

Mitigation Monitoring and Reporting Plan

BART Slope Stabilization Project



San Francisco Bay Area Rapid Transit District

October 2022

Mitigation Monitoring and Reporting Plan

BART Slope Stabilization Project

Prepared for

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October 2022

Section 1

Introduction

1.1 PURPOSE AND NEED FOR MONITORING

Pursuant to the California Environmental Quality Act (CEQA), an Initial Study/Mitigated Negative Declaration (IS/MND) was prepared by the San Francisco Bay Area Rapid Transit District (BART) to address the potential environmental effects of the BART Slope Stabilization Project (Project). The Draft IS/MND was issued for a public review period that began on July 8, 2022 and ended on August 12, 2022. A Final IS/MND has been prepared that provides all comments on the Project that were received during the public review period and responds to those comments. The environmental analyses for the Project identified potential impacts and measures to mitigate those impacts wherever feasible. Potential impacts and mitigation measures were identified in the following areas:

- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials

This Mitigation Monitoring and Reporting Plan (MMRP) identifies the mitigation actions that will be performed by BART to compensate for, reduce, minimize, or eliminate the effect of impacts resulting from construction and operation of the Project. This MMRP identifies and clarifies the mitigation measures to be implemented by BART for the Project and identifies the parties responsible for implementation and monitoring. This MMRP incorporates all mitigation measures identified in the IS/MND.

1.2 PROJECT DESCRIPTION

BART has identified particular slopes as a priority for slope stabilization improvements and maintenance, as well as overhead abutments that need repairs. The BART Slope Stabilization Project (Project) is within the California Department of Transportation (Caltrans) right-of-way (ROW) in an area subject to a Draft Joint Use Maintenance Agreement with BART. The Project aims to reduce long-term risk to passengers, employees, and property from damaged abutment joint seals, drainage problems, and slope failure and erosion at or below BART abutment structures. Abutments are concrete structures that support the two ends of a bridge where it passes over a roadway or body of water. The seals that are applied serve to prevent unwanted surface water and contaminants from entering the abutment and onto the slopes below. BART proposes to repair the drainage condition of the abutments, related wayside and track drainage, and the condition of embankment slopes at these identified sites.

The purpose of the Project is to repair the abutment joints, clear any clogged drains, and armor and reinforce the slopes underneath BART bridge structures to prevent any further erosion damage. The five locations identified include two in Concord, California (at BART Structures

C3015E and C3015W), and three in Castro Valley, California (at BART Structures L5008W, L5009W, and L5010W).

1.3 MITIGATION MONITORING PROGRAM

This MMRP has been prepared for the BART Slope Stabilization Project in accordance with the California Public Resources Code Section 21081.6, which specifies that when a public agency makes findings required by Section 21081(a)(1), it "...shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." Public Resources Code 21081.6 further specifies that the MMRP will "...ensure compliance during project implementation." This MMRP is intended to ensure the effective implementation of mitigation measures that are within the authority of BART to implement, including monitoring where identified, throughout all phases of development and operation of the Project.

1.4 ROLES AND RESPONSIBILITIES

The following parties will be responsible for implementation of the monitoring and reporting procedures:

- The BART Project Manager (PM) will be responsible for oversight of mitigation actions and reporting on compliance with the measures in this plan.
- The Monitor, who will be designated by the PM, may be BART staff or the Monitor may be a consultant or contractor to BART.

The BART PM will verify that the mitigation measures are implemented by:

- ensuring before advertisement for contract bids that bid documents, contracts, and other plans and specifications include requirements to implement identified mitigation measures; and
- conducting site visits in the field to ensure that required implementation has been properly executed during and after construction.

Section 2

Project Mitigation Measures

2.1 INTRODUCTION

This section describes the mitigation measures for each of the impacts identified in the BART Slope Stabilization Project IS/MND and identifies the parties responsible for implementation and monitoring of each measure. Mitigation measures are numbered using a prefix to link them with the impact they address. For ease of reference, the impacts and mitigation measures in this MMRP are numbered as they were described in the environmental analysis. The resource topics are discussed in the same order as presented in the IS/MND.

2.2 PROJECT MITIGATION MEASURES AND MONITORING ACTIONS

The mitigation measures and monitoring actions presented in the table starting on the next page apply to the Project.

