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## California High Speed Train – Fresno to Bakersfield CEQA Findings of Fact

### A. Environmental Review

On May 7, 2012, the California High Speed Rail Authority (Authority), as lead agency, certified a Final Environmental Impact Report (FEIR) (State Clearinghouse (SCH) No. 2009091126) for the Project and filed a Notice of Determination (NOD) at the SCH on May 8, 2014. The State Water Board is a responsible agency under CEQA (Pub. Resources Code, § 21069) and in making its determinations and findings, must presume that the Authority's certified environmental document comports with the requirements of CEQA and is valid. (Pub. Resources Code, § 21167.3.) The State Water Board has reviewed and considered the environmental document and finds that the environmental document prepared by the Authority addresses the Project's water resource impacts. (Cal. Code Regs., tit. 14, § 15096, subd. (f).) The environmental document includes the mitigation monitoring and reporting program (MMRP) developed by the Authority for all mitigation measures that have been adopted for the Project to reduce potential significant impacts. (Pub. Resources Code, § 21081.6, subd. (a)(1); Cal. Code Regs., tit. 14, § 15091, subd. (d).)

The FEIR described impacts for the entire Fresno to Bakersfield line, extending from the Fresno Station to the Bakersfield Station. The portion of the Preferred Alternative that the Authority approved extends from Monterrey Street in the City of Fresno to 7th Standard Road in Kern County. The northern limit of the approval in the City of Fresno does not include the Fresno Mariposa Station area, which the Authority previously approved in 2012 with Resolution HSRA# 12-20. The southern limit of the approval is at 7th Standard Road in Kern County. The Authority is intentionally reserving a decision on the alignment south of 7th Standard Road in Kern County and into the City of Bakersfield to a future proceeding.

These findings therefore pertain only to those project elements that were approved by the Authority in its CEQA Findings of Fact and Statement of Overriding Considerations, dated May 2014 and also included in its final project description in its application for Certification (i.e., the Project as described in Sections IV and V of this Certification).

### B. Incorporation by Reference

Pursuant to CEQA, these Findings of Facts (Findings) support the issuance of this Order based on the Project FEIR, the application for this Order, and other supplemental documentation, including:

- The Program Environmental Impact Report (EIR), which includes analyses of broad impacts and serves as a first tier document for the FEIR, is available at: [http://www.hsr.ca.gov/Programs/Environmental\\_Planning/EIR\\_EIS/index.html](http://www.hsr.ca.gov/Programs/Environmental_Planning/EIR_EIS/index.html)
- The Program MMRP was also consulted. It is available at: [http://www.hsr.ca.gov/docs/programs/eir-eis/brdmtg1105\\_item7\\_8mitigation.pdf](http://www.hsr.ca.gov/docs/programs/eir-eis/brdmtg1105_item7_8mitigation.pdf)

All CEQA project impacts, including those discussed in subsection C below, are analyzed in detail in the Project FEIR which is incorporated herein by reference.

- The Project FEIR is inclusive of Volumes 1 – 6 and is available at: [http://www.hsr.ca.gov/Programs/Environmental\\_Planning/final\\_fresno\\_bakersfield.html](http://www.hsr.ca.gov/Programs/Environmental_Planning/final_fresno_bakersfield.html)

- The Project Mitigation Monitoring and Reporting Plan (MMRP),<sup>1</sup> which is incorporated herein by reference and available as Appendix C of the Federal Railroad Administration's Record of Decision (ROD) at:  
[http://www.hsr.ca.gov/docs/programs/fresno-baker-eir/final\\_ERIS\\_FresBaker\\_AppDocs\\_ROD\\_Appendices.pdf](http://www.hsr.ca.gov/docs/programs/fresno-baker-eir/final_ERIS_FresBaker_AppDocs_ROD_Appendices.pdf).
- The *Draft Fresno to Bakersfield Biological Resources and Wetlands Technical Report*, dated July 2012. This report can be accessed at:  
[http://www.hsr.ca.gov/docs/programs/fresno-baker-eir/RDrft\\_EIR\\_FB\\_TR\\_BioWetlnds.pdf](http://www.hsr.ca.gov/docs/programs/fresno-baker-eir/RDrft_EIR_FB_TR_BioWetlnds.pdf)
- The Authority's application for Certification with all attachments, which include detailed project maps, a detailed project description, copies of information provided to other resource agencies, compensatory mitigation ratio-setting methodologies, technical reports and other supporting information.

