

Folsom Light Rail Modernization Double Track Project - Mitigation Monitoring and Reporting Program

Mitigation Measure	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
Cultural Resources				
<p>Mitigation Measure AQ-1. Implement basic construction emission control practices (Best Management Practices)</p> <p>The SacRT must include the following construction measures in construction contract specifications and procedures to limit and reduce air emissions from construction sites:</p> <ul style="list-style-type: none"> Control fugitive dust as required by Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 403 and enforced by SMAQMD staff. Water all exposed surfaces two times daily. Exposed surfaces include soil piles, graded areas, unpaved parking areas, staging areas, and access roads. Cover all haul trucks transporting soil, sand, or other loose material off-site. Cover or maintain at least 2 feet of freeboard space on haul trucks transporting soil, sand, or other loose material on site. Cover any haul trucks that will be traveling along freeways or major roadways. Use wet power vacuum street sweepers to remove any visible trackout mud or dirt visible on adjacent public roads at least once a day. Use of dry power sweeping is prohibited. Limit vehicle speeds on unpaved roads to 15 miles per hour. Complete paving all roadways, driveways, and sidewalks as soon as possible. In addition, lay building pads as soon as possible after grading, unless seeding or soil binders are used. Minimize idling times either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure under Title 13, California Code of Regulations Section 2485). Provide clear signage that posts this requirement for workers at the entrances to the project sites. Provide current certificate(s) of compliance with ARB's In-Use Off-Road Diesel-Fueled Fleets Regulation (Title 13, California Code of Regulations Sections 2449 and 2449.1). Maintain all construction equipment in proper working condition, according to the manufacturer's specifications. Have all equipment checked by a certified mechanic and determined to be running in proper condition before use. 	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include measures applicable to best management practices to control construction air emissions.	1. Design
	2. SacRT	2. SacRT Engineering and Construction	2. Ensure that construction contractor(s) are implementing the best management practices included in the construction contracts and specifications.	2. Construction
	3. SacRT	3. SacRT Engineering and Construction	3. Review and verify certificates of compliance with ARB's In-Use Off-Road Diesel-Fueled Fleets Regulation.	3. Construction
<p>Mitigation Measure BIO-1: Conduct preconstruction surveys for migratory birds and raptors</p> <p>Trees and vegetation must be removed only outside the nesting season, September 1 through January 31. If construction occurs between February 1 and September 15, SacRT must conduct preconstruction surveys for active nests of migratory nesting birds and raptors, including special-status species (i.e., grasshopper sparrow and white-tailed kite), within 14 days before the start of any construction-related activities. Preconstruction surveys for Swainson's hawk must be carried out separately, in accordance with Mitigation Measure BIO-2, over a longer survey period in the months before the start of project-related construction.</p> <p>If active nests are found, SacRT must consult with a qualified biologist to establish avoidance buffers around nests that will be sufficient so that breeding will not be likely to be disrupted or adversely affected by project activities. An avoidance buffer will consist of an area where project-related activities (i.e., vegetation removal, earth moving, and construction) will not occur. Typical avoidance buffers during the nesting season will be a radius of 100 feet for nesting passerine birds and 500 feet for nesting raptors, unless a qualified biologist determines that smaller buffers will be sufficient to avoid impacts on nesting raptors and/or other birds. Factors to be considered for determining buffer size will include the presence of existing buffers provided by vegetation, topography, and infrastructure; nest height; locations of foraging territory; and baseline levels of noise and human activity. The buffer zone must be delineated by highly visible temporary construction fencing. A qualified biologist must monitor active nests during construction, so that the species is not harmed or harassed by the noise or activity resulting from project-related activities. The buffers must be maintained until a qualified biologist has determined that the young have fledged and are no longer reliant on the nest or parental care for survival.</p>	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include preconstruction specifications and measures to perform surveys for active nests if tree and vegetation removal is scheduled during the nesting season between February 1 and September 15.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; qualified biologist	2. If construction is scheduled during the nesting season, verify that preconstruction surveys have been performed by a qualified biologist within 14 days of construction (see Mitigation Measure BIO-2 for special provisions for the Swainson's hawk).	2. Preconstruction
	3. SacRT	3. SacRT Engineering and Construction; qualified biologist	3. If active nests are detected, consult with a qualified biologist to define acceptable construction avoidance buffers around the nests.	3. Preconstruction

Folsom Light Rail Modernization Double Track Project - Mitigation Monitoring and Reporting Program

