

MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.), the City of Pinole (City) prepared an draft environmental impact report (DEIR) that identifies adverse environmental impacts related to implementation of the Pinole-Hercules Water Pollution Control Plant (WPCP) Improvement Project (project). The DEIR also identifies mitigation measures that would reduce these impacts to a less-than-significant level, or eliminate the adverse impacts altogether.

CEQA Guidelines require public agencies “to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.” A Mitigation Monitoring and Reporting Program (MMRP) is required for the proposed project because the DEIR identifies potentially significant adverse impacts related to construction activities, and mitigation measures have been identified to reduce those impacts. Adoption of the MMRP would occur along with approval of the proposed project.

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed in a satisfactory manner before and during project construction. The MMRP may be modified by the City during project implementation, as necessary, in response to changing conditions or other refinements. Table 1 (included at the end of this document) has been prepared to assist the responsible parties in implementing the mitigation measures. The table identifies individual mitigation measures, monitoring/mitigation timing, responsible person/agency for implementing the measure, monitoring and reporting procedure, and space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the DEIR.

ROLES AND RESPONSIBILITIES

Unless otherwise specified herein, the City is responsible for taking all actions necessary to implement the mitigation measures according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. The City, at its discretion, may delegate implementation responsibility or portions thereof to a licensed contractor or other designated agent.

The City would be responsible for overall administration of the MMRP and for verifying that City staff members and/or the construction contractor has completed the necessary actions for each measure. The City would designate a project manager to oversee implementation of the MMRP. Duties of the project manager include the following:

- ▶ Ensure that routine inspections of the construction site are conducted by appropriate City staff; check plans, reports, and other documents required by the MMRP; and conduct report activities.
- ▶ Serve as a liaison between the City Public Works Department, Planning Department, and the construction contractor regarding mitigation monitoring issues.
- ▶ Complete forms and maintain reports and other records and documents generated by the MMRP.
- ▶ Coordinate and ensure that corrective actions or enforcement measures are taken, if necessary.

The responsible party for implementation of each item would identify the staff members responsible for coordinating with the City on the MMRP.

REPORTING

The City’s project manager shall prepare a monitoring report, upon completion of the project, on the compliance of the activity with the required mitigation measures. Information regarding inspections and other requirements shall be compiled and explained in the report. The report shall be designed to simply and clearly identify whether mitigation measures have been adequately implemented. At a minimum, each report shall identify the mitigation measures or conditions to be monitored for implementation, whether compliance with the mitigation measures or conditions has occurred, the procedures used to assess compliance, and whether further action is required. The monitoring report shall be presented to the City Council.

MITIGATION MONITORING AND REPORTING PLAN TABLE

The categories identified in Table 1 are described below.

- ▶ **Mitigation Number** – This column lists the mitigation measures by number as identified in the IS/MND.
- ▶ **Mitigation Measure** – This column provides the text of the mitigation measures identified in the IS/MND.
- ▶ **Timing/Schedule** – This column identifies the time frame in which the mitigation will take place.
- ▶ **Implementation Responsibility** – This column identifies the entity responsible for complying with the requirements of the mitigation measure.
- ▶ **Verification** – The “Action” column describes the type of action taken to verify implementation. The “Date Completed” column is to be dated and initialed by the project manager, or his/her designee, based on the documentation provided by the construction contractor, its agents (qualified individuals), or through personal verification by the City.

**Table 1
Mitigation Monitoring Plan for the City of Pinole Wastewater Treatment Plant Effluent Pipeline Project**

Mit. No.	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Verification	
				Action	Date Completed
3.1	Air Quality and Odors				
3.1-1	<p>Implement BAAQMD Dust Control Measures</p> <p>Applies to: Options 1 and 2</p> <p>The City shall require its contractors to implement all applicable control measures for minimizing fugitive PM dust emissions that are recommended by BAAQMD at the time construction is performed. Requirements to implement these measures shall be included in the contracts the City establishes with the contractor(s) it selects to work on the project. These measures may include but are not limited to the following:</p> <ul style="list-style-type: none"> ▶ Water all active construction areas at least twice daily. ▶ Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard. ▶ Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. ▶ Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. ▶ Sweep streets daily (with water sweepers) if visible soil material is carried into adjacent public streets. ▶ Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more). ▶ Enclose, cover, water twice daily or apply (nontoxic) soil binders to exposed stockpiles (e.g., dirt, sand). ▶ Limit traffic speeds on unpaved roads to 15 mph. ▶ Install sandbags or other erosion control measures to prevent silt runoff to public roadways. ▶ Replant vegetation in disturbed areas as quickly as possible. ▶ Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving unpaved areas of the WPCP site and unpaved areas of new corporation yard. ▶ Install wind breaks (if they do not already exist), or plant 	During Construction.	The City and its contractors.		

