

## CALIFORNIA ENVIRONMENTAL QUALITY ACT INITIAL STUDY

The Department of Toxic Substances Control (DTSC) has completed the following document for this project in accordance with the California Environmental Quality Act (CEQA) [Pub. Resources Code, div. 13, § 21000 et seq] and accompanying Guidelines [Cal. Code Regs., tit. 14, § 15000 et seq].

### PROJECT INFORMATION

<b>PROJECT TITLE:</b> Explanation of Significant Differences for GBF/Pittsburg Landfill to Document Secondary Remedy Technologies to 1997 Remedial Action Plan		<b>SITE CODING:</b> 200041
<b>PROJECT ADDRESS:</b> Corner of Somersville Road and James Donlon Boulevard	<b>CITY:</b> Antioch	<b>COUNTY:</b> Contra Costa
<b>PROJECT SPONSOR:</b> Department of Toxic Substances Control	<b>CONTACT:</b> Garrett Thornton	<b>PHONE:</b> (916) 255-3748
<b>APPROVAL ACTION UNDER CONSIDERATION BY DTSC:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Initial Permit Issuance</div> <div style="width: 33%;"><input type="checkbox"/> Permit Re-Issuance</div> <div style="width: 33%;"><input type="checkbox"/> Permit Modification</div> <div style="width: 33%;"><input type="checkbox"/> Closure Plan</div> <div style="width: 33%;"><input type="checkbox"/> Removal Action Workplan</div> <div style="width: 33%;"><input type="checkbox"/> Remedial Action Plan</div> <div style="width: 33%;"><input type="checkbox"/> Interim Removal</div> <div style="width: 33%;"><input type="checkbox"/> Regulations</div> <div style="width: 33%;"><input type="checkbox"/> Corrective Measure Study/Statement of Basis</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Other (specify): ESD for RAP</div> </div>		
<b>STATUTORY AUTHORITY:</b> <input type="checkbox"/> California H&SC, Chap. 6.5 <input checked="" type="checkbox"/> California H&SC, Chap. 6.8 <input type="checkbox"/> Other (specify):		
<b>DTSC PROGRAM/ADDRESS:</b> Site Mitigation and Restoration Program 8800 Cal Center Drive, Sacramento, CA 95826	<b>CONTACT:</b> Garrett Thornton	<b>PHONE:</b> (916) 255-3748

**PROJECT DESCRIPTION:** The Department of Toxic Substances Control (DTSC), pursuant to authority granted under Chapter 6.8, Division 20, section 25300 et seq is considering approving an Explanation of Significant Differences (ESD) which proposes secondary remedy technologies to the 1997 Remedial Action Plan (RAP) for the GBF/Pittsburg Landfill (Site). The Site is a capped and closed 84-acre landfill located northeast of the intersection of Somersville Road and James Donlon Boulevard in the City of Antioch (see Figure 1). Due to historical operations, groundwater beneath the landfill is contaminated with primarily volatile organic compounds. DTSC is supervising the long-term monitoring and restoration of the groundwater in the area.

**BACKGROUND:** The Site is an 84-acre closed landfill composed of two adjacent former waste disposal Sites – the Pittsburg Landfill and the GBF Landfill. The GBF Landfill and the Pittsburg Landfill were consolidated in 1987 into an approximately 82-acre municipal solid waste landfill that was operated as the Contra Costa Sanitary Landfill (CCSL) until operations ceased in 1992. The CCSL stopped accepting wastes in 1992.

The former Pittsburg Landfill (the eastern portion of the current landfill and referred to as the East Parcel (see Figure 2)) operated as a municipal solid waste disposal site from the 1940s through the 1980s. The Pittsburg Landfill primarily received non-hazardous solid wastes; however, documentation confirms hazardous chemical and industrial liquid wastes were also deposited from the 1950s through 1978. The former Pittsburg Landfill is located in the jurisdiction of the City of Antioch.

The former GBF Landfill (the western portion of the current landfill and referred to as the GBF/Pittsburg Landfill (see Figure 2)) operated as an industrial solid waste disposal site from the 1960s until 1974, during which time containerized and liquid wastes were received, and up to ten liquid waste ponds were in use for storing acidic waste, heavy oils, and sludges. Substances that were disposed of at the GBF Landfill included inorganic compounds, pesticides, herbicides, solvents, and polychlorinated biphenols. The ponds were closed from 1974 to 1978. After that time, the GBF Landfill continued to operate as a non-hazardous disposal site and accepted municipal and industrial solid waste and sewage sludge until its consolidation with the Pittsburg Landfill in 1987.

In 1997, the DTSC prepared a RAP for the Site which recommended groundwater extraction and treatment system (GWETS) as the remedy for groundwater impacts. Following the remedial approach outlined in the RAP, the landfill

was capped in 2002 and a GWETS was constructed at the landfill downgradient (northern) boundary. The landfill cap approved by Central Valley Regional Water Quality Control Board (RWQCB) prevents precipitation from percolating into the waste and the underlying vadose zone. The cap also prevents landfill gas (LFG) from escaping into the atmosphere. An LFG collection system and flare are also in operation. The Site is currently closed to the public and any proposed activities and development are subject to a deed restriction.

Prior to the installation of the landfill cap and engineered stormwater runoff grading in 2001 and 2002, landfill contaminants deposited in the waste were leached to subsurface soil and upper saturated zone (USZ) groundwater via percolation/infiltration events. The waste and ponds were not in direct contact with groundwater, rather, they were separated by a vadose zone of approximately 40 and 100 feet thick below the landfill. Once in groundwater, the contaminants migrated downgradient under the processes of advection, diffusion, and dispersion. Also, in localized areas, contamination migrated from the USZ to the deeper saturated zone (DSZ).

The following contaminants of concern (COCs) have been detected at elevated concentrations in groundwater and soil vapor at the Site:

- Chlorinated ethenes (tetrachloroethene (PCE));
- trichloroethene (TCE) and their daughter products;
- chlorinated methanes (carbon tetrachloride (CT), chloroform, and their daughter products);
- 1,2-dichloropropane (1,2-DCP); and
- benzene

Acetone, phenol, heptachlor, and select metals are also present at elevated concentrations in groundwater along the landfill's northern boundary, with little downgradient plume migration.

The primary mechanism for historic releases includes infiltration of rainwater and leaching of contaminants downward through the soil column and into the vadose zone and groundwater underlying the Site. Once in groundwater, the contaminants are mobilized by local groundwater flow (i.e., advection), and to a lesser degree, diffusion and dispersion mechanisms. The volatile organic compounds (VOCs) comprising the COCs present in the vadose zone beneath the landfill, as well as vapors releasing from the surface of the VOC-impacted groundwater, are a secondary source.

The migration of soil vapors off-Site occurs in the vadose zone and follows the path of least resistance, through coarser grained soils (i.e., sand, gravel lenses). Vapor intrusion refers to the migration of these contaminant soil vapors into overlying buildings. Beneath buildings, pressure gradients (induced by ambient weather changes, building heating ventilation and air conditioning use, and other location-specific factors) between the building and the subsurface provide the driving force for indoor air intrusion, where exposure can occur through inhalation of impacted vapors.

Groundwater has been investigated and monitored at the Site since 1986 for VOCs, semi-volatile organic compounds, general chemistry, natural attenuation (NA) parameters, dissolved hydrocarbon gases, metals, cyanide, pesticides, and herbicides. The 1997 RAP for the Site mandates a GWETS as the groundwater remedy to provide containment both at the landfill source area and at the off-Site leading edge of the plume.

The GWETS was constructed between July 2002 and March 2003, in accordance with the 1997 RAP and the DTSC-approved Phase I Remedial Design and Implementation Plan. The GWETS consists of 30 extraction wells, spaced approximately 100 feet apart along the northern boundary of the landfill, to control off-Site migration of impacted groundwater. The wells are equipped with pneumatic pumps and associated instrumentation. Groundwater is conveyed via subsurface piping to a treatment system compound located on-Site. Groundwater is treated by granular activated carbon (GAC) filtration and discharged (with periodic monitoring and reporting) under a permit with the Delta Diablo Sanitation District.

An LFG extraction and destruction system operates continuously to remove accumulated methane from the municipal waste. The system consists of 29 vertical extraction wells, condensate collection piping and tanks, a condensate pump station, and an enclosed flare. The LFG extraction wells are generally 24 inches in diameter and vary in depth from approximately 35 to 85 feet within the refuse pile, (above the formation vadose zone) and are connected via lateral pipes to a common header pipe that is kept under vacuum by a blower located at the flare compound.

The groundwater plume has been delineated and generally exhibits bi-lobular geometry with two distinct and separate plumes emanating from the former GBF Landfill (eastern plume) and the former Pittsburg Landfill (western plume), respectively. In 2014, additional investigations refined that understanding and the plume is now more accurately

understood to comprise a series of discrete plume “fingers”, that likely evolved over time due to preferential high-permeability subsurface conduits.

In 2006, TRC submitted a request for RAP modification of the Phase II remedy. Following this request, multiple studies were performed over an approximate 10-year period, including groundwater and soil vapor investigations, risk assessments, remedial alternatives evaluations, and a development of a revised conceptual site model (CSM). Some of these studies were also based on information that resulted from the first five-year remedial action review, which had indicated that the GWETS was not providing complete hydraulic capture at the landfill boundary and recommended that remedial alternatives be evaluated.

#### **PROJECT ACTIVITIES:**

The proposed Explanation of Significant Differences (ESD) proposes the following secondary remedy technologies: (1) installation of a hydraulic barrier wall, (2) a redesigned on-site GWETS, (3) an on-site soil vapor extraction and treatment system (SVETS), (4) in-situ groundwater remediation at two off-site locations, and (5) risk-based mitigation, where unacceptable indoor air risk from off-site soil vapor would be addressed on a case-by-case basis. The secondary remedy technologies would not fundamentally alter the overall cleanup approach. The remedial action objectives (RAOs) are and will continue to be containment of contamination, reduction of contamination, and attainment of standards which protect the beneficial uses of the waters.

The RAOs for the groundwater plume associated with the Site, as established in DTSC's 1997 RAP, are, in order of attainability:

- Containment of contamination;
- Reduction of contamination; and
- Attainment of acceptable standards which protect the beneficial uses of the waters of the State of California.

As discussed above, multiple investigations, remedy evaluations, and an updated CSM for the Site have indicated the need for modifications to the current remedy. Overall, the existing GWETS removes contaminant mass from impacted groundwater, however, the envelope of groundwater capture is limited due to the highly heterogeneous nature of the Site's lithology and the corresponding variability in permeabilities across saturated zones. This leads to low flow rates in extraction wells and essentially a limited “reach” for the capture of impacted groundwater, which is the fundamental reason that the secondary remedy is proposed.

Following the 1997 RAP and 2003 GWETS remedy implementation, migration of soil vapors from impacted groundwater and on-Site waste sources have been identified as ongoing contaminant sources from the landfill. In addition, recent updates to the DTSC's guidance for modeling indoor air quality indicates that risk to residential homes downgradient of the landfill may be more elevated than previously calculated, although soil vapor concentrations have been stable.

For these reasons, the primary remedy is no longer considered effective in achieving the groundwater RAOs and the ESD recommends further measures to address soil vapor, which was not included in the 1997 RAP. The proposed changes to the existing remedy have been developed to mitigate off-Site transport of COCs and to mitigate risk to the residential community downgradient of the landfill by creating a physical barrier between the on-Site contaminant source and the off-Site areas. The GWETS would remain the primary remedy on the Site; however, with the installation of a hydraulic barrier wall (HBW), the groundwater extraction well network would need to be redesigned, and an SVE well network installed, to effectively capture impacted groundwater and soil vapor. The components of the current remedy that would be retained include select groundwater extraction wells and the groundwater treatment system. The landfill cap and LFG collection and treatment system would remain in place and operational. To allow room for the HBW installation equipment to operate, the landfill would be modified in select areas along the alignment by “pulling back” the toe of slope where needed and grading throughout to create a level construction corridor. The landfill cover and slopes would be restored to landfill design specifications. Each of these components are discussed in further detail below.

#### *Hydraulic Barrier Wall*

The HBW is the primary component of the proposed remedy, however, the installation of an HBW also significantly alters local groundwater and soil vapor flow regimes and typically leads to a build-up of groundwater head and soil vapor pressure on the upgradient side of the HBW. To manage the build-up of groundwater and soil vapors, and prevent flow and COC transport beneath the HBW, the HBW will be “keyed” into the clay confining layer between the

USZ and the DSZ by a minimum depth of 5 feet, to depths between approximately 100 and 140 feet below grade (fbg). The alignment of the HBW is shown on Figure 2.

#### *Groundwater Extraction and Treatment System - Redesign*

To manage the build-up of groundwater head on the upgradient (south) side of the HBW and prevent groundwater flow and COC transport around (east and west of) the HBW, new groundwater extraction wells will be installed as shown conceptually on Figure 2. Groundwater modeling for the Site has indicated that hydraulic capture would be achieved using between 20 and 30 extraction wells, and a total flow rate between 20 and 30 gallons per minute is anticipated.

The existing GWETS includes settling via influent tank, sediment filtration and treatment using GAC, with discharge to the Delta Diablo Sanitation District, under an existing permit. The existing GWETS components would be upgraded (e.g., additional filtration units, enhanced settling capacity/time) but the overall treatment approach will not change.

#### *Soil Vapor Extraction and Treatment System*

To manage the build-up of soil vapor pressure on the upgradient (south) side of the HBW and prevent soil vapor flow and COC transport around (east and west of) the HBW, a SVETS consisting of SVE wells south of the HBW, conveyance, and treatment will be designed and installed. The general location of SVE wells is shown conceptually on Figure 2 and will be finalized using the Site vapor flow and transport model. The detailed design and discharge permitting will be coordinated with the Bay Area Air Quality Management District (BAAQMD).

#### *In Situ Groundwater Remediation*

In accordance with DTSC's conditional approval of the Phase II FS, in situ groundwater remediation is proposed for two targeted off-Site areas, near monitoring wells MW-55 and MW-69 (see Figure 2). Based on historical in situ pilot studies performed at the Site, in situ chemical reduction is likely to be the most viable technical approach.

#### *Risk-Based Mitigation (Contingency)*

The secondary remedy also includes risk-based mitigation, whereby unacceptable indoor air risk from off-Site soil vapor would be addressed on a case-by-case basis in coordination with the DTSC. Such mitigation may comprise subsurface slab depressurization (SSD) or similar engineering measures.

### **PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED:**

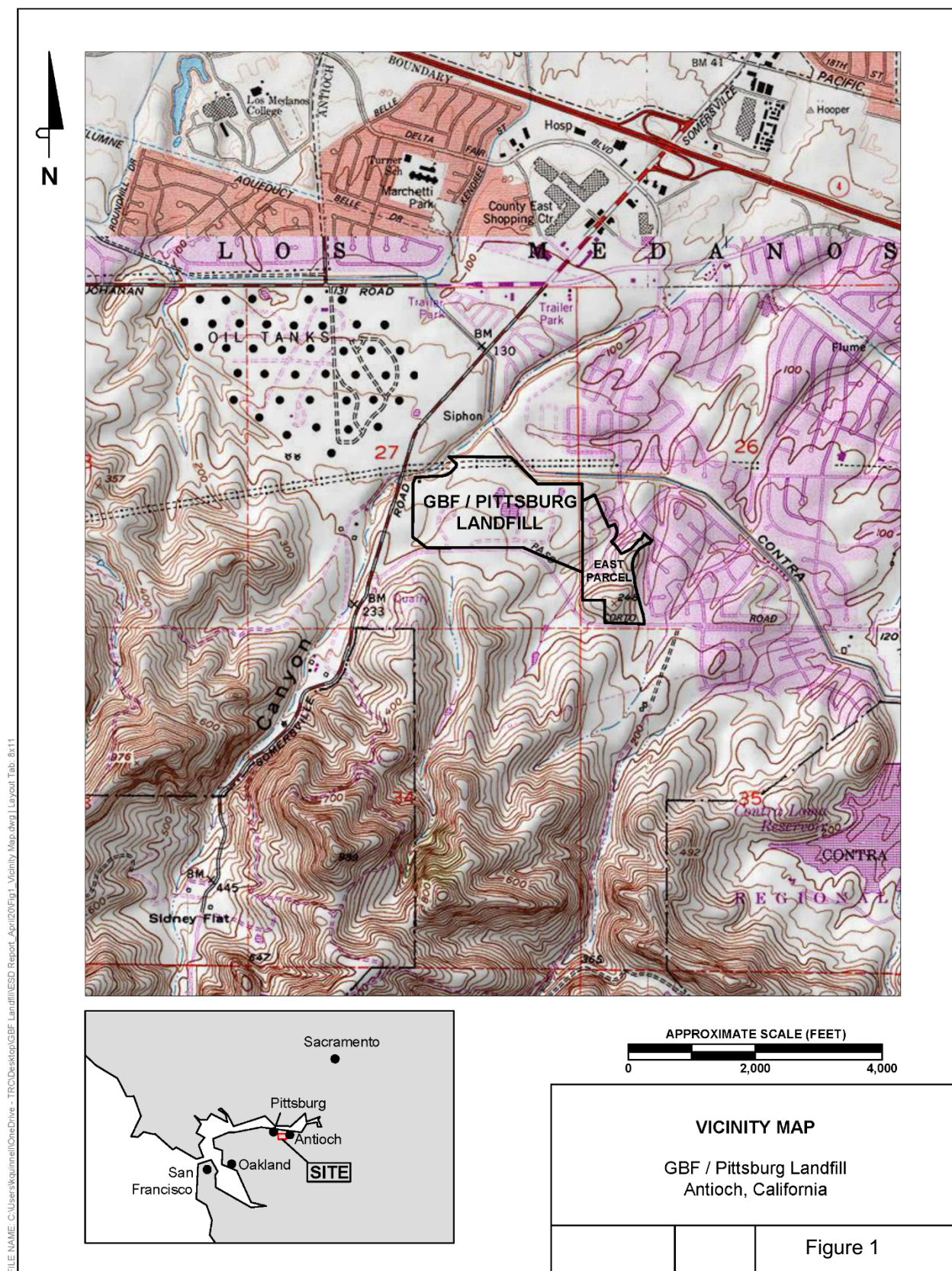
DTSC is the lead agency. Additional oversight is provided by the Central Valley Regional Water Quality Control Board (RWQCB) for landfill post-closure requirements, and the Contra Costa County Environmental Health Department as the local enforcement agency for RWQCB. Groundwater treated by the GWETS is discharged under permit to the Delta Diablo Sanitation District. The SVETS will be under permit with the Bay Area Air Quality Management District. City of Antioch also has local ordinance regarding noise, issues permits for traffic control, and has restrictions for parking.