The columns in the MMRP table are described below:

- Mitigation Number – the mitigation measure descriptor/number from the IS/MND.
- Mitigation Measure – the text of the mitigation measure from the IS/MND.
- Timing/Monitoring Action – the time frame or Project phase when the mitigation measure will be implemented, and the monitoring action or reporting procedure required as evidence of mitigation measure implementation.
- Implementation Responsibility – the entity responsible for complying with the requirements of the mitigation measure. In most cases, the construction contractor will be responsible for implementing the mitigation measure, although in some instances, BART will undertake the project and also be responsible for implementing the mitigation measure. As noted previously under the BART PM's roles and responsibilities, the PM is to ensure that the mitigation measure is included in the bid documents, contracts, and other plans and specifications for construction and operation of the Project and that mitigation measures are implemented in compliance with this plan.
- Verification of Implementation – evidence that the mitigation measure has been implemented. This column is to be dated and initialed by the PM, or his/her designee, based on the documentation provided by the construction contractor (or BART staff if BART is responsible for project implementation) and onsite monitoring.

**BART Slope Stabilization Project
Mitigation Monitoring and Reporting Activities**

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
BIOLOGICAL RESOURCES			
Mitigation Measure BIO-1: Environmental Awareness Training for All Project Sites			
<p>Before the start of construction, a qualified biologist or other qualified resource specialist will develop environmental training for all project personnel, which will cover all pertinent conservation measures, permit conditions, and any other required environmental compliance measures. Training will be conducted by a qualified biologist or other qualified resource specialist, and may be provided via recording. All project personnel will attend the training before entering the project work area. On completion of the training, attendees will sign a form stating that they participated in the training and understand the material presented. This training may be combined with other environmental training for the Project, such as cultural resource training. In the event that non-English-speaking personnel are employed by the Project, an interpreter will be present during the environmental training, or training materials will be supplied in an appropriate language.</p>	<p>1) Before the start of ground-disturbing activities or vegetation removal, a qualified biologist, as approved by BART, will prepare a Worker Environmental Awareness Training Program (WEAP), including materials to inform construction personnel of sensitive biological resources, procedures to follow if such resources are encountered, and the intent and requirements of this mitigation measure.</p>	<p>1) BART, Contractor, Qualified Biologist</p>	
	<p>2) A meeting will be convened with BART Monitor, construction site supervisor, and construction personnel for the qualified biologist to present the WEAP and to respond to questions.</p>	<p>2) BART, Contractor, Qualified Biologist</p>	
	<p>3) On completion of the WEAP training, construction personnel will sign a form stating that they attended the training, understood the information presented, and will comply with the WEAP requirements. The form will be provided to the BART PM or Monitor.</p>	<p>3) BART, Contractor</p>	
	<p>4) Before any new construction personnel can begin work at the project site, they must also review the WEAP and confirm to the construction site supervisor that they have completed the training and sign the form identified in monitoring action #3 above.</p>	<p>4) BART, Contractor</p>	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
Mitigation Measure BIO-2: Preconstruction Surveys and Biological Monitoring for California red-legged frog and Alameda whipsnake at Castro Valley Project Sites			
<p>A preconstruction survey for California red-legged frog and Alameda whipsnake will be performed by a qualified biologist immediately before initial ground-disturbing activities or vegetation clearing at project sites L5008W, L5009W, and L5010W. A biological monitor also will be present on site during all initial ground-disturbing activities and vegetation removal. Through communication with the construction site supervisor, the qualified biologist may stop work if it is deemed necessary for any reason to protect listed species, and this biologist will advise the on-site Project Manager or designee on how to proceed appropriately.</p>	<p>1) A qualified biologist retained by BART or contractor (contractor will retain BART-approved biologist) will conduct a California red-legged frog and Alameda whipsnake preconstruction survey of the work site 2 weeks before start-of-work activities begin, including vegetation clearing, grubbing, or other ground disturbance activities. The qualified biologist will prepare a memo describing the preconstruction survey results to be provided to BART PM or Monitor.</p>	<p>1) BART, Contractor, Qualified Biologist</p>	
	<p>2) During initial construction activities, as described above, a biological monitor will be onsite to monitor the construction activities for the presence and potential harm to special-status species or other sensitive resources. The biologist monitor will maintain daily logs of observations to be provided to BART PM or Monitor.</p>	<p>2) Contractor, Qualified Biologist</p>	
	<p>3) During construction, if either species is found, the biologist monitor will notify the construction site supervisor and shall halt construction and coordinate with BART to contact the CDFW and the USFWS to determine whether relocating the species is appropriate. If relocation is determined to be appropriate, an agency-approved biologist will be allowed time to move the species from the work site.</p>	<p>3) Biologist Monitor, Contractor, BART</p>	
