

## **Appendix C**      Avoidance, Minimization and/or Mitigation Summary

---

- **Standard Measure TR-1:** The Transportation Management Plan will include traffic rerouting measures, a detour plan, and public information procedures, which will be developed during the design phase with participation from local agencies, transit and shuttle services, local school administrations, local communities, business associations, and affected drivers. Early and well-publicized announcements and other public information measures prior to and during construction will minimize confusion, inconvenience, and traffic congestion. As part of the Transportation Management Plan, construction planning will minimize nighttime construction in residential areas and minimize daytime construction impacts on commercial areas. Staging areas would be located within the existing Caltrans right-of-way and, as feasible, within the Santa Cruz Branch Rail Line right-of-way along Coastal Rail Trail Segment 12. The Transportation Management Plan will identify staging areas on parcels for which temporary construction easements will be obtained, including an area of Aptos Village County Park adjacent to the railroad right-of-way. Additionally, the following measures will be incorporated and implemented, if applicable, based on final construction design plans:
  - During the construction phase of the proposed project, some parking restrictions may be required on a temporary basis. A public outreach program throughout the construction period will keep the public informed of the construction schedule and scheduled parking and roadway closures, including detour routes and, if available, alternative parking.
  - In the event of temporary obstruction of any pedestrian walkways or bicycle paths, the Transportation Management Plan will identify nearby alternate routes, including pedestrian routes that meet American Disabilities Act requirements, as appropriate.
  - The Traffic Management Plan will include measures to minimize, avoid, or mitigate impacts on alternate routes, such as agreements with the County of Santa Cruz to provide enhanced infrastructure (e.g., necessary signage, flagging, cones) on arterial roads or intersections to deal with detoured traffic.
  - Coordination with transit and private shuttle services will occur to plan for any rerouting, and any necessary avoidance, minimization, or mitigation measures will be incorporated in the Transportation Management Plan.
  - To minimize disruption to the traveling public during construction of the proposed project, a comprehensive strategy will be developed to minimize disruption and assure the safe movement of vehicles through and around the construction site.
- **AMM-VA-1:** Work with the community during preliminary design to develop aesthetic guidelines for the project improvements through a formalized structure that allows community input. Caltrans District 5 Landscape Architecture shall be consulted in this process.

- **AMM-VA-2:** During design and construction, save and protect as much existing vegetation in the corridor as feasible, especially eucalyptus and other skyline trees.
- **AMM-VA-3:** Survey exact locations for trees (by arborist) and include in the plan set.
- **AMM-VA-4:** Protect the drip zone of isolated trees and provide temporary fencing.
- **AMM-VA-5:** Protect large areas of existing plantings and preserve with temporary fencing.
- **AMM-VA-6:** During design and construction, develop construction plans that apply aesthetic treatments to the sound walls. Aesthetic treatment of the sound walls shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-7:** Include vine plantings on one or both sides of sound walls where feasible (given Caltrans setback and maintenance requirements). If vines are only planted on one side of the wall, include vine portals in the design of the wall to accommodate vine access to both sides of the wall. Planting plans shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-8:** During design and construction, develop construction plans that apply aesthetic treatments to the retaining walls. Aesthetic treatment of the retaining walls shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-9:** During design and construction, develop construction plans that apply aesthetic treatments to the proposed bridges in the corridor. Aesthetic treatment of the proposed bridges shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-10:** If bridge rail is used at the creek crossing retaining walls, use Type 80 rail with aesthetic treatment. Aesthetic treatment and bridge rail type selection shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-11:** Include aesthetic treatments on concrete median barriers consistent with the visual character of the corridor and the adjacent community. Aesthetic treatment of the concrete median barriers shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-12:** Replace existing chain link fencing between SR 1 and adjacent frontage roads with ornamental fencing (applies where there is no sound wall). Ornamental fencing type selection shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-13:** During design and construction, landscape and revegetate disturbed areas to the greatest extent feasible (given Caltrans setback and maintenance requirements). Planting plans shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-14:** Include skyline trees in the planting pallet to reduce the scale of the new highway elements. Planting palette shall be approved by Caltrans District 5 Landscape Architecture.

- **AMM-VA-15:** Include infill shrub planting between SR 1 and adjacent frontage roads to the maximum extent possible. Planting plans shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-16:** Include vines on a minimum of 20% of the fencing between SR 1 and adjacent frontage roads. Planting plans shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-17:** Where horticulturally appropriate, provide a permanent irrigation system for all plantings. Irrigation plans shall be approved by Caltrans District 5 Landscape Architecture.
- **AMM-VA-18:** Include an extended 3-year maintenance/establishment period as part of the construction period to provide a single source of maintenance during the construction and through the establishment of vegetation.
- **AMM CUL-1:** Before any ground-disturbing work occurs in the project area, a qualified archaeologist will be retained to conduct mandatory contractor/worker cultural resources awareness training for construction personnel. The awareness training will be provided to all construction personnel (contractors and subcontractors), to brief them on the need to avoid effects on cultural resources adjacent to and within construction areas and the penalties for not complying with applicable state and federal laws and permit requirements.
- **AMM CUL-2:** The project proponents will inform its contractor(s) of the possibility of subsurface archaeological deposits within the project area by including the following directive in contract documents:
  - “If prehistoric or historical archaeological deposits are discovered during project activities, all work within 100 feet of the discovery shall be redirected and a qualified archaeologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Project personnel shall not collect or move any archaeological materials or human remains and associated materials. Archaeological resources can include flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite toolmaking debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone-milling equipment (e.g., mortars, pestles, handstones). Prehistoric archaeological sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse.”
  - If archaeological deposits are identified during project subsurface construction, all ground-disturbing activities within 100 feet will be redirected and a qualified archaeologist contacted to assess the situation and consult with agencies as appropriate. The archaeologist will first determine whether such deposits are historical resources as defined in 14 California Code of Regulations 15064.5(a) and as required of the lead agency at 14 California Code of Regulations 15064.5(c)(1). If these deposits do not qualify as historical resources, a