### **NATIVE AMERICAN CONSULTATION:**

Pursuant to AB 52 and the DTSC's Tribal Consultation Policy, letters were sent to tribal governments that appeared on the NAHC Contact List for this area and that have expressed interest through written communication about this area with the DTSC, including AB 52 Consultation Request Letters. On November 13, 2020, DTSC received a request to initiate government-to-government consultation with the Consulting Tribe. As a result of Consultation, the Consulting Tribe provided DTSC with written correspondence outlining requested actions, such as Native American monitoring during ground-disturbing activities, to address their concerns regarding the potential impact of the proposed project on undiscovered tribal resources. These requested actions have been incorporated into the proposed ESD.

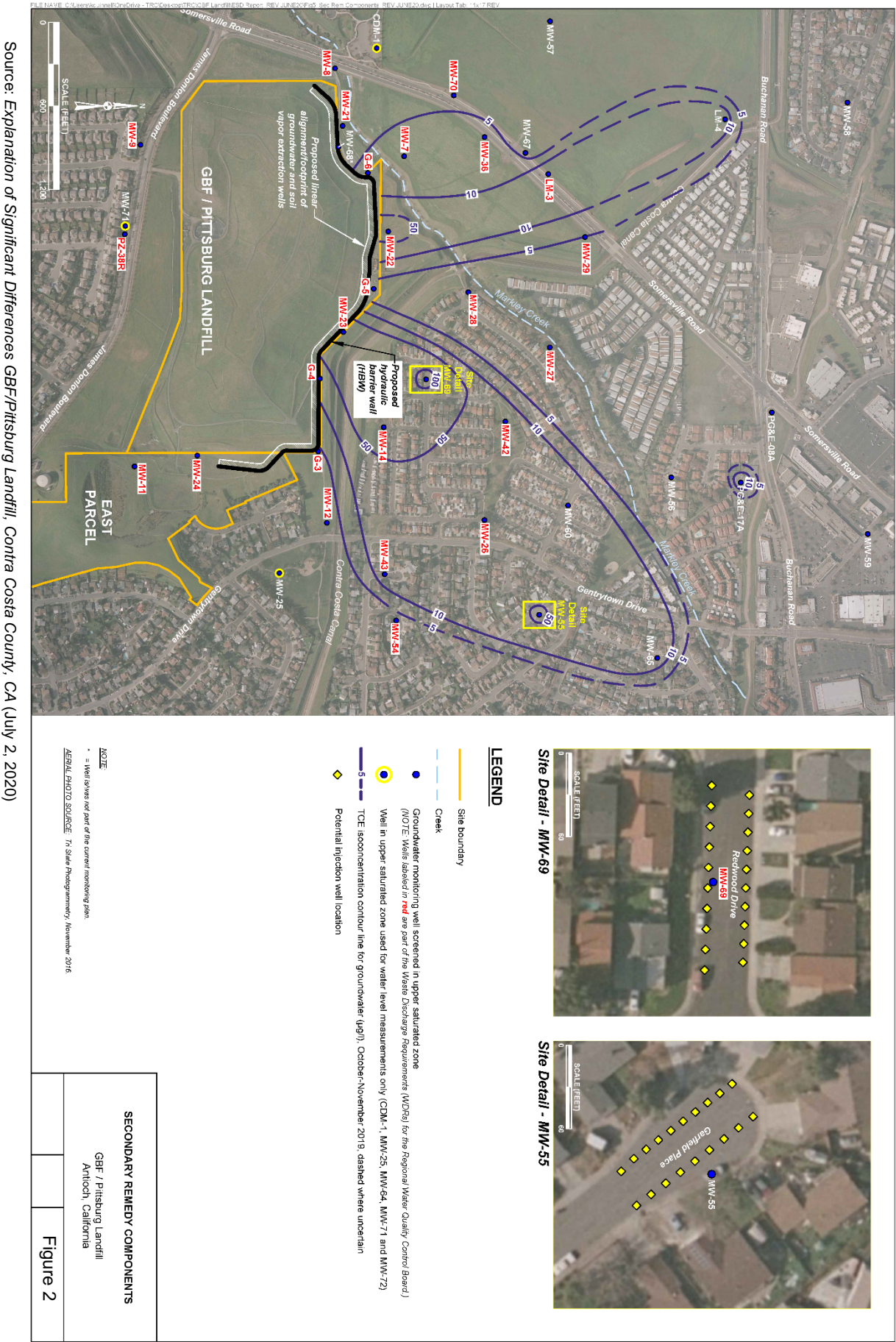
Note: Please see the Tribal Cultural Resources Section (Section 18) for additional information.





Source: Explanation of Significant Differences GBF/Pittsburg Landfill, Contra Costa County, CA (July 2, 2020)





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## APPENDICES

### Appendix A – CalEEMod Air Modeling Outputs

### Appendix B – Noise Model Outputs

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

None of the environmental factors identified below would be potentially affected by this project, and would not involve any impact that is a "Potentially Significant Impact," as indicated by the checklist beginning on page 11. Please see the checklist beginning on page 11 for additional information.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry	<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input type="checkbox"/>	Geology/Soils	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards and Hazardous Materials
<input type="checkbox"/>	Hydrology/Water Quality	<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation	<input type="checkbox"/>	Transportation	<input type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities/Service Systems	<input type="checkbox"/>	Wildfire	<input type="checkbox"/>	Mandatory Findings of Significance

## DETERMINATION

On the basis of this initial evaluation:

<input checked="" type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a <b>NEGATIVE DECLARATION</b> will be prepared.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A <b>MITIGATED NEGATIVE DECLARATION</b> will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an <b>ENVIRONMENTAL IMPACT REPORT</b> is required.
<input type="checkbox"/>	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An <b>ENVIRONMENTAL IMPACT REPORT</b> is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or <b>NEGATIVE DECLARATION</b> pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or <b>NEGATIVE DECLARATION</b> , including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

**CERTIFICATION**

I hereby certify that the statements furnished above and in the attached documentation, present the data and information required for this initial study evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

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Preparer's Signature

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Date

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Garrett Thornton

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Project Manager

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(916) 255-3748

Preparer's Name

Preparer's Title

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Branch or Unit Chief Signature

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Date

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Charles Ridenour

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Branch Chief

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Branch or Unit Chief Name

Branch or Unit Chief Title

Phone #

## EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance

## ENVIRONMENTAL IMPACT ANALYSIS

<b>1. AESTHETICS</b>				
<b>Except as provided in Public Resources Code Section 21099, would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):

#### California Scenic Highway Program

The Scenic Highway Program allows county and city governments to apply to the California Department of Transportation (Caltrans) to establish a scenic corridor protection program which was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment.

#### Contra Costa County 2005 General Plan

The Community Identity and Urban Design section within the Contra Costa County General Plan Land Use Element contains the following policies related to visual character:

3-16: Community appearance shall be upgraded by encouraging redevelopment, where appropriate, to replace inappropriate uses.

3-18: Flexibility in the design of projects shall be encouraged in order to enhance scenic qualities and provide for a varied development pattern.

The Contra Costa County General Plan Land Use Element contains the following policies related to visual character for the Bay Point Area:

3-78: The following policies shall guide development in the Bay Point area:

(d) Achieve and maintain a healthy environment for people and wildlife that minimizes health hazards and disruptions caused by the production, storage, transport, and disposal of toxic materials.

The Contra Costa County General Plan Open Space Element contains policies that regulate visual resources in the project vicinity. Scenic resources are classified as scenic waterways or scenic ridgelines. In the project vicinity, scenic waterways include Suisun Bay, located to the west-northwest, and Sacramento River, located east-northeast. The General Plan Open Space Element does not contain any goals or policies relevant to the proposed project.

#### City of Antioch 2003 General Plan

The Community Edge and Design section contains the following policies related to visual character:

5.4.2(c): Maintain view corridors from public spaces to natural ridgelines and landmarks, such as Mount Diablo and distant hills, local ridgelines, the San Joaquin River, and other water bodies.

- Recognizing that new development will inevitably result in some loss of existing views, as part of the City's review of development and commercial and industrial landscape plans, minimize the loss of views from public spaces.
- Important view corridors to be protected include Somersville Road, Lone Tree Way, Hillcrest Avenue, SR 4, SR 160, James Donlon Boulevard, Deer Valley Road, and Empire Mine Road.

#### **ENVIRONMENTAL SETTING (BASELINE):**

The proposed project Site is a closed landfill under a deed restriction with restricted access. The landfill is located in an unincorporated area of the City of Antioch and is designated for Public/Institutional and Open Space land use. The Site blends with surrounding grasslands, but it is not used as a scenic vista. It is located in an unincorporated area in the City of Antioch and is designated for open space land use. Areas adjacent to the Site are developed with residential neighborhoods. The Black Diamond Mines Regional Preserve is located to the south beyond a residential neighborhood with the entrance to the Park adjacent to the southwest portion of the Site.

#### **APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The significance determination in this visual analysis is based on consideration of: (1) the extent of change related to visibility of the proposed project Site from key public vantage points; (2) the degree of visual contrast and compatibility in scale and character between project activities and the existing surroundings; (3) conformance of the proposed project with public policies regarding visual and urban design quality; and (4) potential adverse effects on scenic vistas and scenic resources.

#### **ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

No project-specific environmental studies related to aesthetic resources were prepared for the proposed project. However, the methodology employed for assessing potential aesthetic impacts involved considering the existing viewshed and the project activities that have the potential to change the project-area visual character.

#### **IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Have a substantial adverse effect on a scenic vista?

##### **Impact Analysis:**

The Proposed Project would construct remedy actions to address impacted soil and groundwater including installation of a hydraulic barrier wall (HBW), installation of new groundwater extraction wells, upgrades to existing groundwater extraction and treatment system (GWETS) components, implementation of in situ groundwater remediation, and potential implementation of subsurface slab depressurization (SSD) or similar engineering measures. No new above ground structures or modifications to existing structures would occur with implementation of the Proposed Project. Therefore, no adverse effects on the view of the nearest scenic ridge or waterway local vantage points would occur. The nearest scenic vista begins adjacent to the south of the Proposed Project Site. Temporary construction activities at the Proposed Project Site would occur for approximately 23 weeks, beginning in November 2020 and ending in April 2021. The short-term construction activities would not result in any long-term adverse effects to a scenic vista.

##### **Conclusion:**

Components of the proposed remedy actions and the short-term construction activities would not have the potential to substantially affect the view of a scenic ridge or waterway. Therefore, there would be a less-than-significant impact.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact



- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

**Impact Analysis:**

The nearest roadway to the Proposed Project Site that is officially designated as a California State Scenic Highway is a section of Interstate 680 (I-680), located over 10 miles to the west from the Site. The nearest roadway to the Proposed Project Site that is identified as eligible for California State Scenic Highway Program is a segment of State Route 4 (SR-4), located approximately 3 miles to the east in Antioch (CalTrans, 2018). There are no views of the Proposed Project Site from these sections of I-680 or SR-4.

The Antioch General Plan identifies Somersville Road and James Donlon Boulevard as important view corridors to be protected. Even though the Proposed Project Site is visible from these roadways, remedy actions to address impacted soil and groundwater would not involve any new above ground structures or modifications to existing structures.

The Proposed Project Site has been used as a landfill for 80 years and would continue in that capacity for the foreseeable future. No scenic resources would be damaged with implementation of the proposed remedy actions.

**Conclusion:** No impact.

In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

**Impact Analysis:** The project will not change the existing visual character, and it will not conflict with the applicable zoning.

Scenic resources (e.g., trees, rock outcroppings, historic buildings) would not be disturbed or damaged through implementation of proposed remedy actions. Implementation of the proposed project would not result in any impacts to scenic resources.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

**Impact Analysis:**

Publicly accessible vantage points of the Proposed Project Site include Somersville Road, James Donlon Boulevard, Gentrytown Drive, and the Via Delta de Anza Trail. The Proposed Project Site has been used as a landfill for 80 years and the visual character of the Proposed Project Site reflects the long-term landfill use.

Construction activities would occur for approximately 23 weeks at the Proposed Project Site beginning in November 2020 and ending in April 2021. Implementation of remedy actions would require short-term, temporary construction activities at the Proposed Project Site. The proposed remedy actions would not alter the visual character or quality of the Proposed Project Site. Specifically, remedy actions involving the

installation of a HBW, installation of new groundwater extraction wells, upgrades to existing GWETS components, implementation of in situ groundwater remediation, and potential implementation of SSD or similar engineering measures would be located subsurface and would not be visible from offsite locations.

**Conclusion:**

Based on the temporary nature of the construction activities and the overall unaltered end-state of the Proposed Project Site, no impact related to substantially degrading the existing visual character or quality of public views of the Proposed Project Site would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

**Impact Analysis:**

The Proposed Project activities would be conducted only during daytime hours. The proposed project would not require any night-shift or swing-shift work. Even though the nearest sensitive receptor (i.e., residences) are located adjacent to the Proposed Project Site, construction activities would not require additional light sources and, therefore, would not have the potential to introduce any new temporary or permanent sources of substantial light or glare that would adversely affect daytime or nighttime views in the area.

**Conclusion:**

Project activities would not require nor introduce a new temporary or permanent source of substantial light or glare that would adversely affect views in the project area. Therefore, implementation of the proposed corrective measures would result in no impact.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

**References Used:**

California Department of Transportation. 2018. California Scenic Highway Program. [http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/) (Accessed November 2020).

Contra Costa County (CCC). 2005 (Reprint 2010). General Plan. <http://www.contracosta.ca.gov/4732/General-Plan> (Accessed November 2020).

City of Antioch General Plan (November 2003). <https://www.antiochca.gov/community-development-department/planning-division/general-plan/> (Accessed November 2020)

**2. AGRICULTURE AND FORESTRY RESOURCES**

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

No laws, ordinances, regulations, or standards protecting agriculture or forestry resources are applicable to the Proposed Project.

**ENVIRONMENTAL SETTING (BASELINE):**

The Proposed Project Site is not located in or near any agricultural or forestry resources. The Site is a closed landfill under a deed restriction with restricted access. The landfill is located in an unincorporated area of the City of Antioch and is designated for Public/Institutional and Open Space land use.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of agriculture or forestry resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the lack of agricultural or forestry resources in or near the Proposed Project Site, no environmental studies relating to agriculture or forestry resources were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

**Impact Analysis:**

The closest designated Farmland is approximately 5 miles from the Proposed Project Site (DRLP, 2020). Project-related activities would remain within the Proposed Project Site boundaries. Therefore, no impact to designated Farmland would occur.

**Conclusion:**

- ☐ Potentially Significant Impact  
☐ Less Than Significant With Mitigation Incorporated  
☐ Less Than Significant Impact  
☒ No Impact

- b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

**Impact Analysis:**

The Proposed Project Site is designated as Non-Williamson Act Land (CCC, 2020). Therefore, project-related activities would not conflict with any Williamson Act contracts. The Proposed Project Site is zoned as Heavy Industrial and would not conflict with any existing agricultural zoning. No impact would occur.

**Conclusion:**

- ☐ Potentially Significant Impact  
☐ Less Than Significant With Mitigation Incorporated  
☐ Less Than Significant Impact  
☒ No Impact

- c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

**Impact Analysis:**

There is no land with existing zoning of forest land or timberland within the Proposed Project Site. Proposed Project-related activities would not conflict with existing zoning or cause rezoning of forest land or timberland, as none exists within the Proposed Project Site boundaries. Therefore, there would be no impact to forest land or timberland.

**Conclusion:**

- ☐ Potentially Significant Impact  
☐ Less Than Significant With Mitigation Incorporated  
☐ Less Than Significant Impact  
☒ No Impact

- d. Result in the loss of forest land or conversion of forest land to non-forest use?