Mitigation Measure BIO-3: Avoid Entrapment of Special-Status Wildlife at Castro Valley Project Sites			
<p>To prevent inadvertent entrapment of special-status wildlife during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered with plywood or similar materials at the close of each workday, or will be equipped with one or more escape ramps, constructed of earth fill or wooden planks. A construction site supervisor will inspect all holes and trenches at the</p>	<p>1) During construction, construction site supervisor will verify that all holes or trenches more than 1 foot deep are covered at the close of each workday or are equipped with one or more escape ramps, constructed of earth fill or wooden planks. The construction site supervisor will complete a daily log that such inspection has been performed at the close of each workday and confirm, with photos or other evidence, that holes or trenches have been properly treated as described above.</p>	<p>1) Contractor</p>	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
beginning of each workday and before such holes or trenches are filled.	2) The construction site supervisor will complete a daily log to document that inspection has been performed at the beginning of each workday and before such holes and trenches are filled to confirm, with photos or other evidence, that the holes or trenches have not been occupied by a special-status wildlife species.	2) Contractor	
	3) If the construction site supervisor finds that a hole or trench has been occupied by any of the special-status species covered during the WEAP training, the construction site supervisor will halt construction and notify the BART PM or Monitor and the qualified biologist and follow monitoring action #3 described above for Mitigation Measure BIO-2.	3) Contractor, BART, Qualified Biologist	
Mitigation Measure BIO-4: Avoid Contact with Listed Species at All Project Sites			
If a special-status wildlife species is observed in the project vicinity, all construction activities will cease within 50 feet of the animal. The animal will be allowed to leave the work area of its own volition. If the animal does not or cannot leave the work area of its own volition, the construction site supervisor will contact BART, and BART will contact the appropriate resource agencies (CDFW and/or USFWS) to coordinate relocation of the animal if necessary.	1) If a special-status wildlife species as identified in the WEAP is observed within 50 feet of construction, the construction site supervisor will halt work and allow the animal to leave the work area of its own volition. Work may resume when the animal is more than 50 feet from active construction. A daily monitoring log shall be maintained to document such observations and actions taken.	1) Contractor, BART	
	2) If the special-status wildlife species is observed in the project vicinity during construction and does not leave the work area of its own volition, the construction site supervisor will continue to halt work within 50 feet of the animal and contact BART PM or Monitor to coordinate with CDFW and/or USFWS to determine whether relocating the species is appropriate. If relocation is determined to be appropriate, a resource agency-approved biologist will be allowed time to move the species from the work site.	2) Contractor, BART, agency-approved biologist	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
Mitigation Measure BIO-5: Western Burrowing Owl Survey at the Concord Project Sites			
<p>Preconstruction burrowing owl surveys will be conducted in accordance with the Burrowing Owl Survey Protocol and Mitigation Guidelines (California Burrowing Owl Consortium 1993) at project sites C3015W and C3015E. This guidance will include conducting a habitat assessment and burrow survey. If suitable habitat is observed, burrowing owl surveys will be completed during the nesting season (February 1 to August 31) or during the overwintering season (December 1 to January 31), if construction is scheduled to take place during these seasons. Guidelines for establishing buffers around active nests, monitoring active nests, and reporting the results of monitoring efforts also will be followed.</p>	<p>1) If construction is scheduled during nesting or overwintering season, a qualified biologist will perform a preconstruction survey for burrowing owl and burrowing owl habitat before start-of-work activities begin, including vegetation clearing, grubbing, or other ground disturbance. The surveys will be conducted in accordance with the protocols and guidelines specified in the guidance referenced in Mitigation Measure BIO-5.</p>	<p>1) BART, Qualified Biologist</p>	
	<p>2) If an occupied burrow is detected, construction site supervisor will notify BART PM or Monitor and qualified biologist, who together will consult with CDFW on appropriate construction avoidance buffers to be maintained throughout construction.</p>	<p>2) BART, Qualified Biologist</p>	
	<p>3) If active nests are identified, BART Monitor and qualified biologist will confirm that exclusion buffers are established and maintained. Logs will be completed to document that monitoring has occurred in accordance with the frequency specified by the guidelines referenced in Mitigation Measure BIO-5.</p>	<p>3) BART, Qualified Biologist</p>	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
Mitigation Measure BIO-6: Avoid Impacts on Waters of the U.S. at the Concord Project Site			
<p>All waters of the U.S. will be avoided by the Project. If access to the slope repair work at project site C3015E via Kinne Boulevard cannot be accomplished using the box culvert south of the project site, and will require crossing the human-made, concrete-lined, open ditch, no construction equipment or materials will be allowed to enter the bed and banks of this feature. To avoid this feature, metal plates, a bridge structure, or other conventional construction methods will be used to span or cross it.</p>	<p>1) If BART is granted access to the slope repair work at 3015E using the box culvert south of the project site by the U.S. Navy, BART will adhere to the BART Facilities Standards (Section 01 57 00 Temporary Controls) to safeguard construction debris, materials, spills, or leaks from entering the ditch.</p>	<p>1) BART</p>	