Mitigation Measure	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
	4. SacRT	4. SacRT Engineering and Construction; qualified biologist	4. Verify that construction avoidance buffers are in place and maintained.	4. Construction
	5. SacRT	5. SacRT Engineering and Construction; qualified biologist	5. Review and verify monitoring reports by a qualified biologist until a qualified biologist has verified that no harm to nests or fledgling will occur from construction activities.	5. Construction
<p>Mitigation Measure BIO-2: Avoid impacts on nesting Swainson’s hawk through preconstruction surveys and buffer zones around active nests</p> <p>SacRT must implement the following measures to avoid and minimize impacts on Swainson’s hawk:</p> <ul style="list-style-type: none"> Trees must not be removed during the breeding season for nesting raptors (March 1 through September 15), unless a survey by a qualified biologist verifies that no active nests are in the trees. For staging and construction activities that begin between March 1 and September 15, SacRT must retain a qualified biologist to conduct preconstruction surveys for Swainson’s hawk and identify active nests on and within 0.25 mile of the project area. The surveys will be timed in accordance with the Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley (Swainson’s Hawk Technical Advisory Committee 2000). To meet the minimum level of protection for the species, the surveys will be completed for at least the two survey periods immediately before the project’s implementation. Appropriate survey periods will include: <ul style="list-style-type: none"> Between January and March 20, before Swainson’s hawk returns from migration, an optional survey of the project segments may be conducted to determine potential nest locations. Between March 20 and April 5, old nests, staging birds, and competing species will be observed. The hawks are expected to be in their territories during survey hours from sunrise to 10 a.m. and from 4 p.m. to sunset. Between April 5 and April 20, both males and females are expected to be actively nest-building, visiting their selected site frequently. Territorial and courtship displays and copulation will be increased. The birds will tend to vocalize often, and their nest locations will be identified most easily. Between June 10 and July 30 (post-fledging), from sunrise to noon and from 4 p.m. to sunset, young birds are expected to be active and visible. Both adult parents will make numerous trips to the nest and often will soar above, or will perch near or on the nest tree, allowing easy observation. <p>If no active nests are found, a letter report documenting the survey methods and results must be submitted to CDFW and no further mitigation will be required.</p> <ul style="list-style-type: none"> If an active nest is found, impacts on nesting Swainson’s hawks must be avoided by establishing appropriate buffers around active nest sites, identified during preconstruction Swainson’s hawk surveys. CDFW guidelines recommend implementation of a 0.25-mile-wide buffer for Swainson’s hawk, but the size of the buffer may be adjusted if a qualified biologist and SacRT, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Project construction activities will not begin within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer will not be likely to result in nest abandonment. Nest monitoring by a qualified biologist during and after construction or staging activities will be required if the activity has the potential to adversely affect a nest. 	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include preconstruction specifications and measures to perform surveys for active nests if tree and vegetation removal is scheduled during the nesting season between March 1 and September 15.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; qualified biologist	2. If construction is scheduled during the nesting season, verify that at least two preconstruction surveys have been performed by a qualified biologist. in accordance with the Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley, as enumerated in Mitigation Measure BIO-2.	2. Preconstruction
	3. SacRT	3. SacRT Engineering and Construction; qualified biologist	3. If active nests are detected, consult with a qualified biologist to define acceptable construction avoidance buffers around the nests. Confirm that CDFW has reviewed and approved the recommendations of the qualified biologist.	3. Preconstruction

Folsom Light Rail Modernization Double Track Project - Mitigation Monitoring and Reporting Program

Mitigation Measure	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
Noise				
	4. SacRT	4. SacRT Engineering and Construction; qualified biologist	4. Verify that construction avoidance buffers are in place and maintained.	4. Construction
	5. SacRT	5. SacRT Engineering and Construction; qualified biologist	5. Review and verify monitoring reports by qualified biologist until a qualified biologist has verified that no harm to nests or fledgling will occur from construction activities.	5. Construction
<p>Mitigation Measure BIO-3: Avoid impacts on burrowing owl in the Rancho Cordova project segment through preconstruction surveys and buffer zones around occupied burrows</p> <p>SacRT must implement the following measures to reduce impacts on breeding or wintering burrowing owl in the Rancho Cordova project segment:</p> <ul style="list-style-type: none"> SacRT must retain a qualified biologist to conduct focused surveys for burrowing owls in areas of suitable habitat. The surveys must be conducted before the start of construction activities and in accordance with Appendix D of CDFW's Staff Report on Burrowing Owl Mitigation (CDFG 2012). If no occupied burrows are found, a letter report documenting the survey methods and results must be submitted to CDFW, and no further mitigation will be required. If a burrow that is occupied by a burrowing owl is found, SacRT must consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout construction. Recommended buffers will range from a radius of 150 to 1,500 feet, depending on site conditions and burrowing owl use of the burrow. Exclusion of burrowing owls from any occupied burrows is not expected to be necessary because the staging areas may be adjusted to minimize disturbance. No exclusion of burrowing owls will be permitted during the breeding season (February 1 through August 31). 	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include preconstruction specifications and measures to perform surveys for burrowing owl.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; qualified biologist	2. Verify that the preconstruction survey for burrowing owl were performed by a qualified biologist, in accordance with Appendix D of CDFW's Staff Report on Burrowing Owl Mitigation (CDFG 2012).	2. Preconstruction
	3. SacRT	3. SacRT Engineering and Construction; qualified biologist	3. If an occupied burrow is detected, consult with a qualified biologist and CDFW on appropriate construction avoidance buffers to be maintained throughout construction.	3. Preconstruction
	4. SacRT	4. SacRT Engineering and Construction; qualified biologist	4. Verify that construction avoidance buffers are in place and maintained.	4. Construction
	5. SacRT	5. SacRT Engineering and Construction; qualified biologist	5. Review and verify monitoring reports by qualified biologist until a qualified biologist has verified that no harm to burrowing owl will occur from construction activities.	5. Construction
<p>Mitigation Measure BIO-4: Avoid impacts on Valley Elderberry Longhorn Beetle (VELB) in the Rancho Cordova project segment through preconstruction surveys for VELB exit holes, restrictions on removal or trimming of elderberry shrubs, and compensatory mitigation if necessary</p> <p>Before the start of project construction, SacRT must retain a qualified biologist to conduct a survey for VELB exit holes in the Rancho Cordova project segment and prepare a VELB survey report for SacRT, to be submitted to USFWS for review and consultation before project construction. The VELB survey report must include the following:</p> <ul style="list-style-type: none"> the location of elderberry shrubs in the project segment and within 165 feet (50 meters) of the project footprint; the number of elderberry shrubs that will be directly affected by the project; 	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include preconstruction specifications and measures to perform surveys for VELB exit holes and to consult with USFWS regarding the contents of the survey report.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; qualified biologist	2. Verify that the survey report, including construction avoidance buffers and conservation measures, written by a qualified biologist, is reviewed and accepted by the USFWS before the start of construction.	2. Preconstruction