**Impact Analysis:**

There are no forests or timberland on or near the Proposed Project Site and the Proposed Project would not convert any land to forest or timberland (CCC, 2005). Therefore, there would be no impact.

**Conclusion:**

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses?

**Impact Analysis:**

The Proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or agricultural land. Therefore, there would be no impact.

**Conclusion:**

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

**References Used:**

- California Department of Conservation, Division of Land Resource Protection (DLRP). 2020. California Important Farmland Finder <https://maps.conservation.ca.gov/DLRP/CIFF/> (Accessed November 2020)
- CCC. 2020. Contra Costa County Williamson Act Properties. <https://www.contracosta.ca.gov/4338/Williamson-Act> (Accessed November 2020)
- CCC. 2005 (Reprint 2010). General Plan, Land Use Element Map. <https://www.contracosta.ca.gov/DocumentCenter/View/30913/Ch3-Land-Use-Element?bidId=> (Accessed November 2020).

<b>3. AIR QUALITY</b>				
<b>Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

The Bay Area Air Quality Management District (BAAQMD) published a revised CEQA Guidelines and Thresholds of Significance guidance in 2017. The purpose of the guidelines is to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the San Francisco Bay Area Air Basin. The BAAQMD guidelines provide BAAQMD-recommended procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements (BAAQMD, 2017b). In this section, air quality is evaluated against numbers set forth in the BAAQMD guidance.

**ENVIRONMENTAL SETTING (BASELINE):**

The Climatological Subregion (subregion) for the Proposed Project Site extends from Rodeo in the southwest to Vallejo in the northwest, and from Brentwood in the southeast to Fairfield in the northeast. The subregion comprises the only sea level gap between San Francisco Bay and the Central Valley.

Temperatures in the subregion range from a mean minimum temperature of approximately 38 degrees Fahrenheit (°F) in the winter to a mean maximum of 90°F in the summer. Prevailing winds in the Carquinez Strait are comprised of marine air flow from the west. Annual average wind speeds are 8 to 10 miles per hour (mph), although afternoon wind speeds of 15 to 20 mph are common. When changes in atmospheric conditions result in a shift in wind direction, more polluted air is carried from the east through the Strait into the subregion. These periods of high pressure in the subregion are usually characterized by low wind speed, higher temperatures, and minimal precipitation.

The Bay Area is in attainment for National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for the following pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and sulfates. The Bay Area is in non-attainment for fine particulate matter less than 2.5 microns in size (PM<sub>2.5</sub>) and ozone with respect to both NAAQS and CAAQS. In addition, the Bay Area is in non-attainment with respect to the CAAQS for respirable particulate matter less than 10 microns in size (PM<sub>10</sub>) (BAAQMD, 2020).

The Proposed Project Site is located within the San Francisco Bay Area, and the BAAQMD is primarily responsible for enforcing air quality standards, in accordance with standards set by the California Air Resources Board (CARB) and the United States Environmental Protection Agency.

#### APPLICABLE THRESHOLDS OF SIGNIFICANCE:

The 2017 BAAQMD CEQA Guidelines Thresholds of Significance for average daily air emissions are shown in Table 3.1 below. If project-related average daily emissions are below these thresholds, the impacts are considered less than significant, even if peak days have emissions over the thresholds.

**TABLE 3.1**  
**THRESHOLDS OF SIGNIFICANCE FOR CONSTRUCTION-RELATED**  
**CRITERIA AIR POLLUTANTS AND PRECURSORS**

Criteria Pollutant or Precursor	Average Daily Emissions Threshold of Significance (pounds/day)
ROG	54
NOx	54
PM <sub>10</sub> <sup>1</sup>	82
PM <sub>2.5</sub> <sup>1</sup>	54

Notes:

<sup>1</sup> Applies to construction exhaust emissions only.

NOx = nitrogen oxide

PM<sub>10</sub> = particulate matter less than 10 microns in size

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

ROG = reactive organic gases

#### ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:

California Emissions Estimator Model ® (CalEEMod, Version 2016.3.2) was run to determine if project-related air emissions exceed BAAQMD CEQA Air Quality Guidelines. The CalEEMod results are summarized in Table 4, and the model basis information is summarized in Tables 1 through 3 (refer to Appendix A). Complete CalEEMod Input and Output is provided in Appendix A. The following construction equipment was considered in modeling air emissions:

- Wheel loader,
- Skid steer,
- Dozer,
- Water truck,
- Generator,
- Trencher,
- Excavators,
- Off-road hauler,
- Smoot drum roller,
- Aerial lift,
- Excavator, and
- Telehandler.

#### IMPACT ANALYSES AND CONCLUSIONS:

Analysis as to whether or not project activities would:

- a. Conflict with or obstruct implementation of the applicable air quality plan?

##### Impact Analysis:

Construction-related activities would result in emissions of ozone precursors (NOx and reactive organic gases [ROG]), particulates (PM<sub>10</sub> and PM<sub>2.5</sub>), air toxics, and greenhouse gases (project-related greenhouse gas emissions are analyzed separately in Section 8 of this Initial Study/Negative Declaration). Emissions for construction activities associated with implementing the proposed corrective measures were performed in accordance with the May 2017 BAAQMD CEQA Air Quality Guidelines, using the California Emissions Estimator Model ® (CalEEMod, Version 2016.3.2) and the results are shown in Table 3.2 below. The CalEEMod Input and Output model results are provided in Appendix A.

**TABLE 3.2**  
**THRESHOLDS OF SIGNIFICANCE FOR CONSTRUCTION-RELATED**  
**CRITERIA AIR POLLUTANTS AND PRECURSORS**

Criteria Pollutant or Precursor	BAAQMD Average Daily Emissions Threshold of Significance (lb/day)	Estimated Unmitigated Proposed Project Maximum Daily Emissions (lb/day)	Is Threshold of Significance Exceeded?
ROG	54	2.54	NO
NOx	54	53.3	NO
PM <sub>10</sub>	82	0.59	NO
PM <sub>2.5</sub>	54	0.59	NO

**Notes:**

lb = pounds

NOx = nitrogen oxide

PM<sub>10</sub> = particulate matter less than 10 microns in sizePM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

ROG = reactive organic gases

As shown in Table 3.2, project-related construction activities would generate air emissions below 2017 BAAQMD CEQA Thresholds of Significance for construction impacts.

The proposed project would also require the preparation and implementation of a Dust Control Plan to ensure the construction activities would comply with the BAAQMD Regulation 6 requirements for PM<sub>10</sub> and visible dust emissions. Specifically, the proposed project would include best management practices (BMPs) that would conform to the BAAQMD CEQA Guidelines to reduce emissions from construction equipment which include:

- Using alternative fueled construction equipment when available,
- Minimizing idling time to a maximum of 5 minutes,
- Maintaining properly tuned equipment, and
- Limiting the hours of operation of heavy duty equipment and/or the amount of equipment in use.

In addition, the following measures may be implemented to reduce the emissions from heavy duty trucks, as appropriate.

- Using cleaner fueled vehicles, when available;
- Using particulate traps and catalytic oxidizers, when available; and/or
- Choosing a haul route that provides the maximum buffer to sensitive receptors (e.g., pre-schools, nursing homes).

**Conclusion:**

The CalEEMod results indicate that the project-related emissions would be below the 2017 BAAQMD CEQA thresholds for construction projects. The short-term construction activities of the proposed project and implementation of appropriate and feasible control strategies (e.g., dust control plan, BMPs) would not conflict with or obstruct implementation of the Bay Area 2017 Clean Air Plan. Therefore, project impacts are considered less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact



- b. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard

**Impact Analysis:**

The Proposed Project Site is non-attainment for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> (BAAQMD, 2020). As shown in Table 3.2 above, the Proposed Project-related emissions of these pollutants would not exceed any of the thresholds of significance established in the 2017 BAAQMD CEQA Guidelines.

**Conclusion:**

Construction activities associated with implementing the proposed project would generate emissions of non-attainment pollutants that are below the thresholds of significance identified in the 2017 BAAQMD CEQA Guidelines. Therefore, implementation of the proposed project would result in a less-than-significant impact to the net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- c. Expose sensitive receptors to substantial pollutant concentrations?

**Impact Analysis:**

The California Air Resources Board (CARB) defines sensitive receptors as children, elderly, asthmatics, or others who are at a heightened risk of negative health outcomes due to exposure to air pollution. For the purposes of this analysis, the locations where these populations can typically congregate (e.g., schools, hospitals) are considered sensitive receptor locations. Remedy actions associated with implementing the proposed project would take place in an area zoned for Open Space use and the closest sensitive receptors (Antioch Charter School, Mission Elementary School, Foothill Elementary School) are located ¾ mile, ¾ mile, and 1.5 miles from the Proposed Project Site, respectively.

The BAAQMD 2017 CEQA Guidelines also includes thresholds of significance for cancer and non-cancer risks. The BAAQMD guidelines identify the zone of influence for construction-related cancer and non-cancer risks within 1,000 feet. Rio Vista Elementary School and Riverview Middle School are approximately 3,900, 3,900, and 7,000 feet, respectively, from the Proposed Project Site.

**Conclusion:**

Schools, daycare facilities, nursing homes, and hospitals are located a distance of ¾ mile or more from the Proposed Project Site. There would be no impact based on the nature of the work to be performed and proximity of sensitive receptors.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

**Impact Analysis:**

Implementation of proposed remedy actions have the potential to generate odors during the operation of construction equipment, such as those experienced from diesel engine exhaust. The closest receptor of odors are residences located approximately 100 feet from the proposed HBW. Construction activities would use Tier 4 engines on all construction equipment. Currently, Tier 4 diesel engine standards are the strictest Environmental Protection Agency (EPA) emissions requirement for off-highway diesel engines. This

requirement regulates the amount of PM, or black soot, and NO<sub>x</sub> that can be emitted from an off-highway diesel engine. Specifically, Tier 4 compliant engines significantly reduce emissions of PM and NO<sub>x</sub> relative to previous emissions standards whereby Tier 4 compliant engines reduce emissions by over 95 percent for most agricultural and construction equipment. The distance between construction activities and residences and use of Tier 4 engines is considered sufficient to substantially reduce the ability for a resident to discern an odor originating from the Proposed Project Site (i.e., diesel exhaust fumes) from the overall air space.

**Conclusion:**

Project-related odors during construction activities would not be discernable by the closest receptors (i.e., residences) because of the distance between them and the proposed HBW. Therefore, implementation of the remedy actions would not result in other emissions that could adversely affect a substantial number of people.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

*References Used:*

BAAQMD. 2019. Air Quality Standards and Attainment Status. <http://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status> (Accessed November 2020).

<b>4. BIOLOGICAL RESOURCES</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**Federal and State

Applicable statutes and regulations to the Proposed Project include:

Federal Endangered Species Act (ESA): (16 United States Code (USC) § 1531-1544, 50 Code of Federal Regulations (CFR) Part 17). The Federal ESA provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found.

Federal Migratory Bird Treaty Act (MBTA): (16 USC § 703-712, 50 CFR Part 21). The MBTA makes it illegal to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid Federal permit.

California Endangered Species Act (CESA): (Fish and Game Code (FGC) chapter 1.5, sections 2050-2115.5, California Code of Regulations (CCR), title 14, chapter 6, § 783.0-787.9). CESA protects or preserves all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation.

CESA states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved.

Additionally, the California FGC § 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird; and § 3513 prohibits the take or possession of any migratory nongame bird or part thereof as designated in the MBTA. Any birds in the orders Falconiformes or Strigiformes (birds of prey, such as hawks and owls) are protected under FGC 3503.5, which makes it unlawful to take, possess, or destroy their nest or eggs.

### Local

The East Contra Costa County Habitat Conservation Plan / Natural Community Conservation Plan (HCP/NCCP) coordinates a regional approach to conservation and regulation. It replaces a process of project-by-project permitting and fragmented mitigation, and benefits conservation, agencies, and project proponents alike. East Contra Costa County supports numerous rare and sensitive species and the natural habitats in which they live. Under the HCP/NCCP, conservation acquisitions focus on preserving links between existing public lands and protecting wildlife corridors. One objective of the plan is protection of a movement corridor for San Joaquin kit fox. In addition, numerous other plants and animals are preserved and enhanced by the Plan. Assembling the Preserve System will require land acquisition from willing sellers in areas that will complement existing public land and that provide important habitat values. As the Preserve System grows it will be managed comprehensively for the benefit of species with a focus on restoration and enhancement of natural communities. The result will be a Preserve System of between 23,800 and 30,300 acres supporting vernal pools, native grasslands, oak woodland and savanna, streams, chaparral, and other diverse landscapes.

### **ENVIRONMENTAL SETTING (BASELINE):**

The Proposed Project Site is located within the capped landfill which is comprised of disturbed areas, disked fields, and ruderal (weedy) plant species. The City of Antioch is largely urbanized, however, undeveloped lands contain vegetation and habitat the California Department of Fish and Wildlife (CDFW) considers rare and worthy of consideration in the California Natural Diversity Data Base, such as, native grasslands. At the Site, the most common habitat type is ruderal grasslands, which are annual grasses. Markley Creek, located adjacent to the Site to the northwest, does not support an ongoing aquatic population due to intermittent flow.

### Biological Resources Assessment

A biological resources assessment was conducted of the Site and its surrounding area. The purpose of the assessment was to evaluate the overall potential of the project area to support special-status species and determine the presence or absence of western burrowing owl, San Joaquin kit fox, and the California red-legged frog.

The results of previous biological surveys conducted by TRC for the GBF/Pittsburg Landfill were reviewed. The California Department of Fish and Wildlife's California Natural Diversity Database (CNDDDB) was also reviewed to determine which special-status species occurrences were recorded near the project area.

Two field surveys were conducted on September 25 and October 1, 2020. A pedestrian survey comprising the barrier wall installation, laydown area, and soil stockpiling areas and all areas within 250 feet of the Proposed Project Site was conducted. Adjacent parcels under different land ownership were not surveyed.

All subterranean holes with entrances at least 4 inches in diameter (e.g., culverts, pipes) were inspected for kit fox, tracks, scat, or prey remains. All burrows and other structures were inspected for burrowing owl and evidence of owl use (e.g., whitewash, pellets around burrow entrance). The survey for burrowing owls was performed according to CDFW's 2012 Staff Report on Burrowing Owl Mitigation and the Burrowing Owl Consortium Guidelines.

Previous biological surveys have confirmed the presence of burrowing owl along the Contra Costa Canal north of the Proposed Project Site. The CNDDDB also records occurrences of California red-legged frog, Alameda whipsnake, and San Joaquin kit fox in the vicinity of the project area.

### *Field Survey*

The HBW installation area consists of the existing perimeter firebreak and access road and adjacent grassland slopes, which are vegetated with non-native grasses. The East Parcel is on a relatively flat area which had been recently disked. The capped top of the landfill is covered with non-native grasses and is crisscrossed by numerous two-track access roads which connect a system of above ground pipes. Wildlife observation within the survey area included sightings of numerous foraging animals, including burrowing owl, great horned owl, turkey vulture, red tailed hawk, American kestrel, American crow, song sparrow, Eurasian collared dove, California scrub jay, and Say's phoebe. Two coyote were observed at the top

of the landfill where soil stockpiling is planned. Pocket gopher were observed in matted grasses adjacent to access roads. Raccoon scat and trace were observed in access roads. No California ground squirrels were observed.

Though burrowing owls were known to utilize ground squirrel burrows within the landfill in 2008 and within the Contra Costa Canal levees north of the landfill as recently as 2017, no active owl burrows were observed in the survey area. One burrowing owl was observed foraging in the north part of the survey area on October 2. The owl flew from the direction of the Contra Costa Canal and perched briefly on a transmission tower north of the landfill before flying off to the northwest. Although suitable burrows for owl were observed within the survey area in the berm north of the landfill and in the steep slopes west of the East Parcel, the burrows did not show sign of occupancy, such as owl pellets or white wash.

California red-legged frog requires a permanent water source, such as ponds or slow-moving streams, with relatively deep water and dense emergent vegetation. While CNDDDB records show this species has been observed within a mile of the landfill, the surveyed area lacks suitable aquatic habitat. No frogs were observed during the surveys.

Alameda whipsnake occurs primarily in scrub habitat, though they will forage in annual grasslands if they are connected to scrub habitat by rock outcroppings or river corridors. The surveyed area lacks preferred scrub habitat, or rock outcroppings and river corridors connecting the landfill to scrub habitat. Alameda whipsnake were not observed during the surveys.

In Contra Costa County, San Joaquin kit fox is found in foothill grasslands, valley oak savanna, and alkali grasslands. Though they prefer loose-textured soils for denning, they are found on all soil types. The CNDDDB records occurrences of kit fox foraging in grasslands south of the City of Antioch within two miles south of the Proposed Project Site, at Contra Loma Reservoir and Black Diamond Mine. Residential development north of these native grasslands forms a barrier to kit fox dispersal. Coyote are primary predators of kit fox and were present at the landfill. No suitable denning burrows were present at the site. No fox were observed during the surveys.

#### **APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of biological resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

#### **ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

As discussed above, previous reconnaissance-level biological resources survey conducted in 2020 identified potential biological resources on the Proposed Project Site (TRC 2020).