Requirements under the purview of the State Water Board in the MMRP are incorporated herein by reference.

The Permittee's application for this Order, including all supplemental information provided, is incorporated herein by reference.

### C. Findings

The FEIR describes the potential significant environmental effects to water resources. Having considered the whole of the record, the State Water Board makes the following findings:

1. Findings regarding impacts that will be avoided or mitigated to a less than significant level. (Pub. Resources Code, § 21081, subd. (a)(1); Cal. Code Regs., tit. 14, § 15091, subd. (a)(1).)

*Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR.*

#### **a.i. Potential Significant Impact: F-B BIO Impact #1 – Construction Effects on Special-Status Plant Species.**

Special-status plant species, many of which are exclusively found in stream and wetland habitats, have the potential to occur across all Project alternatives. Potential direct and indirect Project impacts to special-status plant species would degrade beneficial uses designated for rare species habitats (RARE) in waters of the state. Direct impacts to special-status plant species may occur as a result of construction crews removing vegetation within temporary impact areas, and from construction vehicles and personnel disturbing vegetation (i.e., trampling, covering, and crushing individual plants, populations, or suitable potential habitat for special-status plant species). Indirect

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<sup>1</sup> Appendix C of the ROD provides a *Project Mitigation Monitoring and Enforcement Plan (MMEP)*, dated June, 2014, serves as the MMRP for the Project.

impacts to special-status plant species, including impacts outside the project footprint, could potentially result from the following: erosion, siltation, and runoff into natural and constructed watercourses; soil and water contamination from construction equipment leaks; and construction dust. Invasive plant species or noxious weeds could be introduced through construction activities causing both direct and indirect impacts.

**a.ii. Facts in Support of Finding\_Mitigation** measures F-B BIO-MM 1-7, 9, 11, 15-17, 47-48 and 53 are proposed to address construction effects to special-status species. These measures require implementation of various BMPs that are widely accepted as the feasible and effective for weed control and management, and for protection of special status plant species. Measures include:

- BIO-MM#1. Designate Project Biologist(s), Regulatory Specialist (Waters), Project Botanist, and Project Biological Monitor(s).
- BIO-MM#2. Regulatory Agency Access.
- BIO-MM#3. Prepare and Implement a Worker Environmental Awareness Program.
- BIO-MM#4. Prepare and Implement a Weed Control Plan and Annual Vegetation Management Plan.
- BIO-MM#5. Prepare and Implement a Biological Resources Management Plan.
- BIO-MM#6. Prepare and Implement a Restoration and Revegetation Plan.
- BIO-MM#7. Delineate Environmentally Sensitive Areas and Environmentally Restricted Areas (on plans and in-field).
- BIO-MM#9. Equipment Staging Areas.
- BIO-MM#11. Vehicle Traffic.
- BIO-MM#15. Post-Construction Compliance Reports.
- BIO-MM#16. Conduct Preconstruction Surveys for Special-Status Plant Species and Special-Status Plant Communities.
- BIO-MM#17. Prepare and Implement Plan for Salvage, Relocation, and/or Propagation of Special-Status Plant Species.
- BIO-MM#47: Restore Temporary Riparian Impacts
- BIO-MM#48: Restore Temporary Impacts on Jurisdictional Waters
- BIO-MM#53. Compensate for Impacts on Special-Status Plant Species.

Biological Monitors, Regulatory Specialists for impacts to waters, and other resource specialists would be designated by the Project Environmental Compliance Manager under BIO-MM #1. This measure which includes minimum qualifications for monitors and outlines the monitors' duties.