determination will be made whether they qualify as unique archaeological resources, pursuant to 14 California Code of Regulations 15064.5(c)(3). If the deposit qualifies as a historical resource or a unique archaeological resource, it will need to be avoided by adverse effects, or such effects must be mitigated. Mitigation may consist of, but is not necessarily limited to, systematic recovery and analysis of archaeological deposits, recording the resource, preparation of a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility. Public educational outreach also may be appropriate. Upon completion of the assessment, the archaeologist will prepare a report documenting the methods and results and provide recommendations for the treatment of the archaeological materials discovered. The report will be submitted to the project proponents and the NWIC.

- **AMM CUL-3:** If human remains are encountered, the remains will be treated in accordance with California Health and Safety Code 7050.5. The project proponents will inform their contractor(s) of the cultural sensitivity of the project area for human remains by including the following directive in contract documents:
  - “If human remains are encountered during project activities, work within 100 feet of the discovery shall be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.”
  - Upon completion of the assessment, the archaeologist will prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the Most Likely Descendant. The report will be submitted to the project proponents and the Northwest Information Center.
- **Mitigation Measure-PALEO-1:** Prior to the start of excavations, a qualified Principal Paleontologist (M.S. or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) will be retained to prepare and implement a detailed Paleontological Mitigation Plan prior to the start of construction. The Paleontological Mitigation Plan will include the following elements and stipulations:
  - The Paleontological Mitigation Plan will identify all areas where excavation will disturb *in situ* geologic units identified as highly sensitive for paleontological resources.
  - Spot checking may be required to confirm the extent of the low sensitivity deposits should they overlie high sensitivity units. This includes areas of artificial fill and Holocene-aged sediments.

- Full-time monitoring will be required where disturbance would be more than 8 feet deep into Holocene-aged sediments as well as all impacts on the Purisima Formation and Pleistocene-aged sediments.
- Requirements for reduction of monitoring effort.
- The paleontological monitor's authority to temporarily halt or divert construction equipment to investigate finds.
- Protocols for fossil recovery, preparation, and curation.
- Other pertinent items for the Paleontological Mitigation Plan as per Chapter 8 of Caltrans' Paleontology Standard Environmental Reference (Caltrans 2016).
- The qualified Principal Paleontologist will be present at pre-grading meetings to consult with grading and excavation contractors.
- Before excavation begins, a training session on fossil identification and the procedures to follow should fossils be encountered will be conducted by the Principal Paleontologist or their designee for all personnel involved in earthmoving for the project.
- If unanticipated discoveries of paleontological resources occur during project construction, all work within 25 feet of the discovery must cease and the find must be protected in place until it can be evaluated by a qualified paleontologist. Work may resume immediately outside of the 25-foot radius.
- **AMM HAZ-1:** A Preliminary Site Investigation of the subsurface soils and/or groundwater will be completed within the project boundaries to investigate the depth and lateral extent of contamination within the project. At a minimum, the Preliminary Site Investigation screening will investigate each area identified below where construction is anticipated to disturb the subsurface soil or encounter groundwater.

The project proponent will conduct a Preliminary Site Investigation for the following recognized environmental conditions within the proposed acquisition area of the project.

- Agricultural Land Uses: Sample and test soils for pesticides and metals along State Route 1 from State Park Drive to Freedom Boulevard where historic agricultural land uses were identified in the Initial Site Assessment. The estimated cost of collection and testing soil within these parcels totals approximately \$54,000. Implementation could take up to 4 days.
- Aerially deposited lead: Analyze soil samples from road shoulders along State Route 1, Rio Del Mar Boulevard, Soquel Drive, and State Park Drive for total lead.
- Treated wood waste/Pole-Mounted Transformers: Analyze soil samples for polycyclic aromatic hydrocarbons, polychlorinated biphenyls, and metals near utility pole where soil disturbance might occur during construction.

- Railroad Corridor Hazards: Analyze soil samples for metals, arsenic, semi-volatile organic compounds polycyclic aromatic hydrocarbons, and polychlorinated biphenyls along the railroad corridor.
- The project proponent will coordinate and consult with the Santa Cruz Environmental Health Division for soil testing and remediation along the railroad corridor.
  - Asbestos-containing materials: Sample and test for ACM in concrete portions of the Rio Del Mar Boulevard overcrossing and the railroad bridges.
  - Traffic Striping: Sample and test traffic striping and painted surfaces on the railroad bridges for lead-based paint. Samples to be obtained from areas that will be disturbed during construction.
- Based on the findings of the Preliminary Site Investigation, if a soils management plan and health and safety plan are necessary, they will be prepared and implemented. Should the Preliminary Site Investigation indicate the presence of soil or groundwater contamination within the project area to be above regulatory thresholds, a Phase 3 Assessment will be conducted to investigate the depth and lateral extent of contamination within the project and remediate if necessary.
- **AMM HAZ-2:** The project proponent will develop and implement the necessary plans and measures required by Caltrans and federal and state regulations, including a health and safety plan, best management practices, and/or an injury and illness prevention plan. The plans will be prepared and implemented to address worker safety when working with potentially hazardous materials, including potential lead or chromium in traffic stripes, aerially deposited lead, asbestos-containing materials, and other construction-related materials within the right-of-way during any soil-disturbing activity.
- **AMM-EN-1:** The final design plans will provide landscaping where necessary within the corridor to provide aesthetic treatment, replacement planting, or mitigation planting. Landscaping reduces surface warming and, through photosynthesis, decreases carbon dioxide.
- **AMM-EN-2:** The final design plans will incorporate the use of energy-efficient lightings, such as light-emitting diode traffic signals and solar-powered flashing beacons during construction.
- **AMM-EN-3:** The Build Alternative will incorporate the following best available control technologies related to energy use:
  - Use cement blended with the maximum feasible amount of fly ash or other materials (i.e., limestone).
  - Recycle construction materials. Recycled products typically have lower manufacturing and transport energy costs because they do not use raw materials, which must be mined and transported to a processing facility.
  - Use lighter-colored pavement where feasible to increase albedo.
  - Use recycled water or grey water for fugitive dust control.