Folsom Light Rail Modernization Double Track Project - Mitigation Monitoring and Reporting Program

Mitigation Measure	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
<ul style="list-style-type: none"> a map that delineates the area that will be directly affected and the elderberry shrub locations within 165 feet (50 meters) of the project footprint; information regarding the quality of individual elderberry shrubs and the continuity of riparian habitat outside the project area; a determination of the presence of exit holes in elderberry stems, and whether or not these stems will be affected by the project; an evaluation of the surrounding habitat and known VELB occurrences within 2,625 feet (800 meters) of the project segment; and a description of surrounding land uses, including land uses that may be incompatible with VELB use or a potential barrier to VELB dispersal. <p>To avoid and minimize impacts on VELB and/or its habitat, SacRT must coordinate with USFWS to determine project-specific conservation measures. At minimum, SacRT must implement the following measures, which may be amended in consultation with USFWS:</p> <ul style="list-style-type: none"> To the greatest extent feasible, damaging or removing elderberry shrubs must be avoided. Construction activities that may damage or kill an elderberry shrub (e.g., trenching, paving) may need an avoidance area of at least 20 feet (6 meters) from the dripline, depending on the type of activity. All areas to be avoided during construction activities must be fenced and/or flagged as close to construction limits as feasible. As much as feasible, all activities that occur within 165 feet (50 meters) of an elderberry shrub must be conducted outside the VELB flight season (March–July). Any trimming of elderberry shrubs must occur only between November and February. Trimming must avoid removal of any branches or stems that are greater than or equal to 1 inch in diameter. Measures to address regular and/or large-scale maintenance (trimming) will be established in consultation with USFWS. <p>If adverse impacts on VELB are expected because of the project, SacRT must consult with USFWS to determine the appropriate type and amount of compensatory mitigation. Because the project segment is in a non-riparian area, compensation typically will be appropriate for occupied shrubs (USFWS 2017). Appropriate compensatory mitigation can include purchasing credits at a USFWS-approved conservation bank, providing on-site mitigation, or establishing and/or protecting habitat for VELB. At minimum, impacts on individual shrubs in nonriparian areas will be replaced through a purchase of 1 credit at a USFWS-approved bank for each shrub that will be trimmed, if exit holes are found in any shrub on or within 165 feet (50 meters) of the project area. If the occupied shrub will be completely removed by the activity, the entire shrub will be transplanted to a USFWS-approved location, in addition to a credit purchase (USFWS 2017).</p>	3. SacRT	3. SacRT Engineering and Construction; qualified biologist	3. Verify that the avoidance buffers are implemented and maintained and that construction activities comply with the schedule to avoid effects to VELB.	3. Construction
	4. SacRT	4. SacRT Engineering and Construction; qualified biologist	4. If adverse effects on VELB are expected, implement and verify completion of compensatory mitigation agreed on with USFWS.	4. Construction
<p>Mitigation Measure BIO-5: Conduct a preconstruction arborist survey and implement s tree replacement plan</p> <p>Before project construction, SacRT must retain a certified arborist to conduct an arborist survey at the Folsom and Rancho Cordova project segments and prepare an Arborist Survey Report for each segment. To meet the requirements of both the Folsom Tree Preservation Ordinance and the Rancho Cordova Tree Preservation and Protection Ordinance, the Arborist Survey Report must include the following information:</p> <ul style="list-style-type: none"> species identification and sub-meter accuracy locations of each tree within and near the project footprint; trunk diameters, measured at standard height; approximate tree heights; approximate tree dripline radii; a brief statement for the reasons for removal or major trimming of trees; identification of suitable measures to protect trees for preservation; evaluation of areas in which to plant replacement trees; and a site plan showing the accurate location, number of trees affected, species, trunk diameters, approximate heights, and approximate driplines of any trees to be removed. <p>In accordance with Chapter 12.16 of the Folsom Municipal Code (2019), before vegetation removal or clearing activities in the Folsom project segment, SacRT must provide the following information:</p> <ul style="list-style-type: none"> Justification statement Arborist's Survey Report Site Map Tree locations Protected zone of protected trees Preservation Program Arborist's Survey Report 	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include preconstruction specifications and measures to perform a survey by a certified arborist, containing the information identified in Mitigation Measure BIO-5.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; certified arborist	2. Verify that an Arborist Survey Report for Folsom and an Arborist Survey Report for Rancho Cordova were performed by a qualified arborist in accordance with the local tree protection ordinance of each city.	2. Design
	3. SacRT	3. SacRT Engineering and Construction; certified arborist	3. Meet with each local jurisdiction to identify a mutually agreed-on tree replacement plan, which may include tree plantings, in-lieu payments, or a combination. If tree plantings are agreed on, verify that the location and size for plantings are indicated in the construction drawings and specifications.	3. Design and Construction

