

# SUNNYVALE WATER POLLUTION CONTROL PLANT MASTER PLAN

## Mitigation Monitoring and Reporting Program

**TABLE 1  
MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Transportation</b>						
<p><b>Mitigation Measure TR-1a: Truck Route Plan.</b></p> <p>As part of pre-construction submittals, the contractor(s) shall submit a truck route plan to the City of Sunnyvale Public Works Department for review and approval to help minimize impacts to adjacent roadways.</p>	<p>Contractor(s) shall obtain approval of truck route plan and implement plan during construction</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify, review and approve truck route plan.</p>	<p>Prior to construction</p>	<p><i>Verified by:</i> <i>Date:</i></p>	
<p><b>Mitigation Measure TR-1b: Implement a Temporary Traffic Control Plan.</b></p> <p>The City contractor(s) shall prepare and implement a traffic control plan using the City's Temporary Traffic Control guidelines to reduce traffic impacts on the roadways at and near the work site, as well as to reduce potential traffic safety hazards and ensure adequate access for emergency responders. The City shall coordinate development and implementation of this plan with City departments (e.g., Emergency Services, Fire, Police, Transportation), as appropriate. To the extent applicable, the traffic control plan shall conform to the Caltrans' <i>California Manual on Uniform Traffic Control Devices</i>, Part 6 (Temporary Traffic Control; Caltrans, 2014). The traffic control plan shall include, but not be limited to, the following elements:</p> <ul style="list-style-type: none"> <li>• Circulation and detour plans to minimize impacts on local road circulation during road and lane closures. Flaggers and/or signage shall be used to guide vehicles through and/or around the construction zone.</li> <li>• Controlling and monitoring construction vehicle movement through the enforcement of standard construction specifications by onsite inspectors.</li> <li>• Sufficient staging areas for trucks accessing construction zones to minimize disruption of access to adjacent public rights-of-way.</li> <li>• Scheduling truck trips outside the peak morning and evening commute hours to the extent possible.</li> <li>• Maintaining pedestrian and bicycle access and circulation during project construction where safe to do so. If construction activities encroach on bicycle routes or multi-use paths, advance warning signs (e.g., "Bicyclists Allowed Use of Full Lane" and/or "Share the Road") shall be posted that indicate the presence of such users.</li> <li>• Identifying detours for bicycles and pedestrians, where applicable, in all areas affected by project construction.</li> <li>• Implementing roadside safety protocols. Advance "Road Work Ahead" warning and speed control signs (including those informing drivers of State legislated double fines for speed infractions in a construction zone) shall be posted to reduce speeds and provide safe traffic flow through the work zone.</li> <li>• Coordinating construction with administrators of police and fire stations (including all fire protection agencies), and recreational facility managers. Operators shall be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures, where applicable.</li> <li>• Storing all equipment and materials in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized.</li> </ul>	<p>Contractor(s) shall prepare plan that adheres to all measures listed</p> <p>Contractor(s) shall implement plan</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of plan in contract specifications</p>	<p>Prior to construction</p>	<p><i>Verified by:</i> <i>Date:</i></p>	

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Transportation (cont.)</b>						
<p><b>Mitigation Measure C-TR-1: Implement Coordinated Transportation Management Plan.</b></p> <p>Prior to construction, the City’s respective contractor(s) shall develop a Coordinated Transportation Management Plan, and the City and its contractor(s) shall work with other projects’ contractors and appropriate County and/or City departments (e.g., Emergency Services, Fire, Police, Transportation) as needed to prepare and implement a transportation management plan for roadways adjacent to and directly affected by the Master Plan improvements or the WPF, and to address the transportation impact of the overlapping construction projects within the vicinity of the Master Plan or the WPF in the region. The transportation management plan shall include, but not be limited to, the following requirements:</p> <ul style="list-style-type: none"> <li>• Coordination of individual traffic control plans for the Master Plan or WPF with nearby projects.</li> <li>• Coordination between the contractor and other project contractors in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address: <ul style="list-style-type: none"> <li>– Full and partial roadways closures</li> <li>– Circulation and detour plans to include the use of signage and flagging to guide vehicles through and/or around the construction zone, as well as any temporary traffic control devices</li> <li>– Bicycle/Pedestrian detour plans, where applicable</li> <li>– Parking along public roadways</li> <li>– Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites</li> <li>– Protocols for updating the transportation management plan to account for delays or changes in the schedules of individual projects.</li> </ul> </li> </ul>	<p>City’s contractor(s) shall develop a plan that adheres to all measures listed.</p> <p>The City and its contractor(s) shall work with other project contractors, if necessary, and appropriate County and/or City departments for preparation and implementation of this plan.</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of this plan in the contract specifications.</p>	<p>Prior to construction</p>	<p><i>Verified by:</i> <i>Date:</i></p>	
<b>Noise and Vibration</b>						
<p><b>Mitigation Measure NOI-1: Develop and Implement Construction Noise Logistics Plan.</b></p> <p>For any Master Plan improvements involving construction activities at, or truck trips to or from, the WPCP between the hours of 6:00 p.m. and 7:00 a.m., the City will incorporate into the contract specifications required compliance with a Construction Noise Logistics Plan developed by the City or its contractor, which will specify hours of construction, identify noise and vibration minimization measures, require posting or notification of construction schedules and hours, and identify a designated noise disturbance coordinator who shall respond to noise complaints. The Plan shall include measures such as, but not limited to the following:</p> <ul style="list-style-type: none"> <li>• Consistent with Section 16.08.030 of the Sunnyvale Municipal Code, all noise generating construction activities at the project site shall be limited to the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday and between 8:00 a.m. and 5:00 p.m. on Saturdays as much as possible. There shall be no construction activity at the project site on Sundays and national holidays when city offices are closed. Any critical construction activities that will need to take place outside the hours stated above shall be completed as expeditiously as possible to reduce the duration of the impact. No extreme noise generating activities at the project site shall take place outside the hours listed above.</li> <li>• Any onsite construction activities that will need to take place outside the above mentioned hours will need prior approval from the City.</li> <li>• Signs shall be posted at the construction site that include construction days and hours, a day and evening contact number for the job site, and a day and evening contact number for the City or contractor in the event of problems.</li> </ul>	<p>Contractor(s) shall draft plan that adheres to all measures listed.</p> <p>Contractor(s) shall implement all measures in plan.</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of this plan in contract specifications.</p> <p>Review construction plans for inclusion of allowable construction hours and truck routes.</p> <p>Inspect construction site to confirm compliance with posting and construction staging specifications in this measure.</p>	<p>Prior to construction</p> <p>One inspection shall occur during construction, between the hours of 10:01 p.m. and 6:59 a.m.</p>	<p><i>Verified by:</i> <i>Date:</i></p>	

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

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<b>Noise and Vibration (cont.)</b>						
<ul style="list-style-type: none"> <li>All construction vehicles and equipment, fixed and mobile, shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).</li> <li>Construction staging areas shall be located as far as practicable from existing recreational uses so as to cause minimal disruption to these activities.</li> <li>Construction traffic to and from the project site shall be routed via designated truck routes that use freeways to the extent possible. Trucks shall not traverse through or adjacent to any residential areas, including along Lawrence Expressway, between the hours of 6:00 p.m. and 7:00 a.m. Preferred access to the site shall be from SR-237 through Caribbean Drive or North Mathilda Avenue.</li> <li>Prohibit unnecessary idling of internal combustion engines.</li> </ul>						
<b>Air Quality</b>						
