

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures ¹
Blue Oak Savanna Blue Oak Woodland Interior Live Oak Woodland Mixed Oak Woodland	AMM12: Confine and Delineate Work Area AMM13: Cover Trenches and Holes During Construction AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM29: Cover Trenches and Holes Excavated for Maintenance
Grassland	AMM12: Confine and Delineate Work Area AMM13: Cover Trenches and Holes During Construction AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM29: Cover Trenches and Holes Excavated for Maintenance
Grassland with Vernal Swale Complex Vernal pool and other seasonal wetland	AMM4: Avoid and Minimize Impacts on Sensitive Wetland and Riparian Habitats AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM12: Confine and Delineate Work Area AMM13: Cover Trenches and Holes During Construction AMM14: Control Fugitive Dust AMM16: Install Erosion Control Barriers AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM19: Implement Wet Weather Erosion Control Plan AMM20: Implement Stormwater Pollution Prevention Plans AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality AMM29: Cover Trenches and Holes Excavated for Maintenance
Cottonwood Willow Riparian Forest Valley Oak Riparian Forest Willow Scrub Dredger Tailings with Riparian	AMM4: Avoid and Minimize Impacts on Sensitive Wetland and Riparian Habitats AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM6: Establish Permanent Habitat Buffers along Stream and Riparian Corridors AMM12: Confine and Delineate Work Area AMM13: Cover Trenches and Holes During Construction AMM16: Install Erosion Control Barriers AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM19: Implement Wet Weather Erosion Control Plan AMM20: Implement Stormwater Pollution Prevention Plans AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality AMM29: Cover Trenches and Holes Excavated for Maintenance
Herbaceous Riparian River Bar	AMM12: Confine and Delineate Work Area

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species (continued)

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures
Emergent Wetland	AMM4: Avoid and Minimize Impacts on Sensitive Wetland and Riparian Habitats AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM12: Confine and Delineate Work Area AMM13: Cover Trenches and Holes During Construction AMM16: Install Erosion Control Barriers AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM19: Implement Wet Weather Erosion Control Plan AMM20: Implement Stormwater Pollution Prevention Plans AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality AMM29: Cover Trenches and Holes Excavated for Maintenance
Managed Seasonal Wetland Managed Wetland	AMM12: Confine and Delineate Work Area AMM13: Cover Trenches and Holes During Construction AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM29: Cover Trenches and Holes Excavated for Maintenance
Open Water (perennial and intermittent stream channels)	AMM6: Establish Permanent Habitat Buffers along Stream and Riparian Corridors AMM12: Confine and Delineate Work Area AMM16: Install Erosion Control Barriers AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM19: Implement Wet Weather Erosion Control Plan AMM20: Implement Stormwater Pollution Prevention Plans AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality
Major Canal	AMM12: Confine and Delineate Work Area
Pond	AMM12: Confine and Delineate Work Area AMM16: Install Erosion Control Barriers AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM19: Implement Wet Weather Erosion Control Plan AMM20: Implement Stormwater Pollution Prevention Plans AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species (continued)

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures
Rice Irrigated Cropland Irrigated Pasture	AMM12: Confine and Delineate Work Area AMM13: Cover Trenches and Holes During Construction AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM29: Cover Trenches and Holes Excavated for Maintenance
Orchard/Vineyard Non-Native Woodland	Not applicable
Chaparral Conifer Dominated Forest Dredger Tailings with Herbaceous	Not applicable
Urban Ranchettes Open Ranchettes Wooded Disturbed Ground	Not applicable
Tricolored blackbird	AMM3: Avoid and Minimize Impacts on Covered Species AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM9: Establish Activity Exclusion Zones for Nesting/Breeding Birds AMM12: Confine and Delineate Work Area AMM17: Night-Time Lighting of Project Construction Sites AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants
Yellow-breasted chat	AMM3: Avoid and Minimize Impacts on Covered Species AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM12: Confine and Delineate Work Area AMM17: Night-Time Lighting of Project Construction Sites AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants
Bank swallow	AMM3: Avoid and Minimize Impacts on Covered Species AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM12: Confine and Delineate Work Area AMM17: Night-Time Lighting of Project Construction Sites AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species (continued)

