CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY

The California 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

PROJECT TITLE: Paint Waste Area Unexploded Ordnance Site 13 Record of Decision/Final Remedial Action Plan		SITE CODING:
PROJECT ADDRESS: Former Mare Island Naval Shipyard	CITY: Vallejo	COUNTY: Solano
PROJECT SPONSOR: Department of the Navy	CONTACT: Scott Anderson	PHONE: (619) 524-5808
APPROVAL ACTION UNDER CONSIDERATION BY DTSC: ☐ Initial Permit Issuance ☐ Permit Re-Issuance ☐ Permit Modification ☐ Closure Plan ☐ Removal Action Workplan ☒ Remedial Action Plan ☐ Interim Removal ☐ Regulations ☐ Corrective Measure Study/Statement of Basis ☐ Other (specify):		
STATUTORY AUTHORITY: ☒ California H&SC, Chap. 6.5 ☒ California H&SC, Chap. 6.8 ☐ Other (specify):		
DTSC PROGRAM/ADDRESS: 8800 Cal Center Drive Sacramento, CA 95826	CONTACT: Franklin Mark, P.E. Federal Facilities Unit Cleanup Program	PHONE: (916) 255-3584

Project Description

The California Department of Toxic Substances Control (DTSC) is proposing approval of the Record of Decision (ROD)/Final Remedial Action Plan (RAP) for Paint Waste Area (PWA), also identified as Unexploded Ordnance (UXO) Site 13, located at the Former Mare Island Naval Shipyard (MINS) in Vallejo, California, pursuant to the authority granted under Chapters 6.5 and 6.8, Division 20, California Health and Safety Code (H&SC). The Department of Defense derives authority to undertake this cleanup action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) under 42 United States Code (U.S.C.) Section 9604,10 U.S.C. Section 2705.

The ROD/Final RAP presents the selected remedy for the PWA, evaluated under the Department of the Navy (Navy) Environmental Restoration Program at MINS, including the Military Munitions Response Program, because discarded munitions associated with surface and subsurface debris were encountered at the PWA. Radiological items were also encountered and removed along with chemical contamination in soil during a previous time-critical removal action (TCRA).

Within the PWA, the remaining paint waste debris and associated soil contamination, and the potential for incidental munitions and explosives of concern (MEC) hazards beneath the detection depth limits of available technology, will be addressed by the remedial action described in the ROD/Final RAP, which consists of soil excavation, offsite disposal, and institutional controls (ICs) for incidental MEC.

Site Description and History

Mare Island is a peninsula at the mouth of the Sacramento River on San Pablo Bay in Solano County, California, northeast of San Francisco. The Napa River (Mare Island Strait) lies to the east and separates the peninsula from the remainder of the City of Vallejo; the peninsula is bounded by Highway 37 to the north, the Carquinez Strait to the south, and San Pablo Bay to the west. The primary mission of MINS during its 142 years of operation was ship and submarine construction, overhauls, repair, and maintenance. In 1993, the Defense Base Realignment and Closure Commission recommended closure of MINS, and the facility was subsequently closed on April 1, 1996.

The PWA is in the northern portion of MINS (**Figure 1**). The PWA lies within Investigation Area (IA)-I, west of the intersection of Azuar Drive and G Street, and consists of an area of approximately 5.5 acres, including 3.2 acres of nontidal wetlands and 2.3 acres of uplands adjacent to the northeastern portion of IA-H1 and consists of the TCRA Excavation Area and PWA Vicinity Area (**Figure 2**). This area was formerly a tidal marsh until the 1930s when sediment dredged from Mare Island Strait was discharged into the general area, raising the site elevation several feet. Based on historical photographs, land disturbance activities at the location of the PWA occurred in the 1940s. Aerial photographs of the area suggest that most, if not all, soil disturbance activities (such as dumping of paint wastes) had stopped by 1949 because of the presence of mature vegetation. Photographs taken after 1951 showed no obvious land changes at the PWA, indicating dredge material deposition discontinued in 1951 or earlier (Navy 2024).

In 2002, a field survey discovered paint waste and debris at the site. The paint waste material is most likely because of dumping by shipyard personnel associated with the former paint manufacturing facility (Building 503) a short distance northeast of the PWA. The most common anticorrosion paints used during this time were a zinc-chromate or lead-based formulation (Navy 2024). A removal action was subsequently performed by the Navy in 2003 (SulTech 2004). During excavation of the paint waste debris piles, an underlying laterally continuous area of buried paint cans and paint waste was discovered. The volume of the paint waste and paint-contaminated soil excavated from the site was approximately 520 cubic yards. The excavated material was characterized as hazardous waste and shipped offsite for disposal. The excavation area was backfilled with clean fill material and graded to match the surrounding wetland area elevation (Navy 2024).

In 2004, a Preliminary Assessment (PA)/Site Inspection (SI) was completed by the Navy (SulTech 2005) to determine the nature and extent of any remaining contamination. Soil and groundwater samples were collected and analyzed for metals; organotins; polychlorinated biphenyls; pesticides; total petroleum hydrocarbons as gasoline, diesel, and motor oil; volatile organic compounds; and semivolatile organic compounds. Groundwater was encountered between 7 and 8 feet below ground surface (bgs), and debris was encountered up to 4 feet bgs. Results of the sample analyses indicated that additional contaminated soil remained in and around the original excavation site, and further evaluation was required for groundwater because metals were detected above the groundwater comparison criteria (Navy 2024).

In 2007, a TCRA was conducted to remove the additional paint waste-related contaminated soils (Weston 2013). A routine check of the surface for background radiation levels during the removal activities identified elevated levels of radiation. A subsequent walkover radiological scan survey identified 133 discrete low-level radiological items (containing radium-226) that were removed from the upper 1 foot of soil. A single antiaircraft munition item classified as MEC was recovered near the ground surface, suspending soil disturbance activities. The TCRA work was amended to include excavation and removal of all metallic debris within the lateral extent of the PWA TCRA Area (**Figure 2**). A total of 1,201 discrete low-level radiological items—52 items classified as MEC, 237 as munitions-related material documented as safe items, and 291 as small arms ammunition items—were recovered during the TCRA. In 2014, the California Department of Public Health issued a Radiological Unrestricted Release for the PWA TCRA Area, indicating concurrence with the CERCLA no further action determination for radiological contaminants. DTSC approved the Final TCRA Completion Report and indicated that the TCRA was sufficient for the area excavated (Navy 2024).

In 2014, a Remedial Investigation (RI) was conducted to evaluate the site outside of the perimeter of the PWA TCRA Area, referred to as the PWA Vicinity Area (**Figure 2**) (CE2-K 2017). The RI field activities consisted of soil and groundwater sampling, radiological and surface and subsurface munitions-related surveys, and excavation of eight exploratory trenches, T-1 through T-8 (**Figure 2**). No radiological items were found during the surface radiological scoping survey. No MEC or munitions-related debris items were recovered from reacquisition of target anomalies or excavation from the eight trenches. Four groundwater monitoring wells were installed, developed, and sampled. Groundwater samples had metal concentrations consistent with the site-specific MINS ambient concentrations. Residual paint waste was encountered in two potholes in SU-12 and in two trenches (T-1 and T-8). The layers of paint waste were observed to be from 4 to 12 inches thick and at depths between 1 to 4 feet bgs. The results of soil samples collected in the PWA Vicinity Area indicate that subsurface soil at the site is impacted primarily by metals associated with the paint waste. The limited vertical range of the observed paint waste and the lack of significant metallic geophysical anomalies suggest that the paint waste remaining in the PWA Vicinity Area is limited to noncontiguous areas and does not represent a large volume source (Navy 2024).

In 2018, the four locations where paint waste was encountered during the RI were further delineated vertically and horizontally by collecting and analyzing soil samples as part of the data gap sampling efforts for the Feasibility Study (FS) (Adanta, Inc. 2020). None of the soil samples had concentrations of lead or zinc greater than the MINS ambient fill concentrations (Tetra Tech 2002). To collect the horizontal step-out samples, small investigation test pits were excavated. This allowed for visual observations to be made regarding the presence of paint waste. Two test pits contained paint waste with concentrations of lead and zinc greater than the MINS ambient fill concentrations (Tetra Tech 2002). The data gaps from this sampling effort will be addressed in the final remedy for the PWA (Navy 2024).

Current and Potential Future Use

The PWA is currently vacant. The planned future use of the PWA is nontidal wetlands, open space, and conservation area. The nontidal wetlands and surrounding area provide potential habitat for the federal and state-protected endangered salt marsh harvest mouse (SMHM) and possibly, although much less likely, a nesting area for the California Ridgway's rail or California black rail. The PWA will be designated as a conservation area when the property is transferred, which will not allow the PWA to be developed (City of Vallejo 2013).

Risk Assessments

The PWA is predominantly nontidal wetlands that provide endangered species habitat, and therefore, redevelopment of the PWA for any other use than open space is not likely. The current and likely future exposure pathways for humans to come into contact with soils and groundwater are very limited; however, future management of the site might include visits from wildlife managers or opportunities for wildlife viewing/trail use. Because there are no standard exposure parameters for wildlife managers/park workers, the human health risk analysis evaluated the published recreational exposure scenario (adolescent using a sports field) as an overly conservative estimate for future exposures. In addition, the typical commercial/industrial, construction worker, and residential land uses were evaluated to provide risk managers with the range of potential risks that may occur at the site under these typical exposures (CE2-K 2017).

Based on the RI results, the human health risk assessment concluded that risk to recreational user scenario was acceptable and identified unacceptable risk to construction worker and hypothetical future resident scenarios from potential exposure to lead in surface soil/hydric soil under future hypothetical land uses (Navy 2024).

The screening level ecological risk assessment was based on surface and shallow soil samples collected during the RI and confirmation samples collected during the TCRA. Groundwater was not evaluated as a media of concern in the risk assessment because groundwater does not replenish any freshwater surface water bodies and does not provide a beneficial use as a freshwater source. The baseline ecological risk assessment identified no unacceptable risk to ecological receptors under current and future planned land uses (CE2-K 2017).

Potential risk from radiological analytes and the results of the residual radiological exposure assessment were evaluated for the PWA. The residential scenario and maximum average concentrations for radium-226 and strontium-90 from the TCRA excavation were used. Based on these values, the cancer risk from radioactivity above background calculated for the PWA was within the U.S. Environmental Protection Agency (EPA) acceptable risk range. Risk was primarily associated with the external exposure and produce consumption exposure routes. In addition, the calculated residual radioactivity dose was less than the maximum dose that the U.S. Nuclear Regulatory Commission considers acceptable for unrestricted use. Thus, the RI concluded that no further investigation is warranted for radiological contamination in the PWA Original (TCRA Excavation Area) and Vicinity Areas (CE2-K 2017).

MEC hazard scores are calculated based on remedial/removal actions considered for the site. Previous removal actions have resulted in the removal of identified MEC items; therefore, the response alternatives evaluated during the RI included: "No Further Action (with land-use controls)" and "No Further Action (without land-use controls)." The calculated MEC hazard scores from the MEC hazard assessment indicated that a reduction in the MEC hazard level would occur for no further action with land use controls (LUCs) (hazard level category of 4) compared with no further action without LUCs (hazard level category of 3). The hazard level Category 4 is the lowest possible hazard level category for a site with a history of MEC contamination. Thus, the RI concluded that implementation of "No Further Action (with land-use controls)" is adequate to safely support the planned site reuse as open space/nontidal wetlands (CE2-K 2017).

Proposed Response Action

The response action selected in the ROD/Final RAP was chosen to protect the public health and welfare and the environment from actual or potential releases of hazardous substances present in the subsurface soil and the low potential for incidental MEC in the PWA Vicinity Area.

Remedial Action Objectives

To manage the potential risk to human health from metals in the residual paint waste and the hazards associated with potential presence of MEC in the PWA Vicinity Area, the following remedial action objectives (RAOs) were developed based on the future land use, exposure pathways present at the PWA, and potential applicable or relevant and appropriate requirements:

- Prevent exposure of human receptors to residual paint waste debris, which was previously characterized as hazardous waste.
- Control direct exposure and protect future human receptors from the low residual risk posed by incidental MEC items.

- Protect hypothetical future construction workers, hypothetical future commercial/industrial workers, and hypothetical future residential receptors from exposure to unacceptable concentrations of lead in subsurface soil.

Preliminary remediation goals (PRGs) for residual concentrations of lead in soil were developed to satisfy the RAOs consistent with scenarios of future or hypothetical land use activities at the PWA. Because the PWA will be designated as a conservation area when the property is transferred, the PWA will not be developed; therefore, the PRG for lead for the recreational user is 335 milligrams per kilogram.

Project Activities

In the ROD/Final RAP, the Navy's selected remedy for the PWA Vicinity Area was developed in collaboration with the State of California regulatory agencies and includes Excavation and Offsite Disposal of Target Treatment Zone (TTZ) A and ICs for both TTZ A and TTZ B (**Figure 3**) (Navy 2024).