<p><b>Mitigation Measure AQ-2a: Implement BAAQMD Basic Construction Mitigation Measures.</b></p> <p>The City shall implement the following applicable BAAQMD Basic Construction Mitigation Measures to reduce emissions of fugitive dust and equipment exhaust:</p> <ul style="list-style-type: none"> <li>All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</li> <li>All haul trucks transporting soil, sand, or other loose material offsite shall be covered.</li> <li>All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</li> <li>All vehicle speeds on unpaved roads shall be limited to 15 mph.</li> <li>All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.</li> <li>Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</li> <li>All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.</li> <li>Post a publicly visible sign with the telephone number and person to contact at the City or City's contractor regarding dust complaints. This person shall respond and the contractor shall take corrective action within 48 hours.</li> </ul>	City or its contractor(s) implement BAAQMD Basic Construction Measures	City of Sunnyvale Public Works Department	<p>Verify inclusion of measures in contract specifications and construction plans.</p> <p>Inspect construction site to confirm compliance by the contractor, report non-compliance and ensure corrective action.</p>	<p>Prior to construction</p> <p>During construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<p><b>Mitigation Measure AQ-2b: Implement BAAQMD Additional Construction Mitigation Measures.</b></p> <p>The City shall implement the following applicable BAAQMD Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Thresholds to further reduce emissions of fugitive dust and exhaust:</p> <ul style="list-style-type: none"> <li>All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.</li> <li>All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.</li> <li>Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.</li> </ul>	City or its contractor(s) implement BAAQMD additional measures	City of Sunnyvale Public Works Department	<p>Verify inclusion of measures in contract specifications and construction plans.</p> <p>Inspect construction site to confirm compliance by the contractor, report non-compliance and ensure corrective action.</p>	<p>Prior to construction</p> <p>During construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
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<b>Air Quality (cont.)</b>						
<ul style="list-style-type: none"> <li>• Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.</li> <li>• The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.</li> <li>• All trucks and equipment, including their tires, shall be washed off prior to leaving the site.</li> <li>• Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.</li> <li>• Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.</li> <li>• Minimizing the idling time of diesel powered construction equipment to two minutes.</li> <li>• The City shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions include the use of newer model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.</li> <li>• All construction equipment, diesel trucks, and generators must be equipped with Best Available Control Technology for emission reductions of NOx and PM.</li> <li>• All contractors must use equipment that meets CARB’s most recent certification standard for off-road heavy duty diesel engines.</li> </ul>						
<b>Biological Resources</b>						
<p><b>Mitigation Measure BIO-1a: Reduce Impacts on Congdon’s Tarplant.</b></p> <ul style="list-style-type: none"> <li>• Within 2 years prior to initial ground disturbance for activities outside the main plant fenceline, the City will retain a qualified biologist, or require the contractor to retain a qualified biologist, to conduct protocol-level surveys for Congdon’s tarplant in suitable habitat in, and within 50 feet of, the proposed construction footprint. These surveys will be conducted in accordance with the protocols established by the CDFW and CNPS, and shall coincide with the bloom period for the species (May through November).</li> <li>• If Congdon’s tarplant is present in the survey area, the City contractor will avoid impacts on individuals of this species to the extent feasible during implementation of the Master Plan.</li> <li>• If Congdon’s tarplant is present near the limits of disturbance, the City contractor will maintain a buffer free from construction-related activities around the tarplant occurrence; this buffer will be at least 50 feet if feasible, but large enough to avoid indirect impacts such as dust mobilization and alteration of hydrology. The City contractor shall demarcate the buffer in the field with orange fencing. No equipment or vehicles shall be permitted within the buffer area during construction.</li> <li>• If 15 percent or more of the known population of Congdon’s tarplant within five miles of the Master Plan area at the time of impact would be affected by the Master Plan, the City will provide compensatory mitigation. To compensate for loss of individual Congdon’s tarplants, offsite habitat either occupied by the species or suitable for restoration to support the species and revegetated with this species (such as Sunnyvale Baylands Park) shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected). Seeds from the affected population shall be collected and used to seed the mitigation area.</li> </ul>	<p>Contractor(s) shall prepare construction plans that incorporate protocol-level pre-construction surveys for Congdon’s tarplant.</p> <p>The Contractor shall identify a qualified biologist</p> <p>Qualified biologist will conduct pre-construction surveys.</p> <p>Qualified biologist to inspect construction site to confirm implementation of measures.</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Review pre-construction survey reports for recommended avoidance, buffer, and/or need for compensatory mitigation.</p> <p>Inspect and confirm implementation of construction buffer zone(s) based on pre-construction survey results.</p>	<p>Prior to commencement of construction.</p> <p>After completion of pre-construction survey report.</p> <p>One inspection shall occur during each phase of construction.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
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<b>Biological Resources (cont.)</b>						
<b>Mitigation Measure BIO-1a: Reduce Impacts on Congdon’s Tarplant (cont.)</b>	<p>Locate compensatory mitigation site, as needed, and select qualified biologist to collect and disseminate seeds from affected population during appropriate season (generally September/October)</p> <p>Qualified biologist shall collect and disseminate seeds from affected population during appropriate season</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review pre-construction survey reports for recommended avoidance, buffer, and/or need for compensatory mitigation.</p> <p>Secure record of planting from qualified biologist</p>	<p>After completion of pre-construction survey report.</p> <p>After completion of planting.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<b>Mitigation Measure BIO-1b: Prevent the Introduction and Spread of Non-native, Invasive Species.</b> <ul style="list-style-type: none"> <li>• The City will retain a qualified biologist, or require the contractor to retain a qualified biologist, to develop an Invasive Species Management Plan to reduce the presence and spread of non-native, invasive plant species in the Master Plan area. The Invasive Species Management Plan shall be developed prior to any grading or import of fill material outside of, or within 20 feet of the western and northern sections of the main plant fenceline. Once a concrete flood wall is built around the facility, no invasive species management will be necessary for project activities within the main plant fenceline. The overarching goal of this mitigation is to halt the further expansion of existing invasive species and introduction of new invasives into sensitive habitats in project areas. The Invasive Species Management Plan shall include, but not be limited to, the following: <ul style="list-style-type: none"> <li>– Prior to construction outside of, or within 20 feet of the western and northern sections of, the main plant fenceline, the extent and locations of invasive species occurrences will be mapped within all areas proposed to be graded, including access roads and staging areas, and within all sensitive habitats (e.g., wetlands) across the project areas.</li> <li>– Areas identified to have weed infestations shall be treated prior to ground disturbance according to weed control methods detailed below: <ul style="list-style-type: none"> <li>▪ Weed control treatments shall include all legally permitted herbicide, manual, and mechanical methods approved for application. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Advisor (PCA), where concurrence has been provided by the City of Sunnyvale, and implemented by a Licensed Qualified Applicator. Herbicides shall not be applied during or within 72 hours of a scheduled rain event. Where manual and/or mechanical methods are used, disposal of the plant debris will take place at an appropriate offsite location. 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 qualified wildlife biologist and plant ecologist shall be required prior to weed control treatments in sensitive habitats with the intent of avoiding any adverse impacts on special-status species in the area.</li> <li>▪ Surveying and monitoring for weed infestations shall occur over the course of any grading operations outside of, or within 20 feet of the western and northern sections of, the main plant fenceline. Treatment of all identified weed populations shall occur at a minimum of once annually.</li> <li>▪ Once grading ceases, invasive plant populations within all sensitive habitats (such as wetlands) that are not impacted, but that are within 200 feet of grading/construction areas located outside of or within 20 feet of the western and northern sections of the main plant fenceline, shall be mapped and the areal extent and location of invasive populations documented. Sensitive habitats include portions of the Sunnyvale West Channel, the Cargill Channel, Ponds 1 and 2, and SCVWD Pond A4. This shall occur on an annual basis for a minimum of 3 years following grading operations.</li> </ul> </li> </ul> </li> </ul>	<p>City or contractor shall retain qualified biologist</p> <p>Qualified biologist will develop Invasive Species Management Plan</p> <p>City or Contractor to implement Plan prior to and during construction</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of the Plan in contract specifications.</p> <p>Review annual monitoring report for compliance with measure</p>	<p>Prior to construction</p> <p>During construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
