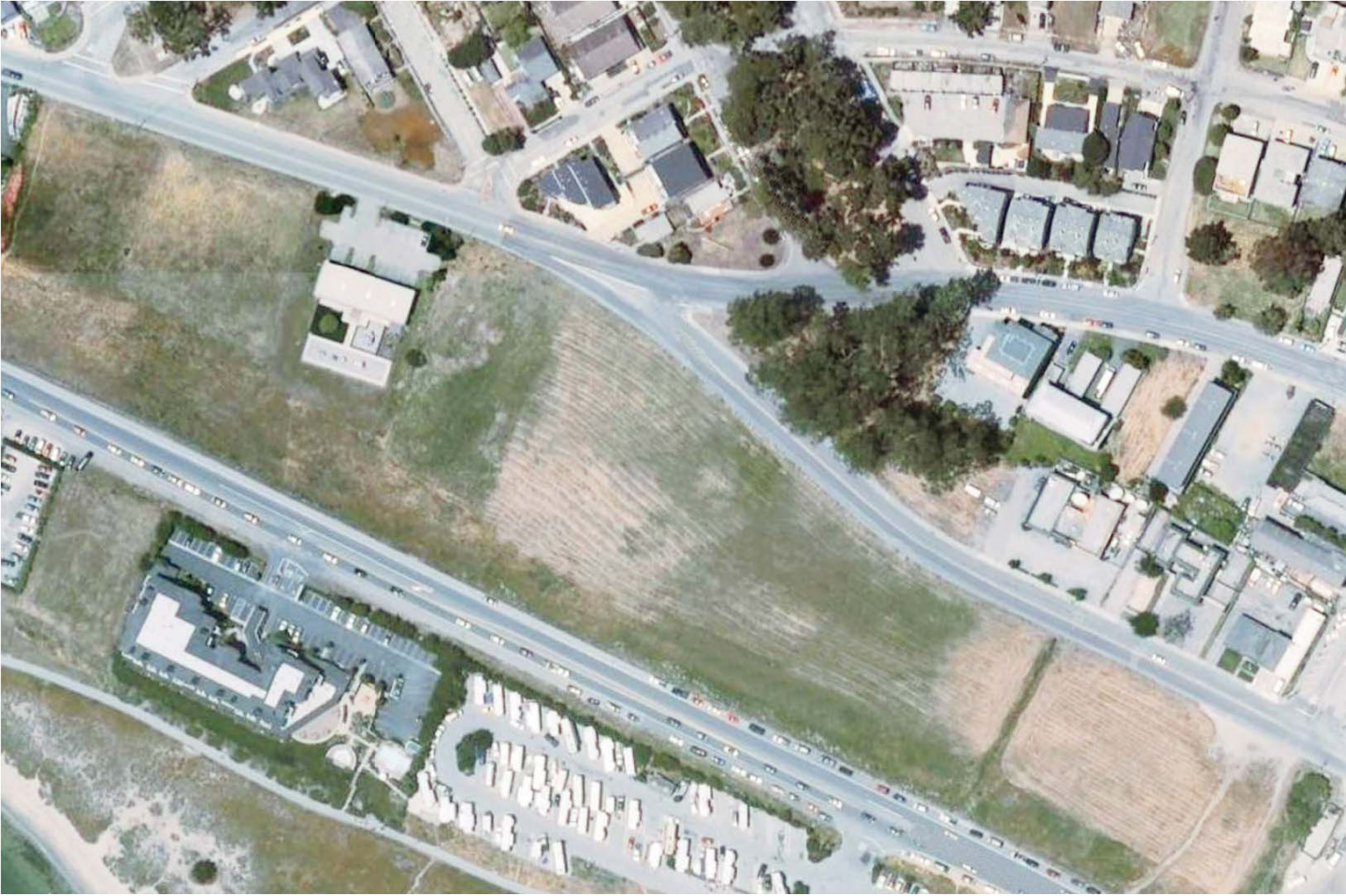


# SAM WET WEATHER FLOW MANAGEMENT PROJECT

Mitigation Monitoring and Reporting Program

Prepared for  
Sewer Authority Mid-Coastside

March 2009





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# MITIGATION MONITORING AND REPORTING PROGRAM

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This document summarizes the mitigation measures that would be integrated into the proposed project to reduce the potentially significant impacts to a less-than-significant level. Also provided is a Mitigation Monitoring and Reporting Program (MMRP) organized in a tabular format, keyed to each mitigation measure incorporated into the project. The tables following each measure provide a breakdown of how the mitigation measure would be implemented, who would be responsible, and when it would occur. The tables consist of four column headings which are defined as follows:

