualified biologist documenting the measures have been implemented shall be submitted to the Community Development Director prior to the issuance of grading and/or building permits.</p>	
<p>Impact BIO-10: The proposed project would indirectly impact large numbers of foraging and roosting waterbirds, including species protected by the Migratory Bird Treaty Act (MBTA) in the wetland portions of the site. This is a significant impact.</p>	<p>MM BIO-10.1: Indirect impacts of residential development in Area 4 on birds using the undeveloped wetlands on the site shall be mitigated by the creation or enhancement of waterbird habitat on the site at a 0.5:1 ratio for a total of 9 acres of mitigation. Mitigation wetlands for these indirect impacts shall be located at least 300 feet from any development, to the maximum extent possible. The mitigation areas shall provide perennial or near-perennial water with a variety of depths ranging from very shallow water or exposed mud to water up to several feet deep to support the bird species currently using the former Pintail Duck Club. This mitigation can occur within the same wetland areas created as mitigation for permanent loss of wetlands as long as it is located at least 300 feet from any residential development.</p> <p>A mitigation plan shall be developed that outlines the proposed wetland creation/enhancement for indirect impacts to waterbird use of wetlands on the site. It will include a plan showing the target mitigation activities and a monitoring and reporting plan with success criteria. The plan shall include a recommended timeline for mitigation activities. This plan will be submitted to and approved by staff of the City of Newark prior to the initiation of any fine grading or construction on the site. The mitigation</p>	<p>The project contractor shall implement the mitigations measures concurrent with construction of the project.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The mitigation plan shall be prepared by a qualified biologist and submitted to the Community Development Director for review and approval prior to</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>work will begin in the same construction season as the initiation of grading or construction, and mitigation site grading will be completed within one year of initiation. All created/enhanced habitats shall be protected in perpetuity and will be placed into a land trust or under a conservation easement, or fee title will be transferred to the Refuge or a third-party non-profit entity that has been approved by the City and appropriate permitting agencies.</p>		<p>the issuance of a grading permit.</p>	
<p>Impact BIO-11: Implementation of the project would result in significant impacts to sensitive habitats and special status species due to the potential spread of non-native, invasive plant species on the site.</p>	<p>MM BIO-11.1: Prior to issuance of any building or grading permits, the project shall develop and implement an Invasive Species Management Plan to reduce the presence and spread of non-native, invasive plant species for the area to be developed. The Plan shall be developed prior to importing any fill material required to elevate building sites and prior to grading any areas on the Specific Plan site. The overarching goal of this mitigation is to halt the further expansion of existing invasive species and introduction of new invasives into sensitive habitats on site. The Invasive Species Management Plan shall include, but not be limited to, the following, summarized below:</p> <ul style="list-style-type: none"> • Prior to construction, map populations of invasive species within all areas proposed to be graded; quantify the extent and location of invasive populations in sensitive habitats. • Areas identified to have weed infestations shall be treated prior to ground disturbance according to weed control methods detailed below and Best Management Practices within all upland areas to be graded, after review and approval of methodologies by the City of Newark. • Weed control treatments shall include all legally permitted herbicide, manual, and mechanical methods approved for application. The timing of the weed control treatment shall be determined for each plant species with the goal of controlling populations before they start producing seeds and/or encroach into adjacent areas from rhizomatous shoots. Consultation with a City of Newark approved wildlife biologists or plant ecologist shall be required prior to weed control treatments in sensitive habitats with the intent of avoiding any adverse impacts to special-status species in the area. 	<p>The project contractor shall hire a qualified biologist to implement the mitigation measures prior to grading the site and during construction of the project.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The Invasive Species Management Plan shall be prepared by a qualified biologist and submitted to the Community Development Director for review and approval prior to the issuance of a grading permit.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<ul style="list-style-type: none"> • Surveying and monitoring for weed infestations shall occur annually while grading operations are occurring for a Project. Treatment of all identified weed populations shall occur at a minimum of once annually. • Once grading ceases, invasive plant populations within all sensitive habitats to be preserved shall be mapped and the aerial extent and location of invasive populations documented on an annual basis for a minimum of three years following grading operations. • If, in any monitoring year, the size of existing populations within sensitive habitats expands by 20 percent or greater in terms of surface area from populations documented prior to construction, weed control measures shall be implemented as outlined above within sensitive habitats. • During Project construction, all seeds and straw materials used on site shall be weed-free rice straw, and all gravel and fill material shall be certified weed free. • During Project construction, vehicles and all equipment shall be washed before and after entering the Project area. 			
<p>Impact BIO-12: The proposed Specific Plan would result in significant impacts to biological resources associated with water quality impacts during construction.</p>	<p>MM BIO-12.1: Prior to the issuance of grading permits, future development projects will incorporate Best Management Practices (BMPs) for water quality to minimize impacts in the surrounding wetland environment, sloughs and channels, and the San Francisco Bay during construction. These BMPs will include numerous practices that will be outlined within the Stormwater Pollution Prevention Plan (SWPPP), but will include measures such as:</p> <ul style="list-style-type: none"> • No equipment shall be operated in live flow in any of the sloughs or channels or ditches on or adjacent to the site. • No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into aquatic or wetland habitat. • Standard erosion control and slope stabilization measures will be required for work performed in any area where erosion could lead to sedimentation of a water body. For example, silt fencing will be installed just outside the limits of grading and construction in any areas 	<p>During construction, the project contractor shall implement all measures identified in the SWPPP.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall provide the SWPPP to the Community Development Director for</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>where such activities will occur upslope from, and within 50 feet of, any wetland, aquatic, or marsh habitat. This fencing shall be inspected and maintained regularly throughout the duration of construction.</p> <ul style="list-style-type: none"> • Machinery shall be refueled at least 60 feet from any aquatic habitat, and a spill prevention and response plan shall be developed and approved by the City of Newark. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. <p>MM BIO-12.2: Soil stockpiling, equipment staging, construction access roads, and other intensively soil-disturbing activities shall not occur immediately adjacent to any wetlands that are to be avoided. The limits of the construction area shall be clearly demarcated with Environmentally Sensitive Area fencing by a qualified biologist to avoid inadvertent disturbance outside the fence during construction activities.</p> <p>MM BIO-12.3: Dust suppression (e.g., using watering trucks) shall be implemented during all grading, construction, and soil stockpiling activities that have the potential to mobilize dust to keep dust from being transported to vegetated wetlands nearby. If soil stockpiles are to remain on the site for long periods of time prior to the start of grading, they shall be hydroseeded so that vegetation will suppress dust and inhibit erosion.</p>		review and approval.	
<p>Impact BIO-13: The proposed Specific Plan would result in significant impacts to biological resources associated with long-term water quality impacts.</p>	<p>MM BIO-13.1: All development projects within the Specific Plan shall comply with the National Pollution Discharge Elimination System (NPDES) permit requirements, the Alameda County Clean Water Program standards, the City of Newark's ordinances, policies, and processes, and other applicable local, state, and federal requirements.</p> <p>All development projects within the Specific Plan shall prepare a SWMP that includes post-construction water quality BMPs that control pollutant levels as required under Section C.3 of the NPDES Municipal Stormwater Permit issued by the RWQCB. Neighborhood- and/or lot-level BMPs to promote "green" treatment of storm runoff shall be emphasized, consistent with Regional Board guidance for NPDES Phase 2 permit compliance.</p>	During construction, the project contractor shall implement all measures identified in the SWMP.	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall</p>	Community Development Director