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<b>Biological Resources (cont.)</b>						
<ul style="list-style-type: none"> <li>- If, in any monitoring year, the size of existing populations within sensitive habitats expands by 20 percent or more in terms of surface area in comparison to the population size documented prior to construction, the weed control measures described above shall be implemented (inter-annual variation due to climate differences may account for as much as 10 percent of change).</li> <li>- During construction activities located outside of or within 20 feet of the western and northern sections of the main plant fenceline, 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.</li> <li>- During construction activities located outside of or within 20 feet of the western and northern sections of the main plant fenceline, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before entering the project areas adequately to ensure that weed seeds from other sites are not transported to these construction areas. Vehicles shall be cleaned at existing construction yards or legally operating car washes. In addition, tools such as chainsaws, hand clippers, pruners, etc., shall be washed before entering the work areas.</li> </ul>					<i>Verified by:</i>  <i>Date:</i>	
<p><b>Mitigation Measure BIO-2a: Worker Environmental Awareness Training.</b></p> <p>The City will retain, or require the contractor to retain, a qualified biologist to conduct mandatory contractor/worker environmental awareness training for all construction personnel working on project activities outside of the main plant, including but not limited to Ponds 1 and 2, the diurnal equalization and emergency storage basins, channel levees, and the Bay Trail parking relocation area. The awareness training will be provided to all construction personnel to brief them on the potential for special-status species to occur on the site, the need to avoid effects to special-status species and their habitats, and all project mitigation measures pertaining to biological resources and water quality. If new construction personnel are added, the contractor will ensure that the personnel receive the mandatory training before starting work. A representative will be appointed during the employee education program to be the contact for any employee or contractor who might inadvertently kill or injure a special-status species or who finds a dead, injured, or entrapped individual. The representative's name and telephone number will be provided to the City prior to the initiation of construction activities outside of the main plant.</p>	<p>City or contractor(s) to retain a qualified biologist to conduct environmental awareness training for construction personnel.</p> <p>Qualified biologist to conduct training(s)</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of the Plan in contract specifications.</p> <p>Record name of appointed representative to contact</p> <p>Record date(s) of training</p>	<p>Prior to construction outside of the main plant</p>	<i>Verified by:</i>  <i>Date:</i>	
<p><b>Mitigation Measure BIO-2b: Minimization of Impacts on Water Quality.</b></p> <p>The following measures will be incorporated into the construction stormwater pollution prevention plan and implemented during construction of Master Plan improvements to avoid or minimize impacts on water quality:</p> <ul style="list-style-type: none"> <li>• Earth-moving in areas draining directly to wetlands and aquatic habitats will not occur during days when rain is occurring or predicted to occur (i.e., greater than 40 percent chance) during the work period. This measure applies to all Project areas with potential to drain directly to wetlands or aquatic habitats, particularly in or adjacent to the Southeast Channel, the Sunnyvale West Channel, the Cargill Channel, Ponds 1 and 2, and SCVWD Pond A4.</li> <li>• All permit conditions, legal requirements, and appropriate dredging and engineering practices shall be followed to avoid and minimize water quality impacts associated with Master Plan activities. Suitable erosion control, sediment control, source control, treatment control, material management, and stormwater management BMPs will be implemented consistent with the latest edition of the California Stormwater Quality Association "Stormwater Best Management Practices Handbook," available at <a href="http://www.capmphandbooks.com">www.capmphandbooks.com</a>.</li> <li>• Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations). Feasible measures shall be implemented to ensure that hazardous materials are properly handled and the quality of aquatic resources is protected by all reasonable means when removing vegetation and sediments from the channels.</li> <li>• No fueling shall be done in areas immediately adjacent to (i.e., within 50 feet of) channels, ponds, or wetlands. For stationary equipment that must be fueled on site, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate</li> </ul>	<p>City or contractor(s) to retain a qualified water quality specialist to prepare a stormwater pollution prevention plan that adheres to all measures</p> <p>Contractor(s) to include plan in construction plans</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of plan in contract specifications</p> <p>Review monthly hazardous materials management/fuel spill containment plan reports for compliance with measure</p> <p>Document dredging volumes in compliance with measure</p>	<p>Prior to construction</p> <p>During construction</p>	<i>Verified by:</i>  <i>Date:</i>	

**TABLE 1 (Continued)**  
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<b>Biological Resources (cont.)</b>						
<p>sediments that may come in contact with water. Any equipment that is readily moved out of the channels, ponds, or wetlands shall not be fueled in these sensitive habitat areas or the immediate floodplains surrounding them.</p> <ul style="list-style-type: none"> <li>• A hazardous materials management/fuel spill containment plan will be developed and implemented by the construction contractor and given to all contractors and biological monitors working on the Master Plan, with at least one copy of the plan located onsite at all times. The purpose of the plan is to provide onsite construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of Master Plan elements. The primary objective of the plan is to prevent a spill of hazardous materials. Elements of the plan will include, but are not limited to the following: <ul style="list-style-type: none"> <li>– A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage area, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas;</li> <li>– Materials Safety Data Sheets for all chemicals used and stored on site;</li> <li>– An inventory list of emergency equipment;</li> <li>– Spill control and countermeasures including employee spill prevention/response training;</li> <li>– Notification and documentation procedures; and</li> <li>– A monthly reporting plan.</li> </ul> </li> <li>• Vehicles will be checked daily for oil or fuel leaks and will be washed only at an approved area as described above for Mitigation Measure BIO-1b. No washing of vehicles will occur in Master Plan areas located outside of the main plant fence line.</li> <li>• The work site, areas adjacent to the site, and access areas will be maintained in an orderly condition, free and clear of debris and discarded materials. This measure includes all Master Plan areas located outside of the main plant fence line. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust onto adjacent areas or waterways. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the Master Plan areas located outside of the main plant fence line.</li> <li>• Stockpiled materials outside of the main plant fence line will be covered by plastic sheeting, tarps, or similar material that can be secured during wind and rain. A sediment fence or berm will be installed around stockpiled dredged material to prevent runoff from transporting sediment into sensitive habitats (such as the channels, ponds, and wetlands). Heavy equipment will not be operated in the active channels or within wetland habitats, but instead from existing hardscape, access roads, and levees.</li> <li>• Water conservation methods will ensure that water used in the Master Plan area does not create surface flows capable of carrying pollutants to the nearby creek channel. All personnel, including sub-contractors will be instructed on the practical methods of preventing leaks or over-use of watering, and will be required to adhere to the practices in the detail sheets provided. Woody debris from tree trimming and other activities will not be left in the active channels or in wetland habitats.</li> <li>• In-channel vegetation removal may result in increased local erosion in the channels due to increased flow velocity. To minimize such erosion, the toe of the bank will be protected by leaving vegetation within the channel to the maximum extent practicable.</li> <li>• Cofferdams or silt fencing will be used to the extent feasible during construction and maintenance activities that could potentially result in substantial siltation of open water. For any work within aquatic or wetland habitats, such as Ponds 1 and 2 or the Cargill Channel, silt curtains will be installed to prevent suspended sediments from migrating out of the immediate work area, and dredging will be conducted on incoming tides to the extent feasible to further reduce the potential for sediment mobilization outside the Master Plan area. Dredging within aquatic or wetland</li> </ul>						

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Biological Resources (cont.)</b>						
habitats will be conducted with a closed clamshell-style dredge to reduce the amount of suspended sediment produced. Dredge volumes will be documented to ensure compliance with and adequate performance of these measures.						