The major components of the selected remedy include the following:

- The remaining soil at the four areas (TTZ A) contaminated by paint waste and lead would be excavated, mechanically screened to remove MEC, and transported to a permitted offsite waste disposal facility. Soil will be removed to an estimated depth up to 4.5 feet bgs. The impacted soil is estimated at approximately 818 bank cubic yards (cy) from these four subareas, with an additional estimated 182 cy of overburden or extra soil from benching the excavations for a total volume of 1,000 cy of backfill soil needed. The footprint for TTZ A may be smaller or larger based on the presence of paint waste and confirmation samples collected during the excavation activities. Any paint waste that is observed on the sidewalls or bottom of the excavation will be removed. If sidewall or bottom of the excavation confirmation samples exceed the remediation goals, then excavation will be extended further until all confirmation samples are below the remediation goals. The paint waste will be excavated with as minimal of a footprint as possible to reduce impacts to the nontidal wetland habitat that supports the endangered SMHM. A work plan will be prepared for this remedial action and include an Environmental Protection Plan (EPP) outlining biological conservation measures designed to avoid and minimize impacts to regulated resources, particularly to the SMHM.

  Any water that accumulates in the excavations from groundwater or rain would be pumped out of the excavations, as necessary. Excavated soil would be stockpiled at the site and sampled for disposal characterization purposes. Paint waste would be segregated for separate disposal as hazardous waste.
- After excavation is completed and no visual deposits of paint waste remain, confirmation samples will be collected at the extent of the excavations. Confirmation samples will be collected from the excavation floors and sidewalls and analyzed for metals by EPA Method 6010 to verify the lead remediation goal has been met in the constituent of concern (COC)-impacted soil. The excavations would be backfilled with clean imported soil (approximately 1,000 bank cubic yards), compacted, and restored to match pre-excavation conditions. Excavated areas will be revegetated with wetland plant species, such as pickleweed cuttings and salt grass, to promote appropriate nontidal wetland habitat and monitored to confirm that agreed-upon wetland revegetation criteria are met (USFWS 2009).
- ICs for incidental MEC will be implemented for both TTZ A and TTZ B to restrict certain sensitive uses of the property and prohibit ground-penetration activities (for example, excavation, digging, and driving posts) at depths where incidental exposure to MEC may occur deeper than ground surface that may have been affected by historical operational activities. No ICs for chemical COCs would be required for human health because residual lead concentrations at the site would be below the remediation goals for lead after remedial action is complete.
- IC objectives and sensitive use restrictions will be identified and described in greater detail in a forthcoming LUCs remedial design, which will include the following:
  - Prohibit future use of both TTZ A and TTZ B (**Figure 3**) for a residence, hospital, school, daycare facility, playground, or any permanently occupied human habitation, including those used for commercial or industrial purposes, without written approval from the Navy and regulatory agencies. Although the PWA is slated to be a part of a larger conservation area, these prohibitions will apply even if a land use other than conservation is proposed or planned.
  - Restrict ground-penetration activities (for example, excavation, digging, and driving posts) in depths where contact with incidental MEC may occur, without Navy and regulatory agency written approval.
  - Allow future access for inspections to ensure the ICs have been maintained.
- For the areas covered by LUCs, there will be annual inspections, Five-Year Reviews, and reporting requirements to evaluate the effectiveness of the remedy to protect human health and the environment. LUCs can protect human health and the environment by limiting activities that may result in: (1) releases of contaminated materials; or (2) unacceptable exposures to potential materials remaining in place. LUCs are not evaluated in this Initial Study because they do not require physical remediation and do not have the potential to result in significant environmental impacts to the sites.

- Although not part of the remedy, the Navy—exercising good stewardship of radiological materials—would use appropriate screening equipment (for example, handheld instruments, portal monitor) to conduct radiological scans of waste soil and scrap metal in disposal containers (for example, waste trucks/trailers, 55-gallon drums) before offsite disposal. Scans would be performed by qualified radiological technicians employed by appropriately licensed Navy contractors capable of proper radiological material handling. The design specifics of the screening activity would be described in the future Remedial Design/Remedial Action Work Plan, which would be submitted for regulatory review, to DTSC and Regional Water Board, in accordance with the Federal Facilities Site Remediation Agreement. In the unlikely case that radiological materials are found during the remedial action, the Navy would properly dispose of radiological materials in accordance with applicable federal, state, and local regulations.

Additional Project details include the following:

- The ROD/Final RAP proposes excavation of contaminated soil as described previously. The following construction phases and activities will be conducted to ensure all site remediation activities are successfully conducted.

Construction Phase	Duration of Activity	Number of Personnel[a]	Equipment	Notes
Phase 1: Site Preparation	5 days	5	Pickup Truck Handheld Vegetation Removal Equipment Water Truck	Site mobilization Implementation of EPP (including biological avoidance and minimization measures)
Phase 2: Soil Excavation and Sampling	1 month	10	Backhoe Skid Steer Dump Trucks Water Truck Pickup Truck	Soil excavations will be conducted at the four TTZ areas
Phase 3: Backfill Soil Excavations	1 month	8	Backhoe Skid Steer Dump Trucks Water Truck Pickup Truck	Soil excavations will be back filled at the four TTZ areas
Phase 4: Site Restoration	7 days	4	Pickup Truck	Transplanting pickleweed

[a] Personnel could include a combination of the following staff for each phase: UXO technicians (for construction support and quality assurance purposes), radiological oversight support, biologist, field lead, backhoe operator, skid steer operator, and two support staff.'

- Characterization of contaminated soil and materials removed from the TTZ areas and investigation-derived waste will be conducted to determine proper disposal requirements.
- Transportation and disposal of contaminated soil and excavated materials to a permitted offsite treatment facility will be managed based on waste characterization results and the facility's permit and is likely to be disposed of at either of the following facilities or other appropriately permitted offsite treatment facility:
    - Clean Harbors, Inc in Buttonwillow, California
    - Recology Hay Road Facility in Vacaville, California

Public Agencies Whose Approval is Required

The following public agencies are involved in approving the ROD:

- DTSC
- San Francisco Bay Regional Water Quality Control Board

References

Adanta, Inc. (Adanta) 2020. *Feasibility Study Data Collection Technical Memorandum, UXO Site 13 Paint Waste Area, Former Mare Island Naval Shipyard, Vallejo, CA*. Final. July.

CE2-Kleinfelder Joint Venture (CE2-K). 2017. *Remedial Investigation and Radiological Scoping Survey Report, Paint Waste Area, Former Mare Island Naval Shipyard, Vallejo, California*. Final. November.

City of Vallejo. 2013. *Mare Island Specific Plan, Amendment*.

Department of the Navy (Navy). 2024. Record of Decision/Final Remedial Action Plan, Paint Waste Area/Unexploded Ordnance Site 13, Former Mare Island Naval Shipyard, Vallejo, California. Draft. October.

Sullivan Consulting Group, Inc. and Tetra Tech EM, Inc. (SulTech). 2004. *Post-Construction Report for the Paint Waste Area, Investigation Area I, Reuse Parcel XVI, Mare Island, Vallejo, California*. Final. DT 110-06.04. April 15.

SulTech. 2005. *Final Preliminary Assessment/Site Inspection of the Paint Waste Area, Investigation Area I, Reuse Parcel XVI, Mare Island, Vallejo, California*. Draft. December.

Tetra Tech EM, Inc. (Tetra Tech). 2002. *Compilation of Technical Memoranda on Ambient Analyses of Metals in Soils and Groundwater, Mare Island, California*. Final. April 19.

U.S. Fish and Wildlife Service (USFWS). 2009. Letter from USFWS Susan K. Moore to DON Base Closure Manager, Anthony Megliola. “Subject: Endangered Species Consultation for the Proposed Installation Restoration Site 05 and the Paint Waste Area at the Former Mare Island Naval Shipyard, Vallejo, Solano County, California.” June 23.

Weston Solutions, Inc. (Weston). 2013. *Time-Critical Removal Action Completion Report, Transfer Parcel XVI Paint Waste Area, Former Mare Island Naval Shipyard, Vallejo, California*. Final. October.

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APPENDIX

Appendix A California Emissions Estimator Model Emissions Calculation

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a “Potentially Significant Impact,” as indicated by the checklist beginning on page 6. Please see the checklist beginning on page 6 for additional information.

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

DETERMINATION

On the basis of this initial evaluation:

☒	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☐	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 MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	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 ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	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 NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, 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.



Preparer's Signature	Date

Franklin Mark	Hazardous Substance Engineer	(916) 255-3584
Preparer's Name	Preparer's Title	Phone #



Branch or Unit Chief Signature	July 31, 2026
	Date

Lynne Baumgras	Northern CA Federal Facilities Unit Chief	(559) 297-3978
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

1. AESTHETICS				
Except as provided in Public Resources Code Section 21099, would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

The Scenic Highway Program allows county and city governments to apply to the California Department of Transportation 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.

The Project is on Mare Island at the former MINS. The Project area is currently vacant, and the planned future use of the area is nontidal wetlands, open space, and conservation area (City of Vallejo 2013). According to the State Scenic Highway Map (Caltrans 2025), there are no designated state scenic highways near the Project area.

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:

Construction activities are temporary. Equipment such as excavators, trucks, trailers, drill rigs, and other construction equipment would be present during cleanup and remediation activities but would be used temporarily and limited in number, and upon Project completion, the Project site would be restored to existing conditions to the best extent possible. Therefore, the Project would have no impact on a scenic vista.

Conclusion:

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 Project site is not within or near a state scenic highway nor contains any scenic resources. Therefore, Project activities would have no impact on any scenic resources or state scenic highway.

Conclusion:

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:

The Project site is not within an urbanized area and would not conflict with any urbanized applicable zoning and regulations governing scenic quality. Temporary construction activities and the presence of construction equipment at the Project site would not substantially affect the visual character of the Project area or visual quality of the site and its surroundings. Therefore, Project activities would have no impact toward the existing visual character of the site and surroundings.

Conclusion:

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:

Project activities could create minor and temporary sources of light or glare because of the presence of cleanup equipment. However, activities would be implemented during the daylight hours and are not anticipated to require the use of a large or substantial source of lighting to conduct construction activities. Because of the temporary nature of the construction activities, any creation of minor light sources would not be substantial, and the Project would not create new long-term sources of lighting or glace. Therefore, the Project would have no impact with the creation of a new source of substantial light or glare in the Project area.

Conclusion:

No Impact.

References Used:

California Department of Transportation (Caltrans). 2025. California State Scenic Highways. State Scenic Highway Map. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways.

City of Vallejo. 2013. *Mare Island Specific Plan, Amendment*.

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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

The Project is within Resource Conservation zoning and close to General Industrial zoning. The Project area is not within any agricultural-designated zoning nor will it have any zoning or land use changes because of the Project implementation. There are no existing agricultural uses, forest lands, timberland, or timberland zoned for timberland production in the Project area. Under the California Department of Conservation Division of Land Resource Protection's Farmland Mapping and Monitoring Program, maps have been prepared to depict locations of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance throughout the state. These maps indicate that Prime Farmland, Unique Farmland, or Farmland of Statewide Importance are not present on Mare Island, which is classified as Urban and Built-up Land (CDOC 2020). In addition, no land on Mare Island are subject to a Williamson Act contract.

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 Project area is not near or within Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). Therefore, the Project would have no impact on any of the designated Farmlands.

Conclusion:

No Impact.

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

Impact Analysis:

The Project would not conflict with any Williamson Act contracts, nor would it conflict with existing zoning for agricultural use. Therefore, the Project would have no impact.

Conclusion:

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:

The Project area does not include land with existing zoning of forestland or timberland, nor would it conflict with any existing zoning for, or cause rezoning of forest land or timberland, because these lands are not within the Project area. Therefore, the Project would have no impact on forest land or timberland.

Conclusion:

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 Project area, and the Project would not convert any land to forest or timberland. Therefore, the Project would have no impact toward the loss of forest land or conversion of forest land to non-forest use.

Conclusion:

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 Project would not conflict with existing zoning for or cause rezoning of, forest land, timberland, or

agricultural land. Therefore, the Project would have no impact toward the changes in the existing environment, which could result in the conversion of Farmland to non-agricultural uses.

Conclusion:

No Impact.

References Used:

California Department of Conservation (CDOC). 2020. Farmland Mapping and Monitoring Program. Interactive California Important Farmland Finder. Accessed May 2025. https://maps.conservation.ca.gov/DLRP/CIFF/.

3. AIR QUALITY				
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.				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

ENVIRONMENTAL SETTING:

The Project is within the jurisdiction of the Bay Area Quality Management District (BAAQMD). The BAAQMD is responsible for enforcing, within its jurisdiction, air quality standards established by the California Air Resources Board (CARB) and the EPA. The BAAQMD is within the San Francisco Bay Area Air Basin (SFBAAB). For the purposes of the Project, the SFBAAB has been designated by the CARB as being in non-attainment with California Ambient Air Quality Standards (CAAQS) for both ozone and particulate matter that is 10 microns or less in diameter (PM_{10}). The federal EPA has designated the SFBAAB as being in non-attainment with Federal Ambient Air Quality Standards for ozone. Because ozone and PM_{10} have been identified as non-attainment in the SFBAAB, specific standards have been developed by the BAAQMD to control sources of these pollutants from proposed projects. At the Project site, the BAAQMD enforces local air quality rules and conducts local air quality planning. The BAAQMD is the agency responsible for implementing emissions standards and other air quality requirements of federal and state laws in Solano County. BAAQMD has adopted Air Quality Guidelines for compliance with CEQA (BAAQMD 2022a), including thresholds that lead agencies can use to determine the significance of emissions from a project's short-term construction and long-term operations (BAAQMD 2022b).

