

Attachment 2

Mitigation Monitoring and Reporting Program



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County of Santa Cruz

PLANNING DEPARTMENT

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MITIGATION MONITORING AND REPORTING PROGRAM for Arana Sewer Trunk Line Replacement Project

No.	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
BIOLOGICAL RESOURCES				
BIO-1	<p>Every individual working on the Project must attend biological awareness training prior to working on the job site. The training shall be delivered by a qualified biologist and shall include at minimum information regarding the following:</p> <ol style="list-style-type: none"> a. Location and identification of sensitive habitats and all special-status species with potential to occur in the project area including information specific to identifying special-status amphibians, San Francisco dusky-footed woodrat, protected fish, the habitat for these species, and the project specific measures being implemented to protect these species. b. The importance of avoiding impacts to special-status species and their habitat, and the steps necessary if any special-status species is encountered at any time. c. Identification of the limits of work, and project-specific avoidance measures and permit conditions that must be followed. 	Santa Cruz County Sanitation District	Designated County staff to conduct training or hire qualified biologist to conduct training as specified in measure.	Prior construction mobilization and ground disturbance.
BIO-2	Disturbance of riparian vegetation and removal of native trees within the riparian corridor shall be avoided to the maximum extent possible.	Santa Cruz County Sanitation District	Construction disturbance areas to be demarcated and construction access developed to avoid trees as set forth in BIO-4.	Prior construction mobilization and ground disturbance.
BIO-3	Native vegetation that cannot be avoided shall be cut at ground level rather than removed by the roots when possible.	Santa Cruz County Sanitation District	Include measure as a requirement in the project Special Provisions.	Prior to release of construction plans for construction bids for inclusion in construction bid package.
BIO-4	<p>Prior to commencement of construction, high visibility fencing and/or flagging shall be installed, with the assistance of a qualified biologist, to indicate the limits of work and the boundaries of sensitive- habitat areas to be avoided.</p> <ol style="list-style-type: none"> a. The limits of work shall be designated to avoid impacts to the surrounding riparian corridor, and other sensitive habitats to the maximum extent possible and maximize native tree and shrub retention. b. Native trees intended for retention shall be protected at or outside the dripline. c. No work-related activity including equipment staging, vehicular access, grading and/or 	Santa Cruz County Sanitation District	<p>Include measure as a requirement in the project Special Provisions.</p> <p>Designated County staff to conduct training or hire qualified biologist to conduct</p>	Prior construction mobilization and ground disturbance.

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	vegetation removal shall be allowed outside the designated limits of work.		training as specified in measure.	
BIO-5	Erosion and sediment control measures must be in place, and best management practices adhered to, during construction. All disturbed soils shall be stabilized to prevent siltation and reduce sediment and chemical-laden runoff into any drainages or water courses within the project vicinity.	Santa Cruz County Sanitation District	Include measure as a requirement in the project Special Provisions. Compliance with required Stormwater Pollution Prevention Plan (SWPPP).	Prior construction mobilization and ground disturbance.
BIO-6	All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 feet from aquatic or riparian habitat and not in a location from where a spill would drain directly toward aquatic habitat. A spill response plan shall be in place for such event.	Santa Cruz County Sanitation District	Include measure as a requirement in the project Special Provisions. Compliance with required Stormwater Pollution Prevention Plan (SWPPP).	Prior construction mobilization and ground disturbance.
BIO-7	If any special-status species is identified in the project impact area at any time prior to or during construction, work shall cease immediately in the vicinity of the individual. The animal shall either be allowed to move out of harm's way on its own or a qualified biologist shall move the animal out of harm's way to a safe relocation site pursuant to all species-specific restrictions and regulations	Santa Cruz County Sanitation District	Include measure as a requirement in the project Special Provisions. Contractor to contact designated County staff to report and to determine if further actions are necessary.	During construction
BIO-8	During initial clearing, grubbing, and grading within the riparian corridor, a qualified biologist shall be present to conduct daily monitoring activities to ensure protection of special status species that may be encountered and compliance with mitigation measures. After initial clearing, grubbing and grading has been completed, an alternate construction monitor may be trained and designated for execution of daily monitoring activities	Santa Cruz County Sanitation District	Designated County staff to conduct training or hire qualified biologist to conduct training as specified in measure.	During site preparation and vegetation clearing.
BIO-9	Daily monitoring by the project biologist or agency-approved construction monitor shall occur for the duration of project construction within the Riparian Corridor of Arana Gulch and all other areas identified as "sensitive habitat" in the study area. Daily monitoring activities shall include the following at minimum: a. Monitoring the work area for the presence of special-status species and ensuring that individuals are properly relocated out of harm's way as needed. b. Monitoring the exclusionary fences at the project site to ensure good working condition and prevent wildlife entrapment.	Santa Cruz County Sanitation District	Designated County staff to conduct training or hire qualified biologist to conduct training as specified in measure.	During construction in sensitive riparian and wetland habitat areas as shown on Biological Resource Assessment maps.