- Employ energy-efficient and fuel-efficient vehicles and equipment and zero- and/or near-zero emission technologies.
- Encourage ride-sharing and carpooling for construction crews.
- These energy conservation features are consistent with state and local policies to reduce energy. Therefore, the project would not result in an inefficient, wasteful, and unnecessary consumption of energy.
- **AMM BIO-1:** Prior to construction and if required, the Santa Cruz County Regional Transportation Commission will obtain a 404 permit (anticipated to be Nationwide Permit 14 for linear transportation projects) from the U.S. Army Corps of Engineers, a 401 Certification and/or Waste Discharge Requirements from the Regional Water Quality Control Board, a Section 1602 Streambed Alteration Agreement (SAA) from California Department of Fish and Wildlife, and a Coastal Development Permit, or waiver from the California Coastal Commission/applicable Local Coastal Programs.
- **AMM BIO-2:** Prior to construction, Santa Cruz County Regional Transportation Commission will prepare a Mitigation and Monitoring Plan (MMP) to mitigate impacts on vegetation and natural habitats, including jurisdictional areas. The MMP will be consistent with federal and state regulatory requirements and will be amended with any regulatory permit conditions, as required. Santa Cruz County Regional Transportation Commission will implement the MMP as necessary during construction and immediately following project completion.
- **AMM BIO-3:** Prior to any ground-disturbing activities, environmentally sensitive area fencing will be installed around jurisdictional waters and the dripline of trees to be protected within project limits. Environmentally sensitive areas will be noted on design plans and delineated in the field prior to the start of construction activities.
- **AMM BIO-4:** A qualified biological monitor(s) will ensure compliance with avoidance and minimization measures within the project environmental documents. Full-time monitoring will occur during vegetation removal and initial ground disturbance, water diversion implementation and removal, installation of temporary environmentally sensitive area fencing in jurisdictional areas, and temporary erosion control installation. Monitoring may be reduced to part time once construction activities are underway and the potential for additional impacts is reduced.
- **AMM BIO-5:** During project activities, the biological monitor(s) will coordinate with federal, state, and local agencies and the construction contractor to ensure construction schedules comply with biological requirements.
- **AMM BIO-6:** Prior to project implementation, the project site will be clearly flagged or fenced so that the contractor is aware of the limits of allowable site access and disturbance. Areas within the designated project site that do not require regular access will be clearly flagged as off-limit areas to avoid unnecessary damage to sensitive habitats or existing vegetation within the project site.
- **AMM BIO-7:** Prior to project implementation, a project Erosion Control Plan will be prepared.

- **AMM BIO-8:** During project activities, erosion control measures will be implemented. Fiber rolls and sediment barriers (e.g., straw bales) will be installed between the project site and adjacent wetlands and other waters. At a minimum, these measures will be checked and maintained on a daily basis throughout the construction period. The contractor will also apply adequate dust control techniques, such as site watering, during construction.
- **AMM BIO-9:** To control erosion during and after project implementation, standard Caltrans BMPs will be implemented.
- **AMM BIO-10:** During project activities, work occurring within stream channels will be conducted during the dry season if possible (June 1–September 30). If in-stream work will be necessary, a Diversion and Dewatering Plan will be prepared, submitted for agency approval, and implemented.
- **AMM BIO-11:** Prior to the onset of work, a Hazardous Materials Response Plan will be prepared to allow a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
- **AMM BIO-12:** During project activities, the cleaning and refueling of mobile equipment and vehicles will occur only within a designated staging area and at least 100 feet from wetlands, other waters, or other aquatic areas. This staging area will conform to best management practices applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles will be checked and maintained on a daily basis to ensure proper operation and avoid potential leaks or spills. Stationary equipment will be in secondary containment at all times when within 100 feet of streams.
- **AMM BIO-13:** During project activities, all project-related hazardous materials spills within the project site will be cleaned up immediately. Spill prevention and cleanup materials will be on-site at all times during construction.
- **AMM BIO-14:** The contractor will ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible. When practicable, invasive exotic plants in the project site will be removed and properly disposed.
- **AMM BIO-15:** During construction, trash will be contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.
- **AMM BIO-16:** During project activities, no pets will be allowed on the construction site.
- **Mitigation Measure BIO-17:** The goal of compensatory mitigation is to prevent a net loss of wetlands or other aquatic resource acreage, function, and value. Several types of compensatory mitigation are available to offset impacts on jurisdictional waters, including creation, restoration, enhancement, and preservation of either on-site or off-site aquatic resources.
- Affected jurisdictional waters (including federal, state, and/or Coastal Zone wetlands, other waters, and riparian areas) have typically been restored at a 1:1 ratio for



