Attachment A
Environmental Commitments

Attachment A. Environmental Commitments

Table 1
Mitigation Measures

Resource	Commitments

Air Quality	**Mitigation Measure AQ-1:** Fugitive Dust Control Plan during Construction to Meet Mojave Desert Air Quality Management District (MDAQMD) Rule 403 (Fugitive Dust Control) Requirements.
	• Consistent with the MDAQMD Rule 403, Brightline West will implement the following control measures:
	  ○ Use periodic watering (two times daily) for short-term stabilization of disturbed surface area to minimize visible fugitive dust emissions. Use of a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes will be considered sufficient to maintain compliance.
	• Brightline West will take actions sufficient to prevent Project-related trackout onto paved surfaces. Actions may include the use of:
	  ○ Gravel or aggregate vehicle tracking pads at temporary site entrances and exits.
	  ○ Wash racks that use pressurized water to clean tires as they pass through. Wash racks introduce water to the trackout control system which must be contained within the jobsite.
	  ○ Rumble plates, rumble strips, cattle guards that use vibration to shake off debris from vehicle tires.
	  ○ Cover loaded haul vehicles while operating on publicly maintained paved surfaces.
	  ○ Stabilize graded site surfaces upon completion of grading when subsequent development is delayed or expected to be delayed more than 30 days, except when such a delay is due to precipitation that dampens the disturbed surface sufficiently to eliminate visible fugitive dust emissions.
	  ○ Clean-up Project-related trackout or spills on publicly maintained paved surfaces within 24 hours.
	  ○ Reduce nonessential earth-moving activity under high wind conditions. A reduction in earth-moving activity when visible dusting occurs from moist and dry surfaces due to wind erosion will be considered sufficient to maintain compliance.
	• Alternatively, Brightline West may apply for and obtain an MDAQMD-approved Alternative PM_{10} Control Plan that incorporates emission reducing measures other than those defined above, as long as it generates equivalent emission reductions and is obtained pursuant to the requirements outlined in MDAQMD Rule 403.

	Mitigation Measure AQ-2: Fugitive Dust Control Plan during Construction to Meet South Coast Air Quality Management District (SCAQMD) Rule 403 Requirements. • Brightline West will follow all regulatory requirements applicable to fugitive dust mitigation according to the Best Available Cost

	Measures in Table 1 of Rule 403. This includes, but is not limited to, submittal of Fugitive Dust Control Plan and all permits required by the SCAQMD and the City of Rancho Cucamonga.
	Mitigation Measure AQ-3: Utilize additional means to reduce construction period emissions of air pollutants. • Brightline West will prepare a memorandum demonstrating that construction-period emissions of criteria air pollutants will not exceed General Conformity de minimis thresholds by integrating control measures into approved design-build plans. Examples of control measures include the following: o All off-road internal-combustion engine construction equipment will be California Environmental Protection Agency (CalEPA) Tier-4 Final certified. o All signal boards will be solar-powered. o All architectural coatings products will contain no more than 250 grams of volatile organic compound (VOCs) per liter of coating (2.08 pounds per gallon). The memorandum will be reviewed by a qualified air quality specialist prior to commencement of construction activities. If an exceedance of de minimis thresholds is found, Brightline West will consult with FRA.
Transportation	None (adverse effects reduced through implementation of avoidance and minimization measures or BMPs; see **Table 2**).
Land Use and Community Facilities	None (no impacts identified).
Socioeconomic Environment	None (no impacts identified).
Hazards	**Mitigation Measure HAZ-1**: Preparation of an Hazardous Materials Management Plan (HMMP) prior to application for construction permits • Brightline West will prepare a HMMP prior to application for permits for demolition, grading, or construction, as required by the State of California. The HMMP will be utilized during all phases of construction and will address underground storage tank (UST) decommissioning, field screening, materials testing methods, mitigation and contaminant management requirements, and health and safety requirements. • Prior to any construction activities, Brightline West will develop an accurate contact list that includes telephone numbers for regulatory agencies, Health and Safety personnel, the National Response Center, and cleanup contractors with whom there is a pre-established agreement for response. The list will also include all appropriate Federal, State, and local agencies that must be contacted when a discharge or discovery occurs. These agencies may include: o Lahontan and Santa Ana RWQCBs o Department of Toxic Substances Control o City toxics management divisions o San Bernardino County Department of Environmental Health • Brightline West will also prepare and implement a HMMP for the OSFM. During Project operation, Brightline West will ensure the safe handling, use, storage, and disposal of hazardous materials in accordance with the HMMP. • Brightline West will monitor disturbed soil for visual evidence of contamination (staining or discoloration). Soil will be monitored for the presence of volatile organic compounds using appropriate field instruments. If the monitoring procedures indicate the possible presence of contaminated soil, Brightline West will develop and implement a plan that identifies procedures for segregation, sampling, and chemical analysis of the soil. Contaminated soil will be profiled for disposal and will be transported with appropriate

	hazardous or non-hazardous waste manifests by a properly certified hazardous material hauler to a state-certified disposal or recycling facility licensed to accept and treat the type of waste indicated by the profiling process. • In the event that construction activities or soil removal processes generate any contaminated groundwater that must be disposed of outside of the dewatering/NPDES process, Brightline West will ensure the groundwater is profiled, manifested, hauled, and disposed of in the same manner as hazardous materials. • Brightline West will develop a well-developed hazardous material program, prior to construction, and will use non-hazardous substances in routine construction and maintenance activities when available. Brightline West will dispose of all hazardous or solid wastes and debris encountered or generated during construction and demolition activities. • Brightline West will maintain copies of the required Occupational Safety and Health Administration (OSHA) Safety Data Sheets for each hazardous chemical and will ensure that the copies are readily accessible during each work shift.
	Mitigation Measure HAZ-2: Brightline West will prepare a HMMP prior to applying for operation permits, consistent with applicable requirements in the State of California. Brightline West will update the operational HMMP, as necessary, and will address Underground Storage Tank decommissioning, field screening, materials testing methods, mitigation and contaminant management requirements, and health and safety requirements.
Energy Resources	None (no impacts identified).
Cultural Resources	None (no impacts identified).
Aesthetics	None (adverse effects reduced through implementation of avoidance and minimization measures or BMPs; see **Table 2**).
Noise and Vibration	**Mitigation Measure NOI-1**: Brightline West will prepare a detailed Noise Control Plan. The Noise Control Plan will list all construction equipment to be used throughout the construction period and will provide a construction schedule detailing when and where each piece of machinery will be used. Anticipated noise levels at sensitive receptors will be quantified and avoidance, minimization, and/or mitigation measures will be identified where anticipated noise levels would exceed relevant local noise thresholds. Noise levels with and without proposed avoidance, minimization, and mitigation measures will be modeled to demonstrate the efficacy of such measures.
	Mitigation Measure NOI-2: Brightline West will comply with all applicable local noise regulations. Consistent with applicable law, Brightline West will apply the following measures to minimize temporary construction noise and vibration impacts: • Avoid nighttime construction in residential neighborhoods, • Locate stationary construction equipment as far as possible from noise-sensitive sites, • Construct noise barriers, such as temporary walls or piles of excavated material, between noisy activities and noise-sensitive receivers, • Route construction-related truck traffic to roadways that will cause the least disturbance to residents, and • Use alternative construction methods to minimize the use of impact and vibratory equipment (e.g., pile-drivers and compactors).
Water Quality	**Mitigation Measure WQ-1:** Brightline West will install erosion control BMPs, as outlined in the Caltrans Construction Site BMPs Manual (Caltrans 2017). In the final construction plans, Brightline West will specify BMPs for grading and erosion control that are necessary to reduce erosion and sedimentation. Brightline West will select BMPs to achieve maximum sediment removal using the best available technology. Brightline West will implement standard erosion control measures, such as management, and structural and vegetative controls, for all construction activities that expose soil. Brightline West may use a phased approach during the installation of the permanent erosion and sediment control measures, to limit the extent of water quality