#### **IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

##### **Impact Analysis:**

On-site, construction activities will temporarily remove portions of ruderal grasslands. However, impacted areas during construction of the HBW will be revegetated with a native grass seed mix. The temporarily loss of the habitat is not expected to impact special status plant or animal species. Since Markley Creek does not support an ongoing aquatic population due to intermittent flow, there is no expectation for any impacts to biota. TRC conducted a biological resources assessment of and around the construction area to assess the presence or absence of the following special status wildlife species: the western burrowing owl, the San Joaquin kit fox, and the California red-legged frog.

The project area is located within the capped landfill which is comprised of disturbed areas, disked fields, and ruderal plant species. Habitat for California red-legged frog or Alameda whipsnake was not observed. Although habitat for San Joaquin kit fox is present at the Site, based on the closest known occurrence, barriers to movement, and presence of predators, it is unlikely that San Joaquin kit fox would be found in the Proposed Project Site. No active owl burrows were observed in the survey area. Consequently, implementation of the proposed remedy actions would not result in adverse effects on any special-status species.

##### **Conclusion:**

Only habitat for San Joaquin kit fox is present at the Proposed Project Site. However, it is unlikely that San Joaquin kit fox would be found in the Site. Habitat for California red-legged frog or Alameda whipsnake was not

observed and no active owl burrows were observed in the survey area. Implementation of the proposed remedy actions would result in less-than-significant impacts to special-status species.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

**Impact Analysis:**

The surveyed area lacks suitable aquatic habitat and the Proposed Project Site is not in a riparian habitat or sensitive natural community.

**Conclusion:**

Wetlands are not located on the Proposed Project Site and implementation of remedy actions would not impact any nearby, offsite wetlands. Therefore, proposed remedy actions would not have the potential to effect on any riparian habitat or other sensitive natural community.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

**Impact Analysis:**

The surveyed area lacks aquatic habitat and the Proposed Project Site does not contain any state or federally protected wetlands.

**Conclusion:**

Wetlands are not located on the Proposed Project Site and implementation of remedy actions would not impact any nearby, offsite wetlands. Therefore, proposed remedy actions would not have the potential to affect any state or federally protected wetlands.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

**Impact Analysis:**

The Proposed Project Site are located inside the boundary of the Inventory Area studied for the East CCC Habitat Conservation Plan (EECCHCP, 2006).

Based on the temporary nature and duration of the remedy actions and the location of work areas, which are on an historic landfill, the proposed project would not have the potential to interfere substantially with the

movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

This is based on the temporary nature and duration of the work and the work areas, which are on an historical landfill. Based on habitat observations from previous surveys, there is the potential for burrowing owls to nest on the Proposed Project Site. Though burrowing owls were known to utilize ground squirrel burrows within the landfill in 2008 and within the Contra Costa Canal levees north of the landfill as recently as 2017, no active owl burrows were observed in the survey area. Although suitable burrows for owl were observed within the survey area in the berm north of the landfill and in the steep slopes of the Proposed Project Site, the burrows did not show sign of occupancy (e.g., owl pellets, white wash). Consequently, implementation of the proposed remedy actions would not result in adverse effects on the movement of any native resident wildlife species or with established native resident or migratory wildlife corridors.

**Conclusion:**

Active owl burrows were not observed in the survey area. Temporary construction activities associated with implementation of the proposed remedy actions would result in less-than-significant impacts to native resident wildlife species or with established native resident or migratory wildlife corridors.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

**Impact Analysis:**

There are no biological resources on the Proposed Project Site that are protected by local policies or ordinances.

**Conclusion:**

Implementation of the proposed remedy actions would not conflict with any local policies or ordinances for the purposes of protecting biological resources.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

**Impact Analysis:**

The Proposed Project Site is located in the East CCC Habitat Conservancy planning area (EECCHCP 2006). Implementation of proposed remedy actions would not prevent the continuation of the EECCHCP goals of preserving links between existing public lands, protecting wildlife corridors, and protection of movement corridors for San Joaquin kit fox.

**Conclusion:**

The proposed remedy actions would not conflict nor prevent the implementation of provisions of the adopted EECCHCP.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated

☒ Less Than Significant Impact

☐ No Impact

*References Used:*

East Contra Costa County Habitat Conservation Plan Association (EECCHCP). 2006. East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan. October.

Wilson, May. 2020. Biological Evaluation Memorandum, GBF/Pittsburg Landfill Barrier Wall. October 6, 2020.



<b>5. CULTURAL RESOURCES</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

The definition of historical resources can be found in PRC §21084.1 and 14 CCR § 15064.5. Unique archaeological resources are defined in PRC § 21083.2 and 14 CCR § 15064.5. Tribal cultural resources are defined in PRC Div. 13 Section 21074.

California Assembly Bill 52 (AB52) specifies that any project for which a Notice of Preparation, Notice of Mitigated Negative Declaration or Notice of Negative Declaration is filed on or after July 1, 2015, the Lead agency must provide formal notification within 14 days of determining that an application for a project is complete or of a decision to undertake a project to the designated contact or tribal representative of the affiliated California Native American tribes. The tribe that is traditionally and culturally affiliated to the geographic area where a project is located must have requested that the lead agency in question provide notification to the tribe (PRC 21081.3.1). Please refer to Section 18, Tribal Cultural Resources, of this Initial Study for additional discussion.

If remains are found on Site, the County Coroner will make the determination of origin and disposition, pursuant to Public Resources Code (PRC) § 5097.98. If the remains are determined to be Native American, the Coroner would notify the NAHC (per Health and Safety Code (HSC) 7050.5(c)). The NAHC would identify and notify the person(s) who might be the most likely descendent, who would make recommendations for the appropriate and dignified treatment of the remains (PRC Div. 5 section 5097.98). The descendants shall complete their inspection and make recommendations for treatment within 48 hours of being granted access to the Site (CEQA Guidelines, CCR section 15064.5(e); HSC section 7050.5).

**ENVIRONMENTAL SETTING (BASELINE):**

There are approximately 600 archaeological Sites within CCC that have been recorded with the Archaeological Inventory Report, Northwest Information Center (NWIC) at California State University Sonoma (CCCCD, 2005). However, the Proposed Project Site has been subject to substantial disturbance resulting from landfill operations since approximately 1946.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the history of the Site and lack of cultural resources on the Proposed Project Site, no environmental studies relating to cultural resources were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?

**Impact Analysis:**

Historical resources, as defined by 14 CCR section 15064.5, have not been identified at the Proposed Project Site. The Proposed Project Site has been used continuously for over 70 years as a landfill. Based on the Proposed Project Site location and history, it is not likely that historical resources would be identified or impacted. However, if historical resources are discovered during the Proposed Project activities, then ground disturbing activities within 25 feet would stop until a qualified archaeologist or appropriately licensed professional can assess the significance of the find and, if necessary, develop appropriate response measures in consultation with the DTSC, TRC, and other agencies and Native American representatives, as appropriate.

**Conclusion:**

The Proposed Project would not include demolition, elimination, or manipulation of a known historical resource. In addition, the finding of a historical resource during implementation of the remedy actions is unlikely based on the Proposed Project Site history and conditions. Therefore, the Proposed Project would not cause a substantial adverse change in the significance of a known historical resource.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

**Impact Analysis:**

Archaeological resources, as defined by 14 CCR section 15064.5, have not been identified at the Proposed Project Site. The Proposed Project Site has been used continuously for more than 70 years as a landfill. Based on the Proposed Project Site location and history, it is not likely that archaeological resources would be identified or impacted. In addition, there is no unique geologic feature at the Site and the presence of a unique paleontological resource in the Proposed Project work area is unlikely. This is because work would primarily occur in the upper 140 feet, which is primarily comprised of reworked fill material or municipal wastes. However, if archaeological resources are discovered during the Proposed Project activities, then ground disturbing activities within 25 feet would stop until a qualified archaeologist or appropriately licensed professional can assess the significance of the find and, if necessary, develop appropriate response measures in consultation with the DTSC, TRC, and other agencies and Native American representatives.

**Conclusion:**

The Proposed Project would not include demolition, elimination, or manipulation of a known archaeological resource. In addition, the finding of an archaeological resource during implementation of the remedy actions is unlikely based on the Proposed Project Site history and conditions. Therefore, the Proposed Project would not cause a substantial adverse change in the significance of a known archaeological resource.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- c. Disturb any human remains, including those interred outside of dedicated cemeteries?

**Impact Analysis:**

There are no known human remains on or near the Site and given the repeated disturbance of the Site and the surrounding area, the potential for such remains to be present is considered extremely low. If human remains are encountered, the County Coroner would be immediately notified. No further ground disturbing activities shall occur within 25 feet of the work area until the County Coroner has made a determination of origin and disposition, pursuant to PRC § 5097.98. If the remains are determined to be Native American, the Coroner would notify the NAHC (per Health and Safety Code 7050.5(c)) and the County Coordinator of Indian Affairs.

**Conclusion:**

Implementation of remedy actions is not expected to encounter or disturb any human remains, including those interred outside of dedicated cemeteries. If human remains are encountered, procedures will be followed to prevent disturbing the remains and ensure compliance with applicable codes and regulations.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

<b>6. ENERGY</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

In 2015, Governor Brown signed Senate Bill 350 to codify climate, clean energy, and energy efficiency goals. The regulations focus on generating energy through renewable sources and increasing the energy efficiency of buildings.

**ENVIRONMENTAL SETTING (BASELINE):**

Electrical power and natural gas are provided to the Proposed Project Site by Pacific Gas and Electric Company (PG&E). PG&E obtains its energy supplies from power plants and natural gas fields in northern California and from energy purchased outside its service area and delivered through high voltage transmission lines.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of energy resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the lack of significant increase in energy demand from the Proposed Project Site, no environmental studies relating to energy resources were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Result in potentially significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

**Impact Analysis:**

To implement the Proposed Project, it is expected that construction equipment (e.g., tractors, excavators, loaders, generators, trucks, light-duty vehicles) would use petroleum fuels (diesel and gasoline products) and would not use on-site electricity or natural gas sources. Implementation of the proposed remedy actions would occur over a short duration (23 weeks) and, therefore, the wasteful, inefficient, or unnecessary use of petroleum fuels would not occur. Construction contractors would use existing office space at the Proposed Project Site. Implementation of the proposed project would not result in adding any new facilities that would increase the demand for energy resources.

**Conclusion:**

The Proposed Project would not add new facilities that could increase the demand for energy resources. Construction activities would use equipment in accordance with manufacturer's specifications. Therefore, implementation of the proposed remedy actions would not result in a wasteful, inefficient, or unnecessary consumption of energy resources. In addition, implementation of proposed remedy actions would not result in a new permanent energy demand.

☐ Potentially Significant Impact

- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

**Impact Analysis:**

In 2015, Governor Brown signed Senate Bill 350 to codify climate, clean energy, and energy efficiency goals. The regulations focus on generating energy through renewable sources and increasing the energy efficiency of buildings. Implementation of proposed remedy actions would not result in constructing any new buildings that would increase the demand for energy resources, renewable or otherwise.

**Conclusion:**

The Proposed Project would not construct new facilities or permanent structures and would not generate any new energy demands. Therefore, the Proposed Project would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

*References Used:*

California Legislative Information. 2015. SB-350 Clean Energy and Pollution Reduction Act of 2015. October. [https://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160SB350](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350) (Accessed November 2020).

<b>7. GEOLOGY AND SOILS</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

No laws, ordinances, regulations, or standards protecting geological or soil resources are applicable to the Proposed Project.

**ENVIRONMENTAL SETTING (BASELINE):**

The Proposed Project Site is located in northern Contra Costa County (CCC) in the Bay Area in the City of Antioch. Northern CCC is underlain by various unconsolidated sediments that overlie sedimentary bedrock units which outcrop in hills to the south of the Site (Dibblee, 1981). The western portion of the City consists mainly of well-drained Rincon clay loam with moderate shrink-swell potential, and a slight erosion hazard that is situated among other soils that occupy small areas and have similar shrink-swell potential but are poorly drained.

The Lowland Area of Antioch is underlain by alluvium that is younger than 2 million years old, and consists mainly of unconsolidated floodplain deposits with sand, silt, gravel, and clay irregularly interstratified. The Upland Area consists primarily of tilted sedimentary rocks that range in age from Upper Cretaceous (65 million years old) to Holocene (11,000 years old).

Groundwater in the city generally follows topography, and depth varies depending on the geology, time of year, and drought cycles. A groundwater plume extends from the Site to the north and is being remediated.

#### **APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of geological and soils resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

#### **ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Site lithology has been characterized through investigations completed as part of previous Site investigations. Soil samples were also previously collected and characterized.

#### **IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

##### **Impact Analysis:**

The Proposed Project Site is not located in an Alquist-Priolo Earthquake Fault Zone and a known earthquake fault does not cross the site (CGS, 2010). The nearest Alquist-Priolo Earthquake Fault Zone is located approximately 10 miles west of the Proposed Project Site. Site workers would be present for a short duration during Proposed Project activities (23 weeks) and therefore the potential for exposure to substantial risk of injury to people would be limited. In addition, the Proposed Project includes installation of subsurface features (hydraulic barrier wall and monitoring wells) that would not expose people or structures to significant impacts from fault rupture associated effects.

##### **Conclusion:**

The Proposed Project Site is not identified as being in an Alquist-Priolo Earthquake Fault Zone and no known earthquake faults exist on the site; therefore, the risk of loss, injury, or death involving from onsite ruptures would not occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- ii) Strong seismic ground shaking?

##### **Impact Analysis:**

The Proposed Project Site is in a seismically active area and the site may be exposed to moderate to strong shaking in the event of an earthquake in the region (CGS, 2016).

Implementation of remedy actions would require the use of heavy equipment and would place numerous workers onsite. Site workers would be present for approximately 23 weeks; therefore, the potential for substantial risk or injury to people from seismic ground shaking would be limited. In addition, the Proposed Project includes installation of subsurface features (hydraulic barrier wall and monitoring wells) that would

not expose people or structures to significant impacts from strong seismic ground shaking if it were to occur.

**Conclusion:**

Even though the Proposed Project Site is in a seismically active area and the site may be exposed to moderate to strong shaking if an earthquake occurred, the Proposed Project activities would occur outdoors away from any structures. Therefore, the risk of loss, injury, or death from strong seismic ground shaking would be negligible.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

iii) Seismic-related ground failure, including liquefaction?

**Impact Analysis:**

The Proposed Project Site has a low liquefaction susceptibility (Department of the Interior, 2006). Due to liquefaction, which generally occurs at depths shallower than 50 ft-bgs, soils may lose their ability to support structures. However, remedy actions would not involve building new structures.

Site workers would be present for the short project duration (23 weeks), therefore the potential for substantial risk or injury to people would be limited. In addition, the Proposed Project includes installation of subsurface features (hydraulic barrier wall and monitoring wells) that would not expose people or structures to significant impacts from seismic-related ground failure, including liquefaction.

**Conclusion:**

Even though the Proposed Project Site is in a low liquefaction susceptible area, remedy actions would not involve activities that would place buildings or people at risk of loss, injury, or death at significant risk if liquefaction.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

iv) Landslides?

**Impact Analysis:**

The potential for landslide hazards has been identified within the coastal ranges approximately ½ mile south of the Proposed Project Site (CGS, 2018). The Proposed Project would be performed on flat areas below the coastal ranges and there is little potential for substantial risk or injury from landslides.

**Conclusion:**

No landslide impacts from the coastal ranges south of the Proposed Site would occur relating to placing people or buildings at risk loss, injury, or death involving landslides.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

b. Result in substantial soil erosion or the loss of topsoil?

(Revised 4/26/2019)



**Impact Analysis:**

The proposed remedy actions include installation of subsurface features and would not involve any activities or components that would have the potential to increase the amount of soil erosion. The proposed hydraulic barrier wall would be designed to redirect groundwater movement and would be constructed completely below ground. In addition, the proposed project would obtain a grading permit from CCC before commencement of remedy actions. Lastly, the 32-inch wide continuous low-permeability barrier (hydraulic barrier wall) would alter the geology along its alignment but would, at the same time, be statically and seismically stable by its engineering and design.

Construction activities have the potential to temporarily increase wind erosion of soils on the Proposed Project Site. The potential for wind erosion would be reduced by watering exposed surfaces during construction activities.

**Conclusion:**

Design of the proposed remedy actions (hydraulic barrier wall and monitoring wells) would not affect the potential for soil erosion or loss of topsoil on the Proposed Project Site. Impacts related to soil erosion and loss of topsoil would be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

**Impact Analysis:**

The Proposed Project Site is flat with very little relief therefore the potential for slope instability, lateral spreading, or collapse are minimal. The soils beneath the Proposed Project Site would not be subject to subsidence because remedy actions would not involve the removal of groundwater.

In addition, remedy actions at the Proposed Project Site would not involve any activities that could result in liquefaction of existing onsite soils or imported soils (process by which saturated, unconsolidated soil or sand is converted into a suspension during an earthquake). This is because any potential vibrations associated with the proposed work are incapable of approximating those necessary to cause liquefaction.