- *Implementation Procedure:* If needed, this column provides additional information on how the mitigation measures would be implemented.
- *Monitoring and Reporting Actions:* This column contains an outline of the appropriate steps to verify compliance with the mitigation measure.
- *Monitoring Responsibility:* This column contains an assignment of responsibility for the monitoring and reporting tasks.
- *Monitoring Schedule:* The general schedule for conducting each monitoring and reporting task, identifying where appropriate both the timing and the frequency of the action.

## Air Quality

### ***Mitigation Measure AIR-1a***

During construction activities, SAM shall require the construction contractor(s) to implement a dust abatement program that includes, but is not necessarily limited to, the following BAAQMD-recommended measures as needed to control dust:

- Water all active construction areas at least twice daily;
- Cover all trucks hauling soil, sand, and other loose materials *or* require all trucks to maintain at least two feet of freeboard;
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites;

- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more);
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.);
- Limit traffic speeds on unpaved roads to 15 mph;
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways; and
- Replant vegetation in disturbed areas as quickly as possible.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM includes dust abatement requirements in construction specifications.	1. SAM reviews dust abatement program.	1. SAM	1. Prior to construction
2. Contractor implements measures in the program.	2. SAM documents that measures are being implemented.	2. SAM	2. During construction and final inspection

**Mitigation Measure AIR-1b**

During construction activities, SAM shall ensure that the construction contractor(s) implement the following measures:

- On-road construction vehicle idling time shall not exceed five minutes. Additionally, off-road equipment engines shall not idle for longer than five minutes per Section 2449(d)(3) of Title 13, Article 4.8, Chapter 9 of the California Code of Regulations.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM includes vehicle idling requirements in construction specifications.	1. SAM reviews contract.	1. SAM	1. Prior to construction
2. Contractor implements measures in the program.	2. SAM documents that measures are being implemented.	2. SAM	2. During construction and final inspection

## Biological Resources

### ***Mitigation Measure BIO-1a***

SAM will implement the following measures:

- Prior to the start of all project construction activities, a worker education program shall be presented at the project site by a biologist familiar with the species. Associated written material, including a California red-legged frog and San Francisco garter snake species identification card, shall be distributed. It shall be the onsite foreman's responsibility to ensure that all construction personnel and subcontractors receive a copy of the education program. The education program shall include a description of the California red-legged frog and San Francisco garter snake specific to the project, and the work boundaries of the project;
- A pre-construction survey for the California red-legged frog shall be conducted between two and four weeks prior to initiation of any ground disturbance activities in the project site, including the staging area. At a minimum, two surveys of the project site shall be conducted. All amphibians observed shall be recorded or reported as "unidentified" if positive identification is not possible. If no red-legged frogs are observed, a letter report shall be submitted to the County of San Mateo. If red-legged frogs are observed, they will be photographed, if possible, and their locations mapped relative to the project site. A letter report shall be submitted to the County of San Mateo and all other regulatory agencies, two weeks prior to the start date of construction, with a request to U.S. Fish and Wildlife Service (USFWS) for guidance;
- At least two weeks prior to any construction activities, exclusion silt fencing will be installed (1) for the drainage ditches south of the project site, between the top of banks and the project work area, and (2) surrounding the staging area in the southeast portion of the grassy strip. This fencing will help prevent California red-legged frogs and San Francisco garter snakes from moving into the project work area. The fence will be constructed of geotextile (silt fence) fabric, with a minimum of 3.5-inch overlap between panels. Panels are to be attached to wooden or metal fence posts at the overlap, sunken a minimum of six inches below grade, and with at least three wire attachment points on each post;
- A qualified biologist shall remain onsite to observe all construction activities within 100 feet of the drainage ditch, to ensure that there is no "take" of special-status species during construction activities, and to verify that the practices of clean-up and site restoration are completed in a manner that will avoid significant impacts to these species;
- Any open trench construction with a depth of two feet or greater shall be covered before the end of construction activities each day. If this is not feasible, trenches may be equipped with ramps to allow any animals that may become entrapped in the trench to escape overnight. The ramps shall be constructed of dirt fill, wood planking, or other suitable materials placed at an angle of no greater than 30 degrees. These trenches will be inspected prior to the start of work each day. Any native wildlife entrapped shall be released in nearby habitat;
- Use of plastic monofilament netting shall be avoided for erosion control or other purposes to prevent California red-legged frogs or San Francisco garter snakes becoming entangled in the netting; and
- During work activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from the work areas.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM shall contract with a qualified biologist to conduct a worker education program.	1. SAM executes contract.	1. Onsite foreman, SAM	1. No more than 2 weeks prior to construction, and prior to the removal of any vegetation
2. SAM shall contract with a qualified biologist to conduct a pre-construction survey for California red-legged frog.	2. SAM executes contract.	2. Qualified biologist, SAM	2. Between two and four weeks prior to construction, and prior to the removal of any vegetation
3. SAM shall include in the contractor specifications, installation of exclusion fencing for the drainage ditch on the project site and the drainage ditch south of the site.	3. SAM executes contract.	3. SAM	3. Prior to construction
4. SAM shall contract with a qualified biologist to remain onsite to observe construction activities within 100 feet of the drainage ditch.	4. SAM executes contract.	4. Qualified biologist, SAM	4. During construction
5. SAM shall include in the contractor specifications, that any open trench with a depth of two feet or greater should be covered before the end of construction activities each day.	5. SAM executes contract.	5. SAM	5. During construction
6. SAM shall include in the contractor specifications that use of plastic monofilament netting should be avoided for erosion control to prevent any species becoming entangled.	6. SAM executes contract.	6. SAM	6. During construction
7. SAM shall include in the contractor specifications that all trash be properly contained, removed from work site, and disposed off regularly and all trash and construction debris be removed from work areas.	7. SAM executes contract.	7. SAM	7. During and following construction