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	<p>trees/vegetative wind breaks at windward sides of construction areas at the WPCP site and the site of the new corporation yard.</p> <ul style="list-style-type: none"> ▶ Suspend all excavation and grading activity when wind speeds (as instantaneous gusts measured by an on-site anemometer) exceed 25 mph and dust has the potential to adversely affect adjacent residential properties. Wind speeds shall be measured with an anemometer on site a minimum of one time per day. Additional hourly anemometer measurements shall be conducted if wind conditions noticeably increase or are forecast to be greater than 15 mph. ▶ Limit the area subject to excavation, grading, and other construction activity at any one time. <p>Implementation of Mitigation Measure 3.1-1 would reduce fugitive PM dust emissions levels by approximately 75% through implementation of BAAQMD-recommended fugitive PM dust control measures. BAAQMD considers implementation of all feasible dust control measures, such as those listed above, to reduce construction-related emissions of fugitive PM₁₀ dust (including fugitive PM_{2.5} dust) to a less-than-significant level (BAAQMD 1999).</p>				
3.2	Cultural Resources				
3.2-1	<p>Provide Construction Personnel Training in the Recognition of Cultural Materials, Stop Work If Materials are Encountered, and Implement Procedures Necessary for Resource Protection and Treatment.</p> <p>Applies to: Option 1 (Pipeline Alignment and Corporation Yard Only)</p> <p>Before the start of project-related ground-disturbing activities at the corporation yard or within 500 feet of site P-07-459 near the pipeline alignment, a qualified professional archaeologist shall provide a brief training session to all construction personnel. This training will provide basic information on recognizing the kinds of cultural resources that could be encountered as a result of project ground-disturbing activities; briefly review applicable cultural resources regulations; and outline procedures that must be</p>	Before the start of ground-disturbing activities.	A qualified professional archaeologist retained by the City.		

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	<p>followed upon the discovery of cultural materials or possible human remains. If traces of prehistoric occupation (e.g., midden soils, unusual amounts of shell, artifacts, bone) or historic-era remains (e.g., building or structure traces, concentrations of early-historic-era refuse) are encountered, ground-disturbing activities in the vicinity of the find shall cease until the archaeologist can determine the nature and potential significance of the find and recommend a treatment plan. The treatment plan could include but is not necessarily limited to avoidance through construction rerouting or revisions, additional archival research, and subsurface excavations for archaeological testing and/or data recovery.</p> <p>Implementation of Mitigation Measure 3.2-1 would reduce potentially significant impacts on documented cultural resources to a less-than-significant level because construction worker personnel training would be provided, work would be halted should a cultural resources be discovered, and a qualified archaeologist would prepare a treatment plan.</p>				
3.2-2	<p>Monitor Ground-Disturbing Activities in Areas Determined to Be Highly Sensitive for Containing Prehistoric and/or Historic-Era Cultural Materials and Human Remains.</p> <p>Applies to: Options 1 and 2</p> <p>A qualified professional archaeologist shall monitor all ground-disturbing activities at the Pinole-Hercules WPCP, effluent pipeline trenching on the south bank of present-day Pinole Creek and along San Pablo Avenue as noted above, and initial grading and utility trenching at the site of the proposed corporation yard. If traces of prehistoric occupation (e.g., midden soils, unusual amounts of shell, artifacts, bone) or historic-era remains (e.g., building or structure traces, concentrations of early-historic-era refuse) are encountered, ground-disturbing activities in the vicinity of the find shall cease until the archaeologist can determine the nature and potential significance of the find and recommend a treatment plan. The treatment plan could include but is not necessarily limited to avoidance through construction rerouting or revisions, additional archival research, and subsurface excavations for archaeological testing and/or data recovery.</p>	During ground-disturbing activities.	A qualified professional archaeologist retained by the City.		

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	Implementation of Mitigation Measure 3.2-2 would reduce potentially significant impacts resulting from inadvertent damage or destruction of unknown cultural resources during construction to a less-than-significant level through the recovery of potentially important scientific data and/or the preservation in place of CRHR/NRHP-eligible cultural resources.				
	<p>Implement Mitigation Measure 3.2-1. Applies to: Options 1 and 2</p> <p>Implementation of Mitigation Measures 3.2-1 and 3.2-2 would reduce potentially significant impacts resulting from inadvertent damage or destruction of unknown cultural resources during construction to a less-than-significant level because a professional archaeological monitor would be present during ground-disturbing activities in sensitive areas, and if any resources were discovered, potentially important scientific data would be recovered and/or CRHR/NRHP-eligible cultural resources would be preserved in place.</p>	See Mitigation Measure 3.2-, above.	See Mitigation Measure 3.2-, above.		
3.2-3	<p>If Human Remains are Uncovered During Ground-Disturbing Activities, Halt Potentially Damaging Excavation in the Area of the Burial and Contact the Contra Costa County Coroner and a Professional Archaeologist to Determine the Nature and Extent of the Remains.</p> <p>Applies to: Options 1 and 2</p> <p>The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (California Health and Safety Code, Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]).</p> <p>Following the coroner’s findings, the property owner, the City of Pinole or its construction contractor, an archaeologist, and the NAHC-designated most likely descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are</p>	During ground-disturbing activities.	The City and its contractors.		