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	<ul style="list-style-type: none"> c. Checking under all equipment for wildlife before use. d. Ensuring that at the end of each workday, all excavations shall be secured with a cover, or a ramp installed to prevent wildlife entrapment. e. All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. 			
BIO-10	<p>During project 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 will be removed from work areas.</p>	Santa Cruz County Sanitation District	Include measure as a requirement in the project Special Provisions.	Prior to release of construction plans for construction bids for inclusion in construction bid package.
BIO-11	<p>To protect San Francisco dusky-footed woodrat, a qualified biologist shall implement the following protection measures:</p> <ul style="list-style-type: none"> a. Within two weeks prior to commencement of development activities (including clearing and grubbing) a qualified biologist shall survey the project disturbance area to identify any woodrat nest locations that may be affected by the proposed development. All woodrat nests within the construction impact area and a 25-foot buffer shall be clearly flagged. b. If no woodrat nests are found during the survey, no further avoidance and minimization measures for this species are necessary. c. If woodrat nests are found, the construction contractor shall avoid the nests to the extent feasible by installing a 25-foot buffer with protective fencing or other material that shall prohibit encroachment. A reduction in the size of this buffer, or encroachment into this buffer, may be allowed if the biologist determines that microhabitat conditions such as shade, cover and adjacent food sources can be retained. d. If avoidance of woodrat nests is not possible, a qualified biologist shall develop and implement a Woodrat Relocation Plan to be implemented prior to the commencement of construction. The plan shall be developed in consultation with CDFW and shall include the following: <ul style="list-style-type: none"> i. Trapping and relocation activities shall be conducted during the months of August – September when the species is active and young are able to disperse on their own. Trapping efforts shall not take place during low night temperatures (below 40 degrees Fahrenheit), inclement or extreme weather conditions. ii. If no San Francisco dusky-footed woodrats are captured at a given nest, it shall be dismantled by hand to ground level, and the woody debris spread to reduce rebuilding. iii. For occupied nests, the existing woodrat nest shall be dismantled and the woody debris, including cached food and nesting material, carried to the nearest suitable relocation site outside the project footprint and used to build an artificial shelter. iv. Sites for artificial shelters shall be located as near as possible to the original nest location and no closer than 20 feet from existing woodrat nests and other artificial 	Santa Cruz County Sanitation District	Designated County staff hire qualified biologist to conduct training as specified in measure.	Prior construction mobilization and ground disturbance.