temporary impacts and mitigated at a 3:1 ratio for permanent impacts; the actual mitigation ratio required by the relevant agencies will be negotiated during the permitting process. Compensatory mitigation options will include creation, restoration, enhancement, and preservation implemented either on-site (preferred) or off-site. Any removal of riparian trees will be offset by a replacement ratio as determined by California Department of Fish and Wildlife in Section 1602 Streambed Alteration Agreement requirements. At a minimum, restoration and mitigation plantings will achieve 75% survival of required replacement plantings at the end of a 5-year period and require no further maintenance for survival. Off-site mitigation, if implemented, will be conducted within the watershed that is being affected, if feasible. Compensatory mitigation will be implemented immediately following project completion. Compensatory mitigation plantings will be monitored on a quarterly basis. Any required maintenance will also occur on a quarterly basis. Maintenance activities will include weeding, debris removal, replanting (if necessary), repair of any vandalism, fertilizing, and/or pest control. Maintenance activities will be dictated by the results of the quarterly monitoring effort. Santa Cruz County Regional Transportation Commission will be responsible for submitting quarterly reports and annual monitoring reports to Caltrans and the affected regulatory agencies. The annual monitoring report submitted at Year 5 will serve as a final completion report should the mitigation be successful.

- **AMM BIO-18:** All coast live oak woodland and individual oaks that are considered “significant trees” by the County of Santa Cruz and that are not planned for removal will be delineated on the project plans and provided protective fencing at a distance no less than the dripline of the affected tree canopy. Project equipment will not be permitted to enter the dripline of the coast live oak dripline canopy at any time during the length of the project.
- **AMM BIO-19:** If work is required within the dripline of a “significant tree”, a licensed arborist will be present to supervise all ground disturbances within the critical root zone and activities that may affect branches. The arborist will provide guidance such as temporary damaged root protection, timing between impact and root treatment by arborist, appropriate use of air spade or hand tools to minimize tree damage specific to the action proposed, and to treat root zone and branch damage.
- During construction and upon completion of construction the licensed arborist will provide treatment, as the licensed arborist determines is appropriate, to maintain and improve the health of the tree, including pruning of any broken branches or roots, pruning if needed of the broken main stem, and soil supplement and watering programs. All root pruning will be completed with sharpened hand pruners. Pruned roots will be immediately covered with soil or moist fabric. Damaged roots will be treated within 24 hours by a qualified tree specialist to inhibit fungus, insects, or other disease damage.
- **AMM BIO-20:** During project activities, erosion control measures will be implemented. Fiber rolls, and barriers (e.g., hay bales) will be installed between the project site and adjacent coast live oak woodlands. At a minimum, these measures will be checked and maintained daily throughout the construction period. The

contractor will also apply adequate dust control techniques, such as site watering, during construction.

- **AMM BIO-21:** During project activities, the cleaning and refueling of mobile equipment and vehicles will occur only within a designated staging area. This staging area will conform to best management practices applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles will be checked and maintained daily to ensure proper operation and avoid potential leaks or spills.
- **Mitigation Measure BIO-22:** Any coast live oak tree that is considered a “significant tree”<sup>1</sup> by the County of Santa Cruz is removed will be replaced at a 10:1 ratio. For trees that have been retained but have sustained impacts within their critical root zone, the impacts will be mitigated as follows: impacts on less than 10% of the tree’s critical root zone and canopy would be mitigated at a 2:1 ratio (plant two trees for each tree affected); impacts over 10% and less than 50% of the tree’s critical root zone and/or canopy would be mitigated at a 3:1 ratio; impacts on more than 50% of the trees’ critical root zone would require mitigation at a 4:1 ratio.
  - Oak tree replacement efforts will achieve 75% success at the end of a 5-year period and require no further maintenance for survival. The location of these replacement plantings will be on-site, to the maximum extent practicable, and closely associated with existing coast live oak woodland habitat for the purposes of providing continuity with the existing coast live oak woodland habitat. If on-site mitigation is not feasible, off-site locations may be acceptable if they are within the Aptos Creek watershed. The compensatory mitigation will be implemented immediately following project completion. Compensatory mitigation plantings will be monitored on a quarterly basis. Any required maintenance will also occur on a quarterly basis. Maintenance activities will include weeding, debris removal, replanting (if necessary), repair of any vandalism, fertilizing, and/or pest control. Maintenance activities will be dictated by the results of the quarterly monitoring effort. Santa Cruz County Regional Transportation Commission will be responsible for submitting quarterly reports, annual monitoring reports, and a final completion report to Caltrans and the affected regulatory agencies. The annual monitoring report submitted at Year 5 will serve as a final completion report should the mitigation be successful.
- **AMM BIO-23:** If in-stream work is proposed to occur in coastal streams, incidental take authorization from National Marine Fisheries Service through a federal Endangered Species Act Section 7 Biological Opinion and Incidental Take Statement will be acquired, if determined necessary by National Marine Fisheries Service.
- **Mitigation Measure BIO-24:** Measures to avoid, minimize, and/or mitigate impacts discussed in Section 2.3.2, Wetlands and Other Waters will be applied to any loss of

---

<sup>1</sup> County of Santa Cruz ordinance defines a “Significant tree”, as any tree, sprout clump, or group of trees when it has a diameter-at-breast height (DBH) at or greater than 20 inches; or if it is a clumping tree with greater than four stems, where each stem is greater than or equal to 12 inches DBH

aquatic and riparian vegetation within steelhead critical habitat. Additional mitigation may be directed by regulatory agencies.