Folsom Light Rail Modernization Double Track Project - Mitigation Monitoring and Reporting Program

Mitigation Measure	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
<p>In accordance with Chapter 19.12 of the Rancho Cordova Municipal Code (2019), before project implementation in the Rancho Cordova project segment, SacRT must provide the following information:</p> <ul style="list-style-type: none"> • Statement for the reasons for removal or major trimming, written by a certified arborist • Consent of the owner of the record of the land on which the proposed activity is to occur • A tree inventory, including a Site Plan • Tree Replacement Plan <p>Based on the information in these submittals, SacRT must meet with the cities to establish suitable tree plantings or payment of in-lieu fees. If tree plantings are selected as the preferred method of mitigation, then details regarding the location and size of the replacement trees must be incorporated into the construction specifications and plans.</p>				
<p>Mitigation Measure CUL-1: Implement procedures to address unanticipated archaeological discoveries, including halting construction, evaluating the resource, and appropriate recordation and recovery if the resource is unique</p> <p>If prehistoric or historic period archaeological resources are encountered during construction, work must be temporarily halted in the vicinity of the discovered materials and workers must avoid altering the materials and their context until a qualified professional archaeologist has evaluated, recorded, and determined appropriate treatment of the resource, in consultation with the SacRT. Cultural resources must be recorded on State Department of Parks and Recreation 523 historic resource recordation forms. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include foundations or walls, refuse deposits, or bottle dumps. If the proposed development could damage a unique archaeological resource, this measure must be implemented in accordance with Public Resources Code Section 21083.2 and State CEQA Guidelines Section 15126.4, with a preference for preservation in place. <u>If the proposed development could damage a historic property as defined in 36 CFR Section 800.16(l)(1), treatment of the discovery and any tribal consultation shall be conducted in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC Section 470), and its implementing regulations, entitled Protection of Historic Properties (36 CFR part 800).</u></p>	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include construction specifications and measures to halt work and have unanticipated archaeological discoveries examined and evaluated.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; qualified professional archaeologist	2. If unanticipated archaeological discoveries occur during construction, verify that work is halted and that a report by a qualified professional archaeologist has been prepared to evaluate, record, and identify appropriate treatment of the resource.	2. Construction
	3. SacRT	3. SacRT Engineering and Construction; qualified professional archaeologist	3. Verify that appropriate treatment of the unanticipated archaeological discovery has been implemented as recommended by a qualified professional archaeologist in accordance with Public Resources Code Section 21083.2 and State CEQA Guidelines Section 15126.4.	3. Construction
<p>Mitigation Measure CUL 2: Implement procedures to address discovery of human remains</p> <p>If human remains are discovered during construction of the proposed project, SacRT must comply with state laws: Health and Safety Code Section 7050.5 et seq. relating to discovery or recognition of human remains, and Public Resources Code Section 5097 relating to the disposition of Native American burials. If any human remains are discovered in any location in the project area, SacRT must halt any further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:</p> <ul style="list-style-type: none"> • The Sacramento County coroner has been informed and has determined that no investigation of the cause of death is required; and • If the remains are of Native American origin: <ul style="list-style-type: none"> - The descendants of the deceased Native Americans have made a recommendation regarding the disposition of remains and any associated grave goods, as provided in Public Resources Code Section 5097.98; or - The Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified. 	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include construction specifications and measures to halt work if human remains are discovered.	1. Design
	2. SacRT	2. SacRT Engineering and Construction	2. If human remains are discovered during construction, verify that work is halted, the County coroner has been notified, and that the investigation by the County coroner is completed.	2. Construction
	3. SacRT	3. SacRT Engineering and Construction; qualified professional archaeologist	3. If human remains are discovered during construction, verify that the treatment of the remains are handled in accordance with Health and Safety Code Section 7050.5 et seq. relating to discovery or recognition of human remains and Public Resources Code Section 5097 relating to the disposition of Native American burials, as appropriate.	3. Construction