The City of Vallejo Climate Action Plan (CAP) (City of Vallejo 2012) includes construction equipment reduction strategies (Chapter 4, Measure OR-2) meant to "reduce emissions from heavy-duty construction equipment by limiting idling and using cleaner fuels, equipment, and vehicles." The City of Vallejo is required to enforce state idling restrictions for construction vehicles and equipment and requires that a percentage of vehicles and equipment are powered by alternative means, such as a hybrid unit, biodiesel, or compressed natural gas.

The Project follows the BAAQMD Guidelines as guidance for best management practices (BMPs), avoidance and minimization measures (AMMs), and consistency with the Guidelines set forth. These AMMs include the following:

- All exposed surfaces (for example, parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material offsite will be covered.
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads will be limited to 15 miles per hour (mph).
- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, or demolition activities will be suspended when average wind speeds exceed 20 mph.

- All trucks and equipment, including their tires, will be washed off before leaving the site.
- Unpaved roads providing access to sites 100 feet or farther from a paved road will be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Post a publicly visible sign with the telephone number and person to contact the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The BAAQMD's phone number will be visible to ensure compliance with applicable regulations.

In addition, the following AMMs will be incorporated:

- Dust emissions will be actively suppressed by applying water to exposed soil in work areas.
- A steady supply of potable water will be maintained on-hand to prevent dust generation during reagent mixing and using equipment designed for reagent mixing purposes (for example, specialized trailers and vehicles designed to contain any fugitive dusts). Use of potable water will be in accordance with the State of California's January 2022 Drought Conservation Emergency Regulation (California State Water Resources Control Board Resolution No. 2022-0002 2022).
- Truck inspections will be conducted to confirm that the material being transported is secured and will not be released from the vehicle during transport.

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:

During Project construction, BMPs and AMMs will be implemented during construction activities. Standard BMPs established by the BAAQMD will comply with the City of Vallejo CAP construction equipment reduction strategies. These include all exposed surfaces to be watered two times a day, all haul trucks to be covered with tarps, and all excavation or grading activities to be done at wind speeds less than 20 mph. Other measures include using appropriate dust control measures, establishing equipment decontamination areas to prevent offsite migration of contaminants, and following all appropriate health and safety precautions. All activities will follow and be consistent with the BAAQMD's Guidelines. Therefore, they will not conflict with or obstruct applicable air quality plans and will have less than a significant impact.

Conclusion:

Less Than Significant 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:

Construction emissions of fugitive dust vary and are dependent on the type of construction activities. The emissions associated with the Project are exhaust emissions from operation of construction equipment and vehicles and fugitive dust emissions from soil excavation, truck dumping/loading, and soil haul trips. These emissions would only occur during construction because these activities would be temporary.

Construction emissions from the Project were estimated using CalEEMod (CAPCOA 2022) based on Project-specific schedule and equipment usage for the Project. **Appendix A** provides a detailed CalEEMod modeling information and emission calculations. **Table 3-1** presents a summary of the Project construction emissions and the comparisons with BAAQMD CEQA significance thresholds.

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Table 3-1. Average Daily Construction Emissions

Criteria Pollutants	ROG lb/day	NO_x lb/day	CO lb/day	SO_2 lb/day	Fugitive PM_{10} lb/day	Exhaust PM_{10} lb/day	Fugitive $PM_{2.5}$ lb/day	Exhaust $PM_{2.5}$ lb/day
2025	1.1987	8.7473	10.6181	0.0336	0.1972	0.3494	0.0524	0.3215
BAAQMD thresholds	54	54	None	None	BMPs[a]	82	BMPs[a]	54
Exceed threshold?	**No**	**No**	**N/A**	**N/A**	**N/A**	**No**	**N/A**	**No**

[a] $PM_{10}/PM_{2.5}$ (fugitive dust) is also recognized to impact local communities. The BAAQMD strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are near sensitive communities, including schools, residential areas, or other sensitive land uses.

CO = carbon monoxide
lb/day = pound(s) per day
N/A = not applicable
NO_x = nitrogen oxide
$PM_{2.5}$ = fine particulate matter with a diameter of 2.5 microns or less
SO_2 = sulfur dioxide

As shown in **Table 3-1**, construction emissions of criteria pollutants from the Project would be well below the applicable BAAQMD emissions thresholds. BAAQMD does not have a quantitative emission threshold for fugitive PM_{10} and $PM_{2.5}$ emissions. Rather, it requires a project to implement BMPs to minimize the emissions. The Proposed Project would comply with the state and BAAQMD regulations, such as those for dust control and limiting vehicle idling to avoid or minimize construction emissions. In addition, all other BMPs described in the BAAQMD Guidelines will be implemented to reduce dust and construction equipment exhaust impacts, and implement particulate matter control measures that are recommended by BAAQMD.

Because the Proposed Project construction emissions would be below BAAQMD thresholds and BMPs would be implemented for fugitive dust control, the Proposed Project would not result in a cumulatively considerable net increase of criteria pollutants that would violate any National Ambient Air Quality Standards or CAAQS or contribute substantially to an existing or projected air quality violation. The construction-related emissions impact would be less than significant.

Conclusion:

Less Than Significant Impact.

c. Expose sensitive receptors to substantial pollutant concentrations?

Impact Analysis:

The BAAQMD defines sensitive receptors as elderly, children, or persons with particular sensitivity to air pollutants. Currently, the PWA is vacant and will eventually be designated as a conservation area when the property is remediated. There are no schools, residential homes, or hospitals near the Project area. In addition, the Project is not expected to expose sensitive receptors to substantial pollutant concentrations for the following reasons: The Project area is not near any schools, residential homes, or hospitals that would have a high percentage of sensitive receptors; the Project will only have a small number of construction vehicles or equipment operating at any time within any one area; Project activities are short-term and would be temporary in nature; and all standard construction practices and BMPs as followed in the BAAQMD Guidelines would be implemented. Therefore, there would be less than significant impacts of exposing sensitive receptors to substantial pollutant concentrations.

Conclusion:

Less Than Significant Impact.

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

Impact Analysis:

Overall, the Project activities (excavation, transport, and backfill work) are not expected to result in other emissions or odors that would adversely affect a substantial number of people. As stated previously, the Project is not near any schools, residential homes, or places that would have a substantial number of people. The zoning around the Project area is General Industrial, and no sensitive receptors are within the Project area. All standard BMPs and AMMs would be implemented to control emissions in accordance with the BAAQMD Guidelines (listed in the Environmental Setting). Therefore, there would be less than significant impacts to emissions and odors adversely affecting a substantial number of people.

Conclusion:

Less Than Significant Impact.

References Used:

Bay Area Quality Management District (BAAQMD). 2022a. *2022 CEQA Thresholds and Guidelines Updates.* https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

BAAQMD. 2022b. *2022 CEQA Thresholds and Guidelines Updates, Chapter 3, Thresholds of Significance.* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?rev=a976830cce0c4a6bb624b020f72d25b3&sc_lang=en.

California Air Pollution Control Officers Association (CAPCOA). 2022. https://www.caleemod.com.

City of Vallejo. 2012. *Climate Action Plan Final*. https://www.cityofvallejo.net/coAMMon/pages/DisplayFile.aspx?itemId=17964927.

4. BIOLOGICAL RESOURCES				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

Mare Island covers approximately 5,400 acres, of which about 1,400 acres are dry land. The remaining land consists of tidal and nontidal wetlands and dredge sediment ponds. Habitats on Mare Island include disturbed uplands, seasonal and tidally influenced wetlands, tidal mudflats, exposed shoreline, and open tidal waters. Potential ecological receptors that could be present in the PWA include plants, invertebrates, birds, and mammals native to upland and nontidal wetland habitats on Mare Island.

Wetland habitats consist of tidal and nontidal areas that support coastal salt marsh vegetation, which rotationally provide open water, mudflat, and pickleweed marsh habitat. The wetland areas on Mare Island provide habitat for the SMHM (*Reithrodontomys raviventris*). The California clapper rail (*Rallus obsoletus obsoletus*) and California black rail (*Laterallus jamaicensis coturniculus*) are currently much less likely than the SMHM to be encountered at the PWA based on marginal habitat for these species. The SMHM and the California clapper rail are both federal- and state-listed endangered species that are fully protected. The California black rail is a state threatened species, which is fully protected (CE2-K 2017).

The PWA contains limited upland areas along access roads and includes nontidal wetlands that appear to be in good ecological condition, supporting pickleweed and other native wetland vegetation. These wetlands are subject to seasonal flooding during the rainy season, which typically spans from November to May. During this period, surface water may temporarily accumulate, forming intermittent water pathways. However, because these hydrologic connections are not present year-round, the surface water exposure pathway was considered less significant than direct contact with soil. Moreover, any exposure to ponded rainwater is expected to be comparable to natural background conditions and does

not pose a substantial environmental concern (NOREAS 2023). These habitat types are described in greater detail in the ecological risk assessment for the PWA presented in the RI and radiological scoping survey report (CE2-K 2017).

Ecological receptors, especially birds and mammals, are likely to be exposed to chemicals in surface (0 to 0.5 foot bgs) soil from incidental ingestion during feeding, grooming, or preening and through dietary ingestion of bioaccumulative chemicals. Direct exposure to soil is considered a complete exposure route for plants and invertebrates. Dermal contact may be a complete pathway for wildlife; however, there is not adequate research data to evaluate this exposure route. The inhalation route for ecological receptors is considered relatively insignificant compared to direct contact exposure and ingestion of contaminated media (NOREAS 2023).

Exposure of the ecological receptors to potential contaminants in subsurface soil that may pose a potential risk is unlikely. No chemicals of ecological concern were identified for surface or shallow soil (NOREAS 2023).

Direct exposure to groundwater is not considered a complete exposure pathway for ecological receptors, and groundwater discharge to surface was not evaluated because groundwater does not replenish any freshwater surface water bodies. Surface water exposures are expected to be similar to exposure to ambient rainwater because surface water is only present on a seasonal basis (NOREAS 2023).

Special status species that may be present within the pickleweed marsh area west of the Project area include Pacific cordgrass, a federally designated species of concern, Suisun ornate shrew (*Sorex ornatus sinuosus*), and San Pablo vole (*Microtus californicus sanpabloensis*) and the federally endangered SMHM and the California clapper rail, which use these areas as their preferred habitat. The nearest nesting habitat of the clapper rail occurs within approximately 1,750 feet of Pier 35 (Jones and Stokes 2003), which is approximately 1 mile south of the Project area.

The SMHM is a federal- and state-listed endangered species endemic to the saline emergent wetlands of the San Francisco Bay. The northern subspecies (*R. r. halicoetes*) inhabits marshes in San Pablo and Suisun Bays and along the northern Contra Costa County coast. SMHM relies on dense, salt-tolerant vegetation—particularly pickleweed—for cover and protection from predators, especially during high tides. While primarily restricted to tidal and nontidal salt marshes, adjacent grasslands may be used for foraging when seasonal growth provides adequate cover. Pickleweed habitat, which supports SMHM, is present at the PWA (Zeiner et al. 1990; Steelhammer 1982; USFWS 1984).

An EPP was developed for the Navy's FS Data Collection Work Plan (2018 FS Data Collection) for the PWA to outline abatement, control, and AMMs to be used to protect the environment during the FS data collection activities. These AMMs will also be used during the remedial action activities. The EPP details compliance, regulatory, and training requirements for protection of environmental resources and proper waste handling practices associated with the field activities. The Navy is responsible for implementing the EPP, and the California Environmental Protection Agency DTSC is responsible for providing regulatory oversight with coordination from the San Francisco Regional Water Quality Control Board, the EPA, the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW).

A biological opinion (BO) was obtained from the USFWS on June 23, 2009, for the TCRA Excavation Area project area. The substantive conservation measures outlined in the BO will be followed during the remedial action in the PWA Vicinity Area and are listed as follows:

- Excavation activities would be conducted when the nontidal seasonal wetlands are dry.
- A Navy-contracted biologist would conduct a Biological Resource Education Program briefing to all contractor and subcontractor personnel before entry into the project site.
- A qualified biological monitor approved by the CDFW (as deferred by USFWS) would be present onsite to monitor for SMHM (and California clapper rails) during all work activities in potential habitat areas. The biological monitor also would periodically observe work within the adjacent upland areas. The biological monitor would have the authority to stop work if deemed necessary for any reason to protect SMHM (or any other federally listed or proposed species, including the California clapper rail). If any areas with pickleweed need to be cleared for excavation or sampling purposes, the vegetation would be cut using handheld mechanized cutting tools.
- Non-wetland vegetation in upland areas adjacent to pickleweed would be cut using ride-on powered mowers or other equipment to minimize potential cover for the SMHM within the work areas. Equipment and personnel would be limited to the areas where the vegetation has been cut.
- Silt fencing would be installed between areas of pickleweed and work sites immediately following vegetation removal to prevent entry of SMHM into cleared areas. The fencing would be trenched into the ground and backfilled to prevent SMHM from moving underneath the fencing. The final design and proposed location of the fencing would be reviewed and approved by the CDFW before being installed. The CDFW-approved biological monitor would have the ability to make field adjustments to the location of the fencing depending on site-specific habitat conditions.