### **Mitigation Measure BIO-1b**

To the extent practicable, construction activities shall be performed or vegetation shall be removed from September through February to avoid the general nesting period for birds. If construction or vegetation removal cannot be performed during this period, pre-construction surveys shall be performed by a qualified biologist (hired by SAM) no more than 14 days prior to construction activities to locate any active nests prior to the start of construction. If active nests are observed, buffer zones shall be established around trees/shrubs with nests, with a buffer size

established by the qualified biologist through consultation with the California Department of Fish and Game (CDFG). Buffered zones shall be avoided during construction activities until young have fledged or the nest is otherwise abandoned.

<b>Implementation Procedure</b>	<b>Monitoring and Reporting Actions</b>	<b>Monitoring Responsibility</b>	<b>Monitoring Schedule</b>
1. SAM shall contract with a qualified biologist to conduct a pre-construction survey if during the nesting season.	1. SAM executes contract.	1. SAM	1. No more than 14 days prior to construction
2. SAM shall include potential work limitations in construction specifications.	2. SAM reviews construction specifications.	2. SAM	2. Prior to construction
3. If nesting raptors are found biologist shall identify appropriate actions to avoid effects.	3. Sign-off by SAM that measures are being implemented.	3. SAM	3. During construction

### ***Mitigation Measure BIO-2a***

No equipment, personnel, or ground disturbance shall occur below the top of bank of the two erosion ditches or within the riparian area of the southern drainage ditch, including truck and equipment traffic that goes between the staging and work areas. Erosion control measures, such as silt fencing or properly staked straw wattles, shall be installed between the work area and the top of bank of the ditch immediately south of the storage pipes and ancillary facilities, as well as surrounding the staging area, to ensure that sediment and other debris do not enter the ditches.<sup>1</sup>

<b>Implementation Procedure</b>	<b>Monitoring and Reporting Actions</b>	<b>Monitoring Responsibility</b>	<b>Monitoring Schedule</b>
1. SAM shall obtain required permits and include work limitations such as exclusionary fencing in construction specifications.	1. SAM reviews construction specifications.	1. SAM	1. Prior to construction
2. Contractor shall implement required measures including fencing.	2. Periodic inspections during construction along the drainage ditch. Sign-off by SAM that measures are being implemented.	2. SAM	2. During construction

<sup>1</sup> This fencing requirement may be satisfied by the biological fencing required by Mitigation Measure BIO-1a.