	<p>2) If BART's preferred access route across the box culvert is not available, BART will retain a qualified wetland biologist prior to ground-disturbing project activities to identify waters for avoidance on or within 250 feet of the project work site.</p>	<p>2) BART, Qualified Wetland Biologist</p>	
	<p>3) BART will consult with the qualified wetland biologist to review its plans to cross from Kinne Boulevard to the work site. The plans will need to identify the use of metal plates, bridge structures, or other conventional construction methods sufficient to bear the load of construction equipment, materials, and personnel and also be able to prevent construction debris, materials, spills, or leaks from entering the ditch.</p>	<p>3) BART, Qualified Wetland Biologist</p>	
	<p>4) BART will install the designed ditch crossing and inspect it to confirm that it would prevent construction debris, materials, spills, or leaks from entering the ditch and potentially affecting the waters identified for avoidance in monitoring action #2. The qualified wetland biologist will monitor the installation and inspect the designed ditch crossing so that the crossing effectively achieves its purpose to protect the water way.</p>	<p>4) BART, Qualified Wetland Biologist</p>	
	<p>5) During construction, access to and departure from the work site by all construction personnel, material deliveries, soil hauling will be restricted to the ditch crossing where the metal plates, bridge structure, or facilities have been installed.</p>	<p>5) BART</p>	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
Mitigation Measure BIO-7: Nesting Bird Survey at All Project Sites			
<p>If any construction activities occur during the active nesting period (February 1 through August 31), a preconstruction survey for nesting birds will be conducted by a qualified biologist. Nesting bird surveys will be conducted within 1 week before the start of construction activities. If no active nests are found, no further surveys and no further mitigation will be required. However, if 2 weeks lapse during construction within the active nesting period (i.e., if no work takes place on site for 2 continuous weeks between February 1 and August 31), then the survey will be repeated to ensure that any nests have not been occupied or created during the work stoppage. This survey will be required each year before any project construction activities occur during the active nesting period. This survey will not be required if construction occurs outside the active nesting period.</p> <p>If active nests are found in any areas that may be directly affected by construction activities, a qualified biologist will assess the potential impacts of project construction noise levels to ensure an appropriate buffer is established to protect the active nests. The extent of these buffers will be determined by the biologist based on the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.</p>	1) If construction is scheduled during the active nesting period, a qualified biologist will conduct a nesting bird preconstruction survey of the work site within 1 week before start-of-work activities begin, including vegetation clearing, grubbing, or other ground disturbance.	1) BART, Contractor, Qualified Biologist	
	2) The qualified biologist will provide a memo to BART of survey results within 7 days.	2) Qualified Biologist	
	3) If active nests are identified during preconstruction bird surveys, the qualified biologist will notify BART and assess the situation and identify recommended buffers to protect the nesting birds. As necessary, the qualified biologist will contact CDFW regarding the buffers.	3) BART, Contractor, Qualified Biologist	
	4) The qualified biologist will monitor the adequacy of the buffers to confirm that they are sufficient to avoid disturbance to the nesting birds and to ensure that construction personnel adhere to the buffers. As necessary, the qualified biologist will contact CDFW regarding the buffers.	4) BART, Contractor, Qualified Biologist	
	5) Monitoring will continue until the birds have fledged and a report will be prepared by the qualified biologist for BART and, if appropriate, for CDFW.	5) BART, Contractor, Qualified Biologist	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
CULTURAL RESOURCES			
Mitigation Measure CUL-1: Unanticipated Discoveries of Archaeological Resources			
<p>If construction workers unearth archaeological resources during project implementation, all project activities within 100 feet will halt until a professional archaeologist (who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology) is retained and determines the significance of the discovery. If the resource potentially also is a Tribal cultural resource, the archaeologist will assess impacts, significance, and mitigation, in consultation with local Native American representatives. Precontact archaeological materials may include obsidian and chert flaked-stone tools (e.g., projectile points, knives, or scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, hand stones, or milling slabs); and/or battered stone tools, such as hammerstones. Historic period materials may include foundations or hollow-filled features, such as privies or wells. Impacts on any significant resources may be mitigated through avoidance, data recovery, or other methods, as identified by a qualified archaeologist, local Native American representatives, and BART. Any mitigation plan developed by a qualified archaeologist will be approved by BART before implementation. Project-related ground-disturbing activities will not be continued in the vicinity of any discovered resource until the significance of the resource is resolved and mitigation action (if any) is completed.</p>	<p>1) If unanticipated archaeological discoveries occur during construction, construction site supervisor will halt work within 100 feet of the discovery and contact BART PM, Monitor, and qualified professional archaeologist approved by BART.</p>	<p>1) BART, Contractor, Monitor,, Qualified Archaeologist</p>	