- The biological monitor would monitor site fencing periodically to ensure it remains an effective barrier to prevent entry of SMHM into work areas. Maintenance of the fencing would be conducted as needed throughout the work period, including the habitat restoration work.
- Before the initiation of work each day within potential habitat, the biological monitor would thoroughly inspect the work area and adjacent habitat areas to determine whether SMHM (or California clapper rails) are present in these areas and would remain onsite throughout the day while work activities are occurring.
- If a mouse of any species (or a California clapper rail) is observed, then work would be stopped immediately by the biological monitor until the mouse (or rail) leaves the work area on its own volition and the CDFW are notified. If the mouse (or rail) does not leave the work area, work would not be reinstated until the CDFW are contacted and have made a decision on how to proceed with work activities. The biological monitor would direct the contractor on how to proceed accordingly.
- Excavation and haul equipment would be confined to the access routes, designated staging areas, and designated excavation areas.
- The equipment decontamination area would be in the designated upland staging area away from any wetlands habitat.
- Upland routes containing non-native vegetation would be used as access routes to the excavation sites to the maximum extent practicable.
- The Navy proposes to restore the disturbed project area with pickleweed-dominated habitat and other native wetland vegetation. Excavated upland areas within the PWA site and any adjacent nontidal pickleweed-vegetated areas affected by excavation work would be restored to the current pickleweed-dominated wetland. These areas would be restored by backfilling the excavated areas with suitable fill material and then grading and recontouring the excavated areas to elevations that provide hydrologic conditions sufficient to support re-establishment of pickleweed-dominated wetlands.
- Restoration areas would be revegetated with pickleweed cuttings harvested from adjacent undisturbed pickleweed-vegetated areas. At the PWA site, pickleweed harvesting would occur in a 2-acre area just south of the excavation site. The specific limits of the pickleweed harvest areas would be identified and staked by the biological monitor before the initiation of harvesting activities. Pickleweed cuttings would be collected by crews on foot and using non-mechanized hand tools. No disturbance to pickleweed-vegetated areas outside of the designated harvest areas would be permitted. Harvesting activities would take place such that existing pickleweed cover in the harvest areas would not be reduced by more than 30 percent.
- The restoration areas and pickleweed harvest areas would be monitored for 5 years, or until vegetative performance criteria have been met and suitable SMHM habitat has been re-established. The pickleweed collection/harvest would be assessed immediately before the initiation of harvesting to determine pre-harvest vegetative cover and would be monitored after harvesting to ensure the areas return to pre-harvest pickleweed cover within 5 years. For the restored areas, the vegetative performance criteria at the end of 5 years would be a minimum of 90 percent cover of native wetland plant species (for example, pickleweed, saltgrass [*Distichlis spicata*], fat hen [*Atriplex patula*], alkali heath [*Frankenia salina*]), with a minimum of 60 percent cover of pickleweed and less than 5 percent cover of non-native plant species.

The EPP requires the following:

- Before initiation of Project activities, a qualified CDFW-approved biologist will conduct a biological education briefing for all site personnel. This briefing will review sensitive biological resources within the work area and identify all protection measures to be implemented and complied with to ensure these resources are not affected by work activities.
- All site workers and visitors will be required to be extra careful and vigilant when present at the site during surveying, monitoring, and remediation activities. Site workers and visitors will take precautionary measures when in areas of dense vegetation (such as shuffling of feet) to prevent potential disturbance of an SMHM and its habitat. Any vegetation that is dense enough to conceal an SMHM (for example, pickleweed, other salt marsh vegetation, ruderal vegetation), in addition to tall grass, should be carefully examined before disturbing or treading on to ensure mice are not present.
- The qualified biological monitor approved by CDFW will be present onsite throughout the workday to monitor during all work activities conducted within potential habitat areas.

- Before work begins each day, the biological monitor will thoroughly inspect the work area and adjacent habitat areas for evidence of threatened, endangered, and sensitive species.
- The qualified biologist will record field notes and complete a daily biological monitoring checklist to document compliance with protection measures and describe issues that arise and how they are resolved.
- Sampling activities will be conducted when the nontidal wetlands are dry.
- Sample locations within the nontidal wetland will be collected using a hand auger or motorized auger and offset to avoid any removal of protected vegetation and pickleweed during the sampling event. No heavy equipment will be used for the sampling event in the nontidal wetlands.
- Construction equipment will be confined to the designated access routes, staging areas, and excavation areas. Access routes and staging areas will be in upland areas containing non-native vegetation.
- The equipment decontamination area will be in an upland area away from wetland habitat.

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:

The Project will not have a substantial adverse effect but overall should benefit the environment by removing contaminants and potentially creating wetlands from ruderal upland and lowland areas. The Project is not likely to result in injury or death to SMHM based on the implementation of proposed AMMs. However, the Project is expected to benefit the SMHM through the cleanup of contaminated soils in or near SMHM habitat that is within the Project area. Generally, the SMHM habitat will be avoided and potentially only small areas impacted. Small excavations in the PWA are contaminated with hazardous materials, and removal of the contaminants in addition to the AMMs would improve the overall habitat.

Before Project construction, all contractor employees and other personnel involved with the Project will be required to undergo a biological resources education class. This class will be conducted by a biologist with experience and knowledge of SMHM and other biological species on Mare Island. This class will review sensitive biological resources on the site (for example, SMHM) and identify all required protective project controls to be implemented and complied with to ensure these resources are not impacted by construction activities.

For construction activities occurring within potentially occupied habitat, a qualified biological monitor approved by CDFW will be present onsite throughout the workday to inspect work practices to ensure noise, light, and vibrations are minimized to the degree practicable and that no unanticipated take of SMHM occurs. This periodic monitoring will occur for the duration of the construction project within or adjacent to pickleweed areas. Wildlife exclusion fencing will be installed in key locations as determined by the biological monitor around the work area(s) to minimize the potential for SMHM entering the work area(s) during construction activities. This fencing will also provide erosion control benefits and delineate work areas to prevent unauthorized access in adjacent areas. The exclusion fencing will be maintained by the contractor under the direction of the biological monitor. All construction personnel will be restricted to the Project area. No unauthorized access to other upland or wetland areas outside of the Project area will be permitted. Biological monitoring, fencing, and signage installed at strategic locations will ensure compliance with this requirement. Excavation activities will be conducted when the nontidal seasonal wetlands are dry. If any areas with pickleweed need to be cleared for excavation purposes or for access to sampling and excavation locations, vegetation will be cut by using handheld mechanized cutting tools. Non-wetland upland areas adjacent to pickleweed will be cut using ride-on powered mowers or other equipment to minimize potential cover for the SMHM within work areas. Equipment and personnel will be limited to the areas where the vegetation has been cut. Excavation and haul equipment will be confined to the access routes and designated excavation areas. The equipment decontamination area will be in the upland staging area away from the wetland habitat. If an SMHM is observed, work will be stopped, and adequacy of SMHM AMMs will be evaluated in coordination with the USFWS and CDFW. There will also be the restoration of the impacted habitat. Therefore, there would be less than significant impact.

Conclusion:

Less Than Significant 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:

Several project controls will be implemented to avoid and minimize impacts on the SMHM, a federally and state-listed endangered species, and other sensitive wildlife. These controls are outlined in the Project's EPP and include a suite of AMMs designed to ensure compliance with regulatory requirements and protect biological resources.

Before the start of any site activities, a qualified biologist approved by the CDFW will conduct a mandatory biological awareness training for all personnel. This training will highlight the presence of sensitive species and habitats, including SMHM and pickleweed-dominated wetlands, and review all protective measures to be followed during Project implementation.

A CDFW-approved biological monitor will be present onsite throughout all work activities occurring within or near potential SMHM habitat. The monitor will inspect the work area and adjacent habitats daily for signs of sensitive species and will document compliance through field notes and a daily monitoring checklist. Workers will be instructed to exercise heightened caution in vegetated areas, especially where dense cover, such as pickleweed or tall grasses, could conceal SMHM. These areas will be carefully examined before any disturbance occurs.

To further reduce potential impacts, sampling activities will be conducted only when nontidal wetlands are dry. Soil samples will be collected using hand or motorized augers, with sampling locations offset to avoid removal of protected vegetation, including pickleweed. No heavy equipment will be used within the wetland areas. All construction equipment will be restricted to designated access routes, staging areas, and excavation zones in upland areas dominated by non-native vegetation. Equipment decontamination will also occur in upland areas, away from sensitive wetland habitats.

Through implementation of these comprehensive project controls, the potential for wildlife exposure to buried refuse, surface debris, and contaminated soil will be effectively minimized. As a result, the Project is expected to have a less than significant impact on SMHM and other wildlife species.

Conclusion:

Less Than Significant 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 Project area includes nontidal, seasonal wetlands that are not jurisdictional under Section 404 of the Clean Water Act but may still be considered sensitive under state regulations. To ensure these wetlands are not adversely affected, the Project will implement a comprehensive set of AMMs designed to protect wetland habitat and associated species.

Key AMMs include the following:

- Pre-construction biological education: A qualified, CDFW-approved biologist will conduct a mandatory briefing for all site personnel to review sensitive biological resources and required protection measures.
- Onsite biological monitoring: A qualified biological monitor will be present throughout all work activities in or near potential habitat areas. The monitor will inspect the site daily for signs of sensitive species and document compliance through field notes and a daily checklist.
- Timing of activities: All sampling and excavation activities will occur when the nontidal wetlands are dry, minimizing the risk of hydrological disturbance or soil compaction.
- Low-impact sampling methods: Within wetland areas, samples will be collected using hand or motorized augers only. No heavy equipment will be used, and sampling locations will be offset to avoid removal of protected vegetation such as pickleweed.
- Restricted access and staging: Construction equipment will be confined to designated access routes and staging areas in upland zones with non-native vegetation. Unauthorized access to adjacent wetland or upland habitat will be prohibited.

- Decontamination protocols: Equipment decontamination will occur in upland areas, away from wetland habitat, to prevent contamination or sedimentation.
- Vegetation awareness: All personnel will be instructed to carefully inspect dense vegetation (for example, pickleweed, tall grasses) before entering or disturbing it, to avoid harming cryptic species such as the SMHM.

These measures are consistent with CEQA best practices for avoiding substantial adverse effects on wetlands and sensitive species. They ensure direct removal, filling, or hydrological interruption of wetland habitat that is restored after remedial action activities are complete.

With the implementation of the aforementioned AMMs, the Project will avoid significant impacts to state or federally protected wetlands. The timing of work, use of low-impact methods, biological monitoring, and strict access controls ensure wetland functions and values are preserved, resulting in a less than significant impact.

Conclusion:

Less Than Significant 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 involves excavation activities within a previously disturbed area containing former dredge ponds. These ponds are nontidal, isolated, non-navigable, and intrastate wetlands that lack hydrological connectivity to San Pablo Bay. As such, they do not qualify as federally protected wetlands under Section 404 of the Clean Water Act.

From a wildlife movement and nursery site perspective, the Project area does not support established migratory corridors or critical nursery habitats for native fish or wildlife species. The site is fragmented, isolated from larger habitat networks, and lacks the structural vegetation and hydrological features typically associated with wildlife corridors or breeding grounds.

Species such as the California clapper rail and California black rail, which rely on tidally influenced, densely vegetated marshes, are unlikely to use the site because of its marginal habitat quality. Similarly, the SMHM, while more tolerant of habitat variability, is also unlikely to be significantly affected because of the limited spatial extent and ecological value of the impacted area.

The CDFW defines wildlife corridors as areas that connect fragmented habitats and allow for the movement of species between them. The Project site does not serve this function, nor does it provide essential breeding or nursery habitat as defined under CEQA guidelines.

The Project will not interfere substantially with the movement of native or migratory species, nor will it impede the use of wildlife corridors or nursery sites. The isolated and degraded nature of the habitat, combined with the absence of hydrological connectivity and critical habitat features, supports a finding of less than significant impact.

Conclusion:

Less Than Significant Impact.

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

Impact Analysis:

No fish are known to reside or migrate within the Project area or respective boundaries as the site is an inactive dredge pond bordered by raised levees and is inundated sporadically based on yearly precipitation, and cannot support fish populations due to site being dry the majority of the year. The Project will take place in August through November, which is outside the normal nesting season for known raptors in the Project area. Mare Island falls under the jurisdiction of the City of Vallejo, and its land use is governed by the Mare Island Specific Plan (City of Vallejo 2013) and associated environmental documents, including the Final Subsequent Environmental Impact Report (SEIR). There is no specific tree preservation ordinance mentioned in the Vallejo Municipal Code or the Mare Island SEIR that applies broadly across the island. Tree management on Mare Island is addressed case-by-case, particularly in areas like the Mare Island Preserve and historic zones, where tree removal may be subject to review for historic preservation or public safety. Regardless, no trees will be removed as part of the RAP. Therefore, no impact would occur.

Conclusion:

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 Project site is at MINS in Vallejo, California. Based on a review of applicable planning documents, including the Mare Island Specific Plan (City of Vallejo 2013), the Project is not within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, there would be no impact.

Conclusion:

No Impact.