**Mitigation Measure BIO-2b**

To reduce runoff and soil erosion into the drainage ditches, all disturbed areas shall be hydroseeded as soon as possible after construction activities are complete. Revegetation will be conducted according to general restoration methods, such as preparation of soil conditions, use of native plants, plant protection, irrigation or watering by a water truck, and control of aggressive non-native species. Revegetation will be completed either through a seed mixture and mulch using broadcast methods, or hydroseed.

<b>Implementation Procedure</b>	<b>Monitoring and Reporting Actions</b>	<b>Monitoring Responsibility</b>	<b>Monitoring Schedule</b>
1. Contractor shall revegetate disturbed areas after completion of construction activities.	1. SAM reviews construction specifications.	1. SAM	1. Following construction

**Mitigation Measure BIO-3**

SAM shall comply with all the conditions in the Coastal Development Permit or the waiver regarding sensitive habitats, including but not limited to the submittal of a Biological Impact Report to the County, which demonstrates that no significant impact on sensitive habitats will occur from proposed project activities. In addition, the proposed project facilities shall not extend within 30 feet of the centerline of the northernmost drainage ditch, and the staging area shall not extend within 30 feet of the riparian scrub bordering the southernmost drainage ditch.

<b>Implementation Procedure</b>	<b>Monitoring and Reporting Actions</b>	<b>Monitoring Responsibility</b>	<b>Monitoring Schedule</b>
1. SAM shall contract with a qualified biologist to submit a Biological Impact Report to the County.	1. SAM executes contract.	1. SAM	1. Prior to construction
2. SAM shall include in the contractor specifications that no ground disturbance shall occur within 30 feet of the centerline of the northern drainage, or within 30 feet of the outer edge of riparian vegetation of the southern drainage.	2. SAM reviews construction specifications.	2. SAM	2. Prior to construction

## Cultural Resources

### ***Mitigation Measure CUL-1***

Prior to construction, SAM shall retain an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology to monitor all ground-disturbing activities, including (but not limited to) brush clearance, grading, and excavation, in previously undisturbed sediments. Construction activities that will not disturb previously undisturbed sediments, such as backfilling or landscaping, need not be monitored unless the archaeological monitor determines that these activities will impact a sensitive cultural resource. The purpose of archaeological monitoring will be to provide protection against adverse impacts to significant archaeological resources. The archaeological monitor will observe ground-disturbing activities to identify, record and retain any archaeological data uncovered.

The duration and timing of monitoring shall be determined by the qualified archaeologist in consultation with SAM and based on the grading plans. Initially, all ground-disturbing activities should be monitored by a qualified archaeologist. However, if, during the course of monitoring, the archaeologist determines that the potential for uncovering buried cultural resources during project excavation is virtually nonexistent, the level of monitoring may be adjusted to circumstances as warranted.

If cultural resources are encountered, whether or not the archaeological monitor is present, all activity in the vicinity of the find shall cease until it can be evaluated by the archaeological monitor. If the archaeological monitor determines that the resources may be significant, the archaeological monitor will notify SAM and will develop an appropriate treatment plan for the resources. The archaeologist shall consult with Native American monitors or other appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature.

The archaeologist shall prepare a final report to be filed with the SAM and the California Historic Resources Information System. The report shall include a description of resources unearthed, if any, treatment of the resources, and evaluation of the resources with respect to the California Register of Historic Resources and the National Register of Historic Places. If the resources are found to be significant, a separate report including the results of the recovery and evaluation process shall be required.

<b>Implementation Procedure</b>	<b>Monitoring and Reporting Actions</b>	<b>Monitoring Responsibility</b>	<b>Monitoring Schedule</b>
1. SAM shall contract with an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology to monitor all ground-disturbing activities.	1. SAM executes contract.	1. SAM, qualified archaeologist	1. Prior to and during construction

<b>Implementation Procedure</b>	<b>Monitoring and Reporting Actions</b>	<b>Monitoring Responsibility</b>	<b>Monitoring Schedule</b>
2. SAM shall review construction specifications to ensure procedures for cultural resources discovery are included.	2. SAM reviews construction specifications.	2. SAM	2. Prior to construction
3. In the event subsurface cultural resources are discovered, construction within 50 feet of the find shall be halted and the qualified archaeologist shall be notified.	3. SAM shall notify the County of the discovery.	3. SAM	3. During construction
4. The archaeologist shall complete a final monitoring report	4. Archaeologist completes report.	4. Qualified archaeologist	4. Following construction

**Mitigation Measure CUL-2**

Due to the sensitivity of the project site for Native American resources, at least one Native American monitor shall also monitor all ground-disturbing activities at the site. Selection of monitors shall be made by agreement of the Native American groups identified by the Native American Heritage Commission as having affiliation with the project area.