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>The purpose of these measures will be to ensure that water leaving the site and entering seasonal wetland and marsh habitats, including ACFC&WCD Line D and Mowry Slough, will be of the same quality (or better) than currently enters these habitats from the site. These measures include the design and construction of features to remove particulates and contaminants from runoff. Such features may include mechanical treatment; the use of grassy swales to capture contaminants from landscaping or residences as water infiltrates/percolates to the surrounding wetland habitat; the use of “planter boxes” within private development to treat individual residential runoff; the use of surface materials (where practicable) to allow for infiltration on private property (including permeable driveway material); and the retention of water on the site, when possible (in addition, see MM HYD-1.1 through 1.4 in the EIR).</p>		<p>provide the SWMP to the Community Development Director for review and approval.</p>	
<p>Impact BIO-14: The proposed Specific Plan could result in the loss of City of Newark ordinance-size trees. This is a significant impact.</p>	<p>MM BIO-14.1: Implementation of the Specific Plan shall incorporate preservation of existing trees with emphasis on ordinance-size or larger native species and in good or better condition, to the maximum extent practicable, to the satisfaction of the City’s Community Development Director.</p> <p>MM BIO-14.2: In locations where preservation of existing trees is not feasible due to site constraints, trees to be removed by the project shall be replaced at a 3:1 ratio unless the City’s Community Development Director determines that a higher ratio is required. 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 replacement species must be native to the project area of the San Francisco Bay area.</p> <p>MM BIO-14.3: The species and exact number of trees to be planted on the site during the construction phase shall be determined in consultation with the City Arborist and to the satisfaction of the Community Development Director.</p>	<p>During construction, the project contractor shall implement the tree mitigation measures.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall provide a tree removal and planting plan to the Community Development Director for review and approval.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>MM BIO-14.4: In the event the developed portion of the development site does not have sufficient area to accommodate the required tree mitigation, one or more of the following measures shall be implemented at the development permit stage:</p> <ul style="list-style-type: none"> • An alternative site(s) shall be identified for additional tree planting. Alternative sites may include local parks or schools, or installation of trees on adjacent properties for screening purposes, to the satisfaction of the City’s Community Development Director. • The size of a 15-gallon replacement tree can be increased to 24-inch box and count as two replacement trees. 			
<p>Impact BIO-15: The health of the trees to be preserved could be significantly impacted in the short-term by construction activities and in the long-term due to the proposed Specific Plan development.</p>	<p>MM BIO-15.1: Prior to the issuance of any construction-phase permit, a construction-phase Tree Preservation Plan shall be prepared by a certified arborist to the satisfaction of the City’s Community Development Director for all areas with trees. The construction-phase Tree Preservation Plan shall include the following tree protection measures which are based on guidelines established by the International Society of Arboriculture:</p> <ul style="list-style-type: none"> • Establish Tree Protection Zones • Protect Tree Root Systems • Install Wood Bark Mulch • Install and Maintain Protection Zone Fencing • Prune Tree Roots and Crowns Only as Necessary • Irrigate Trees <p>This Tree Protection Zone is established to protect the tree trunk, canopy and root system from damage during construction activities and to ensure the long-term survival of the protected trees. The Tree Protection Zone shall: (1) ensure that no structures or buildings, that might restrict sunlight relative to the existing condition, will be constructed in close proximity to the trees; and (2) that no improvements are constructed on the ground around the tree within the Tree Protection Zone, thus ensuring that there is sufficient undisturbed native soil surrounding the tree to provide adequate moisture, soil nutrients and oxygen for healthy root growth.</p>	<p>During construction, the project contractor shall implement the measures identified in the Tree Preservation Plan.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall provide the Tree Preservation Plan to the Community Development Director for review and approval.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>MM BIO-15.2: A certified arborist will monitor construction when work is done around any trees to be preserved. In areas where the construction-phase tree protection measures, described above under MM BIO-5-1, are not feasible, all trees affected shall be replaced with 15-gallon replacement trees at a ratio based upon the size of the tree removed. The rationale for the replacement ratio is based upon the anticipated loss of tree canopy from tree removal. In addition, all mitigation described above under MM BIO-14.3 AND MM BIO-14.4 shall be implemented.</p> <p>MM BIO-15.3: A certified arborist will review the development areas after all construction has been completed. In areas where the improvements associated with development have encroached within 1-1/2 times the diameter of the tree canopy drip line, or the trees are otherwise injured or damaged, all trees affected shall be replaced with 15-gallon replacement trees at a ratio based upon the size of the tree affected. In addition, all mitigation described above under MM BIO-14.3 AND MM BIO-14.4 shall be implemented.</p>			
CULTURAL RESOURCES				