	monitoring needed during construction phases, consistent with applicable law.
	Mitigation Measure WQ-2: Brightline West will comply with the statewide National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP), and, as applicable, file a Notice of Intent to discharge stormwater and to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). Brightline West will ensure that construction activities comply with the conditions in the CGP, including implementing the SWPPP, BMPs, and monitoring to ensure that impacts on water quality are avoided, minimized, or mitigated.
	Mitigation Measure WQ-3: Brightline West will implement the SWPPP, as described in Mitigation Measure WQ-2 to reduce the likelihood that stormwater will carry any spilled contaminants to water channels.
	Mitigation Measure WQ-4: Brightline West will develop a Spill Prevention, Control, and Countermeasures (SPCC) plan to prevent accidental releases of chemicals that are stored on site and measures to use in the case of a spill. The BMPs described in the SPCC Plan will apply to construction activities and operation activities. Brightline West will implement appropriate hazardous material management practices identified in the SPCC Plan to reduce the potential for chemical spills or release of contaminants, including any non-stormwater discharge to drainage channels. If a spill occurs, Brightline West will implement cleanup, containment, and response measures outlined in the SPCC Plan. Brightline West will immediately notify the Caltrans Resident Engineer, Caltrans Construction Stormwater Coordinator, and the California Regional Water Quality Control board if a spill occurs. Brightline West will ensure that the phone numbers and emergency contact information of the appropriate parties are up to date at all times. Rancho Cucamonga Fire Protection District (RCFPD) is the emergency response agency for hazardous materials in the City of Rancho Cucamonga. San Bernardino County Fire Hazardous Materials (HAZMAT) Division us the emergency response agency for hazardous materials in the City of Hesperia.
	Mitigation Measure WQ-5: During Project design, Brightline West will locate Temporary Construction Areas to avoid key water features, such as the Mojave River, Cajon Wash, and California Aqueduct, and will avoid other water resources, to the greatest extent possible. Brightline West will use existing paved areas as staging areas, to the greatest extent possible, to minimize soil and groundwater disturbance.
	Mitigation Measure WQ-6: During Project construction, Brightline West will obtain water from existing, commercially available water sources. Brightline West will not develop new groundwater wells or surface impoundments, unless authorized under applicable law.
	Mitigation Measure WQ-7: To protect water quality, Brightline West will install permanent water quality treatment devices in accordance with the statewide National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) at the Hesperia station, Rancho Cucamonga station, and the longitudinal rail alignment. BMPs for water quality include vegetated swales, traction sand traps, or settling basins to help remove sediments and nutrients. Brightline West will ensure implemented BMPs are sized properly and designed by a registered professional engineer to prevent untreated stormwater runoff from entering the Mojave River, the California Aqueduct, or any washes along the alignment.
	Mitigation Measure WQ-8: Where necessary, Brightline West will redesign and resize the existing drainage features to accommodate the potential increase in runoff along the rail alignment. Brightline West will design the rail alignment to connect with and mirror the existing culverts along the I-15 highway, to the greatest extent possible. To determine the adequate size of drainage facilities, the total increase in impervious surface of the final design of the facilities will be included in a Rational Method (a way of calculating flow intensity) calculation to determine the increase in peak storm discharges resulting from the Project. Brightline West will use the 100-year, 24-hour storm event to determine the appropriate size of drainage facilities needed for the Project. Brightline West will design stormwater treatment with the Caltrans Project Planning and Design Guide.

Wetlands and Streams	None (adverse effects reduced through implementation of avoidance and minimization measures or BMPs; see **Table 2**).
Floodplains	None (adverse effects reduced through implementation of avoidance and minimization measures or BMPs; see **Table 2**).
Biological Resources	**Mitigation Measure BIO-1:** Brightline West will ensure that qualified biologists are present for construction activities along the following portions of the Project alignment: • Mojave Desert vicinity: From the northern-most Project extent, continuing south to the I-15 Bridge over D/E Street in Victorville - Focusing on protection of least Bell's vireo, and critical habitat for southwestern willow flycatcher • Cajon Canyon and Cajon Summit vicinity: From I-15 at Oak Hill Road to I-15 at Hall Ranch Road - Focusing on protection of least Bell's vireo, arroyo toad, and critical habitat for arroyo toad. • Cajon Wash and Lytle Creek vicinity: From I-15 at Hall Ranch Road to I-15 at Summit Avenue. Focusing on protection of San Bernardino Kangaroo Rat, ESA-listed plants, and critical habitat for San Bernardino Kangaroo Rat. No biologist is required during construction along portions of the alignment not listed above—for example, in urban areas of Rancho Cucamonga, Hesperia, and Victorville—although Brightline West may choose to utilize resource monitors/biological monitors at their discretion in these areas to ensure environmental compliance.
	Mitigation Measure BIO-2: Brightline West will not commence the following construction activities during bird breeding season at the three locations along the alignment identified in this mitigation measure. The construction activities are vegetation disturbance, pile driving, and ground disturbance (defined below). This mitigation measure does not apply to other construction activities or other locations. Three separate locations of Avian Avoidance Exclusion Areas are: • Area 1. Mojave River • Area 2. Cajon Wash • Area 3. Lytle Creek Figures showing the exclusion areas are provided in USFWS Biological Opinion. Vegetation disturbance activities, including clearing and grubbing of vegetation, are prohibited in exclusion areas during closure dates. Pile driving and ground disturbance activities are prohibited in exclusion areas during closure dates unless the work is initiated prior to the start of the closure period. In addition, Brightline West will not commence impact pile driving at the Mojave River Crossing between March 15 and May 31. Project-related ground disturbance is defined as: • Site preparation including grading and establishment of construction access, and • Grading, earth moving, stockpiling materials, excavation, and filling activities.
	Mitigation Measure BIO-3: Brightline West will ensure all Project staff including, contractors, operators, consultants, field personnel, and subcontractors, attend a mandatory environmental awareness training program. The program will be developed and presented by qualified biologists. The curriculum will cover the following, at a minimum: • Awareness information for each ESA-listed species potentially present and designated critical habitats in the Project area • The legal protection for each ESA-listed species, critical habitats, and the definition of "take" for listed species • Measures to protect ESA-listed species during construction • Review of the Project's environmental commitments, restoration steps, and mitigation requirements • Explain the reasoning behind the restrictions on the construction, where restrictions exist • Importance of avoiding ground-disturbing activities outside the designated work areas, closing construction gates, and visually surveying designated work zones prior to moving equipment