	<p>2) Qualified archaeologist will evaluate the resource to determine its significance and document its findings to BART. If the resource is not determined to be significant, then work may resume. If the resource is evaluated to be significant and/or of Native American origin, BART and qualified archaeologist will follow monitoring action #3 or monitoring action #4 as appropriate.</p>	<p>2) Qualified Archaeologist</p>	
	<p>3) If the qualified archaeologist evaluates the resource and determines it to be significant, the qualified archaeologist will prepare a management plan for BART's review and approval that describes the resource, its significance, and the appropriate treatment of the unanticipated archaeological discovery in accordance with Public Resources Code Section 21083.2 and State CEQA Guidelines Section 15126.4.</p>	<p>3) Qualified Archaeologist, BART</p>	
	<p>4) If the qualified archaeologist evaluates the resource and determines it to be a Native American tribal cultural resource, the qualified archaeologist will coordinate with BART to contact the appropriate Native American tribe to inform them of the unanticipated discovery of tribal cultural resources, and to consult with them on the appropriate treatment of the resource.</p>	<p>4) Qualified Archaeologist, BART, Native American tribe representatives</p>	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
Mitigation Measure CUL-2: Treatment of Human Remains			
<p>If human remains are encountered, all provisions of Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the California Public Resources Code will be followed. Work will stop within 100 feet of the discovery, and both a qualified archaeologist and BART project manager must be contacted within 24 hours. BART staff will contact the County Coroner. If human remains are of Native American origin, the County Coroner will notify the California Native American Heritage Commission within 24 hours of this determination, and a Most Likely Descendent will be identified. No work will proceed in the discovery area until consultation is completed and procedures to avoid or recover the remains have been implemented.</p>	<p>1) If human remains are discovered during construction, the construction site supervisor will halt work within 100 feet of the discovery and contact the BART PM and the qualified archaeologist. Upon notification, the BART PM or Monitor will contact the County coroner.</p>	<p>1) BART, Contractor, Qualified Archaeologist</p>	
	<p>2) Construction work will not resume within 100 feet of the discovery until notified by the County coroner that its investigation is complete or if the human remains are of Native American origin, until the tribal representatives and Most Likely Descendant have completed their investigation and the remains have been recovered.</p>	<p>2) BART, Contractor, County Coroner; if remains are of Native American origin, Native American Heritage Commission, applicable Native American tribe, Most Likely Descendant</p>	
	<p>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.</p>	<p>3) BART, Qualified Archaeologist; if remains are of Native American origin, same parties identified above in monitoring action #2.</p>	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
HAZARDS AND HAZARDOUS MATERIALS			
Mitigation Measure HAZ-1: Site Assessment and Conceptual Site Model to Characterize the Soil, Groundwater, and Soil Gas at the Concord Project Sites			
<p>BART will consult with the Selected Regulatory Agency to determine whether a Site Assessment (a Phase II Environmental Site Assessment [ESA]) and Conceptual Site Model are needed to ensure adequate characterization of the soil, groundwater, and soil gas at project sites. If so, the details for the Site Assessment and Conceptual Site Model will be confirmed and is expected to examine and discuss all potential exposure pathways, including the following:</p> <ul style="list-style-type: none"> • dermal—physical contact with contaminated soil and groundwater during construction; • inhalation—dust generated by construction activities and contaminants that volatilize or produce vapors; and • surface and groundwater—potential for overland flow from construction dewatering to enter surface waters, and to percolate into clean groundwater that is not part of the current contaminated groundwater plume. <p>The Site Assessment and Conceptual Site Model will evaluate potential hazards to both</p>	<p>1) Before construction of the Project, BART will submit the consultant-prepared Hazmat Investigation Report to the Selected Regulatory Agency for approval, and/or consult with the Selected Regulatory Agency on whether a Phase II ESA and/or Conceptual Site Model is needed to ensure adequate characterization of the soil, groundwater, and soil gas at project sites.</p>	<p>1) BART, Regulatory Agency</p>	
	<p>2) If the Selected Regulatory Agency approves the Hazmat Investigation Report, BART will implement the report recommendations to avoid risks from impacted soil, groundwater, and soil gas at project sites, and the Site Assessment and Conceptual Site Model would not be necessary.</p>	<p>2) BART, Regulatory Agency, Registered Environmental Assessor or other qualified professional with similar expertise</p>	
	<p>3) If the Selected Regulatory Agency requires additional information (e.g., further characterization of the environmental contamination) and recommendations, a registered environmental assessor or qualified professional with similar expertise will update the Hazmat Investigation Report. The Selected Regulatory Agency will review and approve the report which may then serve as the Site Management Plan with the requisite recommended control measures for handling soil and groundwater during construction. The Hazmat Investigation Report/Site Management Plan must be completed prior to construction.</p>	<p>3) BART, Regulatory Agency, Registered Environmental Assessor or other qualified professional with similar expertise</p>	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