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	<p>shelters. Choose the best available microhabitat, ideally in a location with sun and shade and if possible under the same species of tree or shrub as was present at the original nest location. Relocation sites shall contain biologically-suitable habitat features (e.g. stands of poison oak, coast live oaks, and dense native brush).</p> <p>v. When releasing woodrats, the occupied live-trap shall be placed against the entrance to the artificial shelter, opened, and the woodrat allowed to enter, ideally on its own accord. After the individual enters, the entrance shall be loosely but completely plugged with dirt and leaf duff to encourage it to stay, at least for the short-term.</p> <p>vi. If occupied nests were relocated, monitoring shall be conducted for 30 days after relocation is completed and include infrared and motion activated cameras, or other monitoring methods approved by CDFW, and an occupancy assessment. A report on San Francisco dusky-footed woodrat nest monitoring shall be provided to CDFW and County Environmental Planning within 30 days following the end of the monitoring period and shall include the methods and results of trapping and relocation, occupancy determinations, monitoring methods, and discussion of any remedies that may be needed.</p>			
BIO-12	<p>To avoid/minimize impacts to nesting birds the following measures shall be adhered:</p> <p>a. If removal of vegetation, grading activity, or other use of heavy equipment begins outside of the February 1 to August 31 breeding season, there will be no need to conduct a preconstruction survey for active nests.</p> <p>b. Trees intended for removal shall be removed during the period of September 1st through January 31st, in order to avoid the nesting season.</p> <p>c. If removal of vegetation, grading activity, or other use of heavy equipment is to commence between February 1st and August 31st, a survey for active bird nests shall be conducted by a qualified biologist within two weeks prior to the start of such activity. The survey area shall include the project area, and a survey radius around the project area of 50 feet for MBTA birds and 250 feet for birds of prey.</p> <p>d. If no active nest of a bird of prey or MBTA bird is found, then no further avoidance and minimization measures are necessary.</p> <p>e. If active nest(s) of MBTA birds or birds of prey are found in the survey area, the following avoidance buffers shall be adhered to unless otherwise advised by CDFW or USFWS: Avoidance buffer of 50 feet for MBTA birds and 250 feet for birds of prey shall be established around the active nest(s). The biologist shall monitor the nest and advise the applicant when all young have fledged the nest. Removal of vegetation, grading activity, or other use of heavy equipment may begin after fledging is complete.</p> <p>f. If the biologist determines that a smaller avoidance buffer will provide adequate protection for nesting birds, a proposal for alternative avoidance/protective measures, potentially including a smaller avoidance buffer and construction monitoring, may be submitted to USFWS and CDFW for review and approval prior to removal of vegetation, grading activity, or other use of heavy equipment.</p> <p>g. If removal of vegetation, grading activity, or other use of heavy equipment stops for more</p>	Santa Cruz County Sanitation District	Designated County staff to hire qualified biologist to conduct pre-construction nesting survey.	If vegetation clearing and/or tree removal/trimming is initiated between February 1 and August 31.

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	than two weeks during the nesting season (February 1st - August 31st) a new survey shall be conducted prior to re-commencement of construction.			
BIO-13	<p>To avoid/minimize impacts to special-status bats the following measures shall be adhered to:</p> <ol style="list-style-type: none"> a. Conduct limbing/tree removal operations between September 15 and November 1 to avoid bat maternity roosts and winter hibernacula. b. Prior to commencement of construction related activities including tree trimming and removal, a qualified biologist shall conduct a pre-construction survey for bats as follows: <ol style="list-style-type: none"> i. The biologist shall determine if bats are utilizing the site for roosting. For any trees/snags/buildings that could provide roosting space for cavity or foliage-roosting bats, potential bat roost features shall be thoroughly evaluated to determine if bats are present. Visual inspection and/or acoustic surveys shall be utilized as initial techniques. ii. If roosting bats are found, the biologist shall develop and implement acceptable passive exclusion methods in coordination with or based on CDFW recommendations. If feasible, exclusion shall take place during the appropriate windows (September 15 and November 1) to avoid harming bat maternity roosts and/or winter hibernacula. (Authorization from CDFW is required to evict winter hibernacula for bats). iii. If established maternity colonies are found, in coordination with CDFW, a buffer shall be established around the colony to protect pre-volant young from construction disturbances until the young can fly; or implement other measures acceptable to CDFW. iv. If a tree is determined not to be an active roost site for roosting bats, it may be immediately limbed or removed as follows: <ul style="list-style-type: none"> ▪ If foliage roosting bats are determined to be present, limbs shall be lowered, inspected for bats by a bat biologist, and chipped immediately or moved to a dump site. ▪ Alternately, limbs may be lowered and left on the ground until the following day, when they can be chipped or moved to a dump site. No logs or tree sections shall be dropped on downed limbs or limb piles that have not been in place since the previous day. 	Santa Cruz County Sanitation District	Designated County staff to hire qualified biologist to conduct bat survey.	If vegetation clearing and/or tree removal/trimming is initiated between November 1 and September 15.
BIO-14	<p>To compensate for disturbance of sensitive habitats, and to comply with the Santa Cruz County General Plan Policy 5.1.12, restoration of degraded sensitive habitat shall be required in-kind at a minimum restoration to impact ratio of 1:1. A site-specific Habitat Restoration Plan shall be developed by a qualified biologist or restoration professional, and shall include the following minimum elements:</p> <ol style="list-style-type: none"> a. Identification of areas on site where temporary disturbance and re-establishment of native habitat shall occur. All areas temporarily disturbed as a result of the project shall be restored to pre-project contours to the maximum extent possible and re-vegetated with native plant species appropriate to the habitat disturbed. 	Santa Cruz County Sanitation District	Designated County staff to hire qualified professional to prepare plan and oversee implementation of plan as specified in the plan.	Prior to construction for preparation of plan and within 9 months after completion of construction for implementation of the plan.