- **AMM BIO-25:** Qualified biologists shall conduct a preconstruction survey for California giant salamander in areas of suitable habitat where construction will occur. If regulatory agency approval allows, the qualified biologists shall capture and relocate any California giant salamanders (if present) or other sensitive species to suitable habitat outside of the area of impact.
- **AMM BIO-26:** Qualified biologists shall conduct a preconstruction survey for Santa Cruz black salamander in areas of suitable habitat where construction will occur. If regulatory agency approval allows, the qualified biologists shall capture and relocate any Santa Cruz black salamanders (if present) or other sensitive species to suitable habitat outside of the area of impact.
- **AMM BIO-27:** If project-related construction will affect aquatic areas and if regulatory agency approval allows, qualified biologists shall conduct a preconstruction survey for western pond turtle in aquatic areas where construction will occur. The qualified biologists shall capture and relocate any western pond turtle (if present) or other sensitive aquatic species to suitable habitat outside of the area of impact. A letter of permission will be obtained from California Department of Fish and Wildlife to relocate western pond turtle and other species of special concern species from work areas encountered during construction within the BSA as necessary.
- **AMM BIO-28:** If feasible, removal of trees shall be scheduled to occur in the fall and winter (between September 16 and February 15), outside of the typical nesting season.
- **AMM BIO-29:** If any construction activities are proposed to occur during the typical nesting season (February 16 to September 15), a nesting bird survey of the area of disturbance shall be conducted by qualified biologists no more than 2 weeks prior to construction to determine presence/absence of nesting birds within the project area.
- **AMM BIO-30:** If evidence of migratory bird nesting that may be affected by construction activities is discovered, or when birds are injured or killed as a result of construction activities, the contractor shall immediately notify the engineer or biological monitor. At a minimum, a 500-foot radius of the nest shall be designated an environmentally sensitive area for nesting raptors, and a 250-foot radius shall be designated an environmentally sensitive area for other nesting avian species, unless otherwise directed by the Service or California Department of Fish and Wildlife. Nests, eggs, or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game C will not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor would adult birds be killed, injured, or harassed at any time. The environmentally sensitive area shall remain in place until such time that the nest is no longer considered active by the qualified biologist. The Santa Cruz County Regional Transportation Commission shall provide written notification to Caltrans and the resource agencies by the qualified biologist.

- **AMM BIO-31:** If a white-tailed kite nest is identified within the biological study area at any time during the proposed project, the biological monitor shall thoroughly document the species activity and ensure that immediate project activities avoid any impacts to the species. coordination with California Department of Fish and Wildlife. will be facilitated by the City of Arroyo Grande Public Works Department if necessary to devise a suitable avoidance plan for state-listed nesting bird species. If there is a potential for take, California Department of Fish and Wildlife. shall be contacted immediately, and if deemed necessary by California Department of Fish and Wildlife. a suitable avoidance plan will be developed and implemented for the duration of project activities. A final report summarizing the results of implementation of the avoidance plan will be submitted to California Department of Fish and Wildlife. within 30 days following successful fledging or upon project completion, whichever is sooner.
- **AMM BIO-32:** Vegetation removal in potential nesting habitats shall be monitored and documented by the biological monitor(s) regardless of time of year.
- **AMM BIO-33:** A qualified biologist shall conduct preconstruction surveys the year prior to construction for bats species that could be utilizing existing structures or trees for roosting habitat. If bats are identified as utilizing areas within the biological study area for day or night roosting, the qualified biologist shall identify the species of bat present. The biologist(s) conducting the pre-construction surveys shall also identify the nature of the bat utilization of the bridge (i.e., maternity roost, day roost, night roost).
- **AMM BIO-34:** If bat species are identified as roosting in areas that will be affected, prior to construction, a plan to exclude bat species from impact areas shall be prepared. This plan shall discuss methods of eliminating bat access to the identified roosting habitat prior to construction so that bats are not able to return to and occupy the roost. The appropriate timing for exclusion implementation shall be determined upon the species identified as occurring within the project site. Roost areas shall be surveyed by a qualified biologist prior to implementing exclusion methods to ensure that no bats are trapped within. Exclusion methods may include, but are not limited to, wire mesh, spray foam, or fabric placement. This plan shall be submitted to the appropriate regulatory agency for approval.
- **AMM BIO-35:** Demolition of existing structures and vegetation removal shall occur outside of the bat maternity roosting season, typically during the spring and summer months.
- **AMM BIO-36:** If bats cannot be excluded from bat roosts, work activities shall be avoided within 100 feet of active maternity roosts until bat pups have been weaned and are deemed independent by a qualified biologist. Regulatory agencies shall be contacted for additional guidance if roosting bats are observed within the biological study area during construction.
- **AMM BIO-37:** A qualified biologist shall be present periodically during construction activities to monitor the bat populations, which may be utilizing the bridge and to ensure that all practicable measures are employed to avoid incidental disturbance to special-status bat species. Monitoring would be timed to occur during key

construction events (e.g., removal of existing structures or trees with roosting habitat).