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures
Western burrowing owl	AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM9: Establish Activity Exclusion Zones for Nesting/Breeding Birds AMM12: Confine and Delineate Work Area AMM17: Night-Time Lighting of Project Construction Sites AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM22: Exclusion of Wintering Western Burrowing Owls
Western yellow-billed cuckoo	AMM3: Avoid and Minimize Impacts on Covered Species AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM9: Establish Activity Exclusion Zones for Nesting/Breeding Birds AMM12: Confine and Delineate Work Area AMM17: Night-Time Lighting of Project Construction Sites AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants
Greater sandhill crane	AMM23: Install Wire Markers on New or Modified Power Transmission Lines within Greater Sandhill Crane Habitat
California black rail	AMM3: Avoid and Minimize Impacts on Covered Species AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM9: Establish Activity Exclusion Zones for Nesting/Breeding Birds AMM12: Confine and Delineate Work Area AMM17: Night-Time Lighting of Project Construction Sites AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants
American peregrine falcon	AMM3: Avoid and Minimize Impacts on Covered Species AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM9: Establish Activity Exclusion Zones for Nesting/Breeding Birds AMM12: Confine and Delineate Work Area AMM17: Night-Time Lighting of Project Construction Sites AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species (continued)

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures
Swainson's hawk	<p>AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat</p> <p>AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces</p> <p>AMM9: Establish Activity Exclusion Zones for Nesting/Breeding Birds</p> <p>AMM12: Confine and Delineate Work Area</p> <p>AMM17: Night-Time Lighting of Project Construction Sites</p> <p>AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants</p> <p>AMM24: Prevent Raptor Electrocutions</p> <p>AMM30: Swainson's Hawk and White-Tailed Kite Nest Surveys</p>
White-tailed kite	<p>AMM3: Avoid and Minimize Impacts on Covered Species</p> <p>AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat</p> <p>AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces</p> <p>AMM9: Establish Activity Exclusion Zones for Nesting/Breeding Birds</p> <p>AMM12: Confine and Delineate Work Area</p> <p>AMM17: Night-Time Lighting of Project Construction Sites</p> <p>AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants</p> <p>AMM24: Prevent Raptor Electrocutions</p> <p>AMM30: Swainson's Hawk and White-Tailed Kite Nest Surveys</p>
Bald eagle	<p>AMM3: Avoid and Minimize Impacts on Covered Species</p> <p>AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat</p> <p>AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces</p> <p>AMM9: Establish Activity Exclusion Zones for Nesting/Breeding Birds</p> <p>AMM12: Confine and Delineate Work Area</p> <p>AMM17: Night-Time Lighting of Project Construction Sites</p> <p>AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants</p> <p>AMM24: Prevent Raptor Electrocutions</p>

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species (continued)

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures
Giant garter snake	AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM8: Implement Standard Urban Stormwater Management Plans AMM12: Confine and Delineate Work Area AMM13: Cover Trenches and Holes During Construction AMM16: Install Erosion Control Barriers AMM17: Night-Time Lighting of Project Construction Sites AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM19: Implement Wet Weather Erosion Control Plan AMM20: Implement Stormwater Pollution Prevention Plans AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices AMM25: Minimize Take and Impacts on Habitat of Giant Garter Snake AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality AMM29: Cover Trenches and Holes Excavated for Maintenance AMM31: Minimize Impacts of Water Conveyance Channel Maintenance on Giant Garter Snake
Western pond turtle	AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM8: Implement Standard Urban Stormwater Management Plans AMM12: Confine and Delineate Work Area AMM13: Cover Trenches and Holes During Construction AMM16: Install Erosion Control Barriers AMM17: Night-Time Lighting of Project Construction Sites AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM19: Implement Wet Weather Erosion Control Plan AMM20: Implement Stormwater Pollution Prevention Plans AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality AMM29: Cover Trenches and Holes Excavated for Maintenance

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species (continued)

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures
Foothill yellow-legged frog	<p>AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat</p> <p>AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces</p> <p>AMM8: Implement Standard Urban Stormwater Management Plans</p> <p>AMM12: Confine and Delineate Work Area</p> <p>AMM13: Cover Trenches and Holes During Construction</p> <p>AMM16. Install Erosion Control Barriers</p> <p>AMM17: Night-Time Lighting of Project Construction Sites</p> <p>AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants</p> <p>AMM19: Implement Wet Weather Erosion Control Plan</p> <p>AMM20: Implement Stormwater Pollution Prevention Plans</p> <p>AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices</p> <p>AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality</p> <p>AMM29: Cover Trenches and Holes Excavated for Maintenance</p>