<p>Impact CUL-1: Implementation of the proposed Areas 3 and 4 Specific Plan may impact paleontological deposits through excavation of previously undisturbed alluvial sediments.</p>	<p>MM CUL-1.1: The following measures shall be completed during all development activities that include excavation or disturbance of existing ground surfaces, installation of utility lines, or other subsurface trenching.</p> <p>If paleontological resources are discovered during project activities, all work within 25 feet of the discovery would be redirected and a qualified paleontologist contacted to assess the finds, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Project personnel would not move or collect any paleontological resources. If adverse effects to paleontological resources cannot be avoided, they would be assessed to determine their significance. If the resources are not significant, avoidance is not necessary. If the paleontological resources are significant, they would need to be avoided, or adverse effects must be mitigated. Treatment would be consistent with SVP guidelines and may include preparation and recovery of fossil</p>	<p>During construction, the project contractor will implement the mitigation measures, if needed.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>materials so that they can be housed in an appropriate museum or university collection.</p> <p>Upon completion of the assessment, the paleontologist would prepare a report documenting the methods and results and provide recommendations for the treatment of the paleontological resources discovered. This report would be submitted to the Director of the City Community Development Department. Recovery of fossil remains and associated specimen data and corresponding geologic and geographic site data would reduce impacts to a less than significant level.</p>			
<p>Impact CUL-2: Based upon the current known extent of unique cultural materials on Area 4, it is unlikely that total avoidance of impacts is possible within Area 4 of the Specific Plan. Area 4 development will impact unique archaeological resources and disturb human remains, including those interred outside of formal cemeteries through compression of soils and excavation of existing soils.</p>	<p>MM CUL-2.1: The following mitigation measures shall be completed prior to issuance of a grading permit and prior to any earth moving activities in those areas of the Specific Plan Area 4 already identified as potentially containing archaeological resources based upon the research and survey work completed by <i>Holman & Associates</i>. This mitigation measure was already completed on Area 3.</p> <ul style="list-style-type: none"> • A limited program of hand excavation shall be undertaken by a professional archaeologist certified by the Register of Professional Archaeologists (RPA) subject to the following standards: <ul style="list-style-type: none"> ○ If specimens are collected, a system for identifying and recording their proveniences must be maintained. ○ Uncollected entities such as environmental or cultural features, depositional strata, and the like, must be fully and accurately recorded by appropriate means, and their location recorded. ○ The methods employed in data collection must be fully and accurately described. Significant stratigraphic and/or associational relationships among artifacts, other specimens, and cultural and environmental features must also be fully and accurately recorded. ○ All records should be intelligible to other archaeologists. If terms lacking commonly held referents are used, they should be clearly defined. ○ During accessioning, analysis, and storage of specimens and records in the laboratory, the archaeologist must take precautions to ensure that correlations between the specimens and the field 	<p>Prior to any earth moving activities, the project contractor shall hire a professional archaeologist certified by the Register of Professional Archaeologists (RPA) to complete these measures.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to the issuance of a grading permit, the project plans shall be reviewed and approved by a professional archaeologist certified by the RPA and the Community Development Director to ensure the known resources</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>records are maintained, so that provenience contextual relationships and the like are not confused or obscured.</p> <ul style="list-style-type: none"> ○ Specimens and research records resulting from a project must be deposited at an institution with permanent curatorial facilities, unless otherwise required by law. ○ The archaeologist has responsibility for appropriate dissemination of the results of her/his research to the appropriate constituencies with reasonable dispatch. ● The hand excavation must take place at the locations of the three burials and two cultural features in order to verify the presence of midden soils. Hand excavation will verify this, and will provide the researchers with the information needed to determine the aerial extent of the deposits. <p>MM CUL-2.2: Prior to any future development in areas of Area 4 identified as potentially containing archeological resources based upon the research and survey work completed by <i>Holman & Associates</i> or areas for which any additional information has been gathered through hand excavations under MM CUL-2.1, plans shall be designed to avoid impacting known cultural resources.¹ Development plans shall be reviewed and approved by a professional archaeologist certified by the RPA and the City of Newark to ensure the known resources have been adequately avoided. Final mitigation recommendations shall depend on the amount and nature of earthmoving activities which will occur inside those areas which are mapped as intact archaeological deposits after completion of the hand excavation program described above. For example, mitigation of impacts to archaeological deposits may possibly be achieved simply by redesigning in proximity to the borders of the archaeological deposit, as determined by the professional archaeologist’s hand excavation and subsequent mechanical subsurface presence/absence testing program.</p>		<p>have been adequately avoided.</p>	