<p><b>Mitigation Measure BIO-2c: Special-Status Fish Measures.</b></p> <p>The following measures will be implemented during construction of the Master Plan to avoid or minimize impacts on special-status fish species:</p> <ul style="list-style-type: none"> <li>• Impacts on tidal waters where special-status fish and Essential Fish Habitat may occur will be minimized to the extent feasible.</li> <li>• Construction activities in, or directly adjacent to, waters where green sturgeon, longfin smelt, steelhead, or Chinook salmon may be present will be performed between June 1 and November 30. These waters include but are not limited to the Moffett Channel and the Sunnyvale West Channel.</li> <li>• Activities that extend into the waters where special-status fish may be present, such as levee breaching for active restoration of Ponds 1 and 2, will be performed at low tide and/or under de-watered conditions, to the extent practicable.</li> <li>• If pile driving or installation of temporary sheet piles is necessary during construction or restoration activities outside of the main plant fenceline, such as for earthwork, foundations, or dewatering, then pile driving will be performed using a vibratory hammer to minimize the potential effects of noise and pressure-waves on fish.</li> <li>• National Marine Fisheries Service personnel will be immediately notified of any observed fish mortality events associated with Master Plan activities.</li> <li>• Tidally restored ponds will contain channels that are adequate for the ingress and egress of fish with tidal circulation to avoid fish stranding.</li> <li>• Treated wood will not be used in structures that may come into contact with water.</li> </ul>	<p>Contractor to include requirements in construction plans</p> <p>City or contractor to notify NMFS of fish mortality events observed</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of these measures in contract specifications and construction plans</p> <p>Record fish mortality events and confirm reporting to NMFS</p>	<p>Prior to construction</p> <p>During construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<p><b>Mitigation Measure BIO-2d: Western Pond Turtle Measures.</b></p> <p>The following measures will be implemented to avoid and minimize impacts on western pond turtles in portions of the Master Plan area outside of the main plant fenceline, particularly in or near the Sunnyvale West Channel:</p> <ul style="list-style-type: none"> <li>• Impacts on aquatic habitat of the western pond turtle, such as the Sunnyvale West Channel, will be minimized to the extent feasible.</li> <li>• A qualified biologist shall conduct a survey for western pond turtles and their nests immediately (i.e., within 2 hours) prior to commencement of work along the Sunnyvale West Channel. If a western pond turtle is found in an area where it could be injured or killed by Master Plan improvement activities, the biologist will relocate the turtle to an appropriate site outside the construction disturbance area.</li> <li>• Following the initial survey, a construction crewmember who has been trained to identify western pond turtles by a qualified biologist shall conduct a survey of the work area along the Sunnyvale West Channel area each morning prior to the onset of construction activities. If a turtle is located, all work in the vicinity shall immediately cease, and a qualified biologist shall be contacted. Work within the area shall not resume until the turtle has been relocated or has moved on its own out of the construction disturbance area.</li> <li>• If an active western pond turtle nest is detected within the activity area, a 25 foot-buffer zone around the nest will be established and maintained during the nesting season (April 1 through August 31) until the young have left the nest or it is no longer active due to predation, as determined by a qualified biologist.</li> </ul>	<p>Contractor to retain qualified biologist</p> <p>Contractor to prepare construction plans that incorporate pond turtle survey</p> <p>Biologist to conduct survey prior to construction</p> <p>Biologist to train construction crew member</p> <p>Biologist to implement buffer if nest is found</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of these measures in contract specifications and construction plans</p> <p>Review survey report</p>	<p>Prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	



**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Biological Resources (cont.)</b>						
<p><b>Mitigation Measure BIO-2e: Burrowing Owl Measures.</b></p> <p>The following measures will be implemented to avoid and minimize impacts on burrowing owls in the Master Plan area, particularly on the closed landfill and along the Sunnyvale West Channel but also including areas within the main plant fenceline that may support ground squirrel burrows:</p> <ul style="list-style-type: none"> <li>• Preconstruction surveys for burrowing owls will be conducted by a qualified biologist prior to all construction activities that occur within 250 feet of potential burrowing owl habitat on the closed landfill or along the Sunnyvale West Channel, in conformance with CDFW protocols. This measure applies to construction activities inside of the main plant fenceline only where ground squirrel burrows are present or for those activities located within 250 feet of suitable burrowing owl habitat on the closed landfill or Sunnyvale West Channel. The final survey will occur no more than 2 days prior to the start of any ground-disturbing activity such as clearing and grubbing, excavation, or grading, or any similar activity within 250 feet of suitable habitat that could disturb nesting owls. If no burrowing owls are located during these surveys, no additional action would be warranted. However, if burrowing owls are located on or immediately adjacent to impact areas, the following measures would be implemented.</li> <li>• If burrowing owls are present during the nonbreeding season (generally 1 September to 31 January), the City/contractor would maintain a 150-foot buffer zone, within which no new Master Plan-related activity would occur, around the occupied burrow(s) if feasible. However, this buffer distance would not apply to existing operations and maintenance activities in the main plant. A reduced buffer distance is acceptable during the nonbreeding season as long as construction avoids direct impacts on the burrow(s) used by the owls. During the breeding season (generally 1 February to 31 August), a 250-foot buffer, within which no new Master Plan-related activity would be permissible, would be maintained between Master Plan activities and occupied burrows. Owls present at burrows on the site after 1 February would be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area would remain in effect until 31 August, or based upon monitoring evidence, until young owls are foraging independently or until the nest is no longer active.</li> <li>• In the unlikely event that an occupied burrowing owl burrow is within the construction footprint (e.g., on the bank of a levee), and the burrow cannot be avoided, the owl will be evicted from the burrow by a qualified biologist using one-way doors. The biologist will leave the one-way doors in place for at least 48 hours, checking them daily to ensure that they are functioning properly. If the biologist cannot be certain that the owl is outside the burrow (e.g., if the one-way doors were installed when the owl was inside the burrow and the owl cannot be detected outside later), then the burrow will be excavated by hand prior to being filled to ensure that no owl is trapped inside. Otherwise, the burrow will be backfilled after the owl has been evicted. No burrowing owls will be evicted from burrows during the nesting season 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).</li> </ul>	<p>Contractor to prepare plans that incorporate preconstruction surveys, buffer zones, and relocation plan</p> <p>Contractor to identify qualified biologist to conduct preconstruction surveys</p> <p>Qualified biologist to establish buffer zones or conduct owl relocation, as needed</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of these measures in contract specifications and construction plans</p> <p>Review survey report</p> <p>If burrowing owls present, inspect construction site to confirm buffer zones</p>	<p>Prior to construction</p> <p>During construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<p><b>Mitigation Measure BIO-2f: California Ridgway's Rail and California Black Rail Measures.</b></p> <p>The following measures will be implemented for activities outside of the main plant fenceline to avoid and minimize impacts on California Ridgway's rails and California black rails, particularly in tidal marsh habitats associated with the Moffett Channel:</p> <ul style="list-style-type: none"> <li>• Impacts on tidal wetland habitat of these species will be minimized to the extent feasible. Tidal wetland habitat for these species occurs in the northern portions of the Master Plan area, in association with the Moffett Channel. Suitable tidal wetland habitat for these species is not present within the main plant fenceline.</li> <li>• To avoid causing the abandonment of an active nest, construction activities within 700 feet of vegetated tidal marsh providing suitable breeding habitat for Ridgway's rails or black rails (i.e., the area along Moffett Channel where the marsh begins to widen just upstream from its confluence with Guadalupe Slough, or the large marsh area along Guadalupe Slough north of Pond 1) will be avoided during the breeding season from February 1 through August 31 unless</li> </ul>	<p>Contractor to prepare construction plans incorporating requirements of the measure</p> <p>Prior to February 1 of the years during which activities would occur within 700 feet of suitable breeding habitat, qualified biologist to conduct protocol-level surveys</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of these measures in contract specifications and construction plans</p>	<p>Protocol-level survey begins mid-January prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Biological Resources (cont.)</b>						
<p>protocol-level surveys are conducted to determine rail locations and territories the same year in which those construction activities occur. If breeding Ridgway’s rails or black rails are determined to be present, activities will not occur within 700 feet of areas in which Ridgway’s rails or black rails were heard calling during protocol-level surveys. If the intervening distance across a major slough channel (e.g., Moffett Channel or Guadalupe Slough) or across a substantial barrier between the locations of rail detections and any construction activity area is greater than 200 feet, then it may proceed at that location within the breeding season. Aside from continued use of recreational trails established prior to the start of the breeding season (which may continue), only routine inspection, maintenance, or monitoring activities that have little potential for effects on rails due to their short durations, distance from rail habitat, or low-magnitude effects may be performed during the breeding season in areas within or adjacent to rail breeding habitat. Otherwise, with USFWS and CDFW approval on a case-by-case basis, construction activities may take place after July 15 in a given area if the activity is thought to be minimally disturbing to breeding rails.</p> <ul style="list-style-type: none"> <li>• The extent of impacts on tidal marsh will be clearly demarcated in the field, and no impacts (including construction access) will occur outside those limits.</li> <li>• Silt fencing or similar material will be installed between all areas of earth-moving and marsh outside the impact area to prevent dirt and other materials from entering marsh areas that are not intended to be affected.</li> <li>• No animals can be brought to the project site to avoid harassing, killing, or injuring wildlife.</li> <li>• The project site will be maintained trash-free, and food refuse will be contained in secure bins and removed daily during construction and dredging.</li> <li>• Nighttime work near tidal marsh habitat will be avoided to the extent feasible. If nighttime work cannot be avoided, lighting will be directed to the work area and away from tidal marsh habitat.</li> </ul>						