Regulatory agency access to areas of Project activity, necessary for verification of environmental compliance, is provided in BIO-MM#2.

Training for all project personnel in compliance with project environmental protection measures, including measures protecting waters of the state, is required under BIO-MM#3. The Worker Environmental Awareness Program (WEAP) includes requirements for worker training and documentation of training.

Prevention and control of invasive plants and noxious weeds will be managed through implementation of BIO-MM#4, which calls for development and implementation of a weed control plan that includes pre-project surveys, BMPs for control and prevention, and performance measures.

A Biological Resources Management Plan (BRMP) is required by MM-BIO#5. This BRMP requires that a concise summary of all project biological mitigation measures and permit conditions, including conditions of this certification, be compiled for use by all project personnel, to facilitate easy reference to all applicable mitigation measures and permit conditions.

Restoration of all temporary impacts to upland communities is required under BIO-MM#6. This measure requires preparation and implementation of a Restoration and Revegetation Plan (RRP) for revegetation of disturbed areas, including all areas above the Ordinary High Water Mark, and provides prevention of noxious weeds as required in BIO-MM#4. This measure ensures that potential impacts to waters due to inadequate restoration of uplands are avoided and minimized to the greatest feasible extent.

In addition, BIO-MM#47 requires restoration of temporary riparian impacts and BIO-MM#48 requires restoration of temporary impacts to jurisdictional waters. Restoration of temporary disturbance areas in disturbed valley foothill riparian areas is required under BIO-MM#47. This measure requires that during post-construction, the Contractor, under the direction of the Project Botanist, will revegetate all disturbed valley foothill riparian areas using appropriate plants and seed mixes (other riparian areas in different vegetation classifications, including annual grasslands, would be adequately restored under BIO-MM#6, discussed above).

Restoration of temporary impacts to jurisdictional waters is required under BIO-MM#48. This measure requires that disturbed jurisdictional waters be restored to original topography using stockpiled and segregated soils and appropriate seed mixes. This measure also requires documentation and reporting of compliance.

These three measures, 6, 47 and 48, ensure that restoration of temporary impacts to upland, stream and wetland areas is conducted. These measures require that restoration work generally required by other measures, is appropriately designed and implemented to meet the specialized ecological needs of upland, riparian and jurisdictional water areas.

All environmentally sensitive and restricted areas, including waters, would be delineated (i.e., flagged, fenced, or otherwise clearly marked) under requirements of BIO-MM#7. Compliance with this measure will ensure that project activities avoid all sensitive resources including waters unless specific activities are permitted for those areas.

Requirements for selection of equipment staging areas are provided in BIO-MM#9, so as to avoid potential impacts to special status resources including waters.

Erosion control products that incorporate monofilament netting can entrap wildlife and pollute waterways with trash when washouts occur. Use of "Mono-Filament" (sic) erosion control netting is prohibited by BIO-MM#10, and use of products that are

biodegradable or photodegradable is required. Documentation of compliance with these measures is also required.

Vehicular traffic and movement will be restricted to designated routes or areas of operation under BIO-MM#11. This measure will serve to protect sensitive resources, including waters, from impacts due to vehicular traffic or movement.

To document compliance, BIO-MM#15 requires that the Mitigation Manager, or their designee, will submit post-construction compliance reports consistent with the requirements of the protocols of each appropriate agency, including the Water Boards.

Special-status plant species and populations, including species and populations associated with waters such as vernal pool endemic species and riparian vegetation communities, will be surveyed, mapped and reported under BIO-MM#16 before onset of construction. This measure also provides for identification of plants for salvage and use in revegetation, and for species or population impacts for which compensatory mitigation will be needed.

Implementation of salvage, propagation or relocation of special status plants identified under BIO-MM#16, including species and populations associated with waters such as vernal pool endemic species and riparian vegetation communities, is required under BIO-MM#17. This measure also includes requirements for documentation and reporting of compliance.