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	<p>not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in Section 5097.9 of the California Public Resources Code.</p> <p>The landowner shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. Assembly Bill (AB) 2641 (Chapter 863, Statutes of 2006), which amended Section 5097.98 of the California Public Resources Code, suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641(e) (i.e., Public Resources Code, Section 5097.98[e]) includes a list of site protection measures and states that the landowner shall do one or more of the following:</p> <ul style="list-style-type: none"> ▶ Record the site with the NAHC or the appropriate Information Center. ▶ Utilize an open-space or conservation zoning designation or easement. ▶ Record a document with the county in which the property is located. <p>The landowner or an authorized representative must rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The landowner or authorized representative may also reinter the remains in a location not subject to further disturbance if they reject the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner.</p>				

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	Implementation of Mitigation Measure 3.2-4 would reduce potential impacts on human remains to a less-than-significant level by immediately suspending work in the vicinity of the discovery and complying with state laws requiring contact with the applicable county coroner and a professional archaeologist to determine the nature of the find, and subsequent contact with the NAHC and appropriate treatment if the remains are determined to be those of a Native American.				
3.4 Fisheries and Aquatic Resources					
3.4-1a	<p>Prepare and Implement a Spill Prevention Plan Applies to: Option 1</p> <p>A spill prevention plan shall be prepared outlining measures to be taken to immediately clean up and properly dispose of any fluid spills. Staging and storage areas shall be established away from the in-water construction areas to store, service, and maintain construction equipment and supplies and thereby minimize the potential for leaks or spills of oil, diesel fuel, gasoline, or related chemicals to enter the water, further contributing to degradation of water quality in the creeks.</p>	Before the start of ground-disturbing activities.	The Contractor retained by the City		
3.4-1b	<p>Develop and Implement a Frac-Out Plan for Jack and Bore Drilling. Applies to: Option 1</p> <p>A qualified engineer shall develop a frac-out plan for jack and bore drilling at any of the creek crossings. The frac-out plan shall include, at a minimum, frac-out prevention, monitoring, and response measures and all provisions of this plan shall be implemented during construction operations. The plan shall be submitted to the City of Pinole for review and approval prior to the start of any jack and bore operations.</p>	Prior to the start of any jack and bore operations.	A qualified engineer retained by the City.		
	<p>Implement Mitigation Measures 3.6-3a and 3.6-3b. Applies to: Option 1</p>	See Mitigation Measure 3.6-3a and 3.6-3b, above.	See Mitigation Measure 3.6-3a and 3.6-3b, above.		

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	<p>Implement Mitigation Measure 3.9-1. Applies to: Option 1</p> <p>Implementation of Mitigation Measures 3.4-1a, 3.4-1b, 3.6-3a, 3.6-3b, and 3.9-1 would reduce the potentially significant impacts related to construction-related water quality effects on salmonids to a less-than-significant level because the potential for pollutants and/or sediments associated with construction-related activities to enter the creeks would be minimized through preparation and implementation of a spill prevention plan, SWPPP, and BMPs; a biological monitor would be onsite during construction activities adjacent to the creeks; and a frac-out plan would be prepared to address sediment generated by jack and bore drilling.</p>	See Mitigation Measure 3.9-1, below.	See Mitigation Measure 3.9-1, below.		
3.5	Geology and Soils				
3.5-1a	<p>Prepare Site-Specific Geotechnical Report per CBC Requirements and Implement Appropriate Recommendations. Applies to: Options 1 and 2</p> <p>Before building permits are issued and construction activities begin any project development phase, the City of Pinole shall hire a licensed geotechnical engineer to prepare a final geotechnical subsurface investigation report for the proposed facilities, which shall be submitted for review and approval to the City of Pinole Planning Department. The final geotechnical engineering report shall address and make recommendations on the following:</p> <ul style="list-style-type: none"> ▶ site preparation; ▶ soil bearing capacity; ▶ appropriate sources and types of fill; ▶ potential need for soil amendments; ▶ structural foundations, including retaining-wall design; ▶ grading practices; ▶ soil corrosion of concrete and steel; ▶ erosion/winterization; ▶ seismic ground shaking; ▶ liquefaction; ▶ subsidence; and ▶ expansive/unstable soils. 	Before issuance of building permits/before the start of construction activities	A licensed geotechnical engineer retained by the City.		