References Used:

CE2-Kleinfelder Joint Venture (CE2-K). 2017. *Remedial Investigation and Radiological Scoping Survey Report, Paint Waste Area, Former Mare Island Naval Shipyard, Vallejo, California*. Final. November.

City of Vallejo. 2013. *Mare Island Specific Plan, Amendment*.

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Steelhammer, H.S. 1982. *Reithrodontomys Raviventris*. Mammal. Spec. Number 169. Pages 1 through 3.

U.S. Fish and Wildlife Serve (USFWS). 1984. *Salt Marsh Harvest Mouse and California Clapper Rail Recovery Plan*. November 16.

USFWS. 2009. *Endangered Species Consultation for the Proposed Installation Restoration Site as and the Paint Waste Area at the Former Mare Island Naval Shipyard, Vallejo, Solano County, California*. Biological Opinion Reference # 81420-2008-F-1844. June 23.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. *California's Wildlife: Volume II - Birds*. California Statewide Wildlife Habitat Relationships System, CDFG. Sacramento, California. November.

5. CULTURAL RESOURCES				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

The Project has no record of significant historical or cultural resources within or near the Project area. Some portions of the Project area are composed of artificial fill materials and have been disturbed by various activities conducted in the area.

The definition of historical resources can be found in Public Resources Code (PRC) § 21084.1 and 14 California Code of Regulations (CCR) § 15064.5. Unique archaeological resources are defined in PRC § 21083.2 and 14 CCR § 15064.5.

Before installation closure, in compliance with the National Historic Preservation Act, the Navy conducted an evaluation of historic significance for properties at Mare Island. This evaluation determined whether a revision to the National Register nomination for historically significant buildings, structures, objects, sites, and districts at Mare Island was necessary and produced a predictive model for historic archeological properties.

According to the 1996 prediction model, the following statement was made: “The following general areas may be excluded from consideration for containing potential prehistoric archeological sites: all made land north of A Street; all made land northwest of Cedar Avenue, from A Street to 5th Street; all made land west of Tisdale Avenue from its intersection with Crisp Avenue; the Marine Rifle Range; all made land west of the bluff edge along Mesa Road; all made land west and south of the bluffs forming the southern end of the island; all made land east of Railroad Avenue, north to 10th Street; all made land east of an irregular line that passes through dry dock number 2, encompasses the location of buildings 117, 69, and passes through buildings 85 and 89 before terminating at First Street.” (William Self and Associates 1996). The PWA is part of the general areas listed in the predictive model. Therefore, encounters of archaeological or historical significance are not expected at the PWA, and therefore, oversight during the project is not warranted.

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:

The Project area does not have any historical buildings near the excavation areas, and truck routes have been pre-selected to ensure there is no impact to the historical district of Mare Island. The Project area itself is not within the historical district. In addition, there is no record of significant historical resources within or near the Project area. Therefore, the Project would have no impact or result in a substantial adverse change in the significance of a historical resource.

Conclusion:

No Impact.

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

Impact Analysis:

The Project area, along with the entire installation, has been evaluated for historical and cultural significance. The predictive model for archaeological sites excluded certain areas of Mare Island from consideration for containing potential prehistoric archeological sites, which included the PWA. Therefore, there should be no impact.

Conclusion:

No Impact.

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

Impact Analysis:

The Project area has historically been disturbed by various activities and composed of artificial fill materials. Because of this, it is unlikely that there are undiscovered human remains. However, if human remains are to be discovered, work will be suspended, and the County Coroner will be notified pursuant to H&SC 7050.5. If the human remains are determined to be Native American, the California Native American Heritage Commission (NAHC) would be contacted. Procedures would be implemented in accordance with Section 106 of the National Historic Preservation Act. Therefore, impacts would be less than significant.

Conclusion:

No Impact.

References Used:

City of Vallejo. 2013. *Mare Island Specific Plan*. Adopted March 1999, last amended August 2013. https://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=19272509.

6. ENERGY				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

Assembly Bill (AB) 32, also known as the California Global Warming Solutions Act of 2006, requires a reduction of greenhouse gas (GHG) emissions to 1990 levels by 2020. This target has been increased by Executive Order B-30-15 signed by Governor Brown in 2015 to a level 80 percent below 1990 levels by 2050 and increased again by AB 1279 signed by Governor Newsom in 2022 to a level 85 percent below 1990 levels by 2045. CARB is required to adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emissions.

Senate Bill (SB) 350, also known as the 2015 Clean Energy and Pollution Reduction Act, established clean energy, clean air, and GHG reduction goals, including reducing GHGs to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. In addition, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. The regulations focus on generating energy through renewable sources and increasing the energy efficiency of buildings.

The Solano County General Plan includes various policies and implementation programs related to the conservation and efficient use of energy (Solano County 2008).

Solano County adopted its CAP in June 2011 (Solano County 2011). The CAP sets forth measures for reducing countywide GHG emissions to 20 percent below 2005 levels by 2020. The CAP includes a series of measures related to reducing energy use and increasing the supply of renewable energy.

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:

   Project activities would be of short-term duration and only consume energy resources for the purposes of Project construction. The Project will implement several BMPs to further reduce unnecessary consumption of energy resources, such as minimizing idling time for all equipment and vehicles, properly maintaining construction equipment, and conducting routine inspections of vehicles to identify any wasteful leakage of fuel or oil. Therefore, the Project would not result in potentially significant impact of wasteful, inefficient, or unnecessary consumption of energy resources and would have less than significant impact.

   Conclusion:

   Less Than Significant Impact.

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

Impact Analysis:

The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The purpose of the Project is to provide overall protection to human health and the environment by excavating the contaminated paint waste and soil. This, as a result, would allow reuse of the site in a manner consistent with the City of Vallejo's Mare Island Specific Plan (City of Vallejo 2013). Therefore, the Project would have no impact.

Conclusion:

No Impact.

References Used:

City of Vallejo. 2013. *Mare Island Specific Plan, Amendment*.

Solano County. 2008. *Solano County General Plan*. Chapter 4 – Resource. http://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=6494.

Solano County. 2011. *Solano County Climate Action Plan*.

7. GEOLOGY AND SOILS				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

ENVIRONMENTAL SETTING:

Mare Island was originally an island that was reformed into a peninsula through dredging and filling operations. Based on historical Navy maps, the original island was a bedrock outcrop surrounded by tule marshes. Over time, the island was expanded to the north and west by placement of various fill materials and dredge spoils to form the current contours of the peninsula (Weston 2005).

Three principal geologic units were identified within IA-I. These units include, from top to bottom stratigraphically, the following:

- Artificial fill material
- Unconsolidated natural deposits
- Bedrock

The artificial fill material is a heterogeneous unit consisting of dredged material composed of clay, silt, sand, gravel, and debris in varying proportions. The unconsolidated natural deposits consist of silty clays commonly referred to as Younger Bay Mud and other fine-grained material derived from the weathering of local bedrock. Bedrock is a mixed unit of weathered sandstone, siltstone, and shale (Weston 2005).

The PWA covers approximately 5.5 acres of the central northwest portion of the MINS within IA-I. The maximum depth to which lithologic logging was conducted was 15.5 feet bgs during the RI in 2014. Lithological information collected from boring activities at the PWA indicated that brown sandy clay with fragments of concrete, scrap metal, brick, ceramic, paint waste, wood, and asphalt were present from 0 to 2 feet bgs. Debris was generally limited to a depth of 3 to 4 feet bgs during the 2004 TCRA; however, debris extended to almost 8 feet bgs in one area in the northern portion of Survey Unit (SU)-7 (Weston 2013) (**Figure 3**). Dark greenish-gray clay interpreted to be alluvial deposits defined as Younger Bay Mud was observed to be present below the dredged material starting at depths between 2 and 4 feet bgs and extending to 8 feet bgs at some locations. Bedrock was not encountered in the PWA during the drilling or sampling activities at the site (CE2-K 2017).

Seismic Hazards

The PWA lies within a seismically active region. Regional seismic sources could generate strong to moderate earthquakes that could cause significant ground shaking at the subject site. An analysis of potential geological hazards, such as earthquakes, landslides, liquefaction, and related hazards, was performed by Jones and Stokes (2003) for the former dredge ponds on Mare Island and is relevant to the PWA. The study concluded that no active faults exist beneath Mare Island and that fault slip is not considered a potential geologic hazard capable of causing damage to facilities. However, strong ground shaking generated by active faults in Solano County and the Bay Area is a significant hazard to the Project area. Hazards caused by ground shaking could include: liquefaction, lateral spreading, differential settlement, natural settlement, and landsliding.

Soil hazards previously evaluated at the PWA during the TCRA and likely to be present in the PWA Vicinity Area include the following:

- Expansive Soils: Expansive characteristics are found in the upper 5 feet of the soil profile. Expansion and contraction of soils, depending on the season and the amount of surface water infiltration, could exert enough pressure on structures to result in cracking, settlement, and uplift, thereby resulting in damage to foundations of aboveground structures, paved roads, and streets, and concrete slabs.
- Soil Erosion: Soil erosion potential in the Project area is considered to be low because of the relatively level topography.
- Landslides and Slope Instability: The potential for landslides in the action area is low because of the relatively flat topography. However, the soft dredged material and the underlying Younger Bay Mud are highly compressible and have very low shear strengths. Existing levees surrounding the adjacent dredge ponds were evaluated for stability and found to be statically and seismically stable (Fugro 2002).
- Corrosive Soils: Soils within the Project action area are characterized as having higher than normal sodium content that increases the susceptibility of steel and concrete structures to corrosion. Corrosive soils can cause damage to underground utilities and weaken roadway structures.
- Subsidence: The young alluvial deposits and Bay Mud sediments in the action area are highly compressible and susceptible to compaction and consolidation.

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 Project is not within an Alquist-Priolo Earthquake Fault Zone. Therefore, there would be no impact.

   Conclusion:

   No Impact.

ii) Strong seismic ground shaking?

Impact Analysis:

The excavation of soil, onsite transport of soil or material, and backfilling and grading work would not directly or indirectly cause strong seismic ground shaking. There are no occupied buildings in the Project area, and the area is uninhabited. In addition, the topography in the Project area is considered relatively flat and low, which decreases the chance of potential soil erosion and landslides. Therefore, there would be less than significant impact.

Conclusion:

Less Than Significant Impact.

iii) Seismic-related ground failure, including liquefaction?

Impact Analysis:

The excavation of soil, onsite transport of soil or material, and backfilling and grading work would not directly or indirectly cause strong seismic ground failure, including liquefaction. There are no occupied buildings in the Project area, and the area is uninhabited. In addition, the topography in the Project area is considered relatively flat and low, which decreases the chance of potential soil erosion and landslides. Therefore, there would be less than significant impact.

Conclusion:

Less Than Significant Impact.

iv) Landslides?

Impact Analysis:

The Project area has a low potential for landslides because of the relatively flat topography. In addition, the excavation of soil, onsite transport of soil or material, and backfilling and grading work would not directly or indirectly cause landslides. Therefore, there would be no impact.

Conclusion:

No Impact.

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

Impact Analysis:

The Project will not increase the potential for erosion or the loss of topsoil. Backfilling activities include compacting fill soils, and all disturbed or graded upland areas will be hydroseeded with native grasses where appropriate. Therefore, there would be no impact.

Conclusion:

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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

Impact Analysis:

The potential for instability, landslides, or lateral spreading is low. There are no occupied structures that exist within the Project area, which in effect, would not allow for any subsidence. The Project will remove contaminated soils to a contained area, which will include a surrounding slurry wall and groundwater extraction system. Therefore, there would be less than significant impact.

Conclusion:

Less Than Significant 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 characteristics are found in the top 5 feet for the Project area soil profile. However, minor elevation differences resulting from the settlement of expansive soil will not create substantial direct or indirect risks to life or property. Therefore, there would be no impact.

Conclusion:

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 Project will not construct septic tanks or other wastewater disposal systems. Therefore, there would be no impact.

Conclusion:

No Impact.

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

Impact Analysis:

There are no unique geologic features within the Project area, and the presence of a unique paleontological or geologic resource in the Project area is unlikely because of the site being composed of Bay fill and artificial materials. The Project is not expected to encounter or destroy any unique paleontological resources or geological features. Therefore, the Project's impact related to destroying a unique paleontological resource or geologic feature would be less than significant.

Conclusion:

Less Than Significant Impact.

References Used:

CE2-Kleinfelder Joint Venture (CE2-K). 2017. *Remedial Investigation and Radiological Scoping Survey Report, Paint Waste Area, Former Mare Island Naval Shipyard, Vallejo, California*. Final. November.

Weston Solutions, Inc. (Weston). 2005. *Remedial Investigation, Investigation Area H1, Mare Island, Vallejo, California*. Final. July.

Weston. 2013. *Time-Critical Removal Action Completion Report, Transfer Parcel XVI Paint Waste Area, Former Mare Island Naval Shipyard, Vallejo, California*. Final. October.

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

ENVIRONMENTAL SETTING:

CARB creates GHG inventories for California, in accordance with the Global Warming Solutions Act (AB 32/SB 32). In 2006, the California legislature passed AB 32 (H&SC § 38500 et seq). AB 32 required CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlined measures to meet the 2020 GHG reduction goals. California exceeded the target of reducing GHG emissions to 1990 levels by the year 2017.