	• The location of any occupied ESA-listed species habitat and any suitable habitat within designated critical habitat areas within 400 feet of the Project footprint. • Requirements for ground and general areas inspection prior to moving vehicles and equipment • Explain the problem of generalist predators, such as common ravens (*Corvus corax*) • Explain the importance of keeping construction areas free from trash and litter and avoiding subsidizing generalist predators • Penalties for violation of Federal and State environmental laws Training will be documented, including names of trainees and dates of completion. All trained workers will be given an identifying sticker to be worn on site.
	Mitigation Measure BIO-4: At least 60 calendar days prior to the start of Project-related ground disturbance that would occur within 400 feet of any occupied ESA-listed habitat or within any suitable habitat within designated critical habitat areas, Brightline West will develop a written Biological Monitoring During Construction Plan (Plan) and submit the Plan for approval by USFWS Palm Springs Fish and Wildlife Office (PSFWO). The Plan will discuss the type, locations, and timing of physical disturbance: (1) within 400 feet of any occupied ESA-listed species habitat, or (2) within suitable habitat within designated critical habitat areas. The Plan will provide details of construction monitoring to be completed. The Plan will identify appropriate monitoring and reporting needs during construction, including responsibilities, timing, and monitoring activities including information to be collected, and will identify coordination requirements, safety requirements, and communications, including points of contact. Brightline West will implement the Plan during construction to ensure compliance with the ESA, and environmental commitments, as described in the Plan.
	Mitigation Measure BIO-5: No more than 120 calendar days after the completion of construction, Brightline West will develop and submit a Construction Monitoring, and Restoration Report to PSFWO for any construction areas: (1) within 400 feet of any occupied ESA-listed species habitat, or (2) within suitable habitat within designated critical habitat areas. The report will include the results of construction monitoring, pre- and post-construction photographs, and the type and locations of installed mitigation and restoration measures and a discussion of planned restoration measures. The report will include reporting on exclusion fencing monitoring and repairs.
	Mitigation Measure BIO-6: Brightline West will employ a qualified biologist to take pre- and post-construction photographs to document habitat conditions and alterations within the limits of disturbance during construction activities. Photographs will be dated, their locations recorded, and they will be stored in a manner that will allow access for reporting purposes.
	Mitigation Measure BIO-7: In areas adjacent to sensitive resources, Brightline West will restrict all work to designated work areas through the use of visible demarcation. The following are locations of sensitive resources: • Mojave Desert vicinity: From the northern-most Project extent, continuing south to the I-15 Bridge over D/E Street in Victorville. • Cajon Canyon and Cajon Summit vicinity: From I-15 at Oak Hill Road to I-15 at Hall Ranch Road. • Cajon Wash and Lytle Creek vicinity: From I-15 at Hall Ranch Road to I-15 at Summit Avenue. The contractor will avoid any unauthorized disturbance of native vegetation and sensitive resources outside the designated work area. Remnant habitat and existing stands of native vegetation will be identified and protected wherever possible. During construction, Brightline West will inspect the visible demarcation monthly, and will ensure that construction equipment, vehicles, and associated activities remain within designated construction work areas.

	Mitigation Measure BIO-8: Prior to ground-disturbing activities, Brightline West will employ a qualified biologist to perform a noxious weed within the temporary construction impact areas outside the I-15 median. Brightline West will manage “A” and “B” rated weeds on the California Department of Food and Agriculture’s Weed Pest Ratings table, per Caltrans landscape management requirements. During construction, Brightline West will avoid the introduction or spread of noxious weeds by employing a qualified biologist to perform annual re-inspections and implementing weed removal/control in temporary construction impact areas and in restoration areas.
	Mitigation Measure BIO-9: Brightline West will ensure that supplies, equipment, and/or construction excavations where wildlife such as San Bernardino Kangaroo Rat (SBKR) could hide (e.g., materials stockpiles, equipment in staging areas, and under vehicles) are inspected by all construction crew members prior to moving or working on or with them to avoid killing or injuring wildlife. If wildlife is detected, Brightline West will contact the qualified biologist.
	Mitigation Measure BIO-10: Brightline West will preserve any dead biological material encountered related to ESA-listed species in the best possible state for later analysis. Preservation may include chilling and general protection from disturbance.
	Mitigation Measure BIO-11: Brightline West will prepare and implement a Temporary Erosion and Sediment Control Plan that identifies best management practices (BMPs) best suited for site conditions, in accordance with applicable Caltrans standards for erosion and sediment control.
	Mitigation Measure BIO-12: Brightline West will develop and implement a Spill Prevention, Control, and Countermeasures Plan for construction activities to manage and reduce risk for chemical spills or releases of contaminants, including any non-stormwater discharge to drainage channels. If a spill occurs, Brightline West will implement cleanup, containment, and response measures in accordance with the Plan. Brightline West will immediately contain any accidental spills and report to the California Office of Emergency Services (1-800-852-7650) and the National Response Center (1-800-424-8802).
	Mitigation Measure BIO-13: Brightline West will not store construction equipment, chemicals, fuels, or lubricants within the 100-year floodplain of any water feature.
	Mitigation Measure BIO-14: Brightline West will ensure that all equipment maintenance and dispensing of fuel, oil, coolant, or any other such activities is restricted to the designated staging areas outside of the Mojave River floodplain, Cajon Wash, and Lytle Creek to prevent the release of hazardous substances into these sensitive areas.
	Mitigation Measure BIO-15: Brightline West will develop and implement a Fugitive Dust Control Plan that includes, at a minimum, the following: • Reduce nonessential earth-moving activity under high-wind conditions when visible dusting occurs from surfaces due to wind erosion. • Water will be used for stabilization of surfaces for fugitive dust control within 400 feet of areas occupied by ESA-listed species, or within suitable habitat within designated critical habitat areas. • Periodic watering for short-term stabilization of disturbed surface area. • Prevent track-out onto paved surfaces and clean up any tracked materials immediately. • Stabilize graded site surfaces upon completion of grading when subsequent development is delayed or expected to be delayed more than 30 days, except when such a delay is due to precipitation that dampens the disturbed surface sufficiently to eliminate visible fugitive dust emissions.
	Mitigation Measure BIO-16: Brightline West will install permanent stabilization measures upon completion of construction along washes and in other areas of potential erosion.
	Mitigation Measure BIO-17: Brightline West will obtain water from existing commercially available water sources during construction. Brightline West will