<p><b>Mitigation Measure BIO-2g: Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Measures.</b></p> <p>The following measures will be implemented for activities outside of the main plant fenceline to avoid and minimize impacts on the salt marsh harvest mouse and salt marsh wandering shrew, particularly in marsh habitat associated with the Moffett Channel:</p> <ul style="list-style-type: none"> <li>• Impacts on pickleweed and wetland habitat that may support these species will be minimized to the extent feasible. Wetland habitat that may support these species occurs in the northern portion of the Master Plan area, in association with the Moffett Channel and the Cargill Channel. No suitable habitat for these species occurs within the main plant fenceline.</li> <li>• To avoid the loss of individual harvest mice or wandering shrews from any excavation, fill, or construction activities in suitable habitat, vegetation removal and fill in marsh habitats, including the Moffett Channel and the Cargill Channel, will be limited to the minimum amount necessary to implement the Master Plan improvements. Wherever feasible, sufficient pickleweed habitat will remain adjacent to the activity area to provide refugia for displaced individuals.</li> <li>• In areas where salt marsh harvest mice or wandering shrew habitat will be affected, vegetation and debris that could provide cover for mice will be removed using only hand tools at least three weeks prior to the commencement of construction activities. Vegetation removal will occur under the supervision of a qualified biologist. The vegetation will be removed on a progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. In some cases, temporary shelter consisting of dead vegetation may be positioned to provide escape routes to suitable habitat. A qualified biologist will monitor the vegetation removal and make specific recommendations with respect to the rate of vegetation removal (to ensure that any harvest mice or wandering shrews present are able to escape to cover that will not be affected), whether vegetation needs to remain in a certain area temporarily to facilitate dispersal of mice into habitat outside the impact area, and whether any berms are necessary to allow mice or shrews to disperse across wetted channels.</li> </ul>	<p>Contractor to prepare construction plans incorporating requirements of the measure</p> <p>Qualified biologist to monitor vegetation removal</p> <p>Contractor to implement biologist recommendations</p> <p>City to purchase conservation bank credits or prepare Habitat Mitigation and Monitoring Plan</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of these measures in contract specifications and construction plans</p> <p>Verify completion of measures by biologist</p>	<p>Prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Biological Resources (cont.)</b>						
<ul style="list-style-type: none"> <li>• Following the hand-removal of vegetation in areas where these species may be affected, exclusion fencing will be erected as needed between construction areas and harvest mouse/wandering shrew habitat that is to remain unaffected to define and isolate protected habitat for these species. This fencing will consist of heavy plastic sheeting or metal material that cannot be climbed by harvest mice or wandering shrews, or similar Resource Agency-approved exclusion materials, buried at least 4 inches below the ground’s surface and with at least 1 foot (but no more than 4 feet) above the ground. All supports for the fencing will be placed on the inside of the work area. A 4-foot buffer will be maintained free of vegetation around the outside of the exclusion fencing. The fencing will be inspected daily during construction, and any necessary repairs will be made within 24 hours of when they are found. If any breaks in the fencing are found, a qualified biologist will inspect the work area for salt marsh harvest mice or wandering shrews. If any individual harvest mice are found within the impact footprint, they will be allowed to move on their own (although shrews may be relocated by a qualified biologist) to vegetated areas outside the impact footprint.</li> <li>• During construction in areas where salt marsh harvest mice and wandering shrews may be affected, a qualified biologist will check underneath vehicles and equipment for these species before such equipment is moved during each day of construction, unless the equipment is surrounded by exclusion fencing. Based on current design concepts, the Master Plan is expected to affect approximately 1.5 acres of tidal coastal brackish marsh (in the Moffett Channel) and another 0.5 acre of non-tidal salt marsh (in the Cargill Channel) that could potentially support these species through raising (and as a result widening) an access road and construction of a new pipeline segment to the diurnal equalization basins. To compensate for these habitat impacts, the City will provide mitigation through a combination of (a) the purchase of credits in an approved conservation bank that provides habitat suitable for use by these species and/or (b) tidal marsh habitat restoration onsite or offsite. Owing to the relatively low quality of habitat provided by the wetlands to be affected by Master Plan activities, this mitigation will be provided at a minimum ratio of 1:1 (mitigation:impact) on an acreage basis. This mitigation can be provided using the same mitigation area as described in Mitigation Measure BIO-3b for wetlands as long as the habitat is suitable for the salt marsh harvest mouse and salt marsh wandering shrew and provides vegetated wetlands adequate to compensate for impacts on these species’ habitats at a 1:1 ratio.</li> </ul> <p>Prior to construction, the City will purchase credits from an approved conservation bank and/or prepare a Habitat Mitigation and Monitoring Plan (HMMP) describing the proposed creation of mitigation habitats that will satisfy the mitigation requirements. Impacts on habitat of the salt marsh harvest mouse and salt marsh wandering shrew may not commence until the adequate credits in a conservation bank have been purchased and/or the City prepares the HMMP. The HMMP will be prepared by a qualified restoration ecologist and will include the following:</p> <ul style="list-style-type: none"> <li>– A summary of impacts on these species’ habitats and the proposed mitigation acreage</li> <li>– Goals of the restoration to achieve no net loss of habitat functions and values for these species</li> <li>– The location of the mitigation site and description of existing site conditions</li> <li>– Mitigation design:             <ul style="list-style-type: none"> <li>▪ Existing and proposed site hydrology, geomorphology, and geotechnical stability, if applicable</li> <li>▪ Grading plan if appropriate, including bank stabilization or other site stabilization features</li> <li>▪ Soil amendments and other site preparation elements as appropriate</li> <li>▪ Planting plan</li> <li>▪ Irrigation and maintenance plan</li> <li>▪ Construction schedule</li> </ul> </li> </ul>						

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Biological Resources (cont.)</b>						
<ul style="list-style-type: none"> <li>- Monitoring plan (including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.). Performance criteria will include demonstration of the presence of appropriate vegetation for these species within 10 years of mitigation implementation and presence of at least one of these two small mammal species within 10 years of the establishment of appropriate vegetated habitat.</li> <li>- A contingency plan for mitigation elements that do not meet performance or final success criteria; this plan will include specific triggers for remediation if performance criteria are not being met.</li> </ul>						
<p><b>Mitigation Measure BIO-2h: Nesting Bird Measures.</b></p> <p>The following measures will be implemented throughout the Master Plan area to minimize impacts on nesting San Francisco common yellowthroat, Alameda song sparrow, and other native bird species:</p> <ul style="list-style-type: none"> <li>• Nesting deterrence can be implemented to minimize the potential for nesting birds to constrain project activities or to be adversely affected by those activities. The most effective nesting deterrence in non-developed portions of the main plant is vegetation removal to remove nesting substrate. Vegetation that is to be affected by the project should be removed during the nonbreeding season (i.e., September 1 through January 31) if feasible. If necessary, removal of nest-starts (incomplete nests that do not yet contain eggs or young) by qualified biologists may occur during the breeding season. Such nest-start removal may begin early in the breeding season (e.g., February) and continue regularly until vegetation can be removed and construction commences. Some species, such as barn swallows or black phoebes, may establish nests on buildings or other structures. To deter birds from nesting on structures, netting or other deterrence devices may be installed to preclude birds from constructing nests. Such nesting deterrence should be implemented under the supervision of qualified biologists in order to prevent death or injury of birds as a result of improperly installed deterrence devices, and such devices will require regular maintenance to ensure that they are functioning property.</li> <li>• Prior to commencement of new activities (i.e., activities that are not currently ongoing in any given area) during the breeding season (February 1 through August 31), preconstruction surveys will be conducted by a qualified biologist no more than 7 days prior to the initiation of new disturbance in any given area to ensure that no active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code will be disturbed during Master Plan implementation. During this survey, the biologist will inspect all potential nesting habitats (e.g., trees, shrubs, buildings, and various substrates on the ground) in the project area for nests. This survey will include suitable nesting substrates both within and outside the main plant fenceline. Surveys will be conducted within search radii corresponding to disturbance-free buffer zones described below for raptors (300 feet) and non-raptors (100 feet), including offsite areas adjacent to the Master Plan area (where such areas are accessible and are contained in the buffer zones).</li> <li>• If an active nest is found, a qualified biologist will determine the extent of a disturbance-free buffer zone to be established around the nest until nesting has been completed. Disturbance-free buffer zones are typically 300 feet for raptors and 100 feet for non-raptors, although factors such as existing disturbance and vegetation or structures that screen construction activities from a nest will be considered in determining the appropriate buffer. Nests will be considered active until surveys conducted by a qualified ornithologist confirm nesting is complete. However, construction within these radii may proceed if, based on monitoring of the birds behavior, a qualified biologist determines that such activities are not likely to result in the abandonment of the nest. Per CDFW recommendations, monitoring will be conducted as follows: <ul style="list-style-type: none"> <li>- A qualified biologist will monitor activity at each nest for three days prior to the onset of construction activities to develop a baseline of the normal behavior of the birds attending the nest. If the behavior observed at the nest is consistent on Days 1 and 2 of monitoring, Day 3 of monitoring may be skipped.</li> </ul> </li> </ul>	<p>Contractor(s) to prepare construction plans that include schedule of vegetation removal, nest deterrence, preconstruction surveys, and buffer zones</p> <p>Contractor to identify qualified biologist to conduct nesting deterrence measures</p> <p>Contractor to remove vegetation within non-breeding season</p> <p>Biologist to implement nesting deterrence measures</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of measures in contract specifications and construction plans</p>	<p>Prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Biological Resources (cont.)</b>						