**Conclusion:**

Characteristics of existing soils on the Proposed Project Site and those to be imported for remedy actions would not be unstable or become unstable as a result of implementing the proposed project. This would be considered a less-than-significant impact.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

**Impact Analysis:**

Expansive soils are characterized by their ability to undergo volume change due to variations in moisture content. The Proposed Project Area is located on an area underlain by a mixture of silt, sand, and clay. Implementation of proposed remedy actions would not involve construction of new structures or facilities

aboveground. Engineering considerations have been incorporated into the design of the proposed remedy actions, particularly the HBW.

**Conclusion:**

Proposed remedy actions would not result in any new structures or facilities being placed on expansive soils. In addition, remedy actions have been engineered to consider compaction of materials prior to installation of the proposed hydraulic barrier wall. Therefore, substantial risk to life or property from expansive soils would be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

**Impact Analysis:**

The proposed project activities would not require the use of septic tanks or alternative wastewater disposal systems nor involve construction of such new systems.

**Conclusion:**

The use or construction of septic tanks or alternative wastewater disposal systems are not part of the proposed remedy actions. No impact involving septic tanks or alternative wastewater disposal systems as a result of onsite soils would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- f. Directly or indirectly destroy a unique paleontological resources or site unique feature?

**Impact Analysis:**

The Proposed Project Site has been used continuously as a landfill. There are no unique geologic feature at the Site and the presence of a unique paleontological resource in the Proposed Project work area is unlikely. This is because work would primarily occur in the upper 140 feet, which is primarily comprised of reworked fill material (placed during the earlier years of facility construction). Additionally, the monitoring wells to be installed would encounter sediments of Holocene age, which are unlikely to contain scientifically significant fossils, as determined by DTSC for a near-by Site in the same setting (DTSC, 2011). The Proposed Project is not expected to encounter or destroy any unique paleontological resources or geological features.

**Conclusion:**

There is no unique geologic feature at the Site and the presence of a unique paleontological resource in the Proposed Project work area is unlikely.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

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- CGS. 2018. Preliminary Seismic Hazard Zone Report for the Honker Bay 7.5 Minute Quadrangle, Contra Costa County, California. [http://gmw.conservation.ca.gov/SHP/EZRIM/Reports/SHZR/Preliminary\\_SHZR\\_127\\_Honker\\_Bay.pdf](http://gmw.conservation.ca.gov/SHP/EZRIM/Reports/SHZR/Preliminary_SHZR_127_Honker_Bay.pdf) (Accessed November 2020).

<b>8. GREENHOUSE GAS EMISSIONS</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

The BAAQMD 2017 Air Quality Guidelines recommend that greenhouse gases (GHGs) for projects be quantified and that the lead agency should make a determination on the significance of construction-related GHG emissions. However, BAAQMD does not identify a standard to make this determination. BAAQMD has also set goals to achieve the Bay Area's implementation of Assembly Bill (AB) 32 pertaining to global warming (CARB, 2006). AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020, a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario.

**ENVIRONMENTAL SETTING (BASELINE):**

Greenhouse gases are global pollutants, unlike criteria air pollutants that are of regional or local concern. The largest anthropogenic source of GHGs is the combustion of fossil fuels, which results primarily in emissions of carbon dioxide (CO<sub>2</sub>). Other GHGs include methane, nitrous oxide, fluorinated gases, ozone, and sulfur hexafluoride. To account for the differences of the warming effects of various GHGs, emissions are standardized into carbon dioxide equivalents (CO<sub>2</sub>e).

A GHG emissions inventory is available for the San Francisco Bay Area Region for 2011 (BAAQMD, 2015). In 2011, approximately 86.6 million metric tons (MMT) CO<sub>2</sub>e were attributable to the San Francisco Bay Area. Approximately 83.9 MMT CO<sub>2</sub>e were emitted within the Bay Area, and 2.7 MMT CO<sub>2</sub>e emitted from imported electricity.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The BAAQMD CEQA Guidelines indicate that a lead agency should determine the significance of construction-related GHG emissions even though BAAQMD does not identify a standard to make such a determination. However, the BAAQMD CEQA Guidelines identify an operation-related maximum annual threshold of significance for land-use projects of 1,100 metric tons of CO<sub>2</sub>e per year (BAAQMD, 2017).

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

California Emissions Estimator Model ® (CalEEMod, Version 2016.3.2) was run to determine if project-related air emissions exceed BAAQMD CEQA Air Quality Guidelines. The CalEEMod results are summarized in Table 4, and the model basis information is summarized in Tables 1 through 3 (refer to Appendix A). Complete CalEEMod Input and Output is provided in Appendix A.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

**Impact Analysis:**

Implementation of proposed remedy actions would generate GHG emissions through mobilization of construction equipment; onsite delivery of materials, equipment and supplies; offsite shipment of waste materials; onsite use of

vehicles and heavy equipment; worker commutes to the Proposed Project Site; and demobilization activities. The CalEEMod was run to identify the potential greenhouse gas emissions generated by implementation of proposed remedy actions. Results of the model indicate that remedy actions would generate approximately 800 metric tons of CO<sub>2</sub>e per year during the construction period (refer to Appendix A). Carbon dioxide equivalent, or CO<sub>2</sub>e, is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO<sub>2</sub>e signifies the amount of CO<sub>2</sub> which would have the equivalent global warming impact (Ecometrica 2012).

Although the BAAQMD CEQA Guidelines do not provide a construction-related threshold of significance for GHG emissions, construction-related CO<sub>2</sub>e emissions were compared to operation-related maximum annual threshold of significance for land-use projects. Construction activities associated with implementation of remedy actions would generate approximately 800 metric tons of CO<sub>2</sub>e per year. This amount of CO<sub>2</sub>e falls below the BAAQMD CEQA Guidelines operation-related maximum annual threshold of significance for land-use projects of 1,100 metric tons of CO<sub>2</sub>e per year.

In addition, the proposed project would implement the following basic construction BMPs recommended by the BAAQMD to reduce GHG emissions during construction activities.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes, as required by the California airborne toxics control measure 13 CCR Section 2485. Clear signage regarding this practice shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Other BMPs that may be implemented include:

- Use of local source(s) of backfill material that would minimize travel distance.
- Limiting equipment idle time.
- Carpooling and overnight stays at local hotels to reduce commuting distance.
- Use of local labor and subcontractors whenever practicable.

#### **Conclusion:**

The proposed project would not result in a new permanent stationary or non-stationary source of GHGs and construction-related GHG emissions would be short-term and temporary. In addition, the estimated CO<sub>2</sub>e emissions from implementing the corrective measures (800 metric tons of CO<sub>2</sub>e per year) would fall below BAAQMD CEQA Guidelines operation-related maximum annual threshold of significance for land-use projects (1,100 metric tons of CO<sub>2</sub>e per year). Therefore, GHG emissions resulting from implementation of the proposed project are considered to have a less-than-significant impact on the environment.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

#### **Impact Analysis:**

The BAAQMD is responsible for regulating GHG emissions in the project area. The BAAQMD 2017 Air Quality Guidelines recommend that GHGs for projects be quantified; however, the guidelines do not identify a CEQA threshold of significance for construction-related GHG emissions. In addition, construction activities would not conflict with any goals set by the BAAQMD to achieve the Bay Area's implementation of Assembly Bill 32 pertaining to global warming (CARB, 2006).

**Conclusion:**

The operation of construction equipment during implementation of remedy actions at the Proposed Project Site would be short-term and temporary and would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. All remedy actions would be performed in compliance with the BAAQMD rules and policies. No impact related to conflict with a GHG reduction plan would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

***References Used:***

Bay Area Air Quality Management District (BAAQMD). 2015. Bay Area Emissions Inventory Summary Report: Greenhouse Gases, Base Year 2011. January.

BAAQMD. 2017. California Environmental Quality Act Air Quality Guidelines. December.

BREEZE Software. 2017. California Emissions Estimator Model ®, Version 2016.3.2. <http://www.caleemod.com/> (Accessed February 2019).

California Air Resources Board. 2006. Assembly Bill No. 32. September 27.

Contra Costa County. 2008. Municipal Climate Action Plan. December.

Ecometrica 2012. Greenhouse Gases, CO<sub>2</sub>, CO<sub>2</sub>e, and Carbon: What Do All These Terms Mean? August 2012. Matthew Brander

<b>9. HAZARDS AND HAZARDOUS MATERIALS</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

Federal laws and regulations: Resource Conservation and Recovery Act (RCRA) Title 42 United States Code and 40 Code Federal Regulations (CFR) Parts 260-279. More specifically, hazardous waste generators are governed by 40 CFR part 262, subpart E and transporters of hazardous waste governed by 40 CFR part 263. RCRA gives EPA the authority to control hazardous waste from the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid waste. The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration regulates the transport of hazardous materials through Title 49 of the Code of Federal Regulations, Subchapter C.

State laws and regulations: Hazardous Waste Control Law (Health and Safety Code (HSC) Chapter 6.5) and 22 California Code of Regulations (CCR). The law establishes regulations and incentives which ensure that the generators of hazardous waste employ technology and management practices for the safe handling, treatment, recycling, and destruction of their hazardous wastes prior to disposal. Article 6 of HSC Chapter 6.5 discusses the transportation of hazardous waste. California Vehicle Code: Divisions 2, 6, 12, 13, 14, 15 also apply to transportation of hazardous materials.

**ENVIRONMENTAL SETTING (BASELINE):**

(Revised 4/26/2019)

Due to historical operations, groundwater beneath the landfill is contaminated with primarily volatile organic compounds. The following contaminants of concern (COCs) have been detected at elevated concentrations in groundwater and soil vapor at the Site:

- Chlorinated ethenes (tetrachloroethene (PCE));
- trichloroethene (TCE) and their daughter products;
- chlorinated methanes (carbon tetrachloride (CT), chloroform, and their daughter products);
- 1,2-dichloropropane (1,2-DCP); and
- benzene

Acetone, phenol, heptachlor, and select metals are also present at elevated concentrations in groundwater along the landfill's northern boundary, with little downgradient plume migration. Human health and hazard risk assessments are summarized in the Explanation of Significant Differences and previous studies conducted for the Proposed Project Site.

#### **APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of hazards and hazardous materials effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

#### **ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Human health and hazard risk assessments performed for the Proposed Project Site are summarized in the Explanation of Significant Differences and previous studies conducted for the Proposed Project Site.

#### **IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Create a significant hazard to the public or the environment throughout the routine transport, use, or disposal of hazardous materials?

##### **Impact Analysis:**

Hazardous materials used during implementation of remedy actions would include fuels and oils for standard operation of construction equipment. Proper storage and disposal, the use of BMPs, and compliance with applicable laws and regulations governing the management of hazardous materials and hazardous waste would minimize potential impacts associated with the use of such materials. Construction activities are estimated to occur over a 23-week period during use and transport of hazardous materials, and management and/or transport of waste generated would occur.

The routine management, storage, and transport of materials would be consistent with all applicable federal and state laws. Any hazardous soils that may be encountered during construction will be profiled and properly disposed off-site. Accidental releases of hazardous or remediation materials would be minimized through the implementation of best management practices for control of stormwater runoff in the project area. In addition, the proposed project would implement a Health and Safety Plan (HASP) that addresses hazards and potential exposure to hazardous substances. Job Safety Analyses would be developed and daily "tailgate" health and safety meetings would be conducted with all Site workers to discuss the health and safety issues and concerns related to the specific work.

##### **Conclusion:**

The adherence to standard practices and HASP, and disposal of contaminated soils at appropriate waste facilities, implementation of remedy actions would not create a significant hazard to the public or the environment throughout the routine transport, use, or disposal of hazardous materials. Project-related impacts would be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact



☐ No Impact

- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

**Impact Analysis:**

Implementation of remedy actions at the Proposed Project Site have the potential to release hazardous materials into the environment from an accidental release of fuel, oil, or maintenance chemicals from construction equipment; and/or from dust generated during construction activities.

During construction activities, potential spills or releases of hazardous materials would be minimized through the following:

- Implementation of best management practices for control of stormwater runoff;
- Preparation and implementation of a HASP including requirements for workers and other construction management components such as dust and off-Site migration control; and
- Workers undertake training for all construction activities involving work in proximity to potentially contaminated soils in accordance with California Occupational Safety and Health Administration standards, contained in Title 8 of the CCR.
- Establishment and implementation of health and safety provisions for monitoring exposure to construction workers, procedures to be undertaken in the event that previously unreported contamination is discovered, and emergency procedures and responsible personnel.

**Conclusion:**

Corrective measures would be required to adhere to the requirements of hazardous waste management plans (i.e., HASP) and to implement standard practices. Therefore, the proposed project potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant.

☐ Potentially Significant Impact

☐ Less Than Significant With Mitigation Incorporated

☒ Less Than Significant Impact

☐ No Impact

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?

**Impact Analysis:**

There are no schools within one-quarter mile of the Proposed Project Site. The closest schools to the Proposed Project Site (Antioch Charter School, Mission Elementary School, Foothill Elementary School) are located  $\frac{3}{4}$  mile,  $\frac{3}{4}$  mile, and 1.5 miles from the Proposed Project Site, respectively

**Conclusion:**

Implementation of remedy actions at the Proposed Project Site would not occur within one-quarter mile of an existing or proposed school. Impacts to schools from implementation of the corrective measures are considered less than significant.

☐ Potentially Significant Impact

☐ Less Than Significant With Mitigation Incorporated

☒ Less Than Significant Impact

☐ No Impact

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

**Impact Analysis:**

The Proposed Project Site is included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, the Site would be remediated under DTSC oversight through the implementation of secondary remedy technologies to enhance the existing remedy on the Site. Implementation of the proposed remedy actions would continue to further reduce the potential for creating a significant hazard to the public or the environment from the existing landfill.

**Conclusion:**

The Proposed Project Site is included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, the purpose of the proposed project is to reduce or eliminate existing hazards to the public or environment from the existing landfill.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

**Impact Analysis:**

The Proposed Project Site is not located within the boundaries of an airport land use plan. The closest airport to the site is Buchanan Field Airport which is located approximately 10 miles to the west in Concord, California.

**Conclusion:**

The proposed remedy actions would not occur in an area located within an airport land use plan nor within two miles of a public airport or public use airport. Therefore, implementation of the project would not result in a safety hazard or excessive noise for people residing or working in the project area.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

**Impact Analysis:**

The transportation of equipment and materials to and from the Proposed Project Site have the potential to impair implementation or interfere with the existing emergency response plan and/or evacuation plan. Specifically, trucks carrying equipment and materials could slow down the flow of traffic on public streets and potentially impede emergency response or evacuation efforts. Transportation permits would be acquired for oversized loads, as required. In addition, permits for any temporary local traffic control and street parking restrictions to accommodate deliveries or drilling would be acquired from the City of Antioch. As a result, if an Emergency Response Plan or Emergency Evacuation Plan were to be implemented in response to an emergency, project management would be able to immediately suspend equipment and material transportation until the emergency response is completed or the evacuation order is lifted.

**Conclusion:**

The proposed project would acquire transportation permits from the City of Antioch and project management would be able to suspend construction activities that could impair implementation of an adopted emergency response plan or emergency evacuation plan. Impacts to an adopted emergency response plan or emergency evacuation plan are considered less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

**Impact Analysis:**

The Proposed Project Site is located in an area with environmental conditions potentially conducive to wildland fires. The project site is in an area with dry vegetation (i.e., grasses). Operation of construction equipment on the during remedy actions has the limited potential to spark a fire. However, construction activities would implement BMPs which address fire prevention methods such as:

- restricting vehicles from driving or parking on dry vegetation during fire sensitive times of the year; and
- wetting dry construction areas before commencing activities, and wetting throughout the day, as appropriate.

**Conclusion:**

Although construction equipment has a minimal potential to spark a fire during remedy actions, implementation of BMPS would substantially limit the potential for a wildland fire that exposes people or structures to a significant risk of loss, injury or death to occur. Impacts from wildland fires during implementation of the remedy actions are considered less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

**References Used:**

TRC, Inc. 2020. *Explanation of Significant Differences, GBF/Pittsburg Landfill, Contra Costa County, CA*. July 2, 2020.

<b>10. HYDROLOGY AND WATER QUALITY</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

The State Water Resources Control Board and the Regional Water Quality Control Boards (collectively Water Boards) share authority to implement the Federal Clean Water Act (CWA, 33 U.S.C. §1251 et seq.) and California's Porter-Cologne Water Quality Control Act (California Water Code, Section 7). The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.

The Water Boards enforce waste discharge requirements through National Pollutant Discharge Elimination System (NPDES) permits. The Porter-Cologne Act mandates the Regional Water Board to develop, adopt and implement a Basin Plan for the Region. The Water Quality Control Plan for the San Francisco Bay Basin (SFB Basin Plan) is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the Region.

**ENVIRONMENTAL SETTING (BASELINE):**

The Site is located in the Pittsburg Plain Groundwater Basin (California Regional Water Quality Control Board, 2017). Surface water bodies within a one-mile radius of the Proposed Project Site include Markley Creek. The Proposed Project Site does not include wetlands.

Groundwater is encountered at the Proposed Project Site between 40 and 100 feet below ground surface. Groundwater generally flows to the north toward Suisun Bay. Groundwater below the Proposed Project Site is impacted primarily with occurrences of VOCs.