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	In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include subsurface testing of soil and groundwater conditions, and shall determine appropriate foundation designs that are consistent with the version of the CBC that is applicable at the time building and grading permits are applied for. All recommendations contained in the final geotechnical engineering report shall be implemented by the City of Pinole. Special recommendations contained in the geotechnical engineering report shall be noted on the grading plans and implemented as appropriate before construction begins. Design and construction of all new project development shall be in accordance with the CBC.				
3.5-1b	<p>Monitor Earthwork during Ground-Disturbing Activities. Applies to: Options 1 and 2</p> <p>All earthwork shall be monitored by a qualified geotechnical or soils engineer retained by the City of Pinole. The geotechnical or soils engineer shall provide oversight during all excavation, placement of fill, and disposal of materials removed from and deposited on both on- and off-site construction areas.</p> <p>Implementation of Mitigation Measures 3.5-1a and 3.5-1b would reduce the potentially significant impact of possible damage to people and structures from strong seismic ground shaking under both Options 1 and 2 to a less-than-significant level by requiring that the design recommendations of a geotechnical engineer to reduce damage from seismic events be incorporated into buildings, structures, and infrastructure as required by the CBC, and that a geotechnical or soils engineer provide on-site monitoring to make sure that earthwork is being performed as specified in the plans.</p>	During ground-disturbing activities.	A licensed geotechnical or soils engineer retained by the City.		

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3.5-3	<p>Prepare and Implement a Grading and Erosion Control Plan. Applies to: Option 1</p> <p>Before grading permits are issued, the City of Pinole shall retain a California Registered Civil Engineer to prepare a grading and erosion control plan. The plan shall be consistent with the City’s Grading Ordinance and the state’s NPDES permit, and shall include the site-specific grading associated with development for all project components.</p> <p>The plan referenced above shall include the location, implementation schedule, and maintenance schedule of all erosion and sediment control measures, and a description of the location and methods of storage and disposal of construction materials. Erosion and sediment control measures could include the use of detention basins, berms, swales, wattles, and silt fencing, and covering or watering of stockpiled soils to reduce wind erosion. Stabilization on slopes could include construction of retaining walls and reseeded with vegetation after construction. Stabilization of construction entrances to minimize trackout (control dust) is commonly achieved by installing filter fabric and crushed rock to a depth of approximately 1 foot. The City of Pinole shall ensure that the construction contractor is responsible for securing a source of transportation and deposition of excavated materials.</p> <p>Implementation of Mitigation Measure 3.6-3a (discussed in Section 3.6, “Hydrology and Water Quality”) would also help reduce erosion-related impacts.</p> <p>Implementation of Mitigation Measure 3.5-4 along with Mitigation Measure 3.6-3a (discussed in Section 3.6, “Hydrology and Water Quality”), would reduce potentially significant construction-related erosion impacts under Option 1 to a less-than-significant level because a grading and erosion control plan with specific erosion and sediment control measures such as those suggested above or listed in Mitigation Measure 3.6-3a would be prepared, approved by the City of Pinole Planning Department, and implemented.</p>	Before issuance of grading permits.	A California Registered Civil Engineer retain by the City, or the City’s engineer.		

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	<p>Implement Mitigation Measure 3.5-1a and 3.5-1b. Applies to: Options 1 and 2</p> <p>Implementation of Mitigation Measures 3.5-1a and 3.5-1b would reduce potential geologic hazards from construction related to liquefaction and subsidence to a less-than-significant level because a licensed geotechnical engineer would performed a site-specific geotechnical investigation that would include a determination of liquefaction potential as required by the California Building Standards Code, as well as evaluation of subsidence potential and soil bearing strength, and all recommendations made by the engineer regarding building and foundation design would be implemented. Furthermore, all earthwork would be monitored by a soils or geotechnical engineer to make sure that project plans and specifications are complied with.</p>	See Mitigation Measures 3.5-1a and 3.5-1b, above.	See Mitigation Measures 3.5-1a and 3.5-1b, above.		
	<p>Implement Mitigation Measures 3.5-1a and 3.5-1b. Applies to: Options 1 and 2</p> <p>Implementation of Mitigation Measures 3.5-1a and 3.5-1b would reduce the potentially significant impact of damage to people and structures from construction in expansive soils under both Options 1 and 2 to a less-than-significant level by requiring that the design recommendations of a geotechnical engineer to reduce damage from expansive soils be incorporated into buildings, structures, and infrastructure as required by the CBC, and that a geotechnical or soils engineer provide on-site monitoring to make sure that earthwork is being performed as specified in the plans.</p>	See Mitigation Measures 3.5-1a and 3.5-1b, above.	See Mitigation Measures 3.5-1a and 3.5-1b, above.		
	<p>Implement Mitigation Measure 3.5-1a. Applies to: Options 1 and 2</p> <p>Implementation of Mitigation Measure 3.5-1a would reduce the potentially significant impact of damage to structures from construction in corrosive soils under both Options 1 and 2 to a less-than-significant level by requiring that a licensed geotechnical engineer perform a site-specific corrosivity evaluation, and requiring that the design recommendations of a geotechnical engineer to reduce damage from corrosive soils be</p>	See Mitigation Measures 3.5-1a above.	See Mitigation Measures 3.5-1a above.		