- **Mitigation Measure BIO-38:** If project-related impacts permanently affect a major roost location, compensatory mitigation would be required. Compensatory mitigation shall include replacement of suitable habitat that follows the guidance included within *Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions* (H.T. Harvey and Associates 2019).
- **AMM BIO-39:** No more than 14 days prior to construction activities, a preconstruction survey will be conducted within the BSA by a qualified biologist in suitable habitat to determine the presence or absence of woodrat middens.
- **AMM BIO-40:** If woodrat middens are located during the preconstruction survey, the qualified biologist shall establish a minimum 25-foot buffer around each midden that can feasibly be avoided by project activities.
- **AMM BIO-41:** If project activities cannot avoid affecting the middens, then a qualified biologist shall dismantle the middens by hand prior to grading or vegetation removal activities. The midden dismantling shall be conducted such that the midden material is slowly removed looking for young woodrats. The material shall be placed in a pile at the closest adjacent undisturbed habitat and more than 50 feet from construction activities.
- **AMM BIO-42:** If young are encountered during midden dismantling, the dismantling activity shall be stopped and the material replaced back on the nest and the nest shall be left alone and rechecked weekly to see if the young are out of the nest or capable of being independent without relying on adult care (as determined by a qualified biologist); once the young are determined to be independent, the nest dismantling can continue.
- **AMM BIO-43:** If feasible, avoid eucalyptus tree removal or other disturbance of eucalyptus habitat from October 1 to March 1 to avoid potential impacts on winter roosting monarch butterflies.
- **AMM BIO-44:** If construction activities are scheduled to impact occur within potentially suitable monarch butterfly overwintering habitat between November October 1 and March 1, a qualified biologist shall conduct pre-construction surveys for overwintering monarch butterflies in appropriate habitat. If an active roost or aggregation is present, any construction grading, or other development within 100 feet of the active roost, shall be prohibited between October 1 and March 1. Consult with the Service if monarch butterfly roosts are observed and avoidance is not feasible.
- **AMM BIO-45:** Only Service-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frog.
- **AMM BIO-46:** Ground disturbance will not begin until written approval is received from USFWS that the biologist is qualified to conduct the work.
- **AMM BIO-47:** A Service-approved biologist will survey the project area 48 hours before the onset of work activities. If any life stage of the California red-legged frog is

found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work activities begin. The Service-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the proposed project. The relocation site should be in the same drainage to the extent practicable. Coordination with the Service shall occur with regard to the relocation site prior to the capture of any California red-legged frogs.

- **AMM BIO-48:** Before any construction activities begin, a Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures to be implemented to conserve the California red-legged frog during the project, and all project boundary limits. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer questions.
- **AMM BIO-49:** A Service -approved biologist will be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, the state or local sponsoring agency will designate a person to monitor on-site compliance with all minimization measures. The Service -approved biologist will ensure that this monitor receives the training outlined in Avoidance and Minimization Measure BIO-49 and in the identification of California red-legged frog. If the monitor or the Service -approved biologist recommends that work be stopped because California red-legged frogs would be affected to a degree that exceeds the levels anticipated by the Federal Highway Administration and the Service during the review of the proposed action, they will notify the resident engineer (the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the effect immediately or require that all actions that are causing these effects be halted. If work is stopped, the Service will be notified as soon as is reasonably possible.
- **AMM BIO-50:** During project activities, all trash that may attract predators will 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.
- **AMM BIO-51:** All refueling, maintenance, and staging of equipment and vehicles will occur at least 100 feet from the riparian habitat or waterbodies and not in a location from which a spill would drain directly toward aquatic habitat. The monitor will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the Federal Highway Administration will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
- **AMM BIO-52:** Habitat contours will be returned to their original configuration at the end of the project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the Service and Federal Highway

Administration determine that it is not feasible, or modification of original contours would not benefit the California red-legged frog.

- **AMM BIO-53:** The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to achieve the project goal. Environmentally sensitive areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact on California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.
- **AMM BIO-54:** Caltrans (or the local sponsor) will attempt to schedule work activities for times of the year when impacts on the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and informal consultation between Caltrans and the USFWS during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.
- **AMM BIO-55:** To control sedimentation during and after project implementation, Caltrans and sponsoring agency will implement best management practices outlined in any authorizations or permits issued under the authorities of the Clean Water Act that it receives for the specific project. If best management practices are ineffective, Caltrans will attempt to attempt to remedy the situation immediately, in consultation with the Service.
- **AMM BIO-56:** If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. The methods and materials used in any dewatering will be determined by Caltrans in consultation with the Service on a site-specific basis. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon completion of the project.
- **AMM BIO-57:** Unless approved by USFWS, water will not be impounded in a manner that may attract California red-legged frogs.
- **AMM BIO-58:** A USFWS-approved biologist will permanently remove any individuals of exotic species, such as bullfrogs (*Rana catesbeiana*), crayfish, and centrarchid fishes from the project area to the maximum extent possible. The USFWS-approved biologist will be responsible for ensuring his or her activities are in compliance with the CFGC.

- **AMM BIO-59:** If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.
- **AMM BIO-60:** To ensure that diseases are not conveyed between work sites by the USFWS-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.
- **AMM BIO-61:** Project sites will be revegetated with an assemblage of native riparian, wetlands, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. These measures will be implemented in all areas disturbed by activities associated with the project, unless the Service and Caltrans determine that it is not feasible or practical.
- **AMM BIO-62:** Caltrans will not use herbicides as the primary method used to control invasive, exotic plants. However, if Caltrans determines the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, it will implement the following additional protective measures for the California red-legged frog:
  - a. Caltrans will not use herbicides during the breeding season for the California red-legged frog.
  - b. Caltrans will conduct surveys for the California red-legged frog immediately prior to the start of any herbicide use. If found, California red-legged frogs will be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur.
  - c. Giant reed and other invasive plants will be cut and hauled out by hand and the stems painted with glyphosate or glyphosate-based products, such as Aquamaster or Rodeo.
  - d. Licensed and experienced FHWA staff or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster or Rodeo where large monoculture stands occur at an individual project site.
  - e. All precautions will be taken to ensure that no herbicide is applied to native vegetation.
  - f. Herbicides will not be applied on or near open water surfaces (no closer than 60 feet from open water).
  - g. Foliar applications of herbicide will not occur when wind speeds are in excess of 3 miles per hour.
  - h. No herbicides will be applied within 24 hours of forecasted rain.