Folsom Light Rail Modernization Double Track Project - Mitigation Monitoring and Reporting Program

Mitigation Measure	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
<p>Mitigation Measure GEO-1: Conduct construction worker education, stop work if paleontological resources are discovered, assess the significance of the find, and prepare and implement a recovery plan, as required in a portion of the Rancho Cordova project segment</p> <p>Before the start of earth-moving activities in the Rancho Cordova project segment, the SacRT must require that all construction workers involved with earth-moving activities be informed regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures to be followed if such fossils are encountered. This worker training may be prepared and presented by an experienced field archaeologist at the same time as construction worker education on cultural resources, or prepared and presented separately by a qualified paleontologist.</p> <p>If paleontological resources are discovered during earth-moving activities, all work within 50 feet of the find must cease immediately, and the construction contractor must notify the SacRT and Sacramento County Office of Planning and Environmental Review. The SacRT must retain a qualified paleontologist to evaluate the resource and prepare a recovery plan, based on Society of Vertebrate Paleontology (SVP) guidelines (SVP 1996). The recovery plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the SacRT (as the CEQA lead agency) to be necessary and feasible must be implemented before construction activities resume at the site where the paleontological resources were discovered.</p>	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include construction specifications and measures to halt work in paleontological resources are discovered.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; qualified paleontologist	2. Ensure that before the start of construction, construction workers have been informed of the potential to discover paleontological resources and the appropriate notification procedures that they must follow if fossils are encountered.	2. Construction
	3. SacRT	3. SacRT Engineering and Construction; qualified paleontologist	3. If paleontological resource discoveries occur during construction, verify that work is halted and that a report by a qualified professional archaeologist has been prepared to evaluate, record, and identify appropriate treatment of the resource.	3. Construction
	4. SacRT	4. SacRT Engineering and Construction; qualified paleontologist	4. If paleontological resource discoveries occur during construction, verify that appropriate treatment of the paleontological resource discovery has been implemented as recommended in the recovery plan by a qualified paleontologist.	4. Construction
<p>Mitigation Measure HAZ-1: Undertake a Phase I environmental site assessment on the property to be acquired within the Aerojet Superfund site</p> <p>To perform its due diligence for the acquisition of the sliver of land that currently is owned by Aerojet, the SacRT must retain a qualified environmental professional to prepare a Phase I environmental site assessment during final design, in accordance with ASTM E1527-13. The assessment must include, among other investigations, a review of the extensive documentation already prepared by Aerojet in response to requirements of U.S. Environmental Protection Agency (EPA), Department of Toxic Substance Control (DTSC), and the Central Valley Regional Water Quality Control Board (RWQCB) that define and characterize the known contamination and the type of and schedule for the remediation efforts. In addition, per the ASTM E1527-13 standards, the Phase I assessment must include an evaluation of the potential impacts from vapor migration that can adversely affect the health and safety of project construction workers. The Phase I assessment will be essential to establish the responsibility and liability for known environmental contamination and cleanup on the property to be acquired. A Phase II environmental site assessment may be recommended to further investigate the contamination, but because the site already is part of a Superfund site, the extent and characterization of the contamination has been identified, and remedies are underway, a Phase II is not expected to be necessary for the SacRT to complete its environmental due diligence for the acquisition.</p>	1. SacRT	1. SacRT Engineering and Construction; Real Estate	1. Ensure that the contract documents include construction specifications and measures to prepare a Phase I environmental site assessment by a qualified professional, in accordance with ASTM E1527-13 standards.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; Real Estate; Security and Safety; qualified professional	2. Verify that the Phase I environmental site assessment has been completed by a qualified professional and recognizes investigations completed by the regulatory agencies for the Aerojet Superfund site (U.S. Environmental Protection Agency, state Department of Toxic Substances Control, and Central Valley Regional Water Quality Control Board).	2. Design
	3. SacRT	3. SacRT Engineering and Construction; Security and Safety	3. Verify that relevant information from the Phase I environmental site assessment is used, as appropriate, in the Health and Safety Plan, prepared pursuant to Mitigation Measure HAZ-3.	3. Preconstruction
<p>Mitigation Measure HAZ-2: Undertake a Limited Phase II environmental site assessment within the ground disturbance area in the rail right-of-way adjacent to the Aerojet Superfund site to identify the extent and characterization of contamination in the unsaturated (vadose) zone, generally between the ground surface and the underlying water table, to define the potential health risks for project construction workers</p> <p>The SacRT must retain a qualified environmental professional to prepare a limited Phase II environmental site assessment, to assess the environmental contamination of the surficial and subsurficial soil and any encountered groundwater in the areas where ground disturbance and excavation will occur adjacent to the Aerojet Superfund site in the Rancho Cordova project segment. The Phase II assessment must comply with ASTM E1903 standards and include sufficient sampling to identify types of chemicals and potential hazards to construction workers, and to assist in determining soil re-use or disposal requirements during construction. The Phase II assessment will be a "limited" assessment, in that it will focus on soils to the depth of ground disturbance (i.e., generally 4 feet below ground surface (bgs) where only track improvements are proposed; 10 feet where footings for passenger shelters are proposed at the loading platform; and 30 feet where foundations for the Overhead Contact System support poles are proposed). Although not expected, if groundwater is encountered, the Phase II assessment must include sampling to identify the chemicals and concentrations in the groundwater. The results from the Phase II assessment must be provided to project contractors, to inform preparation of a site-specific health and safety plan (HASp), in accordance with Mitigation Measure HAZ-3, and recommendations from the Phase II assessment regarding soil re-use or disposal must be incorporated into contractor specifications.</p>	1. SacRT	1. SacRT Engineering and Construction; Real Estate	1. Ensure that the contract documents include construction specifications and measures to prepare a Limited Phase II environmental site assessment by a qualified professional in accordance with ASTM E1903 standards.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; Real Estate; Security and Safety; qualified professional	2. Verify that the Phase II environmental site assessment has been completed by a qualified professional and includes sufficient sampling to identify types of chemicals and potential hazards to construction workers, and to assist in determining soil re-use or disposal requirements during construction.	2. Design
	3. SacRT	3. SacRT Engineering and Construction; Security and Safety	3. Verify that relevant information from the Phase II environmental site assessment is used, as appropriate, in the Health and Safety Plan, prepared pursuant to Mitigation Measure HAZ-3.	3. Preconstruction