Compensation for unavoidable impacts to special status plant species and populations, including species and populations associated with waters such as vernal pool endemic species and riparian vegetation communities, is required under BIO-MM#53. This measure requires compensation as required by the U.S. Fish and Wildlife Service and the Department of Fish and Wildlife, at approved mitigation banks or programs, or through permittee-responsible mitigation site development. Measure BIO-MM#63, discussed below, also provides for compensation for impacts to jurisdictional waters.

**b.i. Potential Significant Impact: BIO Impact #3 – Construction Effects on Habitats of Concern:** As described in Section 3.7.4 of the Final EIR/EIS, habitats of concern occurring within the study area for the Preferred Alternative include special-status plant communities, jurisdictional waters, conservation areas, and protected trees. These habitats may be subject to direct and indirect impacts due to construction activities. Impacts include removal or disruption (i.e., trampling and crushing) of special-status plant communities by construction vehicles and personnel. Direct construction impacts to jurisdictional waters include the placement of fill during construction in both man-made and natural jurisdictional waters. Construction staging areas are planned adjacent to seasonal riverine features to facilitate construction of elevated structures, and are also planned where bridges are proposed at at-grade crossings. Indirect impacts could include contamination of jurisdictional waters and riparian areas, including outside the Project footprint, from construction equipment leaks; construction dust reducing photosynthetic capability; and an increased risk of fire in adjacent open spaces.

**b.ii. Facts in Support of Finding:** Mitigation measures F-B BIO-MM 1- 3, 5 – 7, 9, 11, 15, 16, 17, 47, 48 and 53 – discussed above - are proposed to address this impact. In addition, the following measures are also required, and are discussed below: BIO-MM# 49, 61-63 and 65.

- BIO-MM#49. Monitor Construction Activities within Jurisdictional Waters.
- BIO-MM#61. Compensate for Permanent Riparian Impacts.
- BIO-MM#62. Prepare and Implement a Site-Specific Comprehensive Mitigation and Monitoring Plan
- BIO-MM#63. Compensate for Permanent and Temporary Impacts on Jurisdictional Waters
- BIO-MM#65. Offsite Habitat Restoration, Enhancement and Preservation.

These measures require development and implementation of various plans and BMPs that are widely accepted as the feasible and effective for mitigation of construction effects on habitats of concern, and for protection of special status plant species.

As discussed above, restoration of temporary disturbance areas in disturbed valley foothill riparian areas is required under BIO-MM#47. This measure requires that during post-construction, the Contractor, under the direction of the Project Botanist, will revegetate all disturbed valley foothill riparian areas using appropriate plants and seed mixes (other riparian areas in different vegetation classifications, including annual grasslands, would be adequately restored under BIO- MM#6, discussed above).

Also as discussed above, restoration of temporary impacts to jurisdictional waters is required under BIO-MM#48. This measure requires that disturbed jurisdictional waters be restored to original topography using stockpiled and segregated soils and appropriate seed mixes. This measure also requires documentation and reporting of compliance.

Monitoring of ground-disturbing activities in or adjacent to jurisdictional waters is required under BIO-MM#49. Required monitoring will observe and document through regular reporting adherence to measures necessary for protection of waters, including – but not limited to – BIO-MM#5, 7, 8, 10, 12-15, 47 and 48 and conditions of this certification.

Compensation for permanent riparian impacts is required under BIO-MM#61, and is to be implemented under a Comprehensive Mitigation and Monitoring Plan (CMMP). Compensation may be accomplished by purchase of credits from an approved mitigation bank or program, or by development of a permittee-responsible mitigation property. Mitigation ratios will be subject to agency approval, including approval by the State Water Board.

The CMMP (mentioned under BIO-MM#61 above) will be prepared under BIO-MM#62 and implemented under requirements of BIO-MM#62. Appropriate avoidance, minimization, compensatory mitigation, and monitoring measures to be incorporated into the CMMP. The CMMP will outline the intent to mitigate for the lost conditions, functions, and values of impacts to jurisdictional waters and state streambeds consistent with resource agency requirements and conditions presented in Sections 404 and 401 of the CWA and Section 1600 of the CFGC. The CMMP also requires development of detailed mitigation plans for each proposed mitigation site.