The Water Quality Control Plan for the San Francisco Bay Basin (SFB Basin Plan) identifies the future potential beneficial use of groundwater beneath the Proposed Project Site as municipal or domestic water supply, industrial, industrial process, and agriculture. However, shallow groundwater at the Proposed Project Site is not considered a viable source of drinking water due to high salinity, as measured by total dissolved solids concentrations, identified by the State Water Resources Control Board (SWRCB Resolution No. 88-63, as revised by Resolution No. 2006-0008).

The Site is being remediated for groundwater. The remedial action objectives (RAOs) are and will continue to be containment of contamination, reduction of contamination, and attainment of standards which protect the beneficial uses of the waters. Groundwater is not used as a public drinking water supply or for any other purposes. Drinking water for the community near the landfill is provided by the City of Antioch. Two downgradient water supply wells were identified 2,100 feet and 4,600 feet to the northeast of the Site.

Markley Creek is a seasonal stream that lies about 100 feet from the northwestern boundary of the Site and flows in a southwest to north east direction. The Contra Costa Canal, a concrete-lined water supply channel, passes near the Site's northern boundary.

#### **APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The State and Federal drinking water standards are called maximum contaminant levels (MCLs). Shallow groundwater at the Proposed Project Site meets the drinking water exception criterion listed in SWRCB Resolution No. 88-63. However, cleanup goals for groundwater are based on maximum contaminant levels. The Facility will continue to comply with all provisions set forth in an existing facility NPDES General Permit for Stormwater Discharges obtained from the Water Board.

#### **ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

The hydrogeological conditions have been characterized through investigations completed as part of the Site investigations. Groundwater samples were also collected and characterized.

#### **IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

##### **Impact Analysis:**

The objectives of the proposed remedy actions include enhancing the ongoing remediation of groundwater quality conditions by constructing a hydraulic barrier wall and monitoring wells. The wall would isolate contaminated groundwater onsite. Existing groundwater beyond the proposed hydraulic barrier wall to the north which would continue to be treated to meet water quality objectives.

Accidental releases of hazardous or remediation materials would be minimized through the implementation of best management practices for control of stormwater runoff in the project area. Construction activities during implementation of onsite remedy actions would not violate any water quality standards or water discharge requirements. Best management practices (e.g., wattles, drain inlet protection) would be implemented during construction to prevent runoff into surface water bodies.

##### **Conclusion:**

The proposed remedy actions are designed to improve groundwater quality and result in the overall reduction of contaminants in the groundwater system. Project activities would not violate any water quality standards, waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. Impacts are considered to be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact

☐ No Impact

- b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impeded sustainable groundwater management of the basin?

**Impact Analysis:**

Groundwater would not be extracted as part of implementation of remedy actions. Contaminated groundwater beneath the site would remain isolated. The objectives of the proposed remedy actions include enhancing the ongoing remediation of groundwater quality conditions by constructing a hydraulic barrier wall and monitoring wells. The wall would isolate contaminated groundwater onsite. Existing groundwater beyond the proposed hydraulic barrier wall to the north which would continue to be treated to meet water quality objectives.

**Conclusion:**

Implementation of remedy actions would not interfere with groundwater recharge of the Pittsburg Plain Groundwater Basin. A less-than-significant impact is expected to occur.

☐ Potentially Significant Impact

☐ Less Than Significant With Mitigation Incorporated

☐ Less Than Significant Impact

☒ No Impact

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on or off-site;

**Impact Analysis:**

Currently, the Proposed Project Site is unpaved and surface water (i.e., precipitation) infiltrates through the subsurface. Construction of the proposed remedy actions including installation of a hydraulic barrier wall, a redesigned on-Site groundwater extraction and treatment system, an on-Site soil vapor extraction and treatment system, and in situ groundwater remediation at two off-Site locations would not affect the current drainage pattern. Implementation of the proposed remedy actions would not have the potential to result in substantial erosion or siltation on or off-site by altering the course of Markley Creek or by resulting in additional impervious surfaces.

**Conclusion:**

Implementation of remedy actions would not result in changes to drainage patterns of the overall Proposed Project Site or project area in a manner which would result in substantial erosion or siltation on- or offsite. Consequently, impacts are considered to be less than significant.

☐ Potentially Significant Impact

☐ Less Than Significant With Mitigation Incorporated

☒ Less Than Significant Impact

☐ No Impact

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite;

**Impact Analysis:**

Currently, the Proposed Project Site is unpaved and surface water (i.e., precipitation) infiltrates through the subsurface. Construction of the proposed remedy actions including installation of a hydraulic barrier wall, a redesigned on-Site groundwater extraction and treatment system, an on-Site soil vapor extraction and

treatment system, and in situ groundwater remediation at two off-Site locations would not affect the current drainage pattern. Implementation of the proposed remedy actions would not have the potential to result in substantial flooding on or off-site by altering the course of Markley Creek or by resulting in additional impervious surfaces.

**Conclusion:**

Implementation of remedy actions would not result in changes to drainage patterns of the overall Proposed Project Site or project area in a manner which would result in substantial flooding on- or offsite. Consequently, impacts are considered to be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

**Impact Analysis:**

Currently, the Proposed Project Site is unpaved and surface water (i.e., precipitation) infiltrates through the subsurface. Construction of the proposed remedy actions including installation of a hydraulic barrier wall, a redesigned on-Site groundwater extraction and treatment system, an on-Site soil vapor extraction and treatment system, and in situ groundwater remediation at two off-Site locations would not affect the current drainage pattern. Implementation of the proposed remedy actions would not have the potential to result in exceeding the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff by altering the course of Markley Creek or by resulting in additional impervious surfaces.

**Conclusion:**

Implementation of remedy actions would not result in changes to drainage patterns of the overall Proposed Project Site or project area in a manner which would result in exceeding existing or planned stormwater drainage systems. Consequently, impacts are considered to be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

(iv) impede or redirect flood flows?

**Impact Analysis:**

Currently, the Proposed Project Site is unpaved and surface water (i.e., precipitation) infiltrates through the subsurface. Construction of the proposed remedy actions including installation of a hydraulic barrier wall, a redesigned on-Site groundwater extraction and treatment system, an on-Site soil vapor extraction and treatment system, and in situ groundwater remediation at two off-Site locations would not affect the current drainage pattern. Implementation of the proposed remedy actions would not have the potential to result in impeding or redirecting flood flows by altering the course of Markley Creek or by resulting in additional impervious surfaces.

**Conclusion:**

Implementation of remedy actions would not result in changes to drainage patterns of the overall Proposed Project Site or project area in a manner which would result in impeding or redirecting flood flows. Consequently, impacts are considered to be less than significant.

- ☐ Potentially Significant Impact

- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

**Impact Analysis:**

No occurrences of a seiche have been recorded in the San Francisco Bay Area (CCC 2005-2020 General Plan, Chapter 10). In addition, the Proposed Project Site is not located in an area at risk from tsunami inundation (CDC 2018). The Proposed Project Site is not susceptible to seiche inundation because there are no major landlocked bodies of water within or near the site.

**Conclusion:**

Implementation of proposed remedy actions would not occur in an area at risk to seiche or from tsunami inundation. Therefore, the potential for release of pollutants from the Proposed Project Site would not occur. No impact would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

**Impact Analysis:**

The objectives of the proposed remedy actions include enhancing the ongoing remediation of groundwater quality conditions by constructing a hydraulic barrier wall and monitoring wells. The wall would isolate contaminated groundwater onsite. Existing groundwater beyond the proposed hydraulic barrier wall to the north which would continue to be treated to meet water quality objectives.

**Conclusion:**

Construction activities during implementation of remedy actions would not violate any water quality standards or water discharge requirements identified in any water quality control plan or sustainable groundwater management plan.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

**References Used:**

- TRC, Inc. 2020. *Explanation of Significant Differences, GBF/Pittsburg Landfill, Contra Costa County, CA*. July 2, 2020.
- California Department of Conservation (CDC). 2018. Department of Conservation Tsunami Inundation Map, <https://www.conservation.ca.gov/cgs/tsunami/maps>. Accessed: February 20, 2019).
- California Regional Water Quality Control Board, San Francisco Bay Region. 2017. San Francisco Bay Basin (Region 2) Water Quality Control Plan. 2017. [https://www.waterboards.ca.gov/sanfranciscobay/basin\\_planning.html](https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html). May.



Contra Costa County (CCC). 2005 (Reprint 2010). General Plan. <http://www.co.contra-costa.ca.us/4732/General-Plan> (Accessed November 2018).

<b>11. LAND USE AND PLANNING</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

City of Antioch Code Title 9 – Planning and Zoning provides restrictions and regulations on land uses. The City zoning ordinance designates the Proposed Project Site as Open Space/Public Use District and Study District. The City of Antioch 2003 General Plan designates the land use of the Proposed Project Site as Public/Institutional and Open Space.

**ENVIRONMENTAL SETTING (BASELINE):**

The City of Antioch Zoning Ordinance identifies the Proposed Project Site as Open Space/Public Use District and Study District. The Open Space/Public Use District allows undeveloped public open space and areas for public use where shown on the General Plan and in Specific Plans. This zone also can apply to public utility easements for electrical lines, gas lines and canals to prevent encroachment by urban development. This district is consistent with the Public/Institutional and Open Space General Plan Designations, as well as within Focused Planning Areas. The Study District is intended as an interim designation which is utilized until all necessary detailed land use studies are completed for a given area. This district is most appropriately applied to properties at the time that they are pre-zoned prior to annexation by the city.

The City of Antioch 2003 General Plan designates the land use of the Proposed Project Site as Public/Institutional and Open Space. The Public/Institutional land use category is used to designate public land and institutional uses, including public and private schools and colleges, public corporation yards, libraries, fire stations, police stations, water treatment facilities, animal shelters, public and private museums churches, and governmental offices. The Open Space land uses are of a basically open space nature, and include parks, as well as other open space areas. Certain open space areas, such as those that exist to protect sensitive environmental resources, might not be open to public use, while other lands may be owned and managed by private entities, and therefore not open to the general public. The most prevalent public open space uses are City and regional parks, as well as private open space areas within residential developments. It is intended that this designation be applied only to lands owned by public agencies or which are already programmed for acquisition.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of land use and planning resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the lack of land use changes in or near the Proposed Project Site, no environmental studies relating to land use and planning were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Physically divide an established community?

**Impact Analysis:**

There are no residential areas or developed community on the Proposed Project Site.

**Conclusion:**

Proposed remedy actions would not have the potential to physically divide an established community based on the distance between the Proposed Project Site and nearest developed community. No impact would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

**Impact Analysis:**

Implementation of remedy actions would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Proposed Project Site adopted for avoiding or mitigating an environmental effect.

**Conclusion:**

Remedy actions proposed as part of the project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Proposed Project Site adopted for avoiding or mitigating an environmental effect. No impact would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

**References Used:**

Contra Costa County (CCC). 2005 (Reprint 2010). General Plan. <http://www.contracosta.ca.gov/4732/General-Plan> (Accessed November 2020).

City of Antioch General Plan (November 2003). <https://www.antiochca.gov/community-development-department/planning-division/general-plan/> (Accessed November 2020)

TRC, Inc. 2020. *Explanation of Significant Differences, GBF/Pittsburg Landfill, Contra Costa County, CA*. July 2, 2020.

<b>12. MINERAL RESOURCES</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

No laws, ordinances, regulations, or standards protecting mineral resources are applicable to the Proposed Project.

**ENVIRONMENTAL SETTING (BASELINE):**

The Proposed Project Site is located in northern CCC which is underlain by various unconsolidated estuarine and alluvial sediments that overlie sedimentary bedrock units (Dibblee, 1981). The Proposed Project Site is not located in or near any known mineral resources. The Site is a closed landfill under a deed restriction with restricted access. The landfill is located in an unincorporated area of the City of Antioch and is designated for Public/Institutional and Open Space land use.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of mineral resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the lack of mineral resources in or near the Proposed Project Site, no environmental studies relating to mineral resources were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

**Impact Analysis:**

The Proposed Project Site and surrounding area has been identified in the California Department of Conservation, Division of Mines and Geology 1986 Special Report (Special Report) 146 Part II as Mineral Resource Zone 1 (MRZ-1). Special Report 146 Part II notes that areas classified as MRZ-1 in the South San Francisco Bay Production-Consumption Region are underlain by quaternary alluvial sediments which contain too much clay and silt for use as aggregate. Areas classified as MRZ-1 are not likely to contain significant mineral deposits.

**Conclusion:**

The remedy actions would not prevent access to potential mineral resources if the Proposed Project Site and surrounding area are ever reclassified. Therefore, no impacts would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

**Impact Analysis:**

The Proposed Project Site is not located in an area that the Contra Costa County 2005-2020 General Plan has identified as a mineral resource area. The nearest mineral resource area identified in Contra Costa County is approximately 7 miles from the Proposed Project Site.

**Conclusion:**

The Proposed Project Site is not likely to contain significant mineral deposits and proposed remedy actions would not prevent access to mineral resources if the Proposed Project Site and surrounding area are ever reclassified. Therefore, no impacts would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

**References Used:**

California Department of Conservation, Division of Mines and Geology. 1986. Mineral Land Classification: Aggregate Materials in the San Francisco – Monterey Bay Area, Special Report 146. [ftp://ftp.conservation.ca.gov/pub/dmg/pubs/sr/SR\\_146-1/SR\\_146-1\\_Text.pdf](ftp://ftp.conservation.ca.gov/pub/dmg/pubs/sr/SR_146-1/SR_146-1_Text.pdf) (Accessed November 2018).

<b>13. NOISE</b>				
<b>Would the project result in:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

The Noise Element of the City of Antioch General Plan discusses the City's goal to improve the overall environment in the City by reducing annoying and physically harmful levels of noise for existing and future residents, and for all land uses. According to the City's adopted Land Use Compatibility Standards for Community Noise Environments, environments with ambient noise levels of up to 60 dBA CNEL (community noise equivalent level) are considered "normally acceptable" for new residential development.

In addition, the City of Antioch 2003 General Plan includes the following policies relating to construction noise:

- i. Ensure that construction activities are regulated as to hours of operation in order to avoid or mitigate noise impacts on adjacent noise-sensitive land uses.
- j. Require proposed development adjacent to occupied noise sensitive land uses to implement a construction-related noise mitigation plan. This plan would depict the location of construction equipment storage and maintenance areas, and document methods to be employed to minimize noise impacts on adjacent noise sensitive land uses.
- k. Require that all construction equipment utilize noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.
- m. Prior to the issuance of any grading plans, the City shall condition approval of subdivisions and non-residential development adjacent to any developed/occupied noise-sensitive land uses by requiring applicants to submit a construction-related noise mitigation plan to the City for review and approval. The plan should depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of the project through the use of such methods as:
  - The construction contractor shall use temporary noise-attenuation fences, where feasible, to reduce construction noise impacts on adjacent noise sensitive land uses.
  - During all project site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
  - The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.

- The construction contractor shall limit all construction-related activities that would result in high noise levels to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. No construction shall be allowed on Sundays and public holidays.
- n. The construction-related noise mitigation plan required shall also specify that haul truck deliveries be subject to the same hours specified for construction equipment. Additionally, the plan shall denote any construction traffic haul routes where heavy trucks would exceed 100 daily trips (counting those both to and from the construction site). To the extent feasible, the plan shall denote haul routes that do not pass sensitive land uses or residential dwellings. Lastly, the construction-related noise mitigation plan shall incorporate any other restrictions imposed by the City.

The City of Antioch Municipal Code includes restrictions on heavy construction equipment noise. According to Section 517.04(B), [i]t shall be unlawful for any person to operate heavy construction equipment during the hours specified below:

- 1) On weekdays prior to 7:00 a.m. and after 6:00 p.m.
- 2) On weekdays within 300 feet of occupied dwelling space, prior to 8:00 a.m. and after 5:00 p.m.
- 3) On weekends and holidays, prior to 9:00 a.m. and after 5:00 p.m., irrespective of the distance from the occupied dwelling.

#### **ENVIRONMENTAL SETTING (BASELINE):**

The Site is a closed landfill under a deed restriction with restricted access. The landfill is located in an unincorporated area of the City of Antioch and is designated for Public/Institutional and Open Space land use.

#### **APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

For purposes of this analysis, noise effects may be considered significant if project activities would result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Proposed Project Site in excess of City of Antioch noise level standard of 60 dBA, or result in generation of excessive groundborne vibration or groundborne noise levels.

#### **ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

The Federal Highway Administration (FHWA) developed the Roadway Construction Noise Model (RCNM), which has become the industry-accepted standard model for calculating construction noise levels at specific receptor locations. Model inputs include the type and number of pieces of heavy construction equipment, their usage factors, distance to a receptor, and estimated shielding reduction (if any). The noise modeling for the proposed corrective measures were analyzed according to default construction equipment list from the air quality impact analysis for the Proposed Project. To reflect a conservative analysis, a reasonable worst-case scenario was modeled, assuming that each piece of modeled equipment would operate simultaneously at a reasonable distance from one another at the nearest possible locations to each modeled receptor. The modeled receptor locations represent the closest existing sensitive receptors to the Proposed Project Site.