	not develop new groundwater wells or surface water impoundments, unless authorized under applicable law.
	Mitigation Measure BIO-18: Brightline West will design or redesign existing stormwater systems to accommodate runoff from impervious surfaces. Drainage facilities will detain flows and will not contribute to additional flows in rivers, streams, and washes.
	Mitigation Measure BIO-19: Brightline West will design all new utility lines and ancillary structures required for the Project in a manner that will reduce the likelihood of bird nesting, especially by common ravens.
	Mitigation Measure BIO-20: Brightline West will design and install permanent water quality treatment devices, in compliance with applicable state and local requirements, to meet water quality objectives (i.e, concentrations, levels, or narrative statements representing a quality of water that supports a particular use) defined in the Lahontan Basin Plan and Santa Ana River Basin Plan.
	Mitigation Measure BIO-21: Brightline West will employ noise control measures to reduce noise from construction including: • Use equipment with enclosed engines and/or high-performance mufflers. • Locate stationary construction equipment as far as possible from noise-sensitive sites. • Construct noise barriers, such as temporary walls or piles of excavated material, between noisy activities and noise-sensitive receivers. • Route truck traffic along roadways that will cause the least disturbance to species. • Where pile driving is needed, use sonic/vibratory pile driver wherever possible. Where impact pile drivers must be used near noise-sensitive receptors, implement a slow start and limit activity to daylight hours to the extent possible.
	Mitigation Measure BIO-22: Brightline West will implement a litter-control program during construction to avoid subsidizing (feeding) generalized scavengers, such as common ravens. The program will include: • Use of covered, common-raven-proof trash receptacles • Daily removal of trash from the trash receptacles • Daily site inspections • Proper disposal of trash in a designated solid waste disposal facility Precautions will also be taken by the contractor to prevent trash from blowing out of construction vehicles
	Mitigation Measure BIO-23: Brightline West will develop and implement operational standards to mitigate subsidized predation and maintain railway and stations free of food and habitat elements that subsidize generalist scavengers, such as common ravens.
	Mitigation Measure BIO-24: Brightline West will ensure that no feeding of wildlife occurs during construction and operations. No pets or firearms will be allowed in the construction area.
	Mitigation Measure BIO-25: Brightline West will design new culverts, bridges, and viaducts required for the Project to align with any existing I-15 structures to maintain a continuous wildlife crossing corridor. Where the alignment of new culvert, bridges, or viaduct will deviate from alignment with existing I-15 structures, Brightline West will design and install appropriately sized crossing structures at appropriate intervals to allow for terrestrial wildlife to pass under the proposed alignment. Modified wildlife crossings would be designed to maintain pre-existing characteristics to the extent feasible.
	Mitigation Measure BIO-26: Brightline West will develop and implement Restoration Plans to restore areas of native vegetation that are temporarily disturbed by construction. The Plan will specify the following: • Within Caltrans right-of-way, restoration will follow Caltrans requirements. • Within Caltrans right-of-way, in areas that are also within designated critical habitat, restoration will follow Caltrans requirements and include habitat structure consideration for the relevant species.

	Brightline West will initiate restoration within one year after the completion of construction at any location along the alignment, during the appropriate seasonal window. Brightline West will not delay in commencing replanting within these areas.
	Mitigation Measure BIO-27: Brightline West will stockpile and protect removed native topsoil and will use the stockpiled topsoil in restoration and landscaped areas. Brightline West will ensure areas from where topsoil is recovered is free from invasive plant species.
	Mitigation Measure BIO-28: In consultation with the Caltrans District Landscape Architect, Brightline West will develop and implement permanent or temporary irrigation systems to supply water to replacement landscape plantings.
	Mitigation Measure BIO-29: Brightline West will design nighttime lighting at passenger stations and along the rail alignment to minimize light intensity, duration, and distribution and will utilize wildlife- and insect-sensitive spectrum lighting to reduce the negative effects of artificial nighttime lighting to sensitive species. Brightline West will incorporate light and glare screening measures—for example, use downward-cast lighting—and will use motion sensor lighting, at passenger stations where appropriate.
	Mitigation Measure BIO-30: Brightline West will promptly remove all track-killed animals along the operating rail line to reduce adverse effects associated with food subsidies to generalist predators, such as common ravens.
	Mitigation Measure BIO-31: Throughout the life of the project, Brightline West will annually monitor catenary and ancillary structures, power poles, auxiliary buildings, passenger stations, and parking areas to identify and remove common raven nests outside of the nesting season. Once raven nesting sites are identified, actions will be taken to block the site from raven reuse. In coordination with PSFWO, adaptive management may be undertaken if the initial measures are unsuccessful to remove common raven nests.
	Mitigation Measure BIO-32: During operations, and to mitigate potential subsidized predation, Brightline West will plan and implement operational standards for maintaining railway and passenger stations to not support generalist predators. Stations and other operations areas will be maintained free of food sources and will mitigate identified habitat support elements that facilitate opportunist predators.
	Mitigation Measure BIO-33: Within 120 calendar days following the completion of restoration activities, Brightline West will develop an Invasive Plant Species Monitoring and Control Plan for review and approval by PSFWO. Brightline West will monitor invasive plant species in the restored temporarily disturbed areas and within operational areas monthly from January through June for two growing seasons following completion of initial restoration.
	Mitigation Measure BIO-34: Brightline West will employ a qualified biologist to conduct surveys for the presence of suitable habitat for arroyo toad within the Caltrans right-of-way, prior to the start of construction. Suitable habitat areas are likely present in the vicinity of tributaries to Cajon Creek and are not likely in any other locations within the Project. Brightline West will coordinate with PSFWO prior to implementation of any survey. Information on monitoring within suitable habitat will be included in the Monitoring Plan identified in Mitigation Measure BIO-4.
	Mitigation Measure BIO-35: Brightline West will employ a qualified biologist to conduct presence/absence surveys at all locations within Caltrans right-of-way identified to have suitable habitat prior to the start of ground disturbance within 150-feet of ground disturbance. Survey procedures will be consistent with survey protocols for arroyo toad (USFWS 1999b). If surface water is present, surveys will be conducted during the breeding season, which generally occurs from March 15 through July 1. Information on monitoring within occupied habitat will be included in the Monitoring Plan identified Mitigation Measure BIO-4.
	Mitigation Measure BIO-36: Brightline West will employ a qualified biologist to capture and relocate any identified arroyo toads present within the surveyed areas prior to the start of any ground disturbance that would occur within 150 feet of the surveyed area.