<ul style="list-style-type: none"> <li>- A qualified biologist will monitor activity at each nest for 8 hours on the first day that construction occurs within the standard buffer (e.g., within 100 feet of a non-raptor nest). If the biologist determines that the birds' behavior is not adversely affected, Master Plan activities may continue. The biologist should continue to monitor the nests for 1 hour/day on any day when construction activities occur within the standard buffer around an active nest.</li> <li>- If at any time the biologist determines that Master Plan activities within the standard buffer is adversely affecting the behavior of the birds such that the nest is in jeopardy of failing, construction activities should retreat to honor the standard buffer until the nest is no longer active (i.e., the young have fledged).</li> </ul>						
<p><b>Mitigation Measure BIO-3a: Avoidance of Open Water and Wetland Habitats.</b></p> <ul style="list-style-type: none"> <li>• Detailed design of WPCP improvements for the Master Plan will avoid and minimize impacts on open water and wetland resources to the extent feasible.</li> <li>• If open water and wetland habitats are present within 100 feet or less of the limits of disturbance in the Master Plan area, avoidance buffers shall be maintained between those habitats and construction areas that drain directly to them. These buffers should be at least 50 feet for general construction activities and 100 feet for grading, to the extent feasible. The avoidance buffers shall be designated as Environmentally Sensitive Areas and clearly identified in the field using orange fencing. No equipment, vehicles, or personnel are permitted within Environmentally Sensitive Areas. Environmentally Sensitive Areas shall be shown on Project plan sets. All Environmentally Sensitive Area fencing shall be maintained intact and in good condition throughout the duration of construction.</li> <li>• Any temporarily affected aquatic and wetland habitats will be restored to preconstruction elevations and contours, and temporarily affected wetlands will be revegetated using native plant species appropriate for the salinity, elevation, and location of the affected area.</li> </ul>	<p>Contractor(s) to prepare construction plans that incorporate habitat mitigation and buffer zones</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of measures in contract specifications and construction plans</p> <p>Confirm placement of fencing at site against construction plans</p> <p>Confirm restoration to preconstruction elevations and contours</p>	<p>Prior to construction</p> <p>During construction</p> <p>After construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<p><b>Mitigation Measure BIO-3b: Compensatory Mitigation for Aquatic and Wetland Habitats.</b></p> <p>The City shall obtain permits from the USACE, RWQCB, and CDFW as needed to obtain authorization to affect jurisdictional waters. In order to ensure that the proposed Master Plan results in no net loss of wetland and aquatic habitat functions and values, the City shall compensate for the permanent loss of jurisdictional wetland and aquatic habitats through a combination of on-site and/or off-site restoration/creation and protection and enhancement of wetland habitat. The size and location(s) of the area(s) to be restored/created will be determined based on appropriate mitigation ratios derived in consultation with USACE, RWQCB, and CDFW, but the amount of compensatory mitigation provided shall be at least 1:1 (i.e., at least equivalent to the acreage of jurisdictional wetlands and other waters permanently affected). Prior to construction, the City of Sunnyvale will purchase credits from a mitigation bank approved by the applicable resource agencies and/or prepare a Mitigation and Monitoring Plan describing the proposed creation of mitigation wetlands that will satisfy the mitigation requirements. Impacts on jurisdictional wetlands and other waters may not commence until the adequate credits in a mitigation bank have been purchased and/or the City of Sunnyvale prepares the Mitigation and Monitoring Plan.</p> <p>The Mitigation and Monitoring Plan will be prepared by a qualified restoration ecologist and will include the following:</p> <ul style="list-style-type: none"> <li>• A summary of wetland impacts and the proposed wetland creation mitigation</li> <li>• Goals of the restoration to achieve no net loss of habitat functions and values</li> <li>• The location of the mitigation site and description of existing site conditions</li> <li>• Mitigation design:</li> <li>• Existing and proposed site hydrology, geomorphology, and geotechnical stability, if applicable</li> <li>• Grading plan if appropriate, including bank stabilization or other site stabilization features</li> <li>• Soil amendments and other site preparation elements as appropriate</li> </ul>	<p>City to obtain all necessary regulatory permits.</p> <p>City to purchase credits from mitigation bank if required</p> <p>City or contractor(s) to retain qualified restoration ecologist to develop Mitigation and Monitoring Plan that adheres to measures listed</p> <p>Contractor to implement Mitigation and Monitoring Plan</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of the Plan in contract specifications</p>	<p>Prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Biological Resources (cont.)</b>						
<ul style="list-style-type: none"> <li>• Planting plan</li> <li>• Irrigation and maintenance plan</li> <li>• Construction schedule</li> <li>• Monitoring plan (including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.). Performance criteria will include the establishment of wetland vegetation on any vegetated wetland mitigation area within 5 years of mitigation implementation.</li> <li>• A contingency plan for mitigation elements that do not meet performance or final success criteria within 5 years; this plan will include specific triggers for remediation if performance criteria are not being met.</li> </ul>						
<p><b>Mitigation Measure BIO-4a: Avoidance and Preservation of Trees.</b></p> <p>During detailed design of Master Plan activities, either within or outside the main plant fenceline, ordinance-sized trees will be avoided to the extent feasible. If it is determined during detailed design that impacts on some trees can be avoided, a construction-phase Tree Preservation Plan shall be prepared by a certified arborist prior to initiation of construction to describe how trees that will not be removed will be protected. The construction-phase Tree Preservation Plan shall include the following tree protection measures, which are based on guidelines established by the International Society for Arboriculture:</p> <ul style="list-style-type: none"> <li>• Establish an area surrounding individual trees or groups of trees to be protected during construction as defined by a circle concentric with each tree with a radius 1-1/2 times the diameter of the tree canopy drip line. 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 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.</li> <li>• Protect tree root systems from damage caused by (a) runoff or spillage of noxious materials while mixing, placing, or storing construction materials and (b) ponding, eroding, or excessive wetting caused by dewatering operations through use of the following measures during excavation and grading:             <ul style="list-style-type: none"> <li>– Excavation: Do not trench inside tree protection zones. Hand excavate under or around tree roots to a depth of 3 feet. Do not cut main lateral tree roots or taproots. Protect exposed roots from drying out before placing permanent backfill.</li> <li>– Grading: Maintain existing grades within tree protection zones. Where existing grade is 2 inches or less below elevation of finish grade, backfill with topsoil or native site soil. Place fill soil in a single uncompacted layer and hand grade to required finish elevation.</li> <li>– Apply 6-inch average thickness of wood bark mulch inside tree protection zones. Keep mulch 6 inches from tree trunks.</li> </ul> </li> <li>• Provide 48-inch tall orange plastic construction fencing fastened to steel T-posts, minimum six (6) feet in length, using heavyweight plastic ratchet ties. Install fence along edges of tree protection zones before materials or equipment are brought on site and construction operations begin. Maintain fence in place until construction operations are complete and equipment has been removed from site.</li> <li>• Provide temporary irrigation to all trees in protection zones that may have important root systems impacted by construction.</li> </ul>	<p>Department of Community Development to determine whether ordinance applies to trees in the Master Plan area</p> <p>Contractor(s) to prepare construction plans maximizing avoidance of trees</p> <p>City or contractor to retain a qualified arborist to prepare Tree Preservation Plan</p> <p>Contractor(s) to implement Tree Preservation Plan measures</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated arborist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of the Plan measures in construction plans</p>	<p>Prior to construction within Master Plan area</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Biological Resources (cont.)</b>						
<p><b>Mitigation Measure BIO-4b: Master Plan Compensation for Impacts on Protected Trees.</b></p> <p>At the discretion of the Director of Community Development, the City will either replace any removed protected trees at a 1:1 ratio or pay an in-lieu fee into a fund.</p>	<p>Contractor or City to identify trees to be removed</p> <p>Qualified arborist to identify "protected" trees to be removed</p> <p>City to replace protected trees or pay in-lieu fee</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated arborist and either approve or recommend identification of additional candidates</p> <p>Confirm planting of replacement trees or payment of in-lieu fee</p>	<p>Prior to construction that would remove trees</p>		
<b>Hydrology</b>						