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species (continued)

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures
Western spadefoot toad	<p>AMM3: Avoid and Minimize Impacts on Covered Species</p> <p>AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat</p> <p>AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces</p> <p>AMM8: Implement Standard Urban Stormwater Management Plans</p> <p>AMM12: Confine and Delineate Work Area</p> <p>AMM13: Cover Trenches and Holes During Construction</p> <p>AMM16: Install Erosion Control Barriers</p> <p>AMM17: Night-Time Lighting of Project Construction Sites</p> <p>AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants</p> <p>AMM19: Implement Wet Weather Erosion Control Plan</p> <p>AMM20: Implement Stormwater Pollution Prevention Plans</p> <p>AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices</p> <p>AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality</p> <p>AMM29: Cover Trenches and Holes Excavated for Maintenance</p>
Blainville's horned lizard	<p>AMM3: Avoid and Minimize Impacts on Covered Species</p> <p>AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat</p> <p>AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces</p> <p>AMM12: Confine and Delineate Work Area</p> <p>AMM13: Cover Trenches and Holes During Construction</p> <p>AMM17: Night-Time Lighting of Project Construction Sites</p> <p>AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants</p> <p>AMM29: Cover Trenches and Holes Excavated for Maintenance</p>

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species (continued)

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures
Central Valley steelhead Central Valley spring-run Chinook salmon Central Valley fall/late fall-run Chinook salmon Green sturgeon	AMM8: Implement Standard Urban Stormwater Management Plans AMM11: Minimize Impacts on Covered Fish Species AMM12: Confine and Delineate Work Area AMM16: Install Erosion Control Barriers AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM19: Implement Wet Weather Erosion Control Plan AMM20: Implement Stormwater Pollution Prevention Plans AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality AMM27: Avoid and Minimize and Other Disturbances from Bridge Construction Activities
Valley elderberry longhorn beetle	AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM12: Confine and Delineate Work Area AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants
Vernal pool tadpole shrimp Vernal pool fairy shrimp	AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces AMM12: Confine and Delineate Work Area AMM16: Install Erosion Control Barriers AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants AMM19: Implement Wet Weather Erosion Control Plan AMM20: Implement Stormwater Pollution Prevention Plans AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality

Table 4-7. Avoidance and Minimization Measures that Reduce the Level of Impact of the Covered Activities on Natural Community Land Cover Types and Covered Species (continued)

Natural Community Land Cover Types and Covered Species	Applicable Avoidance and Minimization Measures
<p>Conservancy fairy shrimp</p>	<p>AMM3: Avoid and Minimize Impacts on Covered Species</p> <p>AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat</p> <p>AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces</p> <p>AMM12: Confine and Delineate Work Area</p> <p>AMM16. Install Erosion Control Barriers</p> <p>AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants</p> <p>AMM19: Implement Wet Weather Erosion Control Plan</p> <p>AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality</p>
<p>Ferris' milkvetch Ahart's dwarf rush Red Bluff dwarf rush Butte County meadowfoam Ahart's paronychia Butte County golden clover Lesser saltscale Hoover's spurge Hairy Orcutt grass Slender Orcutt grass California beaked-rush Greene's tuctoria Veiny Monardella Butte County checkerbloom</p>	<p>AMM3: Avoid and Minimize Impacts on Covered Species</p> <p>AMM5: Avoid Siting of Construction Staging Areas and Temporary Work Areas in Occupied Covered Species Habitat</p> <p>AMM7: Design Developments to Minimize Indirect Impacts at Urban-Habitat Interfaces</p> <p>AMM10: Establish Activity Exclusion Zones for Covered Plant Species</p> <p>AMM12: Confine and Delineate Work Area</p> <p>AMM14. Control Fugitive Dust</p> <p>AMM16. Install Erosion Control Barriers</p> <p>AMM18: Monitor Construction Sites and Eliminate or Minimize Sources of Contaminants</p> <p>AMM19: Implement Wet Weather Erosion Control Plan</p> <p>AMM20: Implement Stormwater Pollution Prevention Plans</p> <p>AMM21: Implement Additional Avoidance and Minimization Measures and Best Management Practices</p> <p>AMM26: Implement Caltrans Construction Site Best Management Practices (BMPs) To Maintain Water Quality</p>

¹Only AMM titles are shown. See Chapter 6, *Conditions on Covered Activities*, for the full description of each AMM.