<p>construction workers and the environment during the construction phase, and will make recommendations governing soil re-use or disposal, and dewatering requirements during construction.</p> <p>BART will provide the results from the completed Site Assessment and Conceptual Site Model to the Selected Regulatory Agency for review and approval. After the Selected Regulatory Agency approves the completed Site Assessment and Conceptual Site Model, BART will prepare a Site Management Plan that describes its plan to manage all of the identified risks. The Conceptual Site Model and Site Management Plan will provide a thorough evaluation of the specific constituents and their concentrations in groundwater, soil, or soil-gas at the project sites, and will include recommendations for project construction to reduce environmental risks and human health hazards. The Site Management Plan will be submitted to the Selected Regulatory Agency for review and approval. BART will incorporate all elements of the approved Site Management Plan into the construction contractor specifications, in accordance with Mitigation Measures HAZ-2 and HAZ-3.</p>	<p>4) Upon review of the Hazmat Investigation Report or during the consultation in monitoring action #1, the Selected Regulatory Agency may require a Phase II ESA (for further characterization) and/or a Conceptual Site Model (to identify the potential exposure pathways). The registered environmental assessor or qualified professional with similar expertise will prepare a workplan for either or both studies, depending on the Selected Regulatory Agency's guidance, for approval by the Selected Regulatory Agency. Upon approval, BART will direct its registered environmental assessor or qualified professional with similar expertise to prepare a Site Management Plan for approval by the Selected Regulatory Agency. The approved Phase II ESA and/or Conceptual Site Model/Site Management Plan must be completed and incorporated into the construction specifications. ▽</p>	<p>4) BART, Regulatory Agency, Registered Environmental Assessor or other qualified professional with similar expertise</p>	
<p>Mitigation Measure HAZ-2: Obtain a Permit for Construction Dewatering of Impacted Groundwater (as necessary) for the Concord Project Sites and Implement Appropriate Treatment Measures before Discharge.</p>			
<p>If construction dewatering at the project sites is necessary, BART will obtain a permit for construction dewatering of potentially impacted groundwater from the San Francisco Bay RWQCB or Selected Regulatory Agency. BART will comply with all requirements of the permit and will include all of the permit requirements in the construction specifications.</p>	<p>1) Before construction, if construction dewatering is deemed necessary, BART will obtain the requisite permit from the regulatory agency and comply with the permit requirements and conditions. All the permit requirements will be included in the construction specifications.</p>	<p>1) BART</p>	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
Mitigation Measure HAZ-3: Incorporate Standards for HazMat Training and the Proper Handling and Disposal of Impacted Soils into the Construction Specifications for the Concord Project Sites.			
<p>Based on the results of the Site Assessment and Conceptual Site Model that are completed pursuant to Mitigation Measure HAZ-1, BART will require specifications and procedures to be followed by the construction contractor for potential contact with impacted groundwater, and the safe handling, treatment, and disposal of excavated soils from the project site (if soils are found to be impacted), consistent with all applicable federal, State, and local requirements.</p> <p>All construction workers who will be involved with ground disturbance will be trained in Hazardous Waste Operations and Emergency Response (HAZWOPER) as related to impacted groundwater, as well as related to impacted soil, if any is found to be present based on the results of the Site Assessment (Phase II ESA).</p> <p>If the results of the Site Assessment (Phase II ESA) and Conceptual Site Model indicate that impacted soil is present, then BART will ensure that a licensed engineering contractor with a Class A license and hazardous substance removal certification is used to perform any soil removal from the project sites. A California-licensed engineer will provide field oversight on behalf of BART, to document the origin and destination of all removed materials. If necessary, removed materials will be stockpiled temporarily and covered with plastic sheeting, pending relocation, segregation, or off-site hauling. To protect groundwater and surface water quality, contaminated soils will not be stored on site during the winter rainy season (i.e., November through April), to the</p>	<p>1) During construction, construction site supervisor will review the work sites to confirm that specifications and procedures identified in the soil and groundwater management plan or the site management plan are being implemented.</p>	<p>1) BART</p>	
	<p>2) If the Phase II ESA (or approved Hazmat Investigation Report) identifies impacted groundwater or soil, construction site supervisor will confirm that all workers involved with ground disturbance are HAZWOPER trained. Evidence of trained personnel and certification will be provided to BART PM and Monitor.</p>	<p>2) BART, Contractor</p>	
	<p>3) If impacted soil is found from the Site Assessment and Conceptual Site Model, BART will retain a licensed engineering contractor with a Class A license and hazardous substance removal certification to perform soil removal and provide field oversight on behalf of BART, to document the origin and destination of all removed materials.</p>	<p>3) BART, Licensed Engineering Contractor</p>	