The BAAQMD does not currently have numerical significance thresholds for project-related GHG emissions. Instead, the BAAQMD uses a “fair share” approach. If the BAAQMD-identified design elements are incorporated into the design and construction of a project, then the project would contribute its portion of what is necessary to achieve California’s long-term climate goals—its “fair share”—and a lead agency can conclude that the project would not make a cumulatively considerable contribution to global climate change (BAAQMD 2022).

IMPACT ANALYSES AND CONCLUSIONS:

Analysis as to whether or not project activities would:

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

Impact Analysis:

During construction, the Project would contribute GHG emissions through the emissions from construction vehicles and equipment, haul trucks, and worker commute vehicles. The Project would not create any new permanent stationary or non-stationary sources of emissions, including GHG emissions defined by BAAQMD Guidelines. The Project would only have a small number of construction vehicles or equipment operating at any time within any one area. Vehicles and equipment would only run during Project construction and would not operate excessively. The Proposed Project’s temporary construction emissions for GHGs were estimated using CalEEMod (CAPCOA 2022) and are summarized in **Table 8-1**. **Appendix A** includes details of the CalEEMod modeling and emission calculations. Because BAAQMD has not adopted a construction-related GHG emission threshold to determine the significance of a project’s impacts on GHGs, the data are presented for informational purposes. BMPs and AMMs will be implemented during construction activities. Standard BMPs established by the BAAQMD and operations will comply with the City of Vallejo CAP construction equipment reduction strategies. Project activities are short--term and would be temporary in nature, and all standard construction practices and BMPs as followed in the BAAQMD Guidelines would be implemented. Therefore, there will be less than significant impact.

Table 8-1. Project Construction Greenhouse Gas Emissions

Construction GHG	Emissions (MT CO_2e/year)
2025	43

MT = metric ton(s)
CO_2e = carbon dioxide equivalent

Conclusion:

Less Than Significant Impact with implementation of BAAQMD BMPs and City of Vallejo CAP BMPs described.

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

Impact Analysis:

BMPs and AMMs will be implemented during construction activities. Standard BMPs established by the BAAQMD and operations will comply with the City of Vallejo CAP construction equipment reduction strategies. The Project will only have a small number of construction vehicles or equipment operating at any time within any one area, Project activities are short-term and would be temporary in nature, and all standard construction practices and BMPs as followed in the BAAQMD Guidelines would be implemented. Vehicles and equipment will only operate during Project excavation and removal activities to the minimum required. Therefore, there will be less than significant impact with the Project conflicting with applicable plans, policies, or regulations adopted for reducing the emissions of GHG.

Conclusion:

Less Than Significant Impact.

References Used:

BAAQMD. 2022. *2022 CEQA Thresholds and Guidelines Updates*. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

California Air Pollution Control Officers Association (CAPCOA). 2022. https://www.caleemod.com.

9. HAZARDS AND HAZARDOUS MATERIALS				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

The PWA consists of two subareas as presented in the ROD/Final RAP: the PWA TCRA Excavation Area and the PWA Vicinity Area. In the PWA TCRA Excavation Area, contaminated soil, MEC items, and radiological items have been removed. The PWA Vicinity Area consists of an adjacent step-out investigation area north and east of the former PWA TCRA Excavation Area. Radiological and digital geophysical mapping surveys were also performed within the PWA Vicinity Area, along with excavation of detected anomalies (Navy 2024).

In the PWA Vicinity Area, no radiological or MEC items were discovered. However, limited paint waste mixed with debris remains in the subsurface of the PWA Vicinity Area between approximately 1 to 4 feet bgs at four locations (**Figure 3**). The site soil is impacted by metals, primarily lead, likely associated with the paint waste, and is the COC addressed in the final remedy. The metal concentrations in the soil samples collected from the paint waste were higher than those in the soil samples collected from beneath the paint waste. Sampling results indicate the potential for metals to leach from the paint waste and migrate to impact surrounding soil. Groundwater has not been impacted (Navy 2024).

Additional information is presented in the Project Description section of this document.

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:

During the routine transport of the contaminated soils, proper safety precautions will be implemented. The Project area is in restricted areas that are not accessible to the public. The haul route from the Project area to the temporary stockpile locations for sampling and waste classification would also be within restricted areas. Soil will be stockpiled, and before offsite disposal, the soil will be sampled and characterized for disposal. The use of experienced personnel trained in the handling and excavation of hazardous materials will also help in greatly reducing risk. These trained personnel will conduct the work in accordance with approved methods and procedures. All excavation equipment will be decontaminated before leaving unrestricted areas. Equipment decontamination records will be maintained for each piece of equipment. The wastewater generated from equipment decontamination will be collected and stored in 55--gallon drums. Drums containing decontamination water will be appropriately labeled with respect to contents and staged in a predetermined, secured area with secondary containment and spill control equipment. Weekly inspections of the drum storage area will be conducted and documented to ensure drums are properly labeled, sealed, and in good condition. The wastewater will be sampled and analyzed to determine whether it is a hazardous waste and then, if hazardous, transported to an offsite permitted facility for treatment or disposal. Heavy equipment will be decontaminated using heavy brushes to remove soil and dirt attached to the equipment surfaces. Special attention will be paid to removal of material on and within the bucket and undercarriage of the excavator. Tools and items for which decontamination is difficult or impossible to verify will remain onsite until completion of the work for subsequent packing and offsite disposal at an approved disposal facility. Before removal from site, all decontaminated equipment and material will be inspected by professional staff. Soils excavated from the Project area and transferred to the temporary stockpile locations will follow site workplace standards for dust control and no hazards to the public or environment should occur.

All soils removed will be placed into the stockpile area pending waste profile results for disposal. Stockpiles will be sampled and waste characterized for offsite transportation and disposal to appropriately licensed landfills. All work will be conducted in accordance with the Site-Specific Health and Safety Plan (SSHSP). Air monitoring will also be conducted. The SSHSP will be implemented to minimize the incidents, injury, and health risks associated with the remedial activities conducted at the Project site. Therefore, there would be less than significant impact.

Conclusion:

Less Than Significant 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:

Soil excavated during removal activities that are suspected of being contaminated will be segregated into stockpile(s) from the overburden and non-impacted soils for sampling and waste characterization. A water truck will be used for dust control. In addition, all work will be conducted in accordance with the SSHSP and activity hazard analysis developed for the Project. The plan will provide an emergency contingency plan. With the correct implementation of the emergency contingency plan, hazardous releases should be minimized. Excavation activities will be overseen by qualified unexploded ordnance technicians. If encountered, classified munitions items will be treated onsite or removed offsite. Excavations will be sloped where necessary to prevent collapse or cave-in. Therefore, there would be less than significant impact.

Conclusion:

Less Than Significant 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:

The Project area is not within 1/4 mile of an existing or proposed school. Therefore, there would be no impact.

Conclusion:

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 Project is identified as an active site on DTSC's Cal Sites (Cortese) list complied pursuant to Government Code Section 65962.5. The Project design will reduce any potential to impact the public or environment by specifying standard construction practices.

Conclusion:

Less Than Significant 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 Project area is not within an airport land use plan or within 2 miles of a public use airport. Therefore, there would be no impact.

Conclusion:

No Impact.

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

Impact Analysis:

The Project would not substantially increase the need for fire or police protection services compared to existing conditions. Appropriate locations for tools and equipment storage, road access, parking and other maintenance activities will be established within the Project area. No Project activities will result in physically altered facilities that would require any changes in public services or response times. In the event of a fire emergency, the Project would have BMPs that would minimize potential impacts of fires. In addition, the potential for fire hazards would be reduced through providing adequate training in fire safety for all workers and proper maintenance and operations of construction equipment and proper storage of fuels. Therefore, there would be less than significant impact.

Conclusion:

Less Than Significant 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 Project area is not in or near state responsibility areas or lands classified as very high severity zones. In addition, the Project itself will not expose people or structures to a significant risk of loss, injury, or death because of wildland fires. Therefore, there would be no impact.

Conclusion:

No Impact.

References Used:

Department of the Navy (Navy). 2024. *Record of Decision/Final Remedial Action Plan, Paint Waste Area/Unexploded Ordnance Site 13, Former Mare Island Naval Shipyard, Vallejo, California*. Draft. October.

10. HYDROLOGY AND WATER QUALITY				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
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;	☐	☐	☐	☒
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
(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	☐	☐	☐	☒
(iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

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

ENVIRONMENTAL SETTING (BASELINE):

Surface Water

Surface waters on Mare Island are composed of tidal and nontidal wetlands. Historical data demonstrated that there is a downward vertical gradient from ground surface to the underlying silty clay dredge material or Young Bay Mud (Weston 2002).

During the wet season (October to April), increased precipitation and stormwater runoff from upland areas and lower evapotranspiration rates produce ponded water in low lying areas (that is, nontidal wetlands). This ponded water slowly discharges to the underlying shallow water-bearing zone or evaporates. During the dry season (May to September), when the water table is lower, a precipitation event can produce water in these wetlands but is more likely to evaporate or slowly recharge the groundwater.

Groundwater

The Navy characterized the water-bearing units at IA-I as shallow, intermediate, and deep zones. The shallow water-bearing zone refers to both artificial fill and naturally deposited material intersected by the water table. The intermediate and deep zones correspond to the intermediate and lower sands occurring in the natural sediments below the artificial fill. All three primary water-bearing zones were encountered in deep wells in the northern portion of IA-I.

During the 2007 TCRA, shallow groundwater at the PWA was encountered between 7 and 8 feet bgs in the borings to a depth of 12 feet bgs. During the 2014 RI, groundwater at the PWA was observed seeping into some of the borings between approximately 3.5 and 4 feet bgs. Groundwater level elevations in the shallow water-bearing zone generally vary between the drier summer months (lower elevation) and winter wetter months (higher elevation), with averages of 2 to 6 feet above mean sea level. The groundwater gradient and flow direction also vary seasonally. Historical groundwater elevation data showed the interpreted groundwater flow direction was toward the south (wetland area) in January 1999, northwest in May 1999 and July 2014, and west in October 2014. The estimated hydraulic gradient was 0.004 in July 2014 and 0.009 in October 2014.

The Navy has determined that shallow groundwater to a depth of 15 feet bgs at the PWA meets the criteria for an exception to the State Sources of Drinking Water Policy (State Water Resources Control Board Resolution No 88-63) because groundwater at the site is high in salinity and not expected to be used for drinking water in the foreseeable future. Local restrictions require a 50-foot sanitary seal for agricultural and domestic water wells, and domestic water on Mare Island is currently supplied by the City of Vallejo. Based upon these factors, the Regional Water Quality Control Board staff concurred with this determination that shallow groundwater to a depth of 15 feet bgs was not likely to be used for domestic or municipal supply and meets an exception to the Sources of Drinking Water Policy (State Water Resources Control Board Resolution No. 88-63) in a letter dated May 28, 2015 (Navy 2024).

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 overall Project will not result in degradation of surface or groundwater quality or depletion/degradation of

   groundwater supplies and, in fact, should result in the long-term improvement of water quality by reducing the potential for direct contact with buried paint waste. The Proposed Project serves to protect water quality by removing contaminated soils and will not violate any water quality standards or waste discharge requirements. The PWA Vicinity Area is less than 1 acre; therefore, a Stormwater Pollution Prevention Plan (SWPPP) is not required. However, BMPs will be used, such as sandbags, silt fencing, and hay waddles, as required to prevent the migration of contaminated soil or sediments. Active construction area BMPs will be implemented throughout Project construction. Stormwater drainage and construction BMPs will be developed for each Project site based on actual site conditions and will be updated as work progresses. Final grading will be conducted at the conclusion of all site activities. Following final grading, the backfilled areas will be hydroseeded with an appropriate mix of native grasses for erosion protection. Therefore, there would be less than significant impact.

   Conclusion:

   Less Than Significant 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:

   Water used during the Project, such as that for dust control, will not have an adverse effect on groundwater supplies. This Project will remove contaminated soils from the site. In addition, water will either be supplied from a fire hydrant or by the City of Vallejo via potable water. The Project will not impede sustainable groundwater management of any basin. Therefore, there would be no impact.

   Conclusion:

   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:

The construction area will be graded to control all runoff. Construction activities will not increase the potential for erosion or the loss of topsoil. Site grading at certain locations may be performed to increase wetland habitat. Therefore, there would be no impact.

Conclusion:

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:

The construction area will be graded to control all runoff. Construction activities will not increase the potential for erosion or the loss of topsoil. Site grading at certain locations may be performed to increase wetland habitat. The rate, volume, and direction of surface water runoff will not be altered. Therefore, there would be no impact.

Conclusion:

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:

The construction activities will not create or contribute runoff water or sources of polluted runoff or otherwise substantially degrade water quality. Therefore, there would be no impact.

Conclusion:

No Impact.

(iv) impede or redirect flood flows?

Impact Analysis:

The Project will not construct or develop any structures or infrastructure that would impede or redirect flood flows. Therefore, there would be no impact.

Conclusion:

No Impact.

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

Impact Analysis:

There is no anticipated risk related to inundation by sieche, tsunami, or mudflow. Mare Island is at the mouth of the Napa River, adjacent to San Pablo Bay on the east side of an interior bay. The Association of Bay Area Governments (ABAG) publishes maps produced by the Office of Emergency Service showing the evacuation areas in case of a tsunami. These maps show tsunami inundation effects and evacuation areas only on the ocean side. No hazard maps show any evacuation required in the East Bay, including Mare Island. Therefore, there would be no impact.