	Captured animals will be released as soon as possible following capture. Capture and handling procedures will follow the directives of the Declining Amphibian Task Force's Fieldwork Code of Practice. The Fieldwork Code of Practice provides procedures for reducing the risk of spread of amphibian diseases and/or parasites during handling. Animals will be released within the closest available habitat of equivalent or superior suitability to the habitat in which the animals were found, and at least 150 feet from any area of the Project's potential ground disturbance. The qualified biologist will determine the best location for release. Where feasible, animals will be released downstream within the same drainage captured. Release areas will be selected based on arroyo toad habitat requirements, generally including relatively broad, streamside flats with scattered vegetation located adjacent to shallow pools that have unvegetated sand bars or gravel bars. Adjacent upland may be vegetated with coastal sage scrub, chaparral, grassland, or oak woodland.
	Mitigation Measure BIO-37: For all areas within the active ground disturbance footprint that is also within 150 feet of the location of an arroyo toad capture, a biologist will perform daily clearance surveys prior to the initiation of any ground disturbing operations for that the day. The clearance survey area will be defined as the location where the toad was captured plus the surrounding area within 150 feet. The qualified biologist will have the authority to delay ground disturbance activities within the clearance survey area until the clearance is complete.
	Mitigation Measure BIO-38: The qualified biologist shall notify PSFWO within two business days of any capture and release actions.
	Mitigation Measures BIO-39: Within 90 calendar days following capture and release, an Arroyo Toad Summary will be developed by the biologist and submitted to PSFWO. The summary will provide information on handling methods used, photographs, numbers of animals handled, and maps with coordinates of capture and release locations of arroyo toads.
	Mitigation Measure BIO-40: Brightline West will employ a qualified biologist to conduct surveys to document the presence of suitable habitat for least Bell's vireo in areas of mapped potential suitable habitat, prior to the start of construction. Brightline West will coordinate with PSFWO prior to implementation of any survey. Brightline West will prepare and submit a summary memorandum with the results of the survey to PSFWO no later than 14 days after completion.
	Mitigation Measure BIO-41: Preconstruction surveys will be conducted within 400 feet of any proposed ground disturbance at any location identified to have suitable habitat following standard protocols. Information on any occupied habitat monitoring will be included in the Monitoring Plan identified in Mitigation Measure BIO-4.
	Mitigation Measure BIO-42: Brightline West will employ a PSFWO-approved biologist to conduct to identify areas within the construction Temporary and Permanent Limits of Disturbance that may support SBKR, in collaboration with PSFWO and prior to the start of any ground disturbance. Brightline West will also assess areas outside of the Temporary and Permanent Limits of Disturbance and also within the Caltrans right-of-way in SBKR critical habitat for areas that may support SBKR. Suitable habitat is most likely be located along the Project alignment between the vicinity of Hall Ranch Road and the vicinity of Summit Avenue and could be encountered in Cajon Wash, Lytle Creek, and or terraces adjacent to these features. Areas identified to have suitable habitat for SBKR will be called "SBKR restricted work areas." Brightline West will not include areas of existing infrastructure and areas lying between I-15 highway lanes (median) in SBKR restricted work areas. The Physical and Biological Features for SBKR critical habitat are: • (PBF 1) Soil series consisting predominantly of sand, loamy sand, sandy loam, or loam; • (PBF 2) Alluvial sage scrub and associated vegetation such as coastal sage scrub and chamise chaparral, with a moderately open canopy;

	• (PBF 3) River, creek, stream, and wash channels that are subject to dynamic geomorphological and hydrological processes typical of fluvial systems; and • (PBF 4) Upland areas adjacent to more suitable habitat that serve as refugia during large-scale flooding. SBKR suitable habitat, protected as SBKR restricted work areas, will be further classified as Moderate habitat when evidence of PBFs 1, 2, and 3, but not 4 are present, or as High habitat when evidence of PBF 4 is present. Coordination with and approval by PSFWO will occur to identify and refine the boundaries of SBKR restricted work areas. Information on monitoring of SBKR restricted work areas during construction will be included in the Monitoring Plan identified Mitigation Measure BIO-4.
	Mitigation Measure BIO-43: Surveys for SBKR will be performed by qualified biological monitors who are either approved by the PSFWO or are section 10(A)(1)(a) permit holders which allow handling of SBKR. Permit holder names and permit numbers will be provided to the PSFWO for record keeping purposes. Resumes for qualified SBKR biological monitors who do not hold a section 10(A)(1)(a) permit will be submitted via email to the PSFWO biologist assigned to the Project for record- keeping purposes and approval. The PSFWO will have 7 calendar days to approve biological monitors based on submitted qualifications. If the PSFWO does not respond within seven calendar days, it will be assumed that all biological monitors are approved.
	Mitigation Measure BIO-44: Trapping for SBKR will be performed by qualified biological monitors prior to the start of ground-disturbing activities within SBKR restricted work areas per details provided in Appendix D of the Biological Opinion in order to remove animal from the work area.
	Mitigation Measure BIO-45: Based on survey results, PSFWO, in collaboration with Brightline West, will determine where captured SBKR are released. Captured SBKR will be released to either: • Suitable unoccupied habitat within Caltrans right-of-way adjacent to the project site, or • Suitable unoccupied habitat within Caltrans right-of-way beyond the limits of temporary and permanent impacts, or • A receiving conservation bank, preferably located within the same watershed as original trapping location.
	Mitigation Measure BIO-46: Prior to initiating ground-disturbing activities within any portion of SBKR restricted work areas, SBKR barrier fencing will be installed by the contractor or biologist to separate the construction activities from the surrounding area and allow clearance of the restricted work area. • SBKR barrier fencing will be constructed with suitable fencing for effective small mammal exclusion that uses anti-climb technology 30 to 36 inches high above ground with the bottom buried at least 12 inches deep with a 6-inch apron lying at 12 inches deep at a right angle. • No gaps greater than 0.5 inch will be allowed. • The biologist or the biologist's representative will be present when the fence is installed to ensure that no burrows or burrow entrances are covered by the apron of the barrier fence. • Within in 14 calendar days of the conclusion of exclusion fence installation, Brightline West will submit to PSFWO an Exclusion Fencing Report indicating the locations of fence along with photographs
	Mitigation Measure BIO-47: For the duration of construction work within the SBKR restricted work area, the PSFWO-approved Biologist(s) shall: • Review the previous week's construction activities and the upcoming week's construction activities to determine if there are areas that need additional inspection, fencing, or monitoring. • Inspect the SBKR barrier fencing at the end of each workday during construction. • Repair any gaps in the barrier fence prior to leaving the site at the end of the workday. • Inspect SBKR barrier fencing, and repair as needed at least weekly during any pause in construction of greater than 1 week. • Search the construction footprint for any kangaroo rat sign early in the morning and prior to any ground-disturbing activities.