<b>Implementation Procedure</b>	<b>Monitoring and Reporting Actions</b>	<b>Monitoring Responsibility</b>	<b>Monitoring Schedule</b>
1. SAM shall retain a Native American monitor to monitor all ground-disturbing activities.	1. SAM executes contract.	1. SAM, Native American Monitor	1. Prior to and during construction
2. SAM shall review construction specifications to ensure procedures for human remains discovery are included.	2. SAM reviews construction specifications.	2. SAM	2. Prior to construction
3. In the event human remains are discovered, construction in the area shall be halted and SAM shall consult the San Mateo County Coroner.	3. The contractor shall notify SAM of the discovery.	3. SAM	3. During construction

**Mitigation Measure CUL-3**

If paleontological resources are encountered during the course of construction and monitoring, the applicant shall halt or divert work and notify a qualified paleontologist who shall document the discovery as needed, evaluate the potential resource, assess the significance of the find, and develop an appropriate treatment plan in consultation with the applicant.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM shall review construction specifications to ensure procedures for discovery of paleontological resources are included.	1. SAM reviews construction specifications.	1. SAM	1. Prior to construction
2. In the event paleontological resources are discovered, construction within 50 feet of the find shall be halted and SAM shall consult a qualified paleontologist.	2. SAM shall notify the County of the discovery.	2. SAM	2. During construction

### ***Mitigation Measure CUL-4***

If human remains are encountered unexpectedly during construction excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM shall review construction specifications to ensure procedures for human remains discovery are included.	1. SAM reviews construction specifications.	1. SAM	1. Prior to construction

## **Geology and Soils**

### ***Mitigation Measure GEO-1***

SAM shall conduct a design level geotechnical investigation to identify geologic hazards and provide recommendations to mitigate those hazards in the final design of the proposed project. The geotechnical investigation report shall evaluate the potential for ground shaking, liquefaction, and landslide hazards and shall include recommendations to ensure slope stability. The investigation shall be conducted by a California registered engineer or certified engineering geologist and all recommendations made in the investigation report, including any support structures that may be required to prevent damage from potential geologic hazards, shall be incorporated into the project design specifications.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM incorporates recommendations and findings from the geotechnical report prepared for the project.	1. SAM reviews construction specifications.	1. SAM	1. Prior to construction
2. The contractor implements the recommendations.	2. SAM documents that measures are being implemented.	2. SAM	2. During construction and final inspection

## Hazards and Hazardous Materials

### ***Mitigation Measure HAZ-1a***

The construction contractor shall follow the procedures below in the event contaminated soil or groundwater is encountered (either visually or through odor detection) during excavation activities:

- Stop work in areas of contact;
- Notify the San Francisco Bay Regional Water Quality Control Board and the California Department of Toxic Substances Control;
- Contain the areas of contamination;
- Perform appropriate clean up procedures; and
- Segregate, profile, and dispose of all contaminated soil. Required disposal method shall depend on the type and concentration of contamination identified. Any site investigation or remediation shall be performed in accordance with applicable regulations.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM includes procedures in the event that contaminated soils are identified in construction specifications.	1. SAM reviews construction specifications.	1. SAM	1. Prior to construction
2. Contractor implements measures in the program.	2. SAM documents that measures are being implemented.	2. SAM	2. During construction

### ***Mitigation Measure HAZ-1b***

SAM shall require the contractor to use best management practices (BMPs) that will minimize the potential adverse effect of the project to groundwater and soils from chemicals used during construction activities. The BMPs shall include the following measures:

- Follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction;
- Avoid overtopping construction equipment fuel gas tanks;
- During routine maintenance of construction equipment, properly contain and remove grease and oils; and
- Properly dispose of discarded containers of fuels and other chemicals.