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	<p>activities can resume at the site where the paleontological resources were discovered.</p> <p>Implementation of Mitigation Measure 3.5-8 would reduce potentially significant impacts related to damage or destruction of unique paleontological resources to a less-than-significant level under Option 1 because construction workers would be alerted to the possibility of encountering paleontological resources, and in the event that resources were encountered, fossil specimens would be recovered and recorded and would undergo appropriate curation.</p>				
3.6	Hydrology and Water Quality				
3.6-1a	<p>Prepare Site Drainage Plans Applies to: Option 1 (Corporation Yard Only)</p> <p>The City shall develop plans for stormwater drainage at the site of the new corporation yard that are consistent with site design and drainage system guidelines provided by CCCWP and associated implementation of the San Francisco Bay RWQCB new MRP adopted in October 2009. The plans shall establish drainage performance criteria for off-site drainage, in consultation with City engineering staff, such that project-related drainage is consistent with City-determined facility designs, discharge rates, erosion protection, and routing to drainage channels, which could be accomplished by, but is not limited to, the following techniques:</p> <ul style="list-style-type: none"> ▶ minimizing directly connected impervious areas; ▶ maximizing permeability of the site; ▶ stormwater quality controls such as infiltration, detention/retention, and/or biofilters; and ▶ basins, swales, and pipes in the system design. <p>The storm drain system at the corporation yard shall be designed to manage both quality and volume of runoff. The plans shall be developed in accordance with the “Standard Plans for Drainage” provided by the County (Contra Costa County 2008).</p>	<p>Before approval of improvement plans or issuance of building permits.</p>	<p>The City or a qualified engineer retained by the City.</p>		

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3.6-1b	<p>Prepare and Implement a Stormwater Control Plan</p> <p>A stormwater control plan shall be prepared, in accordance with RWQCB requirements, (don't need if less than 1 acre) to comply with CCCWP's Stormwater Management Plan and C.3 Stormwater Guidebook. The stormwater control plan shall detail permanent stormwater management facilities. Storm drain facilities shall be designed in accordance with the site design and drainage system guidelines provided by CCCWP, which include, but are not limited to, the following:</p> <ul style="list-style-type: none"> ▶ minimizing directly connected impervious areas; ▶ maximizing permeability of the site; ▶ stormwater quality controls such as infiltration, detention/retention, and/or biofilters; and ▶ basins, swales, and pipes in the system design. <p>The storm drain system shall be designed to manage both quality and volume of runoff. The stormwater control plan shall be submitted to CCCWP for review and approval consistent with the requirements of the NPDES permit.</p> <p>Implementation of Mitigation Measures 3.6-1a and 3.6-1b would reduce potentially significant drainage and water quality impacts from relocation of the corporation yard under Option 1 to a less-than-significant level, because it would require that stormwater runoff from the construction activities and impervious surfaces be appropriately controlled, treated, and any offsite drainage would be appropriately routed to existing or created drainage [GJN1] features such that off-site properties would not be adversely affected.. Furthermore, a stormwater control plan would be prepared such that facilities would be designed in compliance with CCCWP guidelines, which would minimize the project-related volume and quality of runoff.</p>	Before and during the start of construction activities.	The City and its contractors.		
	<p>Implement Mitigation Measure 3.6-1.</p> <p>Avoid Encroachment of Pipelines onto Peak Channel Flows and Minimize Exposure of Facilities to Flooding</p> <p>Applies to: Option 1</p>	Before the start of	The City.		