	• Contact PSFWO immediately if kangaroo rat sign is detected inside the barrier fencing. • Provide a weekly written report of construction monitoring activities and findings to PSFWO within 4 business days following the end of each week during ground-disturbing construction within the SBKR restricted work area.
	Mitigation Measure BIO-48: Prior to ground disturbance, the PSFWO-approved biologist will conduct pre-construction trapping of SBKR inside exclusion fenced areas. Trapping will be conducted at each location until no SBKR are trapped for two consecutive nights. Initial trapping is required to be performed on the evening of the first day on which the barrier fence installation is complete.
	Mitigation Measure BIO-49: The biologist will implement the SBKR Translocation Plan, which provides procedures and protocols to follow when SBKR are relocated from the SBKR restricted work areas
	Mitigation Measure BIO-50: The biologist(s) will house and release all captured SBKR as soon as possible following trapping. The captured SBKR will be housed in suitable facilities until they are released. The protocol for housing trapped SBKR will follow the SBKR Translocation Plan. Captured SBKR will be translocated by soft release into appropriate receiving habitat as detailed in the SBKR Translocation Plan.
	Mitigation Measure BIO-51: Brightline will restore SBKR restricted work areas temporarily affected by the Project as described in the Restoration Plan (Appendix C of the BO). The restored areas will be monitored in accordance with Mitigation Measure BIO-34 and Caltrans requirements.
	Mitigation Measure BIO-52: Not less than 90 calendar days prior to construction groundbreaking within any identified SBKR restricted work area, Brightline West will provide PSFWO with a SBKR Compensation Summary identifying the locations, type, and extent of permanent impacts to SBKR restricted work areas along with a calculation of required compensation credits to be provided. Permanent impacts will be defined as direct, negative effects to functioning PBFs within designated critical habitat that result in permanent loss of the PBFs. Using the habitat classification provided under Mitigation Measure BIO-42 impacts will be calculated, and conservation credits purchased at the following ratios: • 0.5 credits per acre (0.5:1) for permanent impact to Moderate functioning SBKR restricted work areas, and • 1.0 credit per acre (1:1) for permanent impact to High functioning SBKR restricted work areas.
	Mitigation Measure BIO-53: To offset permanent impacts to suitable SBKR habitat, Brightline West will purchase conservation credits. Not less than 60 calendar days prior to construction groundbreaking within any identified SBKR restricted work area, Brightline West will submit proof of payment or proof of escrow account payable, either payable to a Service-approved conservation bank to establish an endowment sufficient to compensate permanent impacts at the ratios given above.
	Mitigation Measure BIO-54: Brightline West will submit a SBKR Final Report to PSFWO within 60 calendar days of the completed Project. The SBKR Final Report will include results of trapping within SBKR restricted work areas and a status report of SBKR relocated, including numbers and status of soft release.
	Mitigation Measure BIO-55: Qualified botanists will conduct preconstruction surveys within suitable habitat for ESA-listed plant species prior to any ground disturbing activities.
	Mitigation Measure BIO-56: Prior to initiating ground-disturbing activities, the contractor will place temporary construction fencing around all ESA-listed plant species that occur within the TCAs. When ESA-listed plants are observed within TCAs, avoidance and minimization measures will be applied by Brightline West. Exclusionary areas will be signed for avoidance by construction equipment and personnel. Depending on the proximity of the ESA-listed plant populations to the construction work area, the plant populations will be monitored by Brightline West during and following construction to avoid significant effects.

	Mitigation Measure BIO-57: To the extent possible, the Project will completely avoid areas with ESA-listed plant populations by designing viaduct piers outside such areas.
Safety	None (adverse effects reduced through implementation of avoidance and minimization measures or BMPs; see **Table 2**).
Geology, Soils and Seismicity	**Mitigation Measure GEO-1**: To further evaluate the potential for ground fissures, Brightline West will employ a qualified geologist to conduct surface reconnaissance and prepare an evaluation during the design phase of the Project. This evaluation will include visual observation of the earth units, manmade features and geomorphology, and review of geologic maps to evaluate the surface conditions relative to Project features. Recommendations of the evaluation will be incorporated into the final design of the Project and construction plans.
	Mitigation Measure GEO-2: Brightline West will employ a qualified geologist to perform a site specific, detailed evaluation, which includes surface reconnaissance and subsurface assessment. Recommendations of this evaluation will be incorporated into the final design of the Project. This evaluation will be performed prior to construction so that, in the event a fault-rupture hazard exists, the recommendations of the geologist can be implemented in the final design of the Project.
	Mitigation Measure GEO-3: Brightline West will employ a qualified geologist to perform a site-specific evaluation of the potential ground shaking hazard. The evaluation will be performed during design development and prior to construction so that appropriate structural design and mitigation techniques can be incorporated into the final design of the Project. Evaluation techniques will include drilling of exploratory borings, laboratory testing of soils, computer software analysis to develop seismic design parameters for use by the Project structural engineer. Recommendations of this evaluation that avoid or minimize impacts related to seismic ground shaking will be incorporated into the final design of the Project. Structural elements of the rail system will be designed to resist or accommodate appropriate site-specific ground motions and to conform to the current seismic design standards. Implementation of an earthquake early warning system will also be included as part of the Project.
	Mitigation Measure GEO-4: Brightline West will employ a qualified geotechnical engineer to perform a site-specific evaluation of the potential liquefaction hazard during design development and prior to construction. This evaluation will assess the liquefaction and dynamic settlement characteristics of the on-site soils and will include drilling of exploratory borings, evaluation of groundwater depths, and laboratory testing of soils. Recommendations of this evaluation that avoid or minimize impacts related to liquefaction will be incorporated into the final design of the Project.
	Mitigation Measure GEO-5: Brightline West will employ a qualified geologist to perform site-specific geotechnical evaluations to assess the settlement potential of the on-site natural soils and undocumented fill. Surface reconnaissance and subsurface evaluation will be performed which addresses the potential settlement hazards. The evaluations will include drilling of exploratory borings and laboratory testing of soils, in addition to surface reconnaissance to evaluate site conditions. Recommendations of the geotechnical evaluation will be incorporated into the final design of the Project.
	Mitigation Measure GEO-6: Brightline West will employ a qualified geologist to perform subsurface evaluation prior to design and construction. Evaluation of corrosive soil potential will be accomplished by testing and analysis of soils at design depths. Laboratory tests will be conducted on the soils prior to construction and the results will be reviewed by a qualified corrosion engineer. The qualified corrosion engineer will prepare an improvement plan which will include corrosion protection measures suitable to the Project elements. The improvement plan will include corrosivity tests to evaluate the corrosivity of the subsurface soils. Recommendations of the improvement plan will be incorporated into the final design of the Project.
	Mitigation Measure GEO-7: Brightline West will employ a qualified geologist to perform, a site-specific subsurface evaluation, including laboratory testing, to evaluate the extent of which expansive soils are present along the