Conclusion:

No Impact.

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

Impact Analysis:

The overall Project will not result in degradation of surface or groundwater quality, or depletion/degradation of groundwater supplies and, in fact, should result in the long-term improvement of water quality by reducing the potential for direct contact with buried paint waste. The proposed Project serves to protect water quality by removing contaminated soils and will not violate any water quality standards or waste discharge requirements. BMPs will be used, such as sandbags, silt fencing, and hay waddles, as required to prevent the migration of contaminated soil or sediments. Active construction area BMPs will be implemented throughout Project construction. Stormwater drainage and construction BMPs will be developed for each Project site based on actual site conditions and will be updated as work progresses. Final grading will be conducted at the conclusion of all site activities. Following final grading, the backfilled areas will be restored with pickleweed and other wetland vegetation. Therefore, there would be less than significant impact. With the implementation of BMPs during the Project, there would be no conflicts or obstruction of a water quality control plan or sustainable groundwater management plan. Therefore, there would be a less than significant impact.

Conclusion:

Less Than Significant Impact.

References Used:

Roy F. Weston, Inc. 2002. *Remedial Investigation, Investigation Area H1 Soil, IR05 and Western Magazine Area Remedial Investigation, Mare Island, Vallejo, California*. Draft.

Department of the Navy (Navy). 2024. *Record of Decision/Final Remedial Action Plan, Paint Waste Area/Unexploded Ordnance Site 13, Former Mare Island Naval Shipyard, Vallejo, California.* Draft. October.

11. LAND USE AND PLANNING				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

The Project area is within Resource Conservation zoning and near General Industrial zoning. There are no residential or commercial areas within or near the Project area. Upon Project completion, the planned future land use of the Project area is to be open space and conservation area.

According to the City of Vallejo's Mare Island Specific Plan (2013), existing land use includes industrial near the waterfront, residential further inland, and commercial, civic, educational, and recreational uses distributed throughout the island. Two entrances from the Vallejo mainland, State Route 37 and the Mare Island Causeway Bridge, provide vehicular and rail access to the island. Large portions of Mare Island have been designated for habitat conservation or public access for recreation and subsequently protected from development. The remaining conservation areas provide both habitat and opportunities for outdoor recreation. One of the land use goals is to "provide a high quality of life for residents of all ages and generations" and to offer a "comfortable, safe, and walkable environment" (City of Vallejo 2013).

IMPACT ANALYSES AND CONCLUSIONS:

Analysis as to whether or not project activities would:

a. Physically divide an established community?

Impact Analysis:

The Project area is currently vacant and zoned as Resource Conservation with General Industrial zoning as the closest nearby zoning district (City of Vallejo 2025). There is no residential or commercial zoning within or near the Project area. In addition, the Proposed Project activities are to excavate and remove contaminated paint waste and soil and would not build any infrastructure that could physically divide the surrounding areas. And upon Project completion, the planned future land use is to be open space and conservation area. Therefore, the Project would not physically divide an established community and would have no impact.

Conclusion:

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:

No zoning or land use changes are proposed under the Project. The Project area is currently zoned as Resource Conservation and is vacant. Upon Project completion, the planned future use of the PWA is open space and conservation. The excavation and cleanup activities would not conflict with any land use plan, policy, or regulation, and neither would it cause significant environmental impact. The Project would incorporate LUCs to prohibit improper site use and control exposure to low residual risk from incidental MEC items. The Project would provide overall protection to human health and the environment by excavating the contaminated paint waste and soil and would aid in the rehabilitating of the overall Project environment. The Project would reduce the toxicity, mobility, and volume of hazardous contaminants present at the site. Therefore, the Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or minimizing an environmental effect and would have no impact.

Conclusion:

No Impact.

References Used:

City of Vallejo. 2013. *Mare Island Specific Plan*. Adopted March 1999, last amended August 2013. https://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=19272509.

City of Vallejo. 2025. *City of Vallejo Zoning Map.* https://www.arcgis.com/apps/View/index.html?appid=7638bbc2a29d4c4387366372429f6daa&extent=-122.3063,38.0807,-122.2239,38.1134.

12. MINERAL RESOURCES				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

According to the Solano County General Plan, there are no mines, processing plants, mineral resource zones, natural gas fields, known mineral resource deposits, or active mining operations within Mare Island (Solano County 2008).

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:

No known mineral resources exist within or near the Project area. Therefore, there would be no impact.

Conclusion:

No Impact.

b. 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:

No locally important mineral resource recovery site or any mineral resources exist within or near the Project area. Therefore, there would be no impact.

Conclusion:

No Impact.

References Used:

Solano County. 2008. *Solano County General Plan*. Chapter 4 – Resources. http://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=6494.

13. NOISE				
Would the project result in:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

The existing primary noise sources on Mare Island and near the Project area are engine noises from commercial shipping, vessel traffic, current onsite commercial building tenants, and occasional aircraft overflights. Wind and wildlife produce ambient noise. The adjacent sites include existing commercial and industrial uses for which typical noise sources include vehicle traffic, truck loading and unloading, and equipment operation and repair, among other activities.

The City of Vallejo General Plan (2018) contains a noise element similar to state plan guidelines. Noise from construction and maintenance equipment is limited to certain levels by the City of Vallejo. The City has also established limits on noise levels based on the type of activity.

The distances to the nearest sensitive receptors from the Project area evaluated in this Initial Study are as follows:

- Touro University California School of Nursing (approximately 1 mile from the Project area)
- St. Vincent Ferrer School (approximately 1.4 miles from the Project area, located on the eastern side of the Napa River)
- Vallejo Kaiser Permanente Medical Center (approximately 2.5 miles from the Project area and on the eastern side of the Napa River)

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 Project will have noise generated by construction equipment. During the construction phase of the Project, noise from construction activities will add to the noise environment in the immediate area. The noise from trucks and other vehicles would be sporadic and short in duration and would not add to the noise from the construction equipment. The Project area is considered remote and relatively far from all public areas such as recreational areas, residential homes, and schools. Therefore, the Project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in local plans, noise ordinance, or from agencies. There would be less than significant impact.

Conclusion:

Less Than Significant Impact.

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

Impact Analysis:

No equipment that would contribute to groundborne vibration or noise, such as jackhammers or pile drivers, will be used during the Project. Therefore, the Project would have less than significant impact.

Conclusion:

Less Than Significant 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 Project is not within the vicinity of a private airstrip or within 2 miles of a public airport or public use airport and is not within an airport land use plan. Therefore, there would be no impact.

Conclusion:

No Impact.

References Used:

City of Vallejo. 2018. *Propel Vallejo: General Plan 2040*. Adopted August 29, 2017. https://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=17961496.

14. POPULATION AND HOUSING				
Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

The Project area is within Resource Conservation zoning and near General Industrial zoning (City of Vallejo 2025). There are no residential or commercial areas within or near the Project area.

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:

The Project would excavate contaminated paint waste and soil from the Project area and would not build any new homes, businesses, roads, or any infrastructure. In addition, the planned future use of the PWA would be open space and conservation area and not residential or commercial areas that could induce substantial unplanned population growth in the area. Therefore, the Project would not induce substantial unplanned population growth in the area, either directly or indirectly. There would be no impact.

Conclusion:

No Impact.

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

Impact Analysis:

The Project is currently vacant and zoned as Resource Conservation. The Project area is not within or near a residential zoned area or a commercial zoned area. None of the Project activities would require or necessitate the construction of replacement housing elsewhere because there are no existing housing in the Project area. Therefore, the Project would not result in the displacement of substantial numbers of existing people or housing and would not require any construction of replacement housing. There would be no impact.

Conclusion:

No Impact.

References Used:

City of Vallejo. 2025. City of Vallejo Zoning Map. https://www.arcgis.com/apps/View/index.html?appid=7638bbc2a29d4c4387366372429f6daa&extent=-122.3063,38.0807,-122.2239,38.1134.

15. PUBLIC SERVICES				
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:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

The Vallejo Fire Department (VFD) provides fire protection for Mare Island (City of Vallejo Fire Department 2025). The VFD maintains an administrative office on Mare Island but not an active fire station. The closest fire department to the Project area is the City of Vallejo Fire Department, which is at 970 Nimitz Avenue. It is approximately 0.81 mile from the Project area.

The Vallejo Police Department (VPD), the Solano County Sheriff's Department, and the California Highway Patrol service the City of Vallejo. However, the VPD has the primary responsibility for law enforcement on Mare Island (City of Vallejo Police Department 2025). The VPD does not maintain an office or substation on Mare Island but does conduct daily routine patrols of Mare Island. The closest police department to the Project area is the City of Vallejo Police Department, which is at 111 Amador Street. It is approximately 2.3 miles from the Project area and on the other side of the Napa River.

The closest schools from the Project area are Touro University California School of Nursing, located at 1091 Azuar Drive, and St. Vincent Ferrer School, located at 411 Kentucky Street in Vallejo. Touro University California School of Nursing is approximately 1 mile from the Project area, while St. Vincent Ferrer School is approximately 1.4 miles from the Project area and on the other side of the Napa River.

The Project area itself does not contain any recreational facilities. The closest recreational facilities near the Project area are the Mare Island San Pablo Bay Hiking Trail (approximately 0.3 mile from the Project area) (East Bay Regional Park District 2025), Crescent Park (approximately 0.87 mile from the Project area) (Great Vallejo Recreation District 2025) , and Alden Park (approximately 0.92 mile from the Project area).

The closest hospital to the Project area is the Vallejo Kaiser Permanente Medical Center at 975 Sereno Drive (Kaiser Permanente Vallejo Medical Center 2025). The medical center is approximately 2.5 miles from the Project area and on the other side of the Napa River.

IMPACT ANALYSES AND CONCLUSIONS:

Analysis as to whether or not project activities would:

a. 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:

i. Fire protection?

Impact Analysis:

The closest fire department to the Project area is the City of Vallejo Fire Department, which is at 970 Nimitz Avenue. It is approximately 0.81 mile from the Project area. The Project would not substantially increase the need for fire protection services compared to existing conditions. Appropriate locations for tools and equipment storage, road access, parking, and other maintenance activities will be established within the Project area. No Project activities will result in physically altered facilities that would require any changes in public services or response times. In the event of a fire emergency, the Project would have BMPs that would minimize potential impacts to fires. In addition, the potential for fire hazards would be reduced by providing adequate training in fire safety for all workers and proper maintenance and operations of construction equipment and proper storage of fuels. Therefore, there would be no impact.

Conclusion:

No Impact.

ii. Police protection?

Impact Analysis:

The closest police department to the Project area is the City of Vallejo Police Department, which is at 111 Amador Street. It is approximately 2.3 miles from the Project area and on the other side of the Napa River. Project activities would be short-term and employ a temporary workforce. The Project would not substantially increase the need for police protection services compared to existing conditions. In the event of a police emergency, the police department will be notified. Therefore, there would be no impact.

Conclusion:

No Impact.

iii. Schools?

Impact Analysis:

The closest schools from the Project area are Touro University California School of Nursing, located on 1091 Azuar Drive, and St. Vincent Ferrer School, located at 411 Kentucky Street. Touro University California School of Nursing is approximately 1 mile from the Project area, while St. Vincent Ferrer School is approximately 1.4 miles from the Project area and on the other side of the Napa River. Given the short duration of the Project and the level of activity involved, students at nearby schools would not be significantly impacted. In addition, the proximity of the schools would not hinder student's ability to go to school. Therefore, there would be no impact.

Conclusion:

No Impact.

iv. Parks?

Impact Analysis:

The Project area is near the Mare Island San Pablo Bay Hiking Trail, which is approximately 0.3 mile from the Project area. The closest parks to the Project area are Crescent Park, which is approximately 0.87 mile from the Project area, and Alden Park, which is approximately 0.92 mile from the Project area. Given the short duration of the Project and the level of activity involved, park and recreational users would not be significantly impacted. In addition, the proximity of the parks would not hinder park user's ability to go to parks and recreational areas. Therefore, there would be no impact.

Conclusion:

No Impact.

v. Other public facilities?

Impact Analysis:

The closest hospital to the Project area is the Vallejo Kaiser Permanente Medical Center on 975 Sereno Drive. The medical center is approximately 2.5 miles from the Project area and is on the other side of the Napa River. The proximity of the medical center would not hinder the hospital's ability to treat patients or the ability for residents to get to the facility for treatment. In addition, the Project activities would not create any new infrastructure, structures, or housing that would increase the number of people working or residing in the Project area. Demand for existing public facilities around the City of Vallejo would remain the same as existing conditions. Therefore, there would be no impact.

Conclusion:

No Impact.

References Used:

City of Vallejo. 2025. Mare Island. https://www.vallejo.gov/our_city/about_vallejo/mare_island.

City of Vallejo Fire Department. 2025. https://www.vallejo.gov/our_city/departments_divisions/fire_department.

City of Vallejo Police Department. 2025. https://www.vallejopd.net/.

East Bay Regional Park District. 2025. San Pablo Bay Regional Shoreline Trail. https://www.ebparks.org/trails/interpark/san-pablo-bay.