¹ It should be noted that “capping” or covering the known archaeological resources would not mitigate the impacts to cultural resources because all grading activities, placement of fill, and compaction of the soil would crush and destroy the known cultural resource deposits.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>MM CUL-2.3: All grading and/or construction activities shall, to the extent feasible, avoid all areas identified as potentially containing archeological resources based upon the research and survey work completed by <i>Holman & Associates</i> or areas for which any additional information has been gathered through hand excavations under MM CUL-2.1. However, to the extent that these areas cannot be avoided, then mitigation for burial resources shall be achieved through either preservation in place pursuant to CEQA Guidelines Section 15126.4(B)(3)(a) or a program of data recovery pursuant to CEQA Guidelines Section 15126.4(B)(3)(c) combining limited hand excavation to retrieve significant archaeological data and material and to remove the known human remains to protect them from additional damage. This program shall be designed by a professional archaeologist and reviewed and approved by the City of Newark. Depending on the findings of the proposed evaluative hand excavation, a data retrieval program may also be done by carefully stripping those areas where additional cultural materials are expected utilizing heavy equipment under the direction of a professional archaeologist. Soils would be removed to the depth of the archaeological deposit in selected areas (a percentage of the anticipated deposit). In the event, that archaeological materials and in particular, human burials, are encountered extending out of the areas designated for stripping, additional data retrieval work shall be required.</p> <p>MM CUL-2.4: The following measures shall be completed during all development activities in both Area 3 and 4 that include excavation or disturbance of existing ground surfaces, installation of utility lines, or other subsurface trenching:</p> <ul style="list-style-type: none"> • A professional archaeological monitor certified by the RPA shall monitor with authority to direct and halt earthmoving activities as deemed necessary by the monitor, if and when cultural materials area encountered. In accordance with CEQA Guidelines Section 15064.5(f), if any previously unknown historic or prehistoric resources are discovered during grading, trenching, or other on-site excavation, earthwork within 100 feet of these resources shall be stopped until the professional archaeologist has an opportunity to 			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>evaluate the significance of the find and suggest appropriate mitigation as determined necessary to protect the resource.</p> <ul style="list-style-type: none"> • Given the low to moderate potential for significant cultural materials to be present within Area 3 Sub-Area A, archaeological monitoring should be discontinued as soon as the archaeologist is satisfied that construction will not disturb important archaeological deposits. • In the event that Native American human remains or funerary objects are discovered, the provisions of the California Health and Safety Code shall be followed. Section 7050.5(b) of the California Health and Safety Code states: <ul style="list-style-type: none"> ▪ In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. <p>Based upon the current known extent of unique cultural materials on Area 4 of the site, it is unlikely that total avoidance of impacts is possible with implementation of the proposed Specific Plan. While incorporation of the above measures will partially reduce the cultural resources impact, the overall implementation of Area 4 elements of the Specific Plan will destroy archaeological deposits through placement of fill and soil compression and, therefore, result in a significant unavoidable impact. (Significant Unavoidable Impact – Area 4)</p>			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
ENERGY				
<p>Impact ENR-1: Construction could result in a wasteful and inefficient consumption of energy associated with fuel usage and therefore, would result in a significant energy impact.</p>	<p>MM ENR-1.1: The project shall utilize local and regional building material in order to reduce energy consumption associated with transporting materials over long distances. This shall be enforced by specifying on construction bid documents that 20 to 50 percent of building materials be manufactured within 500 miles of the project site.</p> <p>MM ENR-1.2: Local construction sites shall be utilized for the source of fill material necessary for the development of Area 4. The Community Development Director shall approve all fill source sites to ensure travel distances are local distances. In addition, designated travel routes from the fill source site to the project site shall be determined by the construction manager and approved by the Community Development Director to ensure the haul-truck utilize most fuel-efficient travel path.</p> <p>MM ENR-1.3: Reduce equipment and vehicle idle times. Enforce current state law idling restrictions from diesel-fueled trucks by conspicuously posting signs that prohibit excess idling. Construction superintendents shall inform truck drivers to turn engines off when idling times have exceeded or are expected to exceed the idling restrictions (currently five minutes). This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite.</p> <p>MM ENR-1.4: Reduce vehicle emissions. Properly tune and maintain equipment for low emissions.</p>	<p>During construction, the project contractor will implement the mitigation measures.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Community Development Director</p>
GEOLOGY AND SOILS				
<p>Impact GEO-1: The development of Areas 3 and 4 could result in adverse impacts associated with settlement</p>	<p>MM GEO-1.1: Prior to issuance of grading permits, construction-level study will be required to characterize the lot-specific lateral extent and magnitude of potential liquefaction-induced settlement for design of new structures and improvements within Areas 3 and 4. The project geotechnical engineer shall coordinate with ACWD prior to beginning any soil improvement measures to ensure impacts on groundwater resources</p>	<p>During construction, the recommendations in the design-level geotechnical</p>	<p>All measures shall be printed on all construction documents,</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
during strong seismic ground shaking due to potentially liquefiable soils.	are minimized. The results of the investigation shall be submitted to the Director of Public Works for review and approval. Structures will need to be supported on rigid foundations designed to tolerate the anticipated total and differential settlements. Alternatively, deep foundations may be required to support structures on firm soil below potentially liquefiable layers. Ground improvement techniques could also be used to mitigate liquefaction-induced differential settlement.	investigations shall be implemented by the project contractor.	contracts, and project plans. The developer shall submit the design-level geotechnical investigations to the Director of Public Works for review and approval, prior to issuance of building permits. Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that all measures in the design-level geotechnical investigations were implemented.	
Impact GEO-2: Any construction improvements near the ACFC&WCD drainage channels could result in adverse	MM GEO-2.1: Prior to issuance of building permits, design-level geotechnical investigations for specific site improvements such as residential developments, bridges, or school development shall be completed and submitted to the Director of Public Works for review and approval, once construction-level plans are available. Geotechnical observation and testing services shall be completed during earthwork and foundation construction.	During construction, the recommendations in the design-level geotechnical investigations	All measures shall be printed on all construction documents, contracts, and project plans.	Director of Public Works