- i. Application of all herbicides will be done by a qualified Caltrans staff or contractors to ensure that overspray is minimized, that all application is made in accordance with label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.
- j. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or waterbodies in a location where a spill would not drain directly toward aquatic habitat. Caltrans will ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
- Upon completion of any project for which this programmatic consultation is used, Caltrans will ensure that a Project Completion Report is completed and provided to the Ventura Fish and Wildlife Office. Caltrans should include recommended modification of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation. In addition, Caltrans will reinstitute formal consultation in the event any of the following thresholds are reached as a result of projects conducted under the provisions of this consultation:
- Caltrans will reinstitute consultation when, as a result of projects conducted under the provisions of this consultation:
  - a. 10 California red-legged frog adults or juveniles have been killed or injured in a given year (for this and all other standards, an egg mass is considered to be one California red-legged frog)
  - b. 50 California red-legged frogs have been killed or injured in total
  - c. 20 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland and dispersal habitat have been permanently lost in any given year
  - d. 100 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland and dispersal habitat have been permanently lost in total
  - e. 100 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic

habitat and upland and dispersal habitat have been temporarily disturbed in any given year

- f. 500 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland and dispersal habitat have been temporarily disturbed in total
- **AMM BIO-63:** At the request of California Department of Fish and Wildlife and to ensure take avoidance, the project proponent will retain a qualified biologist to conduct 2 years of preconstruction surveys according to Service protocol surveys for Santa Cruz long-toed salamander conducted the seasons prior to project construction.
- **AMM BIO-64:** Prior to the initiation of work adjacent to the Valencia Ecological Preserve, the project proponent will install high-visibility construction exclusion fencing along the outside of the Preserve's exclusion fence to make the limits of the project and construction visually obvious.
- **AMM BIO-65:** If in-stream work is proposed to occur in coastal streams, incidental take authorization from NOAA Fisheries shall be acquired through a FESA Section 7 biological opinion and incidental take statement.
- **AMM BIO-66:** If in-stream work is required at the confluence of Aptos Creek and Valencia Creek, remediation of the structural barrier to fish passage will be addressed. Santa Cruz County Regional Transportation Commission and Caltrans will coordinate with California Department of Fish and Wildlife to comply with Senate Bill-857, SHC § 156.3, and SHC §156.4
- **AMM BIO-67:** A component including a description of central California Coast steelhead, its ecology, and the need for conservation of the species will be integrated into the worker environmental training program.
- **AMM BIO-68:** If dewatering/stream diversion is necessary, a diversion and dewatering plan shall be prepared and implemented to allow for passage of aquatic species through the site during construction. The form and function of all pumps used during the dewatering activities shall be checked twice daily, at a minimum, by the biological monitor(s) to ensure a dry work environment and minimize adverse effects to aquatic species and habitats.
- **AMM BIO-69:** During project activities, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 0.2-inch wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumps shall release the additional water to a settling basin allowing the suspended sediment to settle out prior to re-entering the stream(s) outside of the isolated area.
- **AMM BIO-70:** During dewatering/diversion activities, or if tidal fluctuations breach a formerly dewatered and isolated project site, a National Marine Fisheries Service-approved biological monitor(s) or other NMFS-approved biologist(s) shall supervise site dewatering and relocate steelhead and other stranded aquatic species.

- **AMM BIO-71:** If it is determined by the biological monitor(s) or the NMFS-approved biologist(s) that impacts to steelhead would have the potential to exceed the levels authorized by National Marine Fisheries Service-, they will notify the resident engineer (the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will resolve the situation immediately by eliminating the cause of the identified effect on the species or require that all actions that are causing these effects be halted until coordination with the appropriate resource agency is completed. No work will resume until the issue is resolved.
- **AMM BIO-72:** Following construction, temporary impacts on streamside vegetation used as sheltering areas or streambed sandbars, gravels, and cobbles used by fish species will be restored to their preconstruction conditions, at a minimum.
- **Mitigation Measure BIO-73:** Additionally, the fish passage barrier associated with the hydraulic drop and sheet flow over the concrete apron at the outlet of the culvert at PM 9.97 will be improved for the benefit of fish passage. Caltrans will implement a phased approach to correcting fish passage in Valencia Creek at PM 9.97 and PM 9.88. This project, EA 05-0C734, will complete short-term, or partial, improvements to fish passage. Then project EA 05-1N900 (Valencia Creek Fish Passage) will follow up with long-term remediation of the fish passage issues at PM 9.97 and PM 9.88, which will be funded through the state SHOPP program.
  - The following mitigation is proposed immediately downstream of the arch culvert to address fish passage issues as part of the short-term improvements required for impacts from this project. Design plans for remediation work will be included with project designs and based on coordination with California Department of Fish and Wildlife and National Marine Fisheries Service.
    - 1. The existing baffle fishway in the arch culvert, which consists of dividing walls and baffles, would be extended to the downstream edge of the concrete outlet apron. This will confine the flows and achieve the desired hydraulic conditions at the outlet apron for fish passage. The extended dividing walls and baffles would be constructed of timber and, if necessary, concrete to achieve the same hydraulic performance as the existing baffles. Additionally, an outlet baffle shall be placed at the most downstream bay of the extended baffle system. This will concentrate plunging flows off the lip of the concrete outlet apron and maximize water depths in the most downstream bay of the fishway. This is where fish would be expected to complete their leap from downstream into the arch culvert, thus, improving fish passage.
    - 2. To promote pool development and maintenance immediately downstream of the outlet apron, a starter channel would be excavated, and boulder-root wad combinations would be installed in the upstream area immediately adjacent to the opening of the arch culvert. The boulder-root wad combinations would be installed at an appropriate elevation so that some of the instream woody material would remain submerged below the water surface where it would provide instream cover for fish across a range of flow conditions. By constricting the channel slightly and adding roughness, the

boulder-root wad combinations would help to maintain pool water surface elevations and depth immediately downstream of the outlet apron (arch culvert), thereby creating more favorable conditions for adult and juvenile fish to access the fishway, thus improving fish passage.