Folsom Light Rail Modernization Double Track Project - Mitigation Monitoring and Reporting Program

Mitigation Measure	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
<p>Mitigation Measure HAZ-3: Prepare and implement a site-specific Health and Safety Plan (HASP) to minimize impacts on public health, worker health, and the environment from project construction activities in ground disturbance areas in the Rancho Cordova project segment</p> <p>Based on the Phase II assessment that is completed under Mitigation Measure HAZ-2, and on information from Aerojet and the regulatory agencies for the property to be acquired for the proposed project, the SacRT must prepare and implement a site-specific HASP for the Rancho Cordova project segment. The HASP must be prepared in accordance with State and federal OSHA regulations (29 CFR Section 1910.120) and approved by a certified industrial hygienist. Copies of the HASP must be made available to construction workers for review during their orientation training and/or during regular health and safety meetings. The HASP must identify chemicals of concern, potential hazards, personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures. The HASP must be amended, as necessary, if new information becomes available that can affect implementation of the plan.</p>	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include construction specifications and measures to prepare a project-specific Health and Safety Plan in accordance with State and federal OSHA regulations (29 CFR Section 1910.120).	1. Design
	2. SacRT	2. SacRT Engineering and Construction; Security and Safety; certified industrial hygienist	2. Verify that the project-specific Health and Safety Plan has been completed by qualified professionals and has been approved by a certified industrial hygienist.	2. Design
	3. SacRT	3. SacRT Engineering and Construction; Security and Safety	3. Verify that the project-specific Health and Safety Plan measures and specifications have been implemented and maintained.	3. Construction
<p>Mitigation Measure HAZ-4: Incorporate standards for the proper handling, transport, and disposal of excavated soils and materials into the proposed project's construction specifications</p> <p>The SacRT must incorporate contract specifications and procedures to be followed by the contractor for the safe handling, transport, and disposal of the excavated soils and materials, consistent with federal and State requirements, including the Resources Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act, the Emergency Planning and Community Right-to-Know Act, the Hazardous Materials Transportation Act of 1976, the Clean Water Act, the Occupational Safety and Health Act, Title 22, California Code of Regulations and the Hazardous Waste Control Law. The following specifications must be included:</p> <ul style="list-style-type: none"> Construction workers in the Rancho Cordova project segment who will be involved with ground disturbance must be trained in Hazardous Waste Operations and Emergency Response (HAZWOPER), if the types of contaminants and their concentrations warrant this training based on the results of the limited Phase II environmental site assessment, completed under Mitigation Measure HAZ-1, and on the HASP, completed under Mitigation Measure HAZ-3. Soil and materials removal must be performed by a licensed engineering contractor with a Class A license and hazardous substance removal certification. A California-licensed engineer must provide field oversight on behalf of the SacRT, to document the origin and destination of all removed materials. If necessary, removed materials must be stockpiled temporarily and covered with plastic sheeting, pending relocation, segregation, or off-site hauling. If excess materials are hauled off-site, waste profiling of the material must be completed and documented. Materials classified as nonhazardous waste must be transported under a bill of lading. Materials classified as non-RCRA hazardous waste must be transported under a hazardous waste manifest. All materials must be disposed at an appropriately licensed landfill or facility. Trucking operations must comply with Caltrans requirements and any other applicable regulations, and all trucks must be licensed and permitted to carry the appropriate waste classification. The tracking of dirt by trucks leaving the project site must be minimized by cleaning the wheels on exit, and by cleaning the loading zone and exit area as needed. If materials require dewatering before being hauled off-site, a dewatering plan must be prepared, specifying methods of water collection, transport, treatment, and discharge of all water produced by dewatering. 	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include construction specifications and measures to address the proper handling, transport, and disposal of excavated materials and soils.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; Security and Safety	2. Verify that excavated materials and soils have been handled, transported, and disposed in accordance with State and federal requirements.	2. Construction