Compensatory mitigation for unavoidable permanent and temporary impacts to jurisdictional waters is required under BIO-MM#63. Under this measure, the Authority will mitigate permanent and temporary wetland impacts through compensation determined in consultation the State Water Board and other agencies.



Before site preparation at a mitigation site, the Authority will identify short-term, temporary and/or long-term permanent effects to the natural landscape caused by construction of the mitigation site as required by BIO-MM#65, including effects on the site's hydrology and downstream resources. The authority would then develop and implement steps to avoid impacts to desirable ecological features or functions that should be retained on site, and will report on compliance with this measure.

**c.i. Potential Significant Impact: BIO Impact #5 – Project Effects on Special Status Plant Species:** Direct and indirect Project impacts to special status plant species, including species characteristic of or endemic to Project area streams and wetlands, could occur as a result of Project operation. Direct impacts to special-status plant species would result from the permanent removal of vegetation from within the Preferred Alternative footprint. Disturbance of individuals, populations, or potential suitable habitat for special-status plant species could occur during ongoing operation and maintenance activities. Indirect impacts to special-status plant species could potentially result from erosion, siltation, and runoff into natural and constructed watercourses; soil and water contamination from construction equipment leaks; construction dust and an increased risk of fire.

**c.ii. Facts in Support of Finding:** Various measures are proposed to avoid, minimize and compensate for direct and indirect Project effects to special status plant species due to construction and operation of the Project. The proposed measures are based on practices that are widely used and accepted as being capable of providing adequate mitigation for these impacts. Measures include BIO-MM# 1, 2, 3, 5, 6, 7, 9, 11, 14, 15, 16, 17 and 53, discussed above.

**d.i. Potential Significant Impact: BIO Impact #7 – Project Effects on Habitats of Concern.**

Habitats of concern occurring within the study area for the Preferred Alternative include special-status plant communities, jurisdictional waters, conservation areas, and protected trees. Direct and Indirect impacts to these habitats could occur as a result of Project operation and maintenance. These include the permanent removal of vegetation from within the construction footprint, and the disturbance (i.e., trampling or crushing) of plants due to an increase of pedestrian access/activity in the area during construction and operation of the Project. The contouring and placement of fill in jurisdictional waters would result in the permanent loss of jurisdictional waters; irreversible impacts on the physical, chemical, and biological characteristics of aquatic substrates and food webs; and a potential increase in erosion and sediment transport into adjacent aquatic areas. Permanent impacts to jurisdictional waters would occur during operation of bridges and viaducts over biological resources such as rivers or creeks (e.g., Kings River, Dutch John Slough, Cole Slough, Cross Creek, Tule River, Deer Creek, and Kern River) and wetlands, as well as man-made ditches and basins (including shading, support piers, and removal of vegetation). Impacts due to operations include potential ongoing deposition of fluids, brake lining particles, and other materials that may be discarded or deposited from the trains or the structures. Impacts due to maintenance include potential ongoing deposition of materials and fluids from maintenance equipment, materials, supplies, containers and packaging.

Indirect impacts could include contamination of habitats of concern, including habitats outside of the Project footprint, from increased erosion, sedimentation, siltation, and runoff due to alterations in topography and hydrology; wind erosion effects; an increased risk of fire in adjacent open spaces; and the introduction of noxious plant species from increased human activity/disturbance. Indirect impacts also could include increased risk of introduction or increase of invasive plants or noxious weeds.

**d.ii. Facts in Support of Finding:**

Impact BIO Impact #7 is similar in nature to the previously discussed impacts, and mitigation measures for impacts to waters due to the installed Project and its operation as described in Impact BIO #7 are therefore generally the same as the measures proposed for temporary and permanent impacts due to project construction described above. Measures MM BIO# 1-7, 11, 15, 43, 47-49, 53, 61-63 and 65, as discussed above, are proposed for this BIO Impact #7. These proposed measures are based on practices that are widely used and accepted as being capable of providing adequate mitigation for these impacts.