Mitigation Measure	Timing/Monitoring Action	Implementation Responsibility	Verification of Implementation
<p>extent practicable. All impacted materials will be disposed at an appropriately licensed landfill or facility. BART will provide the Selected Regulatory Agency with documentation to verify that all of these requirements have been met.</p>			
<p>Mitigation Measure HAZ-4: Prepare and Implement a Site-Specific Health and Safety Plan for the Concord Project Sites</p>			
<p>To protect the health of construction workers and the environment, BART will prepare and implement a site-specific Health and Safety Plan (HASP). The HASP will be prepared in accordance with State and federal Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910.120) and will be approved by a certified industrial hygienist. Copies of the HASP will be made available to construction workers for review during their orientation training and/or during regular health and safety meetings. The HASP will identify potential hazards (including impacted groundwater, and the potential for stained or odiferous soils at any location where earth-moving activities are to occur), chemicals of concern, personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures. The HASP will be consistent with all applicable components of the Site Management Plan, as approved by the Selected Regulatory Agency pursuant to Mitigation Measure HAZ-1.</p>	<p>1) Before construction, BART or a professional retained by BART with qualifications and experience in health and safety plans for protection of construction personnel from impacted soil or groundwater (could be a certified industrial hygienist) to prepare a site-specific HASP in accordance with State and federal Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910.120). I</p>	<p>1) BART; Health and Safety Professional (e.g., certified industrial hygienist)</p>	
	<p>2) If the HASP is not prepared by a certified industrial hygienist, then a professional with these certifications will approve the HASP.</p>	<p>2) BART, Certified Industrial Hygienist</p>	
	<p>3) BART Monitor and construction site supervisor will confirm that all construction personnel involved with ground disturbance receive a copy of the HASP. Documentation can be combined with the documentation required by Mitigation Measure HAZ-3, monitoring action #2, or through some other means at BART's discretion.</p>	<p>3) BART</p>	

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