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>seismically-induced lateral spreading impacts associated with future development of the proposed Specific Plan.</p>		<p>shall be implemented by the project contractor.</p>	<p>The developer shall submit the design-level geotechnical investigations to the Director of Public Works for review and approval, prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that all measures in the approved design-level geotechnical investigations were implemented.</p>	
<p>Impact GEO-3: The development of Area 4 could result in adverse impacts associated with settlement due to</p>	<p>MM GEO-3.1: Settlement due to fill and building loads can be mitigated by supporting lightly loaded structures on rigid foundations designed to resist differential settlement. As an alternative, buildings could be supported on deep foundations. Design ground improvement techniques, such as surcharging, rammed aggregate piers, or soil/cement mixing, to mitigate settlement. If surcharging is considered, this would include installing vertical wick drains and surcharging building areas with</p>	<p>During construction, the settlement mitigation approach shall be implemented</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
placement of fill and building loads.	<p>additional imported fill to allow the settlement to occur at an increased rate. If this option is pursued, the Geotechnical Engineer shall work with ACWD during preparation of the design-level geotechnical report. The wick drain design approach shall include the following:</p> <ul style="list-style-type: none"> • Wick drains shall be confined within the compressible clay zone (upper 20 feet of soil profile). Additional subsurface exploration during the design-level geotechnical investigation shall confirm the depth of the compressible soil zone. • Wick drains shall extend no further than 10 feet from the top of slope of the planned areal fill. This will provide at least 5 feet of soil between final grade and the tops of the wick drains, which would be installed prior to areal fill placement. • This will reduce the potential for surface water to access the wick drains. • Horizontal strip drains that are placed at the surface to collect water from the wick drains shall be connected to solid pipes that extended beyond the toe of the areal fill slopes. The horizontal strip drain/solid pipe transitions shall be at the outer row of wick drains. At the completion of the surcharge program, the solid pipes shall be grouted in place to abandon them. <p>The settlement mitigation approach shall be reviewed and approved by the Director of Public Works, prior to issuance of grading and building permits and the process for implementation of the settlement mitigation will be included on all construction bid documents.</p>	by the project contractor.	<p>The developer shall submit the settlement mitigation approach to the Director of Public Works for review and approval, prior to issuance of grading and building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that the settlement mitigation approach was implemented.</p>	
Impact GEO-4: Differential settlement could occur between the abutments of the proposed Stevenson Boulevard Overpass, due to	MM GEO-4.1: A site specific investigation shall be prepared for the proposed Stevenson Boulevard Bridge to determine the potential for differential settlement and the detailed approach to mitigate such settlement. The investigation and proposed measures shall be reviewed and approved by the Director of Public Works prior to issuance of grading and building permits. Bridge foundations shall be designed to account for potential differential settlement, as well as the approached slabs and asphalt pavement sections constructed on the embankments.	During construction of the Stevenson Boulevard Bridge, the measures identified in the site specific investigation	All measures shall be printed on all construction documents, contracts, and project plans.	Director of Public Works