Folsom Light Rail Modernization Double Track Project - Mitigation Monitoring and Reporting Program

Mitigation Measure	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
<p>Mitigation Measure HAZ-5: Schedule project construction activities and site light rail facilities to avoid interference with the soil vapor extraction activities in the Rancho Cordova project segment</p> <p>The SacRT must provide Aerojet, EPA, DTSC, and the Central Valley RWQCB with available information on the location, nature, and duration of construction activities as well as the preliminary engineering plans for the Rancho Cordova project segment during final design, to avoid disturbance to or interference of current or planned remediation activities in Operable Unit 5, including Area 49000. After sharing the available information, the SacRT, Aerojet, and the regulatory agencies must coordinate to ensure that project improvements do not interfere or adversely affect the remediation activities and treatment. Avoidance will be achieved through a variety of strategies, such as adjusting the schedule for project construction or remediation activities; shifting the location of Overhead Contact System support poles and wayside facilities to avoid treatment facilities; and protecting in-place monitoring wells, groundwater extraction and treatment facilities, and soil vapor extraction equipment. The SacRT must incorporate the agreed on measures in the construction specifications and documents that will govern the contractor's work in the Rancho Cordova project segment.</p>	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the project plans, construction activities, and construction schedules are shared with Aerojet, U.S. Environmental Protection Agency, state Department of Toxic Substances Control, and Central Valley Regional Water Quality Control Board.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; Security and Safety	2. Verify that Aerojet, U.S. Environmental Protection Agency, California Department of Toxic Substances Control, and Central Valley Regional Water Quality Control Board have coordinated and agreed on measures to avoid interference with ongoing soil vapor extraction and other remediation activities.	2. Design
	3. SacRT	3. SacRT Engineering and Construction; Security and Safety	3. Ensure that that the contract documents include construction specifications and measures, including any relevant schedule details, to avoid interference with ongoing soil vapor extraction and other remediation activities.	3. Design
<p>Mitigation Measure NOI-1: Prepare and implement a construction noise control plan</p> <p>The SacRT must include a requirement in the project construction specifications and documents to prepare a noise control plan that incorporates, at a minimum, the following best practices to reduce the impact of temporary construction-related noise on nearby noise-sensitive receptors:</p> <ul style="list-style-type: none"> • Install temporary construction site sound barriers near noise sources. • Use moveable sound barriers at the source of the construction activity. • Locate stationary construction equipment as far as possible from noise-sensitive sites. • Re-route construction-related truck traffic along roadways so as to cause the least disturbance to residents. • Use low noise emission equipment. • Implement noise-deadening measures for truck loading and operations. • Line or cover storage bins, conveyors, and chutes with sound-deadening material. • Use acoustic enclosures, shields, or shrouds for equipment and facilities. • Use high-grade engine exhaust silencers and engine-casing sound insulation. • Use specialty equipment, such as vehicles with enclosed engines and/or high-performance mufflers. • Minimize the use of generators to power equipment. • Limit unnecessary idling of equipment. • Monitor and maintain equipment to meet noise limits. • Establish an active community liaison program to keep residents, offices, and other noise-sensitive uses informed about construction, and provide a procedure for addressing complaints. 	1. SacRT	1. SacRT Engineering and Construction	1. Ensure that the contract documents include measures applicable to best management practices to control construction noise.	1. Design
	2. SacRT	2. SacRT Engineering and Construction; Community and Government Affairs	2. Ensure that an active community liaison program has been developed and that measures to respond to community concerns/complaints are implemented and maintained. The community liaison program will be coordinated with the outreach efforts identified in Mitigation Measure TR-2.	2. Preconstruction and Construction
	3. SacRT	3. SacRT Engineering and Construction	3. Ensure that construction contractor(s) are implementing the best management practices included in the construction contracts and specifications.	3. Construction
<p>Mitigation Measure TR-1: Adjust traffic and train signaling to reduce intersection delays to acceptable levels</p> <p>SacRT must coordinate with the City of Folsom, City of Rancho Cordova, and Sacramento County during final design, to synchronize and implement train and automobile traffic controllers to maintain acceptable LOS at the street crossings of the Gold Line light rail tracks and Folsom Boulevard. Specifically, the signal adjustments must be made so that either: (1) intersection LOS does not deteriorate to LOS E or worse if operating acceptably (LOS D or better), or (2) if already operating at an unacceptable LOS (LOS E or F), to reduce the additional delay resulting from light rail operations at signalized intersections so that the additional delay is less than 5 seconds. Implementation of this mitigation measure must occur during final design, and signal operations must be adjusted if necessary during implementation and testing, before starting revenue service. SacRT will continue to coordinate regularly with local agency staff during system testing to assess rail crossing pre-emption impacts and make periodic adjustments to minimize impacts to the coordinated traffic signal systems along the Folsom Boulevard corridor.</p>	1. SacRT; cities of Folsom and Rancho Cordova and Sacramento County	1. SacRT Engineering and Construction; cities of Folsom and Rancho Cordova and Sacramento County	1. Ensure that the SacRT has met with the cities of Folsom and Rancho Cordova and Sacramento County to share information regarding signal operations at the street crossings with Folsom Boulevard and agree on mutually acceptable signal adjustments that enable the SacRT to meet its target service level and the local jurisdictions to avoid unacceptable delays.	1. Design
	2. SacRT; cities of Folsom and Rancho Cordova and Sacramento County	2. SacRT Engineering and Construction; cities of Folsom and Rancho Cordova and Sacramento County	2. Verify that signal adjustments have been implemented and achieve the performance standards of each agency	2. Post Construction and prior to Revenue Service