	alignment. Where expansive soil conditions are found and will be detrimental to proposed improvements, measures recommended by the geologist will be incorporated into the final design of the Project.
	Mitigation Measure GEO-8: To further evaluate the potential for landslides and surficial slope failures along the proposed segments, Brightline West will employ a qualified geotechnical engineer to perform a surface reconnaissance and subsurface evaluation during Project design. Surface reconnaissance will include visual observation of the earth units and geomorphology and review of geologic maps to evaluate the condition of slopes relative to the alignment. Subsurface exploration will be performed as recommended by the qualified geotechnical engineer to evaluate the potential for landslides and surficial slope failures. If necessary, subsurface evaluation will include the excavation and detailed logging of exploratory trenches, test pits and/or borings as recommended by the qualified geotechnical engineer. Slope stability computer analyses will be performed to address the stability of slopes, as recommended by the qualified geotechnical engineer. Measures recommended in the evaluation will be incorporated into the final design of the Project.
Environmental Justice	None (no impacts identified).

Table 2
Other Environmental Commitments (Avoidance, Minimization, and BMPs)

Resource	Commitments
Transportation	During project design, Brightline West will coordinate with SBCTA, Caltrans, Rancho Cucamonga, and Hesperia to incorporate intersection improvements to lessen or avoid impacts under the 2045 Horizon Year to the extent feasible, including optimizing signal timing to reflect changes in traffic flows in station areas.
	At the intersection of Milliken Avenue and 7th Street, Brightline West will: • Modify the intersection of Milliken Avenue/Azusa Court (located about 680 feet north of 7th Street) to permit left turns into Azusa Court from northbound Milliken Avenue. This will require modification of the existing 14-foot-wide, raised median to include an uncontrolled permissive left-turn lane, approximately 150 feet long, plus a 90-foot-long transition. A 35 percent diversion of left turns to Milliken Avenue/Azusa Court from Milliken Avenue/7th Street is projected for balanced traffic operations at both ingress intersections. • Complete a focused engineering study to assess the intersection geometrics and ensure a safe ingress to the proposed station via Milliken Avenue/Azusa Court.
	Brightline West will comply with the San Bernardino County CMP policies to make fair-share contributions to regional traffic improvements identified in the latest Nexus Study (2018). The Project's fair-share contribution may be offset by the value of improvements that the Project will make at locations at which it is only partially responsible for the increased delay.
	Brightline West will coordinate with the Victor Valley Transit Authority (VVTA) and SBCTA to best serve the needs of transit users at the Hesperia station without significantly affecting other transit services. Such coordination will include a focus on increasing weekday peak period service at the Hesperia station.
	Brightline West will coordinate with SBCTA and Omnitrans to provide sufficient bus service to serve Brightline West passengers at the Rancho Cucamonga station on Sundays.
	Brightline West will coordinate with Omnitrans to monitor load factors and the number of Brightline West passengers on Omnitrans buses serving the Rancho Cucamonga station. If necessary, Brightline West will coordinate with Omnitrans to provide additional Omnitrans service during the applicable time periods.

	Brightline West will coordinate with SBCTA and Southern California Regional Rail Authority (SCRRA) to provide additional Metrolink service sufficient to serve Brightline West passengers on Sundays. Brightline West will also coordinate with SCRRA to monitor load factors and the number of Brightline West passengers on Metrolink trains serving the Rancho Cucamonga station on weekdays, Saturdays, and Sundays. If necessary, Brightline West will coordinate with SCRRA to provide additional Metrolink service during the applicable time periods.
	Hesperia Station Parking: Commencing with the opening of the Project and continuing throughout the life of the project, Brightline West will monitor parking occupancy (occupied spaces as a share of total spaces) at the Hesperia station with sufficient detail to identify the hour during which the peak occupancy occurs each day and the percentage of parking spaces occupied during that hour. Brightline West will develop and implement a Parking Demand Management Plan that includes one or more of the following elements: • Providing discounted fares for Brightline West passengers who arrive at the station by bus. • Directly subsidizing transit operators to provide reduced transit fares for Brightline West passengers. • Directly subsidizing bus transit operators to provide additional transit service to the station during the peak arrival and departure times of Brightline West passengers. • Working with the City of Hesperia to institute a neighborhood parking protection plan for existing or future neighborhoods near the station, including parking policies such as a residential permit parking program and/or time limits to encourage turnover. • Constructing additional parking facilities or expanding existing parking facilities. • Providing commuter service between the Victor Valley station and Rancho Cucamonga to provide an additional location to serve passengers from the area. If any element of the parking demand management plan requires environmental review, Brightline West will implement other elements sufficient to manage the parking demand until the environmental review has been completed. If, after implementation of the parking demand management plan, additional parking needs are still necessary, Brightline West will implement additional parking demand management measures from the list above.

	Rancho Cucamonga Station Parking: Commencing with the opening of the Project and annually thereafter throughout the life of the project, Brightline West will develop and implement a Parking Demand Management Plan that includes that following:
	• Monitoring parking occupancy (occupied spaces as a share of total spaces) at the Rancho Cucamonga station with sufficient detail to identify the hour during which the peak occupancy occurs each day and the percentage of parking spaces occupied by vehicles with Metrolink and Brightline West parking permits during that hour.
	• Forecasts of parking demand for the next five years.
	• Measures that Brightline West will implement to accommodate anticipated parking demand, which may include one or more of the following elements:
	  ○ Providing discounted fares for Brightline West passengers who arrive at the station by rail or bus transit Directly subsidizing SCRRA or bus transit operators to provide reduced transit fares for Brightline West passengers.
	  ○ Directly subsidizing bus transit operators to provide additional transit service to the station during the peak weekday arrival and departure times of Brightline West passengers.