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
compressible Area 4 soils.		shall be implemented by the project contractor.	<p>The developer shall submit the site specific investigation to the Director of Public Works for review and approval, prior to issuance of grading and building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that the measures identified in the site specific investigation were implemented.</p>	
<p>Impact GEO-5: Possible undocumented fill within Areas 3 and 4 could result in adverse impacts to future development associated with the</p>	<p>MM GEO-5.1: Construction-level evaluation of undocumented fills shall be undertaken as necessary as part of the lot-specific geotechnical evaluation. The undocumented fills shall be over-excavated and recompacted or removed and replaced with engineered fill material as required to stabilize each lot in accordance with standard engineering practice prior to site development. The Director of Public Works shall review and approve the specified approach for all undocumented fill area prior to issuance of grading permits.</p>	During construction, the project contractor shall implement the undocumented fill mitigation approach for the areas of	All measures shall be printed on all construction documents, contracts, and project plans.	Director of Public Works

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
proposed Specific Plan.		undocumented fill.	<p>The developer shall submit the mitigation approach to the Director of Public Works for review and approval, prior to issuance of grading permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that the undocumented fill mitigation was implemented.</p>	
<p>Impact GEO-6: The development of Areas 3 and 4 could result in adverse impacts associated with expansive soils.</p>	<p>MM GEO-6.1: Slabs-on-grade shall have sufficient reinforcement and shall be supported on a layer of non-expansive fill; footings shall extend below the zone of seasonal moisture fluctuation. Moisture changes shall be limited in the expansive surficial soils by using positive drainage away from buildings and improvements, as well as limiting landscaping watering. The Director of Public Works shall review and approve the design-specific geotechnical investigation prior to issuance of building permits.</p>	<p>During construction, the recommendations in the design-level geotechnical investigations shall be implemented by the project contractor.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the design-level geotechnical</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
			<p>investigations to the Director of Public Works for review and approval, prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that all measures in the approved design-level geotechnical investigations were implemented.</p>	
<p>Impact GEO-7: The shallow groundwater located throughout Areas 3 and 4 could result in adverse impacts associated with grading and installing underground utilities.</p>	<p>MM GEO-7.1: Design underground improvements for potential hydrostatic uplift pressures. The Director of Public Works shall review and approve all underground improvements prior to issuance of building permits. Groundwater losses due to dewatering shall be measured and the amount of water that may be extracted by dewatering shall be estimated and documented. Substantial groundwater losses due to dewatering may be subject to an ACWD replenishment assessment fee.</p>	<p>During construction, the project contractor shall install the approved underground improvements.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the groundwater loss estimates to</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
			<p>ACWD prior to issuance of grading permits.</p> <p>The Director of Public Works shall review and approve the underground improvements, prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that the approved underground improvements were installed correctly.</p>	
<p>Impact GEO-8: The soils and shallow groundwater conditions within Areas 3 and 4 could result in adverse impacts associated with corrosive soils.</p>	<p>MM GEO-8.1: Soil corrosion testing shall be performed in Areas 3 and 4 during construction-level phases of investigation to ensure fill soils and native soils are not corrosive. This testing results shall be reviewed and approved by the Director of Public Works prior to issuance of building permits. It will be necessary to consult with a corrosion engineer to determine appropriate mitigation measures for site improvements. Special requirements for corrosion protection could be considered to protect metal pipelines, such as cathodic protection or specially coated pipes. In addition, if near-surface soils contain moderate to high levels of soluble</p>	<p>During construction, the project contractor shall implement the necessary corrosion protection measures.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p>	<p>Director of Public Works</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	sulfates, then buried concrete structures in contact with these soils may require special concrete mix design, such as using Type II cement and a higher compressive strength or Type V cement, to mitigate impacts from sulfate attack.		<p>The developer shall submit the corrosive soil testing results to the Director of Public Works for review and approval prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Director of Public Works will verify that the approved corrosion protection measures were implemented.</p>	
HAZARDS AND HAZARDOUS MATERIALS				
<p>Impact HAZ-3: The proposed residential use of Specific Plan Area 4, may create a significant hazard to the public or the environment from existing hazardous materials contamination by</p>	<p>MM HAZ-3.1: Implementation of the following measures will reduce Area 4 hazardous material contamination impacts to residential uses to a less than significant level:</p> <ul style="list-style-type: none"> All additional testing and remediation described below shall be completed under oversight by the City and an appropriate regulatory agency, DTSC and/or ACWD, prior to issuance of grading permits for the residential development. The oversight agency shall be responsible for overseeing and directing all site investigation and cleanup activities in a manner that ensures that the standards and requirements of the State of California are fully addressed. 	<p>During construction, the project contractor will implement the measures in the approved Remediation Plan.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
<p>exposing future users to contamination related to the former duck club, agricultural activities, and undocumented fill on the site, and the adjacent landfill.</p>	<ul style="list-style-type: none"> • Prior to the start of any subsurface drilling activities, the project proponent(s) shall obtain a drilling permit from ACWD. Application for a permit may be obtained from ACWD's Engineering Department. All permitted work requires scheduling for inspection; therefore, all drilling activities must be coordinated with ACWD prior to the start of any field work. • All pesticide impacted soil shall be remediated to ensure all levels are below residential screening levels. • Prior to any ground disturbance and issuance of grading permits at the unnamed parcel located to the west of the southern terminus of Stevenson Boulevard, shall be further evaluated to assess the current environmental conditions of this area. This evaluation shall be provided to the City and ACWD for review and to determine the appropriate remediation, if warranted. • All imported soil to raise the elevation on the site shall document the source and quality of the soil. This documentation shall be provided and approved by the City of Newark, prior to issuance of a grading permit. The DTSC's October 2001 Clean Fill Advisory provides guidance on evaluating imported fill. 		<p>Remediation Plan shall be reviewed and approved by the City, ACWD, and DTSC.</p>	
HYDROLOGY AND WATER QUALITY				
<p>Impact HYD-1: The proposed project could provide substantial sources of polluted runoff and degrade water quality downstream of the Specific Plan site.</p>	<p>MM HYD-1.1: All development projects within the Specific Plan shall comply with the National Pollution Discharge Elimination System (NPDES) permit requirements, the City of Newark's ordinances, policies, and processes, and other applicable local, state, and federal requirements.</p> <p>MM HYD-1.2: All development projects within the Specific Plan include post-construction water quality BMPs that control pollutant levels directed by the City of Newark or Alameda County as Permittees of NPDES Municipal Stormwater Permit issued by the RWQCB. Provision C.3 of the Municipal Stormwater Permit is applicable to new development within the Specific Plan Area.</p> <p>The use of low impact development (LID) techniques as required by Section C.3.c shall be emphasized. The City of Newark shall require the</p>	<p>During construction, the project contractor shall ensure the stormwater treatment systems are constructed as shown in the approved Stormwater Drainage Study.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The developer shall submit the Stormwater Drainage Study to the Community</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>operators to prepare, implement, and maintain a Stormwater Pollution Prevention Plan (SWPPP) for all corporation yards, vehicle maintenance, parking areas, and material storage facilities that comply with water quality standards by incorporating all applicable BMPs as described herein.</p> <p>Post-construction water quality treatment BMPs typically will include infiltration basins and trenches, rain gardens, grassy swales, media filters, and biofiltration features. Since the Specific Plan Area is mostly underlain by soils of low permeability and there is a high groundwater table, BMPs that enhance water quality without relying on infiltration are most appropriate for development sites within the Specific Plan Area.</p> <p>Water quality source control measures, site design elements, and post-construction treatment measures may include the following:</p> <ul style="list-style-type: none"> • “No Dumping” signs at appropriate locations. • Stenciled storm drain inlets to prevent the ignorant disposal of pollutants and warn against the intentional dumping of pollutants into the storm drain system. • Runoff from roofs, sidewalks, paving and other hardscape areas directed into landscape areas rather than directly connected to storm drain systems. • Minimizing impervious surfaces to the maximum extent practicable and using permeable pavements where practical. • Locating and designing trash enclosures (all shall be covered) to and materials handling areas to prevent the discharge of pollutants into the streets and storm drain collection systems. <p>The transport of turfgrass chemicals shall be minimized by the proposed computerized irrigation system that will be connected to an on-site weather station, which shall minimize runoff and percolation to the groundwater table. The irrigation system shall include the features described below.</p> <ul style="list-style-type: none"> • The weather station shall monitor daily average evapotranspiration (ET) conditions and automatically adjust sprinkler rates so that ET rates are matched; 	<p>The ongoing maintenance of stormwater will be completed by the property owners.</p>	<p>Development Director for review and approval prior to issuance of building permits.</p> <p>Prior to issuing a Certificate of Occupancy, the Community Development Director will verify that the post-construction BMPs were implemented.</p>	