The predominant average noise measurement scales used include the Equivalent-Continuous Sound Level ( $L_{eq}$ ) and the Community Noise Equivalent Level (CNEL), both of which are based on A-weighted decibels (dBA).  $L_{eq}$  is the total sound energy of time-varying noise over a given sample period. CNEL is the average sound level occurring over a 24-hour period, with a weighting factor of 5.0 dBA applied to the hourly  $L_{eq}$  for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours), and 10 dBA adjustment for events occurring between 10:00 p.m. and 7:00 a.m. (defined as sleeping hours). The noise adjustments are added to the noise events occurring during the quieter evening and nighttime hours to compensate for the added intrusiveness that noise has during these hours.

The City of Antioch uses CNEL for regulating noise levels throughout the city. However, construction activities associated with implementing the proposed remedy actions would occur only during daytime hours and would not be subject to the noise penalty applied to CNEL. Therefore, this analysis uses  $L_{eq}$  for the purposes of measuring project-generated noise.

#### **IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would result in:

- a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

**Impact Analysis:**

The Proposed Project would use heavy equipment for construction of the hydraulic barrier wall and construction of performance monitoring wells. In addition, trucks would be used to transport materials to the Proposed Project Site.

Remedy actions would occur over 23 weeks during daytime hours which meet the City's noise ordinance requirement for construction activities to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods (Section 517.04(B)).

The City of Antioch uses CNEL for regulating noise levels in the city. However, construction activities associated with implementing the proposed remedy actions would occur only during daytime hours and would not be subject to the noise penalty applied to CNEL. Therefore, this analysis uses  $L_{eq}$  for the purposes of measuring noise generated during construction activities and is considered relevant and appropriate.  $L_{eq}$  is the equivalent continuous sound level in decibels, equivalent to the total sound energy measured over a stated period of time (typically one hour).

The closest noise sensitive receptors are residences located approximately 100 feet from the proposed hydraulic barrier wall. Using the RCNM, noise levels generated by the loudest construction equipment anticipated to be used for remedy actions (i.e., backhoe, dozer, excavator) at the Proposed Project Site are predicted to be 73.6  $L_{eq}$  dBA at 100 feet (closest distance between the Proposed Project Site and nearest residence) (FHWA 2006) (refer to Appendix B).

In compliance with noise restrictions (Section 517.04(B) of the City of Antioch Municipal Code), construction activities occurring in areas less than 300 feet from occupied dwellings would be limited to the hours between 8:00 a.m. and 5:00 p.m. Monday through Friday to minimize noise impacts on adjacent residential areas. Construction activities greater than 300 feet could start at 7:00 a.m. and would end at 6:00 p.m. On weekends and holidays, construction activities would not begin prior to 9:00 a.m. and would end at 5:00 p.m., regardless of the distance from any occupied dwellings.

**Conclusion:**

The Proposed Project would meet the City of Antioch Municipal Code requirements that construction activities shall be concentrated during the hours of the day (Section 517.04(B)). Therefore, the Proposed Project would have a less than significant impact.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- b. Generation of excessive groundborne vibration or groundborne noise levels?

**Impact Analysis:**

Implementation of proposed remedy actions would require the use of heavy construction equipment (i.e., backhoe, dozer, excavator) at the Proposed Project Site. Even though minor groundborne vibrations and noise levels may be discernable by nearby residences, construction activities would comply with noise restrictions (Section 517.04(B) of the City of Antioch Municipal Code). Specifically, construction activities occurring in areas less than 300 feet from occupied dwellings would be limited to the hours between 8:00 a.m. and 5:00 p.m. Monday through Friday to minimize noise impacts on adjacent residential areas. Construction activities greater than 300 feet could start at 7:00 a.m. and would end at 6:00 p.m. On weekends and holidays, construction activities would not begin prior to 9:00 a.m. and would end at 5:00 p.m., regardless of the distance from any occupied dwellings.

**Conclusion:**



The Proposed Project would meet the City of Antioch Municipal Code requirements that construction activities shall be concentrated during the hours of the day (Section 517.04(B)). Therefore, the Proposed Project would have a less than significant impact related to groundborne vibration and noise levels.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

**Impact Analysis:**

The Proposed Project Site is not located within an airport land use plan, vicinity of a private airstrip, or within two miles of a public airport or public use airport. Buchanan Airport, located approximately 10 miles west of the Proposed Project Site, is the closest public airport.

**Conclusion:**

The proposed remedy actions would not the potential to expose people residing or working in the project area to excessive noise levels generated by a nearby airport or airfield. No impact would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

**References Used:**

Federal Highway Administration (FHWA). February 15, 2006. Roadway Construction Noise Model.  
[https://www.fhwa.dot.gov/environment/noise/construction\\_noise/rcnm/](https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/) (Accessed November 2020).

City of Antioch General Plan (November 2003). <https://www.antiochca.gov/community-development-department/planning-division/general-plan/> (Accessed November 2020)

TRC, Inc. 2020. *Explanation of Significant Differences, GBF/Pittsburg Landfill, Contra Costa County, CA*. July 2, 2020.

<b>14. POPULATION AND HOUSING</b>				
<b>Would the Project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

No laws, ordinances, regulations, or standards protecting population and housing resources are applicable to the Proposed Project.

**ENVIRONMENTAL SETTING (BASELINE):**

The Site is a closed landfill under a deed restriction with restricted access. The landfill is located in an unincorporated area of the City of Antioch and is designated for Public/Institutional and Open Space land use.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of population and housing resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the lack of development proposed for the Proposed Project Site, no environmental studies relating to population and housing resources were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Induce substantial unplanned population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

**Impact Analysis:**

Implementation of the proposed remedy actions intended to contain or remove contaminant mass from impacted groundwater at and near the Proposed Project Site. Implementation of remedy actions would not allow for increased population growth, such as new housing construction, because of the past landfill operations at the site would not change and the adjacent existing residential neighborhoods would prohibit additional nearby population growth.

**Conclusion:**

The Proposed Project would not have the potential to induce substantial unplanned population growth in the area, either directly or indirectly.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

**Impact Analysis:**

Implementation of the proposed remedy actions are intended to contain or remove contaminant mass from impacted groundwater at and near the Proposed Project Site. Remediation of groundwater would not require removing any existing people or housing.

**Conclusion:**

The Proposed Project would not have the potential to displace substantial numbers of existing people or housing.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

*References Used:*

<b>15. PUBLIC SERVICES</b>				
<b>Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

No laws, ordinances, regulations, or standards protecting public services resources are applicable to the Proposed Project.

**ENVIRONMENTAL SETTING (BASELINE):**

The Site is a closed landfill under a deed restriction with restricted access. The landfill is located in an unincorporated area of the City of Antioch and is designated for Public/Institutional and Open Space land use. There are no schools, hospitals, daycare centers, libraries, or police stations located within one mile of the Proposed Project Site.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of public services resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the less than significant impact of the Proposed Project Site to public services resources, no environmental studies relating to public services resources were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

Fire protection?

**Impact Analysis:**

The closest fire station to the Proposed Project Site is CCC Fire District Station #83, located at 2717 Gentrytown Drive in the City of Antioch. The drive distance between the Proposed Project Site and Station #83 is 1.5 miles. Potential demands on fire protection services may increase slightly during the construction period as a result of unforeseen events related to the scope of work. However, ongoing adherence to

procedures and practices identified in the Proposed Project's HASP would reduce the potential for incidents to occur that would require a fire district response.

**Conclusion:**

Ongoing adherence to procedures and practices identified in the Proposed Project's HASP would reduce the potential for incidents to occur that would require response from fire protection services. After completion of remedy actions, the Proposed Project would not cause an increase in demand on fire protection, as compared to the current demand.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

Police protection?**Impact Analysis:**

The Proposed Project Site is located in the jurisdiction of the City of Antioch Police Department. Potential demands on law enforcement or emergency response services could increase slightly during the construction period as a result of unforeseen events or circumstances. However, risks to human health and safety would be minimized through ongoing adherence to procedures and practices identified in the Proposed Project's HASP.

**Conclusion:**

Ongoing adherence to procedures and practices identified in the Proposed Project's HASP would reduce the need for police protection services. After completion of remedy actions, the project would not cause an increase in demand on police protection, as compared to current demand.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

Schools?**Impact Analysis:**

The closest schools to the Proposed Project Site include Antioch Charter School, Mission Elementary School, Foothill Elementary School which are located ¾ mile, ¾ mile, and 1.5 miles from the Proposed Project Site, respectively. The Proposed Project would not result in an increase in population or associated increase in demand on these schools.

**Conclusion:**

Remedy actions would not create a demand for existing or new school facilities. No impact to school facilities would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

Parks?**Impact Analysis:**

The closest parks include Markley Creek Park and Canal Park which are located approximately 0.1 mile from the Proposed Project Site. The Black Diamond Mines Regional Preserve Park is located adjacent to the south of the Proposed Project Site. The Proposed Project would not result in an increase in population or associated increase in demand on parks.

**Conclusion:**

Remedy actions would not create a demand for existing or new park facilities. No impact to park facilities would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

Other public facilities?**Impact Analysis:**

The closest hospital to the Proposed Project Site is the Sutter Delta Medical Center located approximately 2 miles to the east at 3901 Lone Tree Way in Antioch. Construction activities could result in a slight increase in demands for services at the medical center. The potential for incidents requiring medical attention would be minimized through adherence with the proposed project's HASP.

**Conclusion:**

Ongoing adherence to procedures and practices identified in the Proposed Project's HASP would reduce the need for other public facilities and services. After remedy actions complete, the project would not cause an increase in demand on other public facilities and services, as compared to current demand.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

*References Used:*

Contra Costa County. 2019. Fire Protection District. <https://www.cccfpd.org/> (Accessed February 19, 2019).

City of Antioch General Plan (November 2003). <https://www.antiochca.gov/community-development-department/planning-division/general-plan/> (Accessed November 2020)

<b>16. RECREATION</b>				
	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

No laws, ordinances, regulations, or standards protecting recreation resources are applicable to the Proposed Project.

**ENVIRONMENTAL SETTING (BASELINE):**

The Delta de Anza Regional Trail (Trail) is located adjacent to the north of the Site. The Trail is a paved, multi-use hiking, bicycling, and equestrian trail currently spanning over 15 miles of a planned 25-mile length. When completed, the Trail will generally follow the East Bay Municipal Utility District's corridor and the Contra Costa Water District's canal. The Trail offers recreation opportunities and is an alternative transportation corridor connecting communities in central and eastern Contra Costa County. It also provides access to regional and community parks, many schools, and Los Medanos Community College (EBRPD, 2019).

The Black Diamond Mines Regional Preserve Park is located adjacent to the south of the Site. The Park encompasses 6,000 acres located north of Mount Diablo in Contra Costa County under the administration of the East Bay Regional Park District (EBRPD). The District acquired the property in 1973 and the Preserve contains relics of 3 mining towns, former coal and sand mines, and offers guided tours of a former sand mine. The Preserve offers 60 miles of trails which cross rolling foothill terrain covered with grassland, California oak woodland, California mixed evergreen forest, and chaparral.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of recreational resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the lack of impacts to recreational resources in or near the Proposed Project Site, no environmental studies relating to recreational resources were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

- a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

**Impact Analysis:**

The nearest neighborhood parks are Markley Creek Park and Canal Park which are located approximately 0.1 mile from the Proposed Project Site in a residential district. The nearest regional park is the Black Diamond Mines Regional Preserve Park located adjacent to the south of the Proposed Project Site. Implementation of proposed remedy actions would not directly increase the permanent resident population in the area because no habitable structures are planned as part of the project.

**Conclusion:**

The Proposed Project would not increase the use of existing neighborhood or regional parks, other recreational parks, or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated. No impact to the use of existing neighborhood and regional parks or other recreational facilities would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- b. Does the project include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

**Impact Analysis:**

The Proposed Project Site does not contain any existing recreational facilities. Implementation of proposed remedy actions would not involve or require construction of any recreational facilities.

**Conclusion:**

The proposed project would not construct or cause the need for construction of additional recreational facilities. No impact to existing or need for additional recreational facilities would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact



<b>17. TRANSPORTATION</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

Federal laws and regulations: Resource Conservation and Recovery Act (RCRA) Title 42 United States Code Subtitle C and 40 Code Federal Regulations (CFR) Parts 260-279. More specifically, transporters of hazardous waste are governed by 40 CFR part 263. RCRA gives EPA the authority to control hazardous waste from the generation, transportation, treatment, storage, and disposal of hazardous waste. The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration regulates the transport of hazardous materials through Title 49 of the Code of Federal Regulations, Subchapter C.

State laws and regulations: Hazardous Waste Control Law (Health and Safety Code (HSC) Chapter 6.5) and 22 California Code of Regulations (CCR). The law establishes regulations and incentives which ensure that the generators of hazardous waste employ technology and management practices for the safe handling, treatment, recycling, and destruction of their hazardous wastes prior to disposal. Article 6 of HSC Chapter 6.5 discusses the transportation of hazardous waste. California Vehicle Code: Divisions 2, 6, 12, 13, 14, 15 also apply to transportation of hazardous materials.

**ENVIRONMENTAL SETTING (BASELINE):**

Somersville Road and James Donlon Boulevard provide the main access routes to the Proposed Project Site. Somersville Road intersects with State Route 4 (SR-4) one mile to the north.

Roads in the vicinity of the Proposed Project Site are not included in Contra Costa County's Congestion Management Program (CMP) network. State Route 4 is the nearest road that is part of the CMP network.

SR-4 westbound, between State Route 242 (SR-242) and Bailey Road, operates at Level of Service (LOS) F during the AM peak hours and LOS A during the PM peak hours. In contrast, SR-4 eastbound, between State Route 242 (SR-242) and Bailey Road, operates at Level of Service (LOS) A during the AM peak hours and LOS F during the PM peak hours (Contra Costa Transportation Authority, 2015 and 2017).

According to the CMPMP, 2017 traffic congestion on the CMP network overall has stayed stable, even as average speeds at a few monitoring locations showed significant reductions. The comparison of the intersection LOS between 2015 and 2017 monitoring periods shows the number of intersections operating in LOS A-D increased in AM peak hours but decreased in PM peak hours. The number of intersections operating at LOS E or worse decreased in AM peak hours but increased in PM peak hours.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of transportation resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance. LOS has been the standard by which transportation impacts of major developments and changes to roads were measured. LOS was formally defined in the 1965 Highway Capacity Manual as a "qualitative measure of the effect of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating cost". It is better understood today that LOS does not accurately reflect vehicle travel as it only focuses on

individual local intersections and roadway segments and not on the entire vehicle trip. In 2013, the State of California passed Senate Bill (SB) 743 which required the Office Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. LOS was replaced with Vehicle Miles Traveled (VMT) as “the most appropriate metric of a project's potential transportation impacts”. VMT data are used primarily by transportation agencies, environmental agencies, and consultants to perform a variety of functions such as allocating resources, estimating vehicle emissions, computing energy consumption, and assessing traffic impacts.

Section 15064.3(b) of the CEQA Guidelines states the following:

(b) Criteria for Analyzing Transportation Impacts.

- (1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
- (2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.
- (3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
- (4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

#### **ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the less than significant impact to transportation resources in or near the Proposed Project Site, no environmental studies relating to transportation resources were prepared for the Proposed Project.

#### **IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?

##### **Impact Analysis:**

The proposed remedy actions would not affect public roadways in the long-term because these activities would not substantially affect the overall circulation system. The Proposed Project would add some traffic to roadways during the 23-week construction period due to delivery of materials and supplies to the Site and workers traveling to and from the Site. The Proposed Project would not have any long-term effects on congestion levels.

During construction, periodic movement of heavy equipment would occur using Somersville Road and James Donlon Boulevard. Trucks delivering supplies for the SVE and GWETS systems are expected to be infrequent, approximately once per month. The trucks would primarily enter and exit the Proposed Project Site at Somersville Road or James Donlon Boulevard. As these trips would be intermittent, the remedy actions would not substantially increase the traffic on any public street system. Transportation permits will be acquired for

oversized loads, as required. Permits for any temporary local traffic control and street parking restrictions to accommodate deliveries or drilling will be acquired from the City of Antioch.

Both Somersville Road and James Donlon Boulevard have bike lanes adjacent to the Proposed Project Site. In addition, the Via Delta de Anza Trail extends along the northern boundary of the Site. The nearest bus line (Tri Delta Transit Route #380 and #394) is located ½ mile to the northeast in the nearest residential neighborhood. The temporary increase in truck traffic during implementation of remedy actions would not affect any program, plan, ordinance or policy relating to these transportation facilities.

**Conclusion:**

The proposed project would not incorporate any activities, short-term or long-term, that would have the ability to conflict with any program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities in the project area.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

**Impact Analysis:**

Vehicle miles traveled (VMT) is a measure used in transportation planning for a variety of purposes. It measures the amount of travel for all vehicles in a geographic region over a given period of time, typically a one-year period. VMT is calculated by adding all the miles driven by all the cars and trucks on all the roadways in a region. This metric plays an integral role in the transportation planning, policy-making, and revenue estimation processes due to its ability to indicate travel demand and behavior. VMT may also be used to evaluate conformity assumptions, adjust travel demand forecasts, and identify pavement maintenance needs. Implementation of remedy actions would not generate additional long-term vehicle trips or change circulation patterns in the project area.