<p><b>Mitigation Measure HYD-2: Hydraulic Analysis of Levee Widening.</b></p> <p>Prior to design of the diurnal equalization and emergency storage facilities, or any Master Plan improvement that would require widening of the existing levee and road between the main plant and Pond 1, the City or its contractor will conduct a hydraulic analysis assessing the potential secondary effects of levee widening on water surface elevation and channel scour in Moffett Channel. Recommendations of the hydraulic analysis will be incorporated into project design and contractor specifications such that any changes to water surface elevation or the channel do not adversely affect channel capacity. The project will acquire a No-Rise Certification to confirm that the selected alternative will not cause an increase in water surface elevations along the Moffett Channel. This finding will be confirmed and certified by a registered professional engineer.</p>	<p>City or contractor(s) to conduct hydraulic analysis</p> <p>Registered professional engineer to certify that project will not cause an increase in water surface elevations</p> <p>Contractor to incorporate recommendations into design</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion in contract specifications</p> <p>Review and confirm No-Rise Certification</p>	<p>Prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<p><b>Mitigation Measure HYD-3a: Flood Hazard Assessment and Design For Diurnal Equalization Tanks, Pump Station, and Pipeline.</b></p> <p>Prior to design of proposed WPCP improvements along Moffett Channel or within the oxidation ponds, the City will conduct a vulnerability analysis of project facilities to flooding, assess potential risks, and evaluate additional improvements that could reduce identified flood hazard risks. The evaluation will identify the flood safe elevation (FSE) as the sum of the (then) current base flood elevation (BFE) for the project area, the projected sea level rise during the project's design service lifetime, and additional three to four feet of freeboard as determined necessary by a registered professional engineer. The risk assessment will address the construction and design of facilities below the FSE and the potential for significant loss, injury, or upset that could result from flooding, and identify feasible measures that could reduce flood hazard risks. Project design will incorporate the findings from the flood hazard assessment. Project design measures could include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Elevating the ground floor elevation of the diurnal equalization pump station above the FSE;</li> <li>• Anchoring structures to prevent flotation, collapse and lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;</li> <li>• Design of the extension of the primary effluent pipeline and associated support structures to minimize corrosion and ensure stability during occasional flooding;</li> </ul> <p>The flood hazard assessment and selected design improvements for implementation shall be certified by a registered professional engineer to avoid a substantial risk of loss involving flooding.</p>	<p>City or contractor(s) conducts flood hazard assessment, certified by registered professional engineer</p> <p>Contractor(s) incorporates findings into project design</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review flood hazard assessment recommendations for compliance with this measure.</p> <p>Verify contract specifications include incorporating flood hazard assessment recommendations into project design.</p>	<p>Prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<p><b>Mitigation Measure HYD-3b: Restoration Plan for Ponds 1 and 2.</b></p> <p>Prior to restoration of the oxidation ponds, the City shall develop a restoration plan for the oxidation ponds, to be implemented upon decommissioning. The plan must include:</p> <ul style="list-style-type: none"> <li>• Hydraulic analysis of the flooding and erosion effects resulting from breaching the levees surrounding Ponds 1 and 2.</li> <li>• An assessment of the effects of breaching on the floodplain surrounding the WPCP.</li> </ul>	<p>City or contractor(s) develops restoration plan for the oxidation ponds in accordance with this measure.</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review restoration plan for compliance with this measure.</p> <p>Verify inclusion of restoration plan recommendations in contract specifications for pond decommissioning.</p>	<p>Prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Hydrology (cont.)</b>						
<ul style="list-style-type: none"> <li>Regular inspection of the diurnal equalization and emergency storage facilities in coordination with a qualified engineer following breaching to look for evidence of erosion that appears to be associated with restoration of Ponds 1 and 2. If inspections identify excessive erosion, develop and implement a plan to protect the diurnal equalization and emergency storage facilities.</li> <li>Restoration designs that reflect recommendations made by a qualified engineer.</li> </ul>						
<p><b>Mitigation Measure HYD-3c: Flood Protection Prior to Levee Breaching.</b></p> <p>The City of Sunnyvale shall not breach levees to restore Ponds 1 and 2 until adequate flood protection is provided for the landward uses that could be affected by such breaching, as determined in the assessment of effects to the surrounding floodplain included in the Restoration Plan for Ponds 1 and 2.</p>	<p>City to verify adequate flood protection is provided</p> <p>City shall not breach levees around Pond 1 and 2 until completion of this measure</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify flood protection is adequate to protect landward uses</p>	<p>Prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<b>Water Quality</b>						
<p><b>Mitigation Measure WQ-4: Water Quality Evaluation and Control Plan for Oxidation Pond Breaching and Restoration.</b></p> <p>During design of oxidation pond breaching and/or restoration, the City, in coordination with other agencies directly involved in planning and implementing of restoration activities, shall require preparation of a water quality evaluation for the proposed levee breach and associated pond restoration activities. The water quality evaluation shall evaluate anticipated construction activities, including disturbance and potential mobilization of pond sediments, and anticipated changes to pond area and nearby hydrodynamics, and evaluate their potential to influence each of the water quality parameters discussed in this analysis: temperature, salinity, DO, metals, mercury, methyl mercury, phytoplankton blooms, and nuisance algae. The water quality evaluation shall consider applicable water quality standards and goals defined in the Basin Plan, the Bay Conservation and Development Commission's Bay Plan Policies on Water Quality, as applicable, and other applicable water quality standards. The water quality evaluation shall provide recommendations for the minimization of each category of potential water quality pollutants described above, sufficient to ensure that downstream beneficial uses would not be adversely affected, and that applicable water quality standards would not be exceeded. The City shall implement all recommendations identified in the water quality evaluation needed to preserve water quality and maintain consistency with the Basin Plan and other applicable water quality standards and requirements, and protect beneficial uses on site and downstream. The water quality evaluation shall also identify protocols and procedures for the deployment of long-term monitoring for temperature, salinity, dissolved oxygen, metals including mercury, methylmercury, phytoplankton blooms, and nuisance algae, and shall, in the event of exceedance of applicable standards established to protect beneficial use by the Regional Board, identify measures and actions as warranted to reduce pollutant emissions and protect beneficial uses using an adaptive management approach. Measures and actions warranted to reduce pollutant emissions and protect beneficial uses could include, but would not be limited to, characterization, monitoring or remediation of pond sediments, changing hydraulic residence times or manipulating other factors affecting the generation or presence of methylmercury.</p>	<p>City or its contractor(s) to prepare a water quality evaluation that adheres to the measure, in coordination with regulatory agencies</p> <p>City or its contractor(s) to implement recommendations</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review water quality evaluation for adherence to this measure</p> <p>Verify inclusion of water quality evaluation recommendations in contract specifications for pond decommissioning</p>	<p>Prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<b>Hazards and Hazardous Materials</b>						
<p><b>Mitigation Measure HAZ-2a: Hazardous Building Materials Abatement.</b></p> <p>The City shall ensure that, prior to demolition, the building is surveyed for hazardous building materials including, electrical equipment containing polychlorinated biphenyl (PCBs), fluorescent light ballasts containing PCBs or bis(2-ethylhexyl) phthalate (DEHP), and fluorescent light tubes containing mercury vapors. These materials shall be removed and properly disposed of prior to the start of demolition or renovation. Light ballasts that are proposed to be removed during renovation shall be evaluated for the presence of PCBs and in the case where the presence of PCBs in the light ballast cannot be verified, they shall be assumed to contain PCBs, and handled and disposed of as such, according to applicable laws and regulations. Any other hazardous building materials identified either before or during demolition or renovation shall be abated according to federal, state, and local laws and regulations.</p>	<p>City or contractor(s) to conduct survey for hazardous building materials</p> <p>Contractor to remove and properly dispose of materials as described</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of requirements in contract specifications</p> <p>Review survey results</p> <p>Confirm handling and disposal performed in compliance with laws and regulations</p>	<p>Prior to demolition</p> <p>During demolition</p>		



**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Hazards and Hazardous Materials (cont.)</b>						
<p><b>Mitigation Measure HAZ-2b: Health and Safety Plan.</b></p> <p>For each Master Plan improvement involving ground disturbing activities, the City or its contractor will prepare a Health and Safety Plan in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8 CCR Title 8, Section 5192). Each Plan will be based on all activities proposed as part of the specific project and include designated personnel responsible for implementation of the Plan. The City will require each contractor for each individual construction contract to implement a Plan. Each Plan will include all required measures to protect construction workers and the general public potentially exposed to hazardous materials or wastes by including engineering controls, monitoring, and security measures to prevent dangerous levels of exposure and unauthorized entry to the construction area, and to reduce hazards outside of any construction area. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations. Compliance with the Health and Safety Plan will not be construed as approval of the adequacy of the contractor's health and safety professional's qualifications or any safety measure taken in or near the construction site. The contractor will be solely and fully responsible for compliance with all laws, rules, and regulations applicable to health and safety during the performance of the construction work.</p>	<p>Contractor(s) to prepare Health and Safety Plan and incorporate Plan in construction plans</p> <p>Contractor(s) to implement Plan</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review each Health and Safety Plan</p> <p>Verify inclusion of Plan in contract specifications for each individual construction contract</p>	<p>Prior to ground disturbance</p>		