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<ul style="list-style-type: none"> • The irrigation system shall also include multiple controls cycles so that sprinklers can be turned on and off, matching soil percolation rates with application rates; • The layout of the irrigation system shall be designed to avoid watering all moisture-sensitive habitat areas, roadways, and waterways. <p>A long-term stormwater management and monitoring program. The stormwater at the outlets leaving the site shall be sampled on a first flush basis, once a year for the lifetime of the project. If the post-project sample results indicate that the quality of stormwater leaving the site has degraded from the base conditions, then the SWPPP shall be reviewed and revised, based upon consultation with the Regional Water Quality Control Board. A minimum of six parameters including pH, total suspended solids, oil and grease, nitrogen, and appropriate pesticide constituents should be analyzed. In addition, the typical metals found in municipal stormwater shall be sampled and analyzed, such as copper, lead, or zinc, or bacteria.</p> <p>To prevent potential runoff of chemicals, the application of fertilizers, herbicides, and pesticides shall be avoided during periods of expected rainfall and immediately prior to schedule irrigation.</p> <p>The superintendent shall maintain a log of all pesticide and herbicide purchase and application, which shall be submitted periodically to the City Community Development Department for review.</p> <p>MM HYD-1.3: BMPs shall be designed in accordance with engineering criteria in the California Stormwater BMP Handbook for New and Redevelopment (California Storm Water Quality Association, 2003, California Storm Water Best Management Practice Handbook – New Development and Redevelopment) or other accepted guidance and designs shall be reviewed and approved by the City prior to issuance of grading or building permits for the roadway or driveways.</p> <p>MM HYD-1.4: All development projects within the Specific Plan shall implement storm water management program measures, such as street</p>			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>sweeping and litter control, outreach regarding appropriate fertilizer and pesticide use practices, and managed disposal of hazardous wastes. The project proponent shall prepare a clearly defined operations and maintenance plan for post-construction water quality and quality control measures. The design and maintenance documents shall include measures to limit vector concerns, especially with respect to control of mosquitoes. The project proponent shall identify the responsible parties and provide adequate funding to operate and maintain stormwater improvements (through a HOA, Geological Hazard Abatement District, CSD, CFD or similar organization). If lot-level BMPs are accepted by the City as a suitable control measure, the project proponent shall establish a mechanism for enforcement to assure that BMP functioning is being maintained as designed. The project proponent shall also establish financial assurances, as deemed appropriate by the Department of Resource Management, enabling the City to maintain the stormwater improvements should the HOA or other entity disband or cease to perform its maintenance responsibilities.</p>			
<p>Impact HYD-2: Construction activities could contaminate runoff from the Specific Plan site.</p>	<p>MM HYD-2.1: All development projects within the Specific Plan shall file a Notice of Intent (NOI) with the State of California Water Resource Quality Control Board (SWRCB) and prepare a Storm Water Pollution Prevention Plan (SWPPP) prior to commencement of construction.</p> <p>MM HYD-2.2: The SWPPP shall 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 provision for revegetation or mulching. The plan would also prescribe treatment measures to trap sediment once it has been mobilized, at a scale and density appropriate to the size and slope of the catchment. These measures typically include inlet protection, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing, and siltation or sediment ponds.</p>	<p>Prior to construction, the project contractor shall file the NOI with the SWRCB.</p> <p>During construction, the project contractor shall implement all measures identified in the SWPPP.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall provide the SWPPP to the Community Development Director for</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>MM HYD-2.3: The Specific Plan developer(s) shall implement Best Management Practices (BMPs) for reducing the volume of runoff and pollution in runoff to the maximum extent practicable during demolitions, site excavation, grading, and construction. All measures shall be included in the project's SWPPP and printed on all construction documents, contracts, and project plans.</p> <ul style="list-style-type: none"> • Restrict grading to the dry season or meet City requirements for grading during the rainy season. • Use effective, site-specific erosion and sediment control methods during the construction periods. Provide temporary cover of all disturbed surfaces to help control erosion during construction. Provide permanent cover as soon as is practical to stabilize the disturbed surfaces after construction has been completed. • Cover soil, equipment, and supplies that could contribute non-visible pollution prior to rainfall events or perform monitoring of runoff. Cover stockpiles with secure plastic sheeting or tarp. • Implement regular maintenance activities such as sweeping driveways between the construction area and public streets. Clean sediments from streets, driveways, and paved areas on-site using dry sweeping methods. Designate a concrete truck washdown area. • Dispose of all wastes properly and keep site clear of trash and litter. Clean up leaks, drips, and other spills immediately so that they do not contact stormwater. • Place fiber rolls or silt fences around the perimeter of the site. Protect existing storm and sewer inlets in the project area from sedimentation with filter fabric and sand or gravel bags. <p>MM HYD-2.4: BMPs shall be implemented in accordance with criteria in the California Stormwater BMP Handbook for Construction (California Storm Water Quality Association, 2003, California Storm Water Best Management Practice Handbook – Construction) or other accepted guidance and shall be reviewed and approved by the County prior to issuance of grading or building permits.</p>		review and approval.	