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	<ul style="list-style-type: none"> b. A tree inventory assessment including the species, size, and locations of all trees intended for removal. c. All native trees removed shall be replaced in-kind at a minimum 1:1 ratio. Non-native trees removed shall be replaced at a minimum 1:1 ratio by native tree species appropriate to the surrounding habitat. d. A site-specific planting plan intended to inform the re-vegetation efforts. Local plant stock shall be used whenever possible. The plant pallet should include native species common to the surrounding native habitats that are being restored. <ul style="list-style-type: none"> 1. Species, size, and locations of all restoration plantings shall be included in the planting plan. 2. Native replacement plantings shall occur at sizes and ratios determined by the restoration specialist to adequately restore native habitat while maximizing plant health and survivability of individual trees and shrubs. 3. In areas designated for emergent wetland or seasonal wetland restoration, wetland plantings of native hydrophytic plant species and native erosion seed mix specific to wetlands shall be installed. e. The enhancement objectives, type, and amount of revegetation to be implemented, and the specific methods to be employed for revegetation. f. Information regarding the methods of irrigation for restoration plantings. g. Plan for removal of non-native species and a management strategy to control re-establishment of invasive non-native species within the project impact area. This plan should include identification of areas adjacent to the project impact area where rehabilitation activities such as invasive plant removal may occur to reduce long-term h. A 5-year management plan for maintenance and monitoring of restored areas to maintain 100% survival of installed container stock in year 1, 90% survival in years 2-3, and at least 80% survival in years 4-5. <ul style="list-style-type: none"> 1. The management plan should include success criteria and monitoring requirements to ensure restoration success, including remedial measures to be implemented in the event that performance standards are not achieved. 2. Replacement plants shall be installed as needed during the monitoring period to meet survival rates. 3. Annual habitat monitoring reports shall be submitted to the County Planning Department by December 31 of each monitoring year. i. The project proponent shall be responsible for execution of the 5-year management plan for maintenance and monitoring of restored areas. If responsibility is transferred legally to another entity, County Environmental Planning Staff shall be informed of any such transfer of responsibility. j. Establishment and planting of all restoration and mitigation area(s) as outlined in the final approved Restoration Planting Plan shall be inspected and approved by Environmental Planning staff prior to final project approval. 			

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NOISE				
NOI-1	Limit construction activity to between the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, 9:00 a.m. to 5:00 p.m. Saturday in order to avoid noise during more sensitive nighttime hours. Prohibit construction activity on Sundays.	Santa Cruz County Sanitation District	Include measure as a requirement in the project Special Provisions.	During construction.
NOI-2	Require that all construction and maintenance equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.	Santa Cruz County Sanitation District	Include measure as a requirement in the project Special Provisions.	During construction.
NOI-3	Prohibit gasoline or diesel engines from having unmuffled exhaust.	Santa Cruz County Sanitation District	Include measure as a requirement in the project Special Provisions.	During construction.