	○ Directly subsiding SCRRA or bus transit operators to provide additional transit service to the station on Sunday afternoons, as the lack of Sunday service to return home may discourage passengers from using transit to access the station on other days. ○ The Project Applicant will be required to enter into voluntary parking agreements with public and private property owners to provide off-site parking at existing underutilized parking facilities within 5 miles of the station, including a free shuttle for passengers who park at an off-site parking facility, and identifying any additional off-site parking facilities that are anticipated to be required within the next five years based on ridership forecasts. ○ Implementing a differential charge for on-site and off-site parking to match the demand for each type of parking to the supply. ○ Working with the City of Rancho Cucamonga to institute a neighborhood parking protection plan for existing or future neighborhoods near the stations, including parking polices such as a residential permit parking program and/or time limits to encourage turnover ○ Providing additional funding for more frequent service for the Omnitrans' West Valley Connector and/or providing funding for a local City circulator using the City's offsite parking structures If any element of the parking demand management plan requires environmental review, Brightline West will implement other elements sufficient to manage the parking demand until the environmental review has been completed. If, after implementation of the parking demand management plan, additional parking needs are still necessary, Brightline West will implement additional parking demand management measures from the list above.
Aesthetics	Brightline West will maintain an orderly sequence of construction and properly contain, stockpile, and store materials and equipment that may impose on views temporarily.
	Brightline West will direct night-time lighting toward the work zone to minimize light spillover onto adjacent properties, to reduce glare for freeway motorists, and to prevent visible lighting overflow into the natural dark sky of the desert at night. Brightline West will screen construction lighting from viewers with fencing, barriers, glare shields, and landscaping.
	Brightline West will implement standard dust control measures at construction areas, including staging areas for visibility and temporary access routes.
	Brightline West will erect visual screening, such as fences, along construction and staging areas as appropriate. Brightline West will replace landscaping and native vegetation that is cleared for Temporary Construction Areas (including staging and access). Brightline West will regrade disturbed areas within Caltrans right-of-way to soften their contours and replant vegetation as directed by Caltrans within six months of the completion of construction or another timeframe agreed to with Caltrans.
	Brightline West will design rail features, including bridge pillars/columns, raised tracks, trains, catenary structures, crash barriers, retaining walls, abutments, fencing, and embankments to blend with or represent the surrounding desert or urban environment. Features will be created or stained in muted desert colors. Bright colors and highly reflective materials will be avoided, to the extent practicable. Brightline West will design Project elements to include visual elements that contribute to a sense of place and a memorable experience for motorists, pedestrians, and rail passengers. Concrete will be embossed with patterns, where appropriate, that are indicative of the surrounding environment and that create a visual link between the railway features and their surroundings and will be similar in character to recent nearby freeway projects.
	Brightline West will design the Hesperia station and associated elements with architecture that complements the surrounding landscape character with flowing lines, form, and muted colors. The surface parking lot for the station will be

	surrounded with native landscaping that softens its appearance and helps it blend into its surroundings. The landscaping will include drought-resistant desert plants, rock, and stone. Pedestrian elements such as pathways, structures, and signage will be developed to pedestrian scale and will use patterns, colors, and symbols that represent and complement the desert landscape. Brightline West will design lighting to provide an adequate sense of safety for station users, and to minimize glare and obstruction of views through glare-screening measures, downward-cast lighting, motion sensors, and plantings that will assist with glare reduction, consistent with applicable law.
	Brightline West will design the Rancho Cucamonga station and associated elements with architecture that complements the surrounding urban landscape character with flowing lines, form, and muted colors. The station and it associated surface parking lot will be landscaped with ornamental and native vegetation to soften the appearance of structures and hard surfaces. The landscaping will include drought-tolerant trees, shrubs, and groundcovers, as well as rock and stone. Pedestrian elements such as pathways, structures, and signage will be developed to pedestrian scale and will incorporate patterns, colors, and symbols that represent and complement the surrounding landscape. As at the Hesperia station, lighting for the Rancho Cucamonga station will be designed to provide an adequate sense of safety for station users, and to minimize glare, obstruction of views, and distractions, consistent with applicable law.
Wetlands and Streams	Where full spans over a drainage channel or a wetland cannot be achieved because of design constraints, Brightline West will design the Project to minimize impacts by placing support structures above the ordinary high-water mark or outside of a wetland.
	Aquatic Resource Identification and Restoration: Brightline West will comply with the applicable requirements of the Federal Clean Water Act, including applicable permit conditions, during the construction phase of the Project. Brightline West will ensure that a qualified biologist is on site prior to and during construction of the Project to identify and protect aquatic resources. The biologist will define the boundaries of the aquatic resources and will supervise the placement of exclusion fencing to protect those areas during project construction. Additionally, Brightline West will implement a silt fence around the construction areas adjacent to aquatic resources to protect the resources, including Waters Of The United States, from runoff and spills associated with construction activities. Brightline West will monitor activities during the entire construction phase. If any aquatic resources are affected by construction activities (e.g., clearing, ground disturbance), Brightline West will prepare a Restoration Plan to restore the affected resources, and will submit the plan to the U.S. Army Corps of Engineers and USFWS for approval. Brightline West will implement the Plan after construction is complete.
	Temporary Erosion and Sediment Control: Brightline West will develop a temporary erosion and sediment control plan for construction of the railway, stations, and maintenance facilities and will be employed to control erosion from disturbed areas. Brightline West will identify standard erosion control BMPs, such as management, structural, and vegetative controls in the plan and will implement those BMPs for all construction activities that expose soil. These BMPs will be selected to achieve maximum sediment removal using the best available science and technology. Brightline West will inspect and maintain BMPs throughout construction. BMPs for rail installation include, but are not limited to: • Installation of erosion control material consisting of silt fences along the outside limits of construction. • Implementing wind erosion control practices on all stockpiled materials. • Stripping and transporting topsoil to stockpile for use in the restoration of temporary ground disturbances. • Preservation of existing vegetation as much as practicable. • Establishment of native grass or other native vegetative cover on the construction site as soon as possible after disturbance. Non-native seeds or vegetation will not be used.

	• Controlled erosion in disturbed areas by grading so that direct routes for conveying runoff to drainage channels are eliminated. • Compliance with all applicable conditions and mitigation requirements that result from the permits, certifications, and agreements.
	Brightline West will coordinate with USACE to obtain a jurisdictional determination for aquatic resources. If applicable, Brightline West will obtain any required permits and implement any permit conditions.
Floodplains	Brightline West will implement BMPs prior to construction to minimize the temporary effects on floodplains, and Brightline West will not store construction equipment and materials within the floodplain. Brightline West will return any temporary effects on floodplains to preconstruction conditions.
Safety	Brightline West will implement construction safety requirements during construction, per regulatory requirements including Cal OSHA Construction Safety Orders and CPUC General Order No. 176.
	Brightline West will develop and implement the Project SSP as required under 49 CFR 270, and Tier III passenger equipment safety standards required under 49 CFR Parts 229, 231, 236, and 238.
	Brightline West will ensure Project conformity to current safety standards, which include NFPA Standard 130. Brightline West will also ensure that the Project is regularly maintained to prevent loose or live electrical wires that could potentially spark wildfires.