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<p>MM HYD-2.5: The Specific Plan developer(s) shall identify the SWPPP Manager who will be the responsible party during the construction phase to ensure proper implementation, maintenance, and performance of the BMPs.</p>			
NOISE				
<p>Impact NOI-2: Without incorporation of construction mitigation measures, development of the Areas 3 and 4 Specific Plan would result in significant temporary noise impacts.</p>	<p>MM NOI-2.1: Future development of the Areas 3 and 4 Specific Plan will include the following construction-noise mitigation measures, to reduce noise impacts from project construction to a less-than-significant level.</p> <ul style="list-style-type: none"> • Restrict noise-generating activities at the construction site or in areas adjacent to the construction site to the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday, and between 8:00 a.m. to 5:00 p.m. on Saturdays. Construction shall be prohibited on Sundays and holidays. • Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. • Unnecessary idling of internal combustion engines should be strictly prohibited. • Locate stationary noise generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. Construct temporary noise barriers to screen stationary noise generating equipment when located near adjoining sensitive land uses. Temporary noise barriers could reduce construction noise levels by 5 dBA. • Utilize “quiet” air compressors and other stationary noise sources where technology exists. • Route all construction traffic to and from the project site via designated truck routes where possible. Prohibit construction related heavy truck traffic in residential areas where feasible. • Control noise from construction workers’ radios to a point where they are not audible at existing residences bordering the project site. • The contractor shall prepare and submit to the City for approval a detailed construction plan identifying the schedule for major noise-generating construction activities. 	<p>The project contractor shall ensure the construction noise mitigation measures and management plan are implemented during all phases of development.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a grading permit, the developer shall submit to the Community Development Director for review and approval, the detailed construction noise attenuation plan.</p> <p>The noise disturbance coordinator shall ensure the construction noise mitigation</p>	<p>Community Development Director</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Responsibility for Oversight
	<ul style="list-style-type: none"> Designate a “disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule. 		measures are implemented.	
CUMULATIVE IMPACTS				
CUMULATIVE TRANSPORTATION				
<p>Impact C-TRAN-2 Under cumulative no project conditions, the intersection of Cherry Street-Boyce Road/Stevenson Boulevard would operate at LOS D during the PM peak hour. With the addition of project traffic, the intersection would degrade to LOS F and the average intersection delay would increase by more than 4 seconds.</p>	<p>MM C-TRAN-2: Pay a fair share contribution through the City’s Traffic Impact Fee program to add a through lane on the northbound approach of Cherry Street and re-align the intersection. This improvement was identified in the <i>City of Newark General Plan Tune Up TIA</i> dated June 7, 2013. There is potentially sufficient roadway right-of-way on Boyce Road/Cherry Street for this improvement. Therefore, the improvement could be implemented by re-striping Cherry Street. Because this impact would occur under cumulative, but not under project conditions, this impact is mitigated by a “fair share” monetary contribution paid from the project to the City’s Traffic Impact Fee program toward these improvements. This mitigation would return the intersection to LOS D, the LOS standard.</p>	Concurrent with the development of Areas 3 and 4, the developer shall ensure this measure is implemented.	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>Prior to issuance of a Certificate of Occupancy, the Community Development Director shall verify this measure is implemented.</p>	Community Development Director

AVOIDANCE MEASURES

Visual and Aesthetic Resources

AM VIS-1.1: The following avoidance measures shall further reduce light and glare impacts of the Specific Plan. All of these avoidance measures shall be incorporated into the City of Newark’s development regulations and design review procedures to reduce potential light and glare impacts to non-significant levels. Design review procedures shall include the following:

- Use of low pressure sodium lights where security needs permit;
- Restricting height of exterior lighting fixtures to minimize light spill;
- Directing exterior lighting on-site to minimize spill-over;
- Shielding for exterior lights;
- Minimizing use of highly reflective exterior building materials;
- Restricting hours of non-security exterior lighting for commercial, industrial, and institutional uses.

Energy Resources

AM ENR-1.1: All residential subdivisions and new commercial buildings within the Specific Plan shall incorporate as many green practices as appropriate and feasible in buildings and structures constructed subject to approval of the City of Newark.

AM ENR-2.2: All public landscaping areas within the Specific Plan shall follow the City of Newark’s Bay Friendly Landscape Guide. Future homeowners associations or similar entity shall be encouraged to incorporate as many bay friendly landscape practices as appropriate and feasible.

Global Climate Change

AM C-GCC-1: All residential subdivisions and new commercial buildings within the Specific Plan shall incorporate as many green practices as appropriate and feasible in buildings and structures constructed subject to approval of the City of Newark.

AM C-GCC-2: All public landscaping areas within the Specific Plan shall follow the City of Newark’s Bay Friendly Landscape Guide. Future homeowners associations or similar entity shall be encouraged to incorporate as many bay friendly landscape practices as appropriate and feasible.

AM C-GCC-4.1: The following avoidance measures shall further reduce greenhouse gas emissions. All of these avoidance measures shall be incorporated into the City of Newark’s development regulations and design review procedures to reduce potential greenhouse gas emission impacts to non-significant levels.

All residential subdivisions and new commercial buildings within the Specific Plan shall incorporate as many green practices as appropriate and feasible in buildings and structures constructed subject to approval of the City of Newark. These measures shall include, but are not limited to:

- Pre-wire (or equivalent most current technology) residences and commercial buildings to facilitate the installation of solar power.
- LEED certification or equivalent for commercial buildings.
- Include plug-ins (or equivalent most current technology) in residences to facilitate the use of electric and hybrid vehicles.

AM C-GCC-4.2: All public landscaping areas within the Specific Plan shall follow the City of Newark’s Bay Friendly Landscape Guide. Future homeowners associations or similar entity shall be encouraged to incorporate as many bay friendly landscape practices as appropriate and feasible. These practices shall include, but are not limited to:

- No lawn areas less than 8 foot wide.
- Where practical, utilize underground irrigation systems rather than surface applied irrigation to reduce evaporative loss.
- Minimize mowed lawn areas in residential development neighborhoods and use mowed lawn areas only for active recreation areas in park spaces
- Minimize use of plants that require extensive pruning and/or generate large amounts of green waste.
- Utilize “Integrated Pest Management” principals in the landscape maintenance of the project.
- Employ recycled materials for landscape materials such as headers, paving, street furniture, and mulch wherever practical.
- Landscape lighting to respect dark sky principals, i.e. no light directed upward.