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	<p>Further, the City shall design and construct new treatment facilities at the Pinole-Hercules WPCP to provide appropriate flood protection such that plant operations are not adversely affected by inland flooding and inundation. The City shall consult with CCCFCWCD on the design of stream crossings for the new pipeline such that the minimum elevation of the pipeline would be above the predicted surface-water elevation of the 100-year peak flow.</p> <p>Applies to: Option 2</p> <p>The City shall require construction contractors to design and construct new treatment facilities at the Pinole-Hercules WPCP to provide appropriate flood protection measures to ensure that plant operations are not adversely affected by inland flooding and inundation. The plans shall be developed in accordance with the “Standard Plans for Drainage” provided by the County (Contra Costa County 2008).</p> <p>Implementation of Mitigation Measures 3.6-1 and 3.6-2 would reduce potentially significant drainage and flooding impacts from construction of project facilities under Option 1 and Option 2 to a less-than-significant level, because it would require that facilities would be designed to minimize exposure of property to flooding and flood hazards or creation of such hazards and would reduce and control off-site runoff from impervious areas.</p>	earthmoving activities.			
3.6-3a	<p>Obtain an NPDES Permit and Develop and Implement a SWPPP with BMPs</p> <p>Applies to: Options 1 and 2</p> <p>The project’s construction area is expected to be larger than 1 acre and therefore would require appropriate stormwater construction permits. To avoid or minimize the potential for adverse construction-related effects on water quality, the City shall develop a SWPPP and obtain authorization under the City’s municipal stormwater authority or the statewide NPDES stormwater permit for general construction activity before beginning work.</p>	Before the start of construction.	The City and/or its selected construction contractor.		

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	<p>To comply with the NPDES regulations, the City shall identify and implement construction-related BMPs to avoid and minimize erosion and contaminant runoff. Such BMPs may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> ▶ keeping construction grade below lot curb at 2 inches to prevent runoff, ▶ covering small areas with rolled material during rain, ▶ covering large areas with erosion control blankets and/or mulch, ▶ distributing rock bags in the gutter before an inlet to slow flow and filter sediment, ▶ protecting inlets with straw wattles and rock bags, ▶ putting stucco and concrete supplies and materials in one place with pH sampling equipment and covering with plastic, ▶ using large river rock to stabilize entrance and exit areas and prevent tracking to streets, ▶ minimizing construction work near or in drainage channels, and ▶ locating staging areas as far as practicable from surface waters. <p>Other preventive good housekeeping practices could include, but are not limited to, road sweeping, sediment tracking and hauling, and dust control; and diversion measures such as berms to prevent clear runoff from contacting disturbed areas, and contaminated runoff from entering surface waters. Erosion and sedimentation control measures can also include soil stabilization, mulching, silt fencing, or temporary desilting basins.</p> <p>The NPDES permit and SWPPP shall also be applied to construction activities involving pipe crossings at Pinole, Ohlone, Refugio, and Rodeo Creeks. Streamflow shall be maintained downstream of the stream crossing sites at all times during construction, and not otherwise restrict flow in any manner that would restrict passage of fish around the sites.</p>				

**Table 1
Mitigation Monitoring Plan for the City of Pinole Wastewater Treatment Plant Effluent Pipeline Project**

Mit. No.	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Verification	
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3.6-3b	<p>Divert Discharge from Construction Dewatering to Pinole-Hercules WPCP Headworks</p> <p>Applies to: Options 1 and 2</p> <p>To avoid the potential for adverse effects on water quality of adjacent surface water bodies, any groundwater that is dewatered as a result of construction activities at the Pinole-Hercules WPCP shall be sent to the Pinole-Hercules WPCP headworks for treatment with the wastewater stream. (This mitigation measure does not require a separate NPDES permit.)</p> <p>Implementation of Mitigation Measures 3.6-3a and 3.6-3b would reduce potentially significant impacts on stormwater quality from construction activities under Options 1 and 2 to a less-than-significant level because it would require the implementation of a SWPPP and BMPs, which would minimize the effect of runoff on stormwater quality and volume. Furthermore, groundwater encountered during construction dewatering would be diverted to the headworks of the Pinole-Hercules WPCP and therefore adverse water quality impacts from dewatering would be avoided.</p>	During Construction Activities.	The City.		
3.8	Noise				
3.8-1	<p>Reduce Short-Term Increases in Noise Levels from Construction Sources.</p> <p>Applies to: Option 1 (WPCP and Pipeline Alignment Only) and Option 2</p> <p>To reduce impacts associated with noise generated during project-related construction activities at the WPCP and along the proposed pipeline route, the City of Pinole and its primary construction contractors shall ensure that the following requirements are implemented at each work site in any year of project construction to avoid and minimize construction noise effects on sensitive receptors. Measures that shall be used to limit noise shall include the items listed below:</p> <p>1. To the maximum extent feasible, construction activities (except for the use of the drilling machine required for <u>horizontal directional drilling</u>HDD-associated with jack-and-bore operations and the pipeline connections to existing equipment</p>	During construction.	The City and its contractors.		