**Conclusion:**

The proposed remedy actions would not increase long-term vehicle miles traveled levels from/to the Proposed Project Site consistent with Section 15064.3(b) of the CEQA Guidelines. There would be no impact.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

**Impact Analysis:**

The proposed project involves onsite remedy actions to address groundwater contamination. The proposed remedy actions would not contain a design feature or incompatible use that would substantially increase traffic hazards because the activities would not alter the public roadways system. Both Somersville Road and James Donlon Boulevard include roadway improvements (e.g., stop-controlled intersections, light-controlled intersections) for safe traffic movements to/from the Proposed Project Site and this condition would not change.

**Conclusion:**

Implementation of the remedy actions would not include any design features or incompatible uses which would substantially increase hazards. No impacts related to increased hazards due to a geometric design feature or incompatible uses would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

**d. Result in inadequate emergency access?****Impact Analysis:**

The proposed remedy actions would not affect emergency access to/from the Proposed Project Site in the long-term because these activities would not substantially change the overall circulation system on- and offsite. In addition, all construction equipment would be located and stored onsite and would not have the potential to block access roads.

**Conclusion:**

Emergency access to/from the Proposed Project Site would not change with implementation of remedy actions. No impacts related to inadequate emergency access would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

**References Used:**

- Contra Costa Transportation Authority. 2015. Congestion Monitoring Program Final Draft Monitoring Reports. December.
- Contra Costa Transportation Authority. 2017. Congestion Monitoring Program Final Draft Monitoring Reports. August.
- City of Antioch General Plan (November 2003). <https://www.antiochca.gov/community-development-department/planning-division/general-plan/> (Accessed November 2020)

**18. TRIBAL CULTURAL RESOURCES**

Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

Tribal cultural resources are defined in PRC Div. 13 Section 21074. California Assembly Bill 52 (AB52) specifies that any project for which a Notice of Preparation, Notice of Mitigated Negative Declaration or Notice of Negative Declaration is filed on or after July 1, 2015, the Lead agency must provide formal notification within 14 days of determining that an application for a project is complete or of a decision to undertake a project to the designated contact or tribal representative of the affiliated California Native American tribes. The tribe that is traditionally and culturally affiliated to the geographic area where a project is located must have requested that the lead agency in question provide notification to the tribe (PRC 21081.3.1).

If remains are found on Site, the County Coroner will make the determination of origin and disposition, pursuant to Public Resources Code (PRC) § 5097.98. If the remains are determined to be Native American, the Coroner would notify the NAHC (per Health and Safety Code 7050.5(c)) The NAHC would identify and notify the person(s) who might be the most likely descendant, who would make recommendations for the appropriate and dignified treatment of the remains (PRC Div. 5 section 5097.98). The descendants shall complete their inspection and make recommendations for treatment within 48 hours of being granted access to the Site (CEQA Guidelines, CCR section 15064.5(e); HSC section 7050.5).

**ENVIRONMENTAL SETTING (BASELINE):**

Approximately 600 archaeological Sites within CCC have been recorded with the Archaeological Inventory Report (Inventory Report), Northwest Information Center (NWIC), at Sonoma State University (CCC, 2005). However, the Proposed Project Site has been subject to substantial disturbance resulting from landfill operations since approximately 1946.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

Tribal cultural resources are defined as either 1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be

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eligible for inclusion in the California Register of Historical Resources (California Register) or listed in a local register of historical resources or 2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, is a tribal cultural resource (OPR, 2017).

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

#### **ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the history of the Site and no known or previously identified cultural resources on the Proposed Project Site, no environmental studies relating to cultural resources were prepared for the Proposed Project.

#### **IMPACT ANALYSES AND CONCLUSIONS:**

- a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

##### **Impact Analysis:**

There are no known tribal cultural resources, as defined in PRC Section 21074, on the Proposed Project Site or in its immediate vicinity (adjacent residential areas and Via Delta de Anza Trail area). As described in the Baseline Environmental Conditions, the Proposed Project Site has been used continuously for over 70 years as a landfill. Based on the Proposed Project Site location, history, and absence of cultural resources identified during prior Site disturbances, it is not likely that historical resources would be identified or impacted during remedy actions. However, if tribal cultural resources are discovered during remedy actions, work would stop in that area until a qualified archaeologist or appropriately licensed professional can assess the significance of the find and, if necessary, develop appropriate response measures in consultation with the DTSC and other agencies and Native American representatives, as appropriate.

Specifically, in the event of discovery of human remains during ground-disturbing activities, work within 25 feet of the discovery shall stop immediately and the County Coroner shall be notified to determine its origin. The County Coroner would determine disposition within 48 hours. If the remains are Native American, the County Coroner would be responsible for contacting the NAHC within 24 hours. The NAHC would identify and notify the person(s) who might be the most likely descendent, who would make recommendations for the appropriate and dignified treatment of the remains (PRC Div. 5 section 5097.98). The descendants shall complete their inspection and make recommendations for treatment within 48 hours of being granted access to the Site (CEQA Guidelines, CCR section 15064.5(e); HSC section 7050.5).

In the event of discovery of potential cultural or archaeological resources, excavation activities would be immediately suspended in the immediate area and surrounding 25 feet along with contacting and informing the DTSC Project Manager [Garrett Thornton at (916) 255-3748; [garrett.thornton@dtsc.ca.gov](mailto:garrett.thornton@dtsc.ca.gov)]. After discussion with their Tribal Chairperson or respective Cultural Resources Managers or Tribal Historic Preservation Officers and in collaboration with DTSC (including the Office of Environmental Equity) and the property owner, any measures deemed necessary to record and/or protect the cultural or archaeological resource(s) would be implemented.

**Conclusion:**

The Proposed Project would not include the demolition, elimination, or manipulation of a known tribal cultural resource. In addition, the finding of an unknown tribal cultural resource during implementation of remedy actions is unlikely based on the site history and conditions and absence of findings during prior onsite work. However, the proposed project includes measures that would be implemented if discovery of unknown tribal cultural resource were uncovered during corrective measures. The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource and impacts would be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

**Impact Analysis:**

There are no known tribal cultural resources, as defined in PRC Section 21074, on the Proposed Project Site or in its immediate vicinity. The Proposed Project Site is designated for Public/Institutional and Open Space land use for over 70 years.

In November 2020, DTSC formally notified the tribes identified in the NAHC listing. By November 13, 2020, one tribal Government responded to the AB52 Consultation letter and requested consultation. The tribe recommended actions to reduce the potential for adverse effects to cultural resources that may be discovered during construction. The Proposed Project includes a standard operating procedure whereby all possible damages caused in the event of an unanticipated discovery can be avoided. Specifically, if tribal cultural resources are discovered during remedy actions, work would stop in that area until a qualified archaeologist or appropriately licensed professional can assess the significance of the find and, if necessary, develop appropriate response measures in consultation with the DTSC and other agencies and Native American representatives, as appropriate. In addition, the Proposed Project includes a provision requiring the contractor to invite a Native American monitor to observe and monitor the ground disturbing activities. No other tribe has responded with a request for consultation. As previously stated, the Proposed Project Site has been previously disturbed and no information regarding the presence of known tribal cultural resources has been provided to the DTSC from the contacted tribes or from cultural resource surveys or records.

**Conclusion:**

As no known tribal cultural resources occur at the Proposed Project Site or would be affected by the Proposed Project, and implementation of the contingency set forth in Section 18 (a)(i) would reduce impacts to unknown tribal cultural resources during excavation activities, impacts would be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

**References Used:**

Governor's Office of Planning and Research (OPR). 2017. Technical Advisory, AB52 and Tribal Cultural Resources in CEQA. June 2017.

<b>19. UTILITIES AND SERVICE SYSTEMS</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

No laws, ordinances, regulations, or standards protecting utilities and service systems resources are applicable to the Proposed Project.

**ENVIRONMENTAL SETTING (BASELINE):**

Contra Costa Water District delivers safe, clean water to approximately 500,000 people in central and eastern Contra Costa County, including the City of Antioch. The City of Antioch Water Distribution Division of Public Works is responsible for maintaining the City's treated and raw water distribution systems which delivers treated water to residential, commercial, and irrigation customers.

Sanitary sewer service is provided by the Delta Diablo Sanitation District (DDSD). The DDSD owns and operates the system that collects, conveys, and treats wastewater for an estimated 184,000 residents and businesses in Bay Point, Antioch, and Pittsburg. The DDSD's only treatment plant and its recycled water facility are located in Antioch.

Routine facility operations-related solid waste collection and disposal is provided by Republic Services. Residential and commercial solid waste collected by Republic Services is taken to the Contra Costa Transfer and Recovery Station in unincorporated Martinez then disposed of at the Keller Canyon Landfill which is located in unincorporated Pittsburg in CCC.

Storm water within the Proposed Project Site is managed as detailed in a Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the Project and submitted to RWQCB in compliance with National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. 2009-0009-DWQ NPDES NO. CAS000002.

Treated water from the existing GWETS gets discharged to the Delta Diablo Sanitation District under an industrial permit.

(Revised 4/26/2019)



**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of utilities and service systems resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the less than significant impacts to utilities and service systems resources in or near the Proposed Project Site, no environmental studies relating to utilities and service systems resources were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects?

**Impact Analysis:**

Proposed remedy actions would not create the need for or result in the construction of new or expanded water or wastewater treatment, electric power, natural gas, or telecommunications facilities. PG&E transmission towers will be surveyed to verify construction equipment clearance, and coordination with PG&E to oversee the work or de-energize selected power lines, if needed. If lines need to be de-energized, it would be for a short-term (days) and not impact nearby residences or businesses.

The construction of the HBW would not affect the current drainage pattern slightly because it would be constructed underground. Runoff from the Proposed Project Site would be managed in accordance with all applicable laws and regulations with updates and amendments to the existing facility NPDES General Permit for Storm water Discharges under the Industrial General Permit, as needed. In addition, the construction of the new HBW would be performed in accordance with the SWPPP.

**Conclusion:**

Activities associated with the proposed project would not require new or expanded water or wastewater treatment, electric power, natural gas, or telecommunications facilities. Impacts to these facilities would be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

**Impact Analysis:**

Implementation of remedy actions would require approximately 23 weeks to complete. The primary source of water required during construction activities would be supplied by the existing onsite non-potable fire protection water system. If needed, additional water would be transported to the Proposed Project Site by water trucks.

**Conclusion:**

Sufficient water supplies from existing entitlements and resources onsite are available to serve the needs of corrective measures during the anticipated 23-week construction period. The remedy actions would not create

long-term, future demand for water supply beyond existing conditions. Impacts to water supplies would be less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

**Impact Analysis:**

Implementation of remedy actions would not generate wastewater that would require a wastewater treatment provider. Wastewater generated during equipment decontamination activities would be containerized, profiled, and disposed at an appropriate offsite facility.

**Conclusion:**

Construction activities associated with remedy actions of the Proposed Project Site would not create a demand for wastewater treatment at any wastewater treatment provider. No impact to a wastewater treatment provider would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

**Impact Analysis:**

Implementation of remedy actions are not anticipated to generate solid waste that would require disposal at an appropriate facility. If remedy actions generate solid waste that needs disposal, the waste would be transported to an appropriate facility for disposal based on final waste characterization results.

**Conclusion:**

Solid waste generated by remedy actions, if any, would be served by a landfill with sufficient permitted capacity to accept the characterized waste. A less-than-significant impact would occur to solid waste facilities.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

**Impact Analysis:**

Implementation of remedy actions are not anticipated to generate solid waste that would require disposal at an appropriate facility. If remedy actions generate solid waste that needs disposal, the waste would be transported to an appropriate facility that complies with all federal, state, and local statutes and regulations related to solid waste including, but not limited to: characterization, storage, labeling, transport, and disposal.

**Conclusion:**

Solid waste generated by remedy actions, if any, would be disposed of in a way that complies with all federal, state, and local statutes and regulations related to solid waste. Therefore, no impacts related to compliance with federal, state, and local management and reduction statutes and regulations related to solid waste would occur.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

*References Used:*

City of Antioch General Plan (November 2003). <https://www.antiochca.gov/community-development-department/planning-division/general-plan/> (Accessed November 2020)

<b>20. WILDFIRE</b>				
<b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**REGULATORY SETTING (LAWS, ORDINANCES, REGULATIONS, STANDARDS):**

No laws, ordinances, regulations, or standards protecting wildfire resources are applicable to the Proposed Project.

**ENVIRONMENTAL SETTING (BASELINE):**

State Responsibility Areas are boundaries adopted by the Board of Forestry and Fire Protection and are areas where the California Department of Forestry and Fire (CAL FIRE) has a financial responsibility for fire suppression and prevention. Review of the California State Responsibility Area Viewer and the Contra Costa County Fire Hazard Severity Zone Maps for State Responsibility Area and Local Responsibility Area indicate the Proposed Project Site is not located in a Very High Hazard Severity Zone (VHFHSZ) but is located in a Local Responsibility Area. The closest State Responsibility Area is located  $\frac{3}{4}$  mile south of the Proposed Project Site (CAL FIRE 2011). The closest area classified as a VHFHSZ is located 8 miles south of the Proposed Project Site (CAL FIRE 2009).

Vacant property to the northwest of the Site's perimeter is ranked as moderate in a Local Responsibility Area. Black Diamond Mines Regional Preserve Park to the southwest of the Site is ranked as high in a State Responsibility Area.

**APPLICABLE THRESHOLDS OF SIGNIFICANCE:**

The list of wildfires resource effects that may be considered significant contained in Appendix G of the CEQA Guidelines (Environmental Checklist) was used to establish a threshold of significance.

**ENVIRONMENTAL STUDIES PERFORMED AND METHODOLOGY:**

Based on the less than significant impacts to wildfire resources in or near the Proposed Project Site, no environmental studies relating to wildfire resources were prepared for the Proposed Project.

**IMPACT ANALYSES AND CONCLUSIONS:**

Analysis as to whether or not project activities would:

- a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

**Impact Analysis:**

Please refer to the analysis provided in Section 9(f) of this Initial Study.

**Conclusion:**

Please refer to the conclusion provided in Section 9(f) of this Initial Study.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

**Impact Analysis:**

Even though the Proposed Project Site is located in an area with environmental conditions conducive to wildland fires (e.g., dry vegetation), operation of construction equipment on the during remedy actions has the limited potential to spark a fire. However, construction activities would implement BMPs which address fire prevention methods such as:

- restricting vehicles from driving or parking on dry vegetation during fire sensitive times of the year; and
- wetting dry construction areas before commencing activities, and wetting throughout the day, as appropriate.

**Conclusion:**

Although construction equipment has a minimal potential to spark a fire during remedy actions, implementation of BMPS would substantially limit the potential for a wildland fire that exposes people or structures to a significant risk of loss, injury or death to occur. Impacts from wildland fires during implementation of the remedy actions are considered less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

- c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

**Impact Analysis:**

Implementation of remedy actions would not require the installation or maintenance of associated infrastructure (e.g., fuel breaks, emergency water sources, power lines, other utilities) that could exacerbate fire risk or could result in temporary or ongoing impacts to the environment. Remedy actions could require construction of temporary access roads of compacted clean soil or imported clean gravel to facilitate access to work areas. However, the temporary access roads would overall reduce wildfire risk during the implementation of remedy actions by incorporating soil or gravel.

**Conclusion:**

The proposed remedy actions would not install any infrastructure that could exacerbate fire risk or could result in temporary or ongoing impacts to the environment. No impact would occur.

- ☐ Potentially Significant Impact

- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less Than Significant Impact
- ☒ No Impact

- d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

**Impact Analysis:**

Landslides tend to occur where slopes are steeper with higher relief. The Proposed Project Site is flat with very little relief. The proposed remedy actions would not significantly change the existing slope of the Proposed Project Site.

**Conclusion:**

The proposed remedy actions would not create steep slopes or disturb any landslide-prone areas. In addition, proposed remedy actions would not expose people or structures to risk from uncontrolled storm water runoff. These impacts are considered less than significant.

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☒ Less Than Significant Impact
- ☐ No Impact

**References Used:**

- California Department of Forestry and Fire (CAL FIRE), 2011. Contra Costa County Fire Hazard Severity Zone Maps for State Responsibility Area. November. [http://www.fire.ca.gov/fire\\_prevention/fhsz\\_maps\\_contracosta](http://www.fire.ca.gov/fire_prevention/fhsz_maps_contracosta) (Accessed February 6, 2019).
- Cal Fire, 2009. Contra Costa Fire Hazard Severity Maps for Local Responsibility Area. January. [http://www.fire.ca.gov/fire\\_prevention/fhsz\\_maps\\_contracosta](http://www.fire.ca.gov/fire_prevention/fhsz_maps_contracosta) (Accessed February 6, 2019).

**21. MANDATORY FINDINGS OF SIGNIFICANCE****Based on evidence provided in this Initial Study, DTSC makes the following findings:**

- a. The project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
- b. The project does not have impacts that are individually limited but cumulatively considerable. (“Cumulatively considerable” means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)
- c. The project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Authority: Public Resources Code 21083, 21094.5.5

Reference: Public Resources Code Sections 21094.5 and 21094.5.5

## **Appendix A**

### **CalEEMod Air Modeling Outputs**



## **Appendix B**

### **Noise Model Outputs**