<b>Implementation Procedure</b>	<b>Monitoring and Reporting Actions</b>	<b>Monitoring Responsibility</b>	<b>Monitoring Schedule</b>
1. SAM incorporates requirements in construction specifications.	1. SAM reviews construction specifications.	1. SAM	1. Prior to construction
2. Contractor implements measures in the program.	2. SAM documents that measures are being implemented.	2. SAM	2. During construction

### ***Mitigation Measure HAZ-2***

Prior to the commencement of construction activities, SAM shall require the construction contractor(s) to notify nearby schools and residents of the proposed construction schedule, the potential for hazardous material leakage, and proper safety procedures in the event of such a leakage.

<b>Implementation Procedure</b>	<b>Monitoring and Reporting Actions</b>	<b>Monitoring Responsibility</b>	<b>Monitoring Schedule</b>
1. SAM incorporates notification requirements in construction specifications.	1. SAM reviews construction specifications.	1. SAM	1. Prior to construction
2. Contractor implements measures in the program.	2. SAM documents that measures are being implemented.	2. SAM	2. During construction

## **Hydrology and Water Quality**

### ***Mitigation Measure HYD-1***

SAM shall comply with the NPDES permit requirements by the RWQCB for dewatering activities as follows:

- The RWQCB could require compliance with certain provisions in the permit such as treatment of the flows prior to discharge. The groundwater removed by dewatering would be discharged to the sanitary sewer or storm drain system with authorization of and required permits from the applicable regulatory agencies; and

- SAM shall comply with applicable permit conditions associated with the treatment of groundwater prior to discharge.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM shall incorporate the NPDES permit requirements for dewatering in construction specifications.	1. SAM reviews construction specifications.	1. SAM	1. Prior to construction
2. Contractor implements the required measures for dewatering.	2. SAM documents that appropriate measures are being implemented during construction.	2. SAM	2. During construction

## Noise

### ***Mitigation Measure NOI-1***

SAM shall require the construction contractor(s) to implement the following construction noise measures:

- Construction equipment shall have sound-control devices no less effective than those provided on the original equipment. No equipment shall have an un-muffled exhaust.
- Prior to the commencement of construction activities, nearby residences and the adjacent preschool shall be notified of the proposed construction schedule and when high noise producing activities are anticipated to occur. In addition, the administration of the preschool shall be consulted regarding the proposed construction schedule and procedures.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM incorporates the noise control measures and requirements in construction specifications.	1. SAM reviews construction specifications.	1. SAM	1. Prior to construction
2. The contractor implements measures.	2. SAM documents that measures are being implemented.	2. SAM	2. During construction

## Traffic and Transportation

### ***Mitigation Measure TRA-1***

SAM shall require the construction contractor(s) to implement either of the following measures (depending upon the location of the 15-inch pipeline in Obispo Road):

- Provide public notification to non-emergency vehicles seven days in advance of the closure of Obispo Road, install signs to direct non-emergency vehicles on the detour route on Avenue Alhambra and Avenue Portola, and maintain a minimum 12-foot pavement width clear of open trench, excavated material, pipe, and equipment on Obispo Road for emergency vehicles.
- If the location of the proposed storm drain pipe makes it possible to do so, install traffic cones and signs to direct traffic on a minimum 12-foot pavement width, using flaggers to manage alternate one-way traffic flow past the construction zone.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM notifies the closure of Obispo Road to non-emergency vehicles.	1. SAM records notification.	1. SAM	1. Prior to construction (7 days prior to road closure)
2. SAM installs signs to direct non-emergency vehicles.	2. SAM documents that measures are being implemented.	2. SAM	2. During construction
3. SAM maintains a minimum 12-foot pavement width clearance	3. SAM documents that clearance was maintained	3. SAM	3. During construction
4. SAM installs traffic cones and signs to direct traffic	4. SAM documents that measures are being implemented	4. SAM	4. During construction

## Mandatory Findings of Significance

### *Mitigation Measure CUMU-1*

SAM will coordinate with or notify the local agencies (e.g., San Mateo County, Caltrans) concerning construction schedule, as required and implement measures such as scheduling project traffic during construction to minimize any construction-related cumulative impacts.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. SAM coordinates with or notifies other local agencies concerning issues such as scheduling project traffic during construction	1. SAM documents that measures are being implemented	1. SAM	1. Prior to construction