**Table 1
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Mit. No.	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Verification	
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	<p>at the WPCP) shall be limited to the hours of 7 a.m. to 5 p.m. Monday through Friday, and from 9 a.m. to 6 p.m. on Saturday in commercial zones only.</p> <p>2. Construction equipment shall be properly maintained and equipped with noise control, such as mufflers, in accordance with manufacturers' specifications. Impact tools shall be shielded per manufacturer's specifications.</p> <p>3. Temporary barriers shall be erected for the stationary construction noise sources at the sites of HDD activity and along the eastern side of the Pinole-Hercules WPCP, in accordance with all of the following specifications:</p> <ul style="list-style-type: none"> ▶ The barrier shall be placed as close to stationary noise sources as possible and shall break the line of sight between the source and receptor. ▶ The barrier shall be constructed of ¾-inch Medium Density Overlay plywood sheeting, or other acceptable material having a surface weight of 2 lb/sq. ft. or greater, and a demonstrated Sound Transmission Class (STC) rating of 25 or greater as defined by the American Society for Testing and Materials (ASTM) Test Method E90. ▶ For a temporary acoustical curtain, the material shall be weather and abuse resistant, and exhibit superior hanging and tear strength during construction and with a surface weight of at least 1 lb/sq. ft. The material shall have a minimum breaking strength of 120 pounds per inch (lb/in) per Federal Test Method Standard 191 A-M5102 and minimum tear strength of 30 lb/in per ASTM D117. Based on the same test procedures, the absorptive material facing shall have a minimum breaking strength of 100 lb/in and minimum tear strength of 7 lb/in. The material shall have a STC rating of 25 or greater, based on certified sound transmission loss data taken according to ASTM Test Method E90. It shall also have a Noise Reduction Coefficient rating of 0.70 or greater, based on certified sound absorption coefficient data according to ASTM Test Method C423. ▶ When barrier units are joined together, the mating surfaces of 				

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Mitigation Monitoring Plan for the City of Pinole Wastewater Treatment Plant Effluent Pipeline Project**

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	<p>the barrier sides shall be flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that will completely close the gaps, and be dense enough to attenuate noise.</p> <p>4. The City of Pinole shall provide notice to all property owners and tenants within 500 feet of the edge of the construction right-of-way at the WPCP and along the pipeline route at least 2 weeks in advance of construction.</p> <p>5. The City of Pinole shall designate a disturbance coordinator to whom concerned residents may address their construction-related noise complaints. The name and phone number of the coordinator shall be conspicuously posted at construction areas and on all advanced notifications required in (4) above. The coordinator shall respond to all complaints.</p> <p>With implementation of Mitigation Measure 3.8-1, construction activities would generally be limited, except for the drilling machine required for HDD and pipeline connections to existing WPCP equipment, to the less-sensitive daytime hours. In addition, temporary noise barriers would be erected to provide noise reduction, construction equipment would be provided with appropriate shielding, advance notice to nearby residents would be provided, and a disturbance coordinator would be designated to respond to complaints. However, construction-generated noise levels would still exceed the applicable standards at nearby sensitive receptors for all project components (with the exception of the corporation yard). Thus, this impact would remain significant and unavoidable.</p>				
3.9	Terrestrial Biology				
3.9-1	<p>Implement Measures to Minimize Potential Impacts on Sensitive Habitats Along the Proposed Pipeline Alignment</p> <p>Applies to: Option 1</p> <p>The following measures to avoid potential loss or degradation of coastal salt marsh, riparian, and freshwater marsh habitat resulting from construction activities within the 100-foot potential</p>	During ground-disturbing activities.	The City and its contractors.		