- **AMM BIO-74:** If in-stream work is proposed to occur Aptos Creek, incidental take authorization from the Service through a Section 7 biological opinion and incidental take statement shall be acquired, if deemed necessary by the Service. Formal consultation with the Service may be necessary if a Section 404 permit is issued.
- **AMM BIO-75:** A component including a description of tidewater goby, its ecology, and the need for conservation of the species will be integrated into the worker environmental training program.
- **AMM BIO-76:** Prior to construction, if it is necessary to dewater/divert areas within Aptos Creek prior to project implementation, a Service-approved biologist shall conduct a preconstruction survey for tidewater goby and use seining, dip-nets, or other approved methods to capture and relocate tidewater goby from the areas to be dewatered to areas with suitable habitat outside of the area of proposed disturbance.
- **AMM BIO-77:** If dewatering/stream diversion is necessary, a diversion and dewatering plan shall be prepared and implemented to allow for passage of aquatic species through the site during construction. The form and function of all pumps used during the dewatering activities shall be checked twice daily, at a minimum, by the biological monitor(s) to ensure a dry work environment and minimize adverse effects on aquatic species and habitats.
- **AMM BIO-78:** During project activities, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 0.2-inch wire mesh to prevent tidewater goby and other sensitive aquatic species from entering the pump system. Pumps shall release the additional water to a settling basin allowing the suspended sediment to settle out prior to re-entering the stream(s) outside of the isolated area.
- **AMM BIO-79:** During dewatering/diversion activities, or if tidal fluctuations breach a formerly dewatered and isolated project site, the Service -approved biological monitor(s) or other Service -approved biologist(s) shall supervise site dewatering and relocate tidewater goby and other stranded aquatic species.
- **AMM BIO-80:** If it is determined by the biological monitor(s) or the Service-approved biologist(s) that impacts on tidewater goby have the potential to exceed the levels authorized by the Service, they will notify the resident engineer (the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation immediately by eliminating the cause of the identified effect on the species or require that all actions that are causing these effects be halted until coordination with the appropriate resource agency is completed. No work will resume until the issue is resolved.
- **AMM BIO-81:** Focused surveys following Service survey guidelines for least Bell's vireo and southwestern willow flycatcher will be completed to determine the presence/absence of least Bell's vireo and southwestern flycatcher wherever

suitable habitat is present within 500 feet of the limits of construction. Surveys will be conducted within 1 year prior to the onset of construction activities. If least Bell's vireo or southwestern willow flycatcher are detected during these surveys, formal Section 7 consultation will be reinitiated.

- **AMM BIO-82:** Caltrans will provide the Service with a report detailing least Bell's vireo and southwestern flycatcher survey efforts for the breeding season preceding construction.
- **AMM BIO-83:** Worker awareness trainings and educational materials will include information about least Bell's vireo and southwestern willow flycatcher and their habitat.
- **AMM BIO-84:** If feasible, removal of trees shall be scheduled to occur in the fall and winter (between September 15 and February 15), outside of the typical nesting season.
- **AMM BIO-85:** If any construction activities are proposed to occur during the typical nesting season (February 15 to September 15), a nesting bird survey of the area of disturbance shall be conducted by qualified biologists no more than 2 weeks prior to construction to determine presence/absence of nesting birds within the project area.
- **AMM BIO-86:** If evidence of migratory bird nesting that may be affected by construction activities is discovered, or when birds are injured or killed as a result of construction activities, the contractor shall immediately notify the engineer or biological monitor. At a minimum, a 500-foot radius of the nest shall be designated an environmentally sensitive area for nesting raptors, and a 250-foot radius shall be designated an environmentally sensitive area for other nesting avian species, unless otherwise directed by the Service or California Department of Fish and Wildlife. Nests, eggs, or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code would not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor would adult birds be killed, injured, or harassed at any time. The environmentally sensitive area shall remain in place until such time that the nest is no longer considered active by the qualified biologist. Written notification shall be provided to Caltrans, the Santa Cruz Regional Transportation Commission, and the resource agencies by the qualified biologist.
- **AMM BIO-87:** If least Bell's vireo and/or southwestern willow flycatcher are identified within the biological study area at any time during the proposed project, the biological monitor shall thoroughly document the species activity and ensure that immediate project activities avoid any impacts on the species. If there is a potential for take, the Service shall be contacted immediately to ensure that avoidance of take is maintained throughout the duration of project activities.
- **AMM BIO-88:** Vegetation removal in potential nesting habitats shall be monitored and documented by the biological monitor(s) regardless of time of year.
- **AMM BIO-89:** To avoid the spread of invasive species, the contractor will stockpile topsoil and redeposit the stockpiled soil on slopes after construction is complete or transport all topsoil to a certified landfill for disposal.

- **AMM BIO-90:** During construction, the project will make all reasonable efforts to limit the use of imported soils for fill. Soils currently existing on-site should be used for fill material. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species, or the material must consist of purchased clean material such as crushed aggregate, sorted rock, or similar.
- **AMM BIO-91:** The landscape and restoration planting plans will emphasize the use of native species expected to occur in the area. Project plans will avoid the use of plant species that the California Invasive Plan Council, California Department of Fish and Wildlife, or other resource organizations considers to be invasive or potentially invasive. Prior to issuance of grading permits, all project landscape and restoration plans will be verified to ensure that the plans do not include the use of any species considered invasive by the California Invasive Plan Council or the California Department of Fish and Wildlife.