Folsom Light Rail Modernization Double Track Project - Mitigation Monitoring and Reporting Program

Mitigation Measure	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
<p>Mitigation Measure TR-2: Prepare and implement a traffic control plan</p> <p>Before the start of project construction, the SacRT and/or its contractor must prepare and implement a traffic control plan, to minimize construction-related traffic safety hazards on public roads, sidewalks, bicycle facilities, and non-motorized pathways, and ensure adequate access for emergency responders. The SacRT and/or its contractor must coordinate development and implementation of this plan with the City of Folsom, City of Rancho Cordova, and Sacramento County, and solicit their input on practices and procedures to enhance safety and minimize hazards. The traffic control plan must, at minimum, identify and include:</p> <ul style="list-style-type: none"> • number of truck trips, time, and day of street closures; • time of day of arrival and departure of trucks; • limitations on size and type of trucks; • provision of staging areas, with a limitation on the number of trucks that can be waiting; • a truck circulation pattern and identification of haul routes; • manual traffic control when necessary; • a driveway access plan so that safe vehicular, pedestrian, and bicycle movements are maintained (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas); • safe and efficient access routes for emergency vehicles; • establishment of manual traffic control when necessary; • requirements for construction workers to park personal vehicles at approved staging areas and take only necessary project vehicles to the work sites; • in coordination with the Public Information Officers of the local agencies, develop a plan for notifications and a process for communication with affected residents, businesses, and landowners about construction activities, schedule, and duration before the start of construction (Public notification must include posting of notices and signage of construction activities at visible locations in the project area. Notifications must be distributed to residents, businesses, and landowners to describe the construction schedule, the exact location and duration of activities on each street [e.g., which roads/lanes and access points/driveways will be blocked on which days and for how long], suggestions for alternative routes, and contact information for questions and complaints. This same information must be posted on the SacRT website for the project.); • posting warning signs before the start of construction activities, alerting bicyclists and pedestrians to any closures or temporary modifications of non-motorized facilities (This information must be shared with local agencies and active transportation organizations to ensure widespread notification of interruption to pedestrian, bicycle, and other non-motorized vehicular pathways.); • pedestrian and bicycle safety measures (e.g., buffers, vertical delineation, signage), subject to review and approval by the cities and the County traffic departments, including possible detour routes; • notification of police and fire personnel, ambulance service providers, other emergency responders, and recreational facility managers of the timing, location, and duration of construction activities, and the locations of detours and lane closures, where applicable; • maintenance of access for emergency vehicles in and/or adjacent to roadways affected by construction activities at all times; and • video/photo documentation of preconstruction conditions and repair and restoration of affected roadway rights-of-way to preconstruction conditions after construction is completed, other than permanent changes called for in the construction plans and specifications. <p>A copy of the construction traffic management plan must be submitted to local emergency response agencies, and these agencies are to be notified at least 14 days before the start of construction that will partially or fully obstruct roadways.</p>	<p>1. SacRT</p> <p>2. SacRT</p> <p>3. SacRT</p>	<p>1. SacRT Engineering and Construction</p> <p>2. SacRT Engineering and Construction; Community and Government Affairs</p> <p>3. SacRT Engineering and Construction</p>	<p>1. Ensure that the contract documents include measures applicable to best management practices to manage traffic, parking, emergency response, and safety during construction.</p> <p>2a. Ensure that an active community liaison program has been developed and that measures to respond to community concerns/complaints are implemented and maintained.</p> <p>2b. Verify that traffic control plan has been provided to local emergency responders and that notification to local emergency responders has been given 14 days prior to construction</p> <p>3. Ensure that construction contractor(s) are implementing the best management practices included in the construction contracts and specifications.</p>	<p>1. Design</p> <p>2a. Preconstruction and Construction</p> <p>2b. Preconstruction</p> <p>3. Construction</p>