**Table 1
Mitigation Monitoring Plan for the City of Pinole Wastewater Treatment Plant Effluent Pipeline Project**

Mit. No.	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Verification	
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	<p>disturbance area shall be implemented along the proposed pipeline alignment:</p> <ol style="list-style-type: none"> (1) Whenever ground-disturbing activity is expected to occur within 100 feet of any sensitive habitat, including wetlands or potentially jurisdictional waters as shown on Exhibits 3.9-1 through 3.9-4, a qualified biologist shall be present to monitor these activities to make sure that no loss or degradation of habitat occurs and to provide guidance on establishing and maintaining adequate setbacks from sensitive habitats. (2) Ground-disturbing activities shall not occur within 25 feet of the sensitive habitats shown on Exhibits 3.9-1 through 3.9-4 unless those activities are entirely limited to roadways and other unvegetated surfaces. (3) No vehicles shall be used outside of the defined disturbance area. (4) Temporary soil and debris stockpiles shall be carefully located away from sensitive habitats, so the material will not enter or run off into waterways. (5) Temporary soil and debris stockpiles shall be covered to prevent erosion and runoff into creeks. (6) All staging areas, parking areas, equipment, and storage areas for fuel, lubricants, and solvents shall be located in areas away from sensitive habitats and adjacent creeks, drainages, and waterways. (7) Construction best management practices (BMPs) shall be implemented. Specifically, silt fencing shall be installed between the construction area and sensitive habitats that could support special-status species and nesting migratory birds; fueling and vehicle/equipment maintenance areas shall be demarcated with construction fencing or lathes and colored flagging; and staging areas adjacent to sensitive habitats or water bodies shall be demarcated with construction fencing or lathes and colored flagging. Silt fencing shall be installed in all areas where construction occurs within 25 feet of sensitive habitat or actively flowing water. 				

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Mitigation Monitoring Plan for the City of Pinole Wastewater Treatment Plant Effluent Pipeline Project**

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	<p>Implement Mitigation Measure 3.4-1b. Applies to: Option 1 Implementation of Mitigation Measures 3.9-1 and 3.4-1b would reduce potentially significant impacts on coastal salt marsh, riparian, and freshwater wetland habitats along the proposed pipeline alignment under Option 1 to a less-than-significant level by requiring that trained biological monitors clearly identify and flag sensitive habitats; by limiting all construction activity to areas set back from sensitive habitats; by employing BMPs, including fencing, so that sensitive habitats are avoided during construction activities; and by preparing a frac-out plan with slurry containment measures.</p>	See Mitigation Measure 3.4-1b, above.	See Mitigation Measure 3.4-1b, above.		
	<p>Implement Mitigation Measure 3.9-1. Applies to: Option 1</p>	See Mitigation Measure 3.9-1, above.	See Mitigation Measure 3.9-1, above		
3.9-2	<p>Conduct Surveys for Nesting Raptors and, If Nesting Raptors are Discovered, Cease Construction and Consult with DFG to Prevent Nest Failure Applies to: Option 1 To reduce impacts on raptors, the City of Pinole shall retain a qualified biologist to conduct preconstruction surveys and to identify active nests within 500 feet of the proposed pipeline alignment. Preconstruction surveys for raptor species shall be conducted during the nesting season (March 15 to August 15) no more than 14 days and no fewer than 7 days before any construction activity begins. Any construction activity that occurs between August 16 and March 14 shall not require preconstruction surveys for raptors. Should nesting raptors be discovered within the survey area, a qualified biologist shall notify DFG. No new disturbance shall occur within one-half mile of the nest until the nest is no longer active or appropriate avoidance measures are developed in consultation with DFG to ensure that the nest is adequately protected. Potential avoidance measures can include visual screening, timing restrictions for construction activity, and monitoring of active nests. Should an active raptor nest be found,</p>	Before the start of construction activities.	A qualified biologist retained by the City.		

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Mit. No.	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Verification	
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	<p>monitoring (funded by the City of Pinole) of active nests by a qualified biologist shall be performed to make sure that project construction does not disturb raptors at the nest site.</p> <p>Implementation of Mitigation Measure 3.9-1 would reduce potentially significant impacts on special-status wildlife species along the proposed pipeline alignment under Option 1 to a less-than-significant level by using trained biological monitors to clearly identify and flag habitat that could support special-status wildlife; by limiting all construction activity to areas outside of habitats that could support special-status wildlife; and by employing BMPs to avoid habitats that could support special-status wildlife.</p> <p>Implementation of Mitigation Measure 3.9-2 would reduce the project’s impact on nesting raptor species to a less-than-significant level by requiring that project activities do not impede the use of raptor nesting sites.</p>				
	<p>Implement Mitigation Measures 3.9-1, 3.4-1b, 3.6-3a, and 3.6-3b. Applies to: Option 1</p> <p>Implementation of Mitigation Measures 3.9-1, 3.4-1b, 3.6-3a, and 3.6-3b would reduce potentially significant impacts on wetlands and potentially jurisdictional waters along the proposed pipeline alignment under Option 1 to a less-than-significant level by requiring that trained biological monitors clearly identify and flag waters; by limiting all construction activity to areas setback from waters; by employing BMPs including fencing so that waters are physically avoided and sediment and contaminant discharge during construction activities is avoided; and by preparing a frac-out plan that would contain any slurry spills.</p>	See Mitigation Measures 3.9-1, 3.4-1b, 3.6-3a, and 3.6-3b.	See Mitigation Measures 3.9-1, 3.4-1b, 3.6-3a, and 3.6-3b.		

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