<p><b>Mitigation Measure HAZ-2c: Soil and Groundwater Management Plan.</b></p> <p>For any elements involving ground disturbing activities, the City will require the construction contractor to implement a Soil and Groundwater Management Plan, subject to review by the City that specifies the method for handling and disposal of contaminated soil and groundwater prior to demolition, excavation, and construction activities. The plan will include all necessary procedures to ensure that any excavated materials and fluids from throughout the Master Plan area generated during construction are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The plan will include the following information.</p> <ul style="list-style-type: none"> <li>• Step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for reuse and offsite disposal. All excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor shall be stockpiled separately to minimize the amount of material that may require special handling.</li> <li>• Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils.</li> <li>• Detailed control measures for use and storage of hazardous materials to prevent the release of pollutants to the environment, and emergency procedures for the containment and cleanup of accidental releases of hazardous materials to minimize the impacts of any such release. These procedures shall also include reporting requirements in the event of a reportable spill or other emergency incident. At a minimum, the City or its contractor shall notify applicable agencies in accordance with guidance from the California Office of Emergency Services as well as the Santa Clara County Environmental Health Department.</li> <li>• Procedures for containment, handling and disposal of groundwater generated from construction dewatering, the method used to analyze groundwater for hazardous materials likely to be encountered at specific locations and the appropriate treatment and/or disposal methods.</li> </ul>	<p>Contractor to prepare Soil and Groundwater Management Plan</p> <p>Contractor to implement Plan</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review Soil and Groundwater Management Plan</p> <p>Verify inclusion of Plan in contract specifications</p>	<p>Prior to ground disturbance</p>		

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Cultural Resources</b>						
<p><b>Mitigation Measure CUL-1: Assessment of Effects to Cargill Channel.</b></p> <p>Prior to implementation of the Diurnal Equalization and Emergency Storage Facilities project or other action that could affect the Cargill Channel, the City will retain a qualified historian or architectural historian to complete a specific assessment of effects of this action. If effects are found to be adverse, additional mitigation measures may be necessary, including supplemental Historic American Landscapes Survey documentation, as well as public interpretation efforts such as videotaping resources, a public outreach program, or signage at appropriate points near publically accessible viewsheds of Cargill Channel.</p>	<p>City or its contractor(s) to retain qualified historian or architectural historian</p> <p>Implement additional measures recommended in specific assessment</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of specific assessment recommendations in contract specifications for Diurnal Equalization and Emergency Storage or other action that could affect Cargill Channel</p>	<p>Prior to construction of Diurnal Equalization and Emergency Storage or other action that could affect Cargill Channel</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<p><b>Mitigation Measure CUL-2: Unanticipated Discovery of Archaeological Resources.</b></p> <p>If prehistoric or historic-period archaeological resources are encountered, all construction activities within 100 feet will halt and the City of Sunnyvale will be notified. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include deposits of metal, glass, and/or ceramic refuse. A Secretary of the Interior-qualified archaeologist will inspect the findings within 24 hours of discovery. If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation will be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist will prepare and implement a detailed treatment plan in consultation with City of Sunnyvale and, for prehistoric resources, the appropriate Native American representative. Treatment of unique archaeological resources will follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan will include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.</p>	<p>City or Contractor to retain cultural resources expert to conduct preconstruction worker environmental awareness training on recognition of archaeological resources</p> <p>Contractor to notify City of Sunnyvale if resources encountered</p> <p>Secretary of the Interior-qualified archaeologist will inspect the findings within 24 hours of discovery</p> <p>Archaeologist, City, and contractor to implement mitigation as determined by archaeologist</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of requirements in contract specifications</p>	<p>Prior to ground disturbance</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<p><b>Mitigation Measure CUL-3: Unanticipated Discovery of Paleontological Resources.</b></p> <p>If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified paleontologist can assess the nature and importance of the find and, if necessary, develop appropriate treatment measures in conformance with Society of Vertebrate Paleontology standards, and in consultation with the City of Sunnyvale.</p>	<p>City or Contractor to retain cultural resources expert to conduct preconstruction worker environmental awareness training on recognition of archaeological resources</p> <p>Contractor to notify City of Sunnyvale if resources encountered</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of requirements in contract specifications</p>	<p>Prior to ground disturbance</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	
<p><b>Mitigation Measure CUL-4: Unanticipated Discovery of Human Remains.</b></p> <p>In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find will cease until the Santa Clara County Coroner has been contacted to determine that no investigation of the cause of death is required. The NAHC will be contacted within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the City of Sunnyvale for the appropriate means of treating the human remains and any grave goods.</p>	<p>Contractor(s) shall monitor worker activities</p> <p>Contractor(s) shall halt work and notify the County Coroner, if necessary. If appropriate, Coroner shall notify NAHC. NAHC shall notify Most Likely Descendant (MLD).</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of requirements in contract specifications</p>	<p>Prior to ground disturbance</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>	

**TABLE 1 (Continued)**  
**MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL AND MITIGATION MONITORING PROGRAM**

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance	City Notes on Implementation
<b>Aesthetics</b>						
<p><b>Mitigation Measure AES-1: Levee Plantings and Visual Screening.</b></p> <p>The design of the access road and levee will include landscape plantings. Planting design will retain safety, structural integrity, and functionality of the access road and levee, and accessibility for maintenance, inspection, monitoring, and flood control. Design of the landscape plantings and vegetation management program will be coordinated with a civil engineer and landscape architect, along with the City of Sunnyvale, to ensure that landscaping and maintenance practices chosen are ecologically compatible, feasible, and compatible with flood damage protection. The levee planting plans chosen for implementation will be certified by a registered professional engineer to ensure reliable operation and maintenance of the access road and levee and reviewed by a qualified biologist to ensure compatibility of the plants with the existing plant mosaic.</p> <p>The Master Plan will also include fencing around the proposed equalization tanks and pump station. The fencing will be of sufficient height to block views of these facilities (i.e., six to eight feet above grade) and include aesthetic treatment to make the structure less visually obtrusive and blend in with the surrounding background. Possible aesthetic treatment can include architectural features such as color application, surface texture and pattern treatment.</p>	<p>Contractor to include landscape plantings in access road design, in coordination with the City and a registered professional engineer</p> <p>Contractor to include fencing in design that adheres to measure</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of planting design and fencing requirements in contract specifications.</p>	<p>Prior to construction of access road and levee improvements</p>		
<b>Growth Inducement Potential and Secondary Effect of Growth</b>						
<p><b>Mitigation Measure GI-1: Update Projections.</b></p> <p>Prior to implementation of Stage 2 of the conventional activated sludge and Stage 2 of solids thickening and dewatering facilities and processes, Stage 2 of the MBR facilities and Stage 2 of WPF solids thickening and dewatering facilities, or construction of a fifth digester, the City will initiate a new investigation of flows and loads capacity requirements to ensure that these facilities are appropriately sized to accommodate projected capacity needs consistent with (then) adopted plans and policies. Upon completion of construction of the above-noted facilities, the City will require that CEQA documents on development projects evaluate nitrogen deposition impacts on serpentine habitat and associated special-status species, and mitigate significant project-specific and cumulative impacts to less-than-significant levels. The analysis requirements and specific mitigation strategy(ies) will depend on the environmental setting at the time the Master Plan or WPF improvements are implemented, characteristics of the proposed development, and its relative contribution to the significant impact.</p>	<p>City to conduct and approve updated flows and loads investigation</p> <p>City Department of Community Development to review and apply this measure for development projects upon completion of Stage 2 of the conventional activated sludge and Stage 2 of solids thickening and dewatering facilities and processes, Stage 2 of the MBR facilities and Stage 2 of WPF solids thickening and dewatering facilities, or construction of a fifth digester.</p>	<p>Environmental Services Department (flows and loads investigation)</p> <p>Planning Officer (CEQA protocols)</p>	<p>Verify with other City departments</p>	<p>Concurrent with and subsequent to construction of Stage 2 of conventional activated sludge or MBR facilities, Stage 2 of solids thickening and dewatering facilities; or a fifth digester.</p>		