2. Findings regarding mitigation measures which are the responsibility of another agency. (Pub. Resources Code, § 21081, subd. (a)(2); Cal. Code Regs., tit. 14, §15091, subd.(a)(2).)

*There are changes or alterations that are within the responsibility and jurisdiction of another public agency and not the jurisdiction of the State Water Board. Such changes have been adopted by such other agency or can and should be adopted by such other agency.*

**a.i. Potential Significant Impact:**

BIO IMPACT #2 – Construction Impacts on Special-Status Wildlife Species  
BIO IMPACT #6 – Project Effects on Special Status Wildlife Species  
BIO IMPACT #8 – Project Effects on Wildlife Movement Corridors

The impacts described for BIO IMPACT #2, BIO IMPACT #6 and BIO IMPACT #8 are similar in nature; Impacts #2 and #8 address impacts during construction and #6 addresses impacts during operation and maintenance, but the actual impacts for each are similar, as are the mitigation measures discussed below.

Wildlife habitat and land cover types in the footprint of the Project have the potential to support a variety of special-status wildlife species, including species that are directly and indirectly dependent on or associated with waters of the state: California tiger salamander, valley elderberry longhorn beetle, vernal pool fairy shrimp and vernal pool tadpole shrimp. Two designated beneficial uses of water require protection of the aquatic habitats used by these species: Rare, Threatened or Endangered Species (RARE) which protects uses of water to support habitats, and Wildlife Habitat (WILD) which protects uses of water that support terrestrial or wetland ecosystems.

Construction activities have the potential to disturb the life cycles of the identified special-status species covered under WILD and RARE through direct impacts resulting from harassment, disturbance, injury, nest abandonment or death of individuals, and through disturbance of suitable habitats. In addition, indirect impacts could occur due to water quality degradation, hydrological modifications, habitat degradation, introduction of

nonnative, invasive or noxious weeds; these indirect impacts can cause reduction in host plant vigor, and in some cases may result in mortality of individuals.

The beneficial use RARE would cover the fifty-four special-status wildlife species that have the potential to occur in and near the Project footprint and that may be directly or indirectly impacted by construction activities in waters of the state. Direct impacts may occur as a result of direct removal of host plants, permanent conversion of occupied habitat to project infrastructure, direct strike during operation and maintenance, trampling or crushing, exposure to contaminants, erosion, and sedimentation. Indirect impacts could result from increased noise, light, visual (motion) and ground disturbance. During operation, maintenance activities could contribute to chemical runoff and pollution of adjacent habitat.

a.ii. Facts in Support of Finding: Mitigation measures are similar for BIO IMPACT #2, which addresses impacts that occur during Project construction, and BIO IMPACT #6 and #8, which address impacts that occur during the operation and maintenance of the Project.

Measures include numerous biological mitigation measures discussed above that are applicable project-wide, (e.g., BIO MM#1-7, 9, 11, 15, 16, 47, 48, 49, 61, 62, 63, and 65.) In addition, measures to protect wildlife in general and species-specific measures are also proposed. Although the Water Boards require compliance with these measures as part of the Water Boards' authorities, these measures would be primarily associated with compliance with the Fish and Game Code as administered and enforced by the Department of Fish and Wildlife. Protection of species listed under the federal Endangered Species Act would also primarily be enforced by the U.S. Fish and Wildlife Service (USFWS). These species-specific measures are widely accepted and in use, and are likely to provide adequate protection of the species of concern for the Project. The measures include:

- **AVR-MM#1b.** Minimize Visual Disruption from Construction Activities.
- **BIO-MM#8.** Wildlife Exclusion Fencing
- **BIO-MM#12.** Entrapment Prevention
- **BIO-MM#13.** Work Stoppage
- **BIO-MM#14.** Take Notification and Reporting.
- **BIO-MM#18.** Conduct Preconstruction Sampling and Assessment for Vernal Pool Fauna.
- **BIO-MM#19.** Seasonal Vernal Pool Work Restriction.
- **BIO-MM#20.** Implement and Monitor Vernal Pool Protection.
- **BIO-MM#21.** Implement Conservation Guidelines for the Valley Elderberry Longhorn Beetle.
- **BIO-MM#22.** Conduct Preconstruction Surveys for Special-Status Reptile and Amphibian Species.
- **BIO-MM#23.** Conduct Special-Status Reptile and Amphibian Monitoring, Avoidance, and Relocation.
- **BIO-MM#24.** Conduct Protocol and Preconstruction Surveys for California Tiger Salamander.
- **BIO-MM#25.** Implement Avoidance and Minimization Measures for California Tiger Salamander.
- **BIO-MM#51.** Install Flashing or Slats within Security Fencing.
- **BIO-MM#52.** Construction in Wildlife Movement Corridors.

- **BIO-MM#54.** Compensate for Impacts on Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp.
- **BIO-MM#55.** Implement Conservation Guidelines during project operation for Valley Elderberry Longhorn Beetle.
- **BIO-MM#56.** Compensate for Impacts on California Tiger Salamander.

General wildlife measures include restrictions on construction in wildlife movement corridors found in BIO-MM#52, entrapment prevention measures required by BIO-MM#12, and authority for environmental monitors to order work stoppage as required by BIO-MM#13. Wildlife exclusion fencing, as required under BIO-MM#8, would prevent wildlife from entering construction zones and thus reduce risk of death due to construction activity. These general measures would protect all wildlife species, including species that are directly and indirectly dependent on or associated with waters of the state. Although primarily intended to mitigate for light intrusion to human receptors, compliance with Aesthetics and Visual Resources (AVR)-MM#1b would also reduce light impacts to wildlife during construction.

For vernal pools species, preconstruction surveys to confirm presence or absence of vernal pool fauna would be required by BIO-MM#18. Seasonal work restrictions would be required under BIO-MM#19 when vernal pool fauna are known to be present. Specific monitoring protocols would be implemented through compliance with BIO-MM#20. Under BIO-MM#54, compensation for unavoidable permanent impacts on vernal pool fairy shrimp and vernal pool tadpole shrimp is required. This requirement, primarily enforced by USFWS, would likely be accomplished at sites provided in compliance with BIO-MM#63, discussed above.

Implementation of the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (see: [https://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/velb\\_conservation.pdf](https://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/velb_conservation.pdf)) is required by BIO-MM#21. These guidelines, promulgated and enforced by the USFWS, are the accepted standards for protection of this species. Compensatory mitigation as required under the Conservation Guidelines is also required for unavoidable impacts on valley elderberry longhorn beetle by BIO-MM#55.

Protection of reptiles and amphibians is required under BIO-MM#22-25, 51, and 56. Preconstruction surveys are required under BIO-MM#22, and monitoring, avoidance and relocation are required under BIO-MM#23. Security and other fences in reptile and amphibian habitats are required in BIO-MM#5 to include slats, flashing or similar structural elements that allow reptiles and amphibians to pass through the fences unimpeded. In addition, specific requirements for California tiger salamander (CTS) surveys, avoidance, monitoring and relocation are provided in BIO-MM#24 and 25. When avoidance is not feasible, compensatory mitigation for loss of CTS habitats is required under BIO-MM#56.

All of these measures are derived from practices and principles that are widely used and commonly accepted as being adequate to mitigate for the impacts to wildlife that are reported for the Project. Staff finds that these measures are likely to ensure adequate mitigation for Construction and Project direct and indirect impacts to species that are directly and indirectly dependent on or associated with waters of the state, and that CDFW and USFWS hold primary responsibility for enforcement of these measures.

**D. Determination**

The State Water Board has determined that the Project, when implemented in accordance with the MMRP and the conditions in this Order, will not result in any significant adverse water quality or supply impacts. (Cal. Code Regs., tit. 14, § 15096, subd. (h).) The State Water Board will file a NOD with the SCH within five (5) working days from the issuance of this Order. (Cal. Code Regs., tit. 14, §§ 15096, subd. (i).)