Great Vallejo Recreation District. 2025. Crescent Park. https://www.gvrd.org/crescent-park.

Kaiser Permanente Vallejo Medical Center. 2025. https://healthy.kaiserpermanente.org/northern-california/facilities/vallejo-medical-center-100316.

16. RECREATION				
	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

The Project area itself does not contain any recreational facilities. The closest recreational facilities near the Project area are the Mare Island San Pablo Bay Hiking Trail (approximately 0.3 miles from the Project area) (East Bay Regional Park District 2025), Crescent Park (approximately 0.87 miles from the Project area) (Great Vallejo Recreation District 2025), and Alden Park (approximately 0.92 miles from the Project area). These facilities are described briefly as follows:

- The Mare Island San Pablo Bay Hiking Trail is an approximately 3.6-mile loop trail that provides several recreational opportunities such as hiking, running, and bird watching.
- Crescent Park is a neighborhood park that has a children's playground, seating and picnic areas, and grass for recreational opportunities.
- Alden Park is a memorial park that provides historical artifacts for public view and grass for recreational opportunities and picnics.

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 Project area is near the Mare Island San Pablo Bay Hiking Trail, which is approximately 0.3 mile from the Project area. The closest parks to the Project area are Crescent Park, which is approximately 0.87 mile from the Project area, and Alden Park, which is approximately 0.92 mile from the Project area. The Project would not include new housing and would not directly or indirectly increase the local population. As a result, it would not increase the use of existing neighborhood and regional parks or other recreational facilities such that it would cause substantial physical deterioration. Therefore, there would be no impact.

Conclusion:

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 Project does not include recreational facilities or the expansion of recreational facilities. Therefore, there would be no impact.

Conclusion:

No Impact.

References Used:

City of Vallejo. 2025. Mare Island. https://www.vallejo.gov/our_city/about_vallejo/mare_island.

East Bay Regional Park District. 2025. San Pablo Bay Regional Shoreline Trail. https://www.ebparks.org/trails/interpark/san-pablo-bay.

Great Vallejo Recreation District. 2025. Crescent Park. https://www.gvrd.org/crescent-park.

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

ENVIRONMENTAL SETTING:

The regional access routes to Mare Island are Interstate 80, Interstate 37, State Route 37, and State Route 29. The local access routes going east and west are the Tennessee Street-Mare Island Causeway and Curtola Parkway. The local access routes going north and south are Wilson Avenue, Sacramento Street, and Mare Island Way. The Mare Island Causeway serves as the primary east and west access road from Vallejo to Mare Island. The streets on Mare Island are local roads and have light, generally free-flowing traffic.

For public transit and rail services, the Project would not block, remove, or create any barriers for transit use and thus would not be described in the setting. In addition, the Project does not include any new or revised sidewalk improvements and would also not block, remove, or create barriers for pedestrians or bicyclists using any sidewalks or bike paths.

The Project is in areas of Mare Island that are restricted to the public. Traffic at the Former Mare Island is limited to maintaining facility operations and employees entering and leaving the Project site. The use of any public street will be only for the purposes of transporting excavated soil for offsite disposal and importing clean backfill soil for site restoration and haul routes will not be in residential areas.

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:

Project activities that could impact traffic and conflict with circulation system are the personnel vehicles, trucks that are delivering equipment and material, and the off-road trucks transporting the excavated soil and backfill soil. The transportation of soil will be entirely on roads that are restricted from public access, and traffic will be coordinated to avoid conflicts with circulation.

It is anticipated that work personnel will average 15 vehicle trips per day. Construction equipment will remain in the Project area for the duration of construction activities, and the exception will be the off-road dump trucks to transport soil and backfill soil to and from the Project area. The truck trips for transporting excavated soil for offsite disposal and importing clean backfill material is approximately 140 trips. Off-road trucks will use non-public roads and routes through areas that are restricted to the public by fencing or other controls, and hauling will be done between the hours of 8 a.m. and 5:30 p.m. While transporting the soil onto public streets, it will be restricted from residential areas and limited to the hours of 8 a.m. and 4:30 p.m. to avoid peak commuting hours to and from Mare Island. With these BMPs and AMMs implemented during the Project, there would be less than significant impacts to conflicts with a program, plan, ordinance, or policy addressing the circulation system. Therefore, there would be a less than significant impact.

Conclusion:

Less Than Significant Impact.

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

Impact Analysis:

CEQA Guidelines Section 15064.3, subdivision (b) states "…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" and "…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." The Project is neither a transportation nor road capacity project, and the Project would not permanently increase vehicle miles traveled because of the short-term duration of construction activities and the number of vehicle trips per day associated. Therefore, there would be a less than significant impact.

Conclusion:

Less Than Significant 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 Project would not involve any physical changes to roadways or create any geometric design feature or introduce incompatible uses. Therefore, there would be no impact.

Conclusion:

No Impact.

d. Result in inadequate emergency access?

Impact Analysis:

The Project would not substantially increase the need for fire or police protection services compared to existing conditions. Appropriate locations for tools and equipment storage, road access, parking, and other maintenance activities will be established within the Project area. No Project activities will result in physically altered facilities that would require any changes in public services or response times. In the event of a fire or police emergency, the Project would have BMPs that would minimize potential impacts. In addition, the potential for fire hazards would be reduced through providing adequate training in fire safety for all workers and proper maintenance and operations of construction equipment and proper storage of fuels. Emergency routes would be established, and sufficient space will be provided to ensure service vehicles can arrive efficiently at the Project area. Therefore, there would be a less than significant impact.

Conclusion:

Less Than Significant Impact.

References Used:

City of Vallejo. 2013. *Mare Island Specific Plan*. Adopted March 1999, last amended August 2013. https://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=19272509.

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	☐	☐	☐	☒
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.	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

Tribal cultural resources are defined in PRC § 21074. California AB 52 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 tribe(s). The tribe that is traditionally and culturally affiliated to the geographic area where a project is must have requested that the lead agency in question provide notification to the tribe (PRC § 21080.3.1).

The California Native American Graves Protection and Repatriation Act of 2001 is the state repatriation policy for Native American remains.

If remains are found onsite, the County Coroner will make the 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 (in accordance with H&SC § 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 § 5097.98). The descendants will complete their inspection and make recommendations for treatment within 48 hours of being granted access to the site (CEQA Guidelines, 14 CCR § 15064.5[e]; H&SC § 7050.5). The measures outlined in Section 7050.5 of the H&SC and Section 5097.98 of the PRC are considered standard measures implemented in the event of an accidental discovery of human remains during excavation activities.

Early indigenous inhabitants, including the Patwin and Carquin peoples, settled in permanent villages near Vallejo, with seasonal camps close to the locations of resources needed during those seasons (City of Vallejo 2013). Sites were often near fresh water sources where plant and animal life were abundant. Before installation closure, in compliance with the National Historic Preservation Act, the Navy conducted an evaluation of historic significance for properties at Mare Island. This evaluation determined whether a revision to the National Register nomination for historically significant buildings, structures, objects, sites, and districts at Mare Island was necessary and produced a predictive model for historic archeological properties. According to the 1996 prediction model, the following statement was made: "The following general areas may be excluded from consideration for containing potential prehistoric archeological sites: all made land

north of A Street; all made land northwest of Cedar Avenue, from A Street to 5th Street; all made land west of Tisdale Avenue from its intersection with Crisp Avenue; the Marine Rifle Range; all made land west of the bluff edge along Mesa Road; all made land west and south of the bluffs forming the southern end of the island; all made land east of Railroad Avenue, north to 10th Street; all made land east of an irregular line that passes through dry dock number 2, encompasses the location of buildings 117, 69, and passes through buildings 85 and 89 before terminating at First Street." (William Self and Associates 1996). The PWA is part of the general areas listed in the predictive model. Therefore, encounters of archaeological or historical significance is not expected at the PWA, and therefore, oversight during the project is not warranted.

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)

Impact Analysis:

Tribal consultation and notification will be followed pursuant to AB 52 as part of the CEQA review process for the Project. The Project area, along with the entire installation, has been evaluated for historical and cultural significance. The predictive model for archaeological sites excluded certain areas of Mare Island from consideration for containing potential prehistoric archeological sites, which included the PWA. Therefore, there would be no impacts.

Conclusion:

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:

Tribal consultation and notification will be followed pursuant to AB 52 as part of the CEQA review process for the Project. The Project area, along with the entire installation, has been evaluated for historical and cultural significance. The predictive model for archaeological sites excluded certain areas of Mare Island from consideration for containing potential prehistoric archeological sites, which included the PWA.

Conclusion:

No Impact

b. Assistance from DTSC's Environmental Justice and Tribal Affairs office (EJTA) was requested to complete outreach to Native American tribes who may have knowledge of cultural resources in the project area on September 30, 2025. The State of California's Native American Heritage Commission (NAHC) was contacted by DTSC's EJTA Coordinator to conduct a search of the Sacred Land File (SLF) and to obtain a list of California Native American Tribes who may have knowledge of cultural resources within the project area. On October 1, 2025, the NAHC responded. The results of the SLF were NEGATIVE. On October 2, 2025, outreach letters were emailed to 12 individuals, representing 6 different Tribes. The letters sent to tribes included maps illustrating the location of the "Mare Island Naval Shipyard – Paint Waste Area" and a description of the proposed activities. After the letters were sent to the tribal contacts a 30-business-day response window was initiated. The end of that 30-day response window ended on November 13, 2025.

A representative from Muwekma Ohlone Tribe of the San Francisco Bay Area expressed interest in the project and wanted to be kept updated. Yocha Dehe Wintun Nation (YDWN) requested formal consultation on this project on November 3, 2025. A consultation meeting was held on December 19, 2025, between EJTA staff and YDWN representatives. YDWN representatives said the area was of cultural significance to the Tribe and under safer circumstances would have preferred to include tribal monitoring into the project activities, however, due to the risk to human health, the Tribe will forgo the request to monitor. They are requesting to include a cultural sensitivity training to be held prior to ground disturbing activities. Consultation is ongoing.

Conclusion:

No impact

References Used:

City of Vallejo. 2013. *Mare Island Specific Plan*. Adopted March 1999, last amended August 2013. https://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=19272509.

19. UTILITIES AND SERVICE SYSTEMS				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

Water supply on Mare Island is provided by the Vallejo Water Department, which provides administrative, engineering, water treatment, and maintenance support for the City of Vallejo's potable (drinking) water treatment and distribution (City of Vallejo 2025). There is no wastewater treatment on Mare Island. The sanitary sewer system runs across the Strait to Vallejo Flood and Wastewater District's (VFWD) processing plant in south Vallejo (Vallejo Flood and Wastewater District 2025). Utility services are supplied by the VFWD and the City of Vallejo (sewer and potable water, respectively), AT&T (telephone), and Island Energy (power) (Island Energy 2025). A high voltage electrical line encased in concrete lies in the northeastern portion of the site (Figure 2), and coordination with Island Energy will be conducted before field activities.

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:

The Project will not require or result in the expansion of existing or construction of new water and wastewater treatment facilities or the relocation of such facilities, nor would it require or result in any utility infrastructure. Therefore, there would be no impact.

Conclusion:

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:

The Project is expected and anticipated to use the municipal water supply, which is expected to provide a rate sufficient for the Project water needs. Therefore, there would be less than significant impact.

Conclusion:

Less Than Significant 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:

The Project will not create any additional wastewater. Therefore, there would be no impact.

Conclusion:

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:

Only a small amount (approximately 5 cubic yards) of solid waste would be generated and required to be disposed offsite. Disposable personal protective equipment, plastic, and rags will be disposed of in a Class III landfill. No hazardous wastes requiring offsite disposal are anticipated. Therefore, there would be less than significant impact.

Conclusion:

Less Than Significant Impact.

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

Impact Analysis:

The excavation, compaction, and transport of soil will comply with all federal, state, and local statutes, and regulations. Therefore, there would be no impact.

Conclusion:

No Impact.

References Used:

City of Vallejo. 2025. Water Department. https://www.vallejo.gov/our_city/departments_divisions/water_department.

Island Energy. 2025. Energy Solutions for Mare Island. https://www.islandenergy.com/.

Vallejo Flood and Wastewater District. 2025. https://www.vallejowastewater.org/.

20. WILDFIRE				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING:

According to the California Department of Forestry and Fire Protection (CalFire 2025), the Project area is not in or near state responsibility areas or lands classified as very high severity zones (CalFire 2025). However, water trucks will be onsite, as needed, during the excavation and backfilling field activities, especially during the dry season.

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:

The Project area is not in or near state responsibility areas or lands classified as very high severity zones. Therefore, there would be no impact.

Conclusion:

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:

The Project area is not in or near state responsibility areas or lands classified as very high severity zones. Therefore, there would be no impact.

Conclusion:

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:

The Project area is not in or near state responsibility areas or lands classified as very high severity zones. Therefore, there would be no impact.

Conclusion:

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:

The Project area is not in or near state responsibility areas or lands classified as very high severity zones. Therefore, there would be no impact.

Conclusion:

No Impact.

References Used:

California Department of Forestry and Fire Protection (CalFire). 2025. *Fire Hazard Severity Zones. Severity Zone Maps.* https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones.

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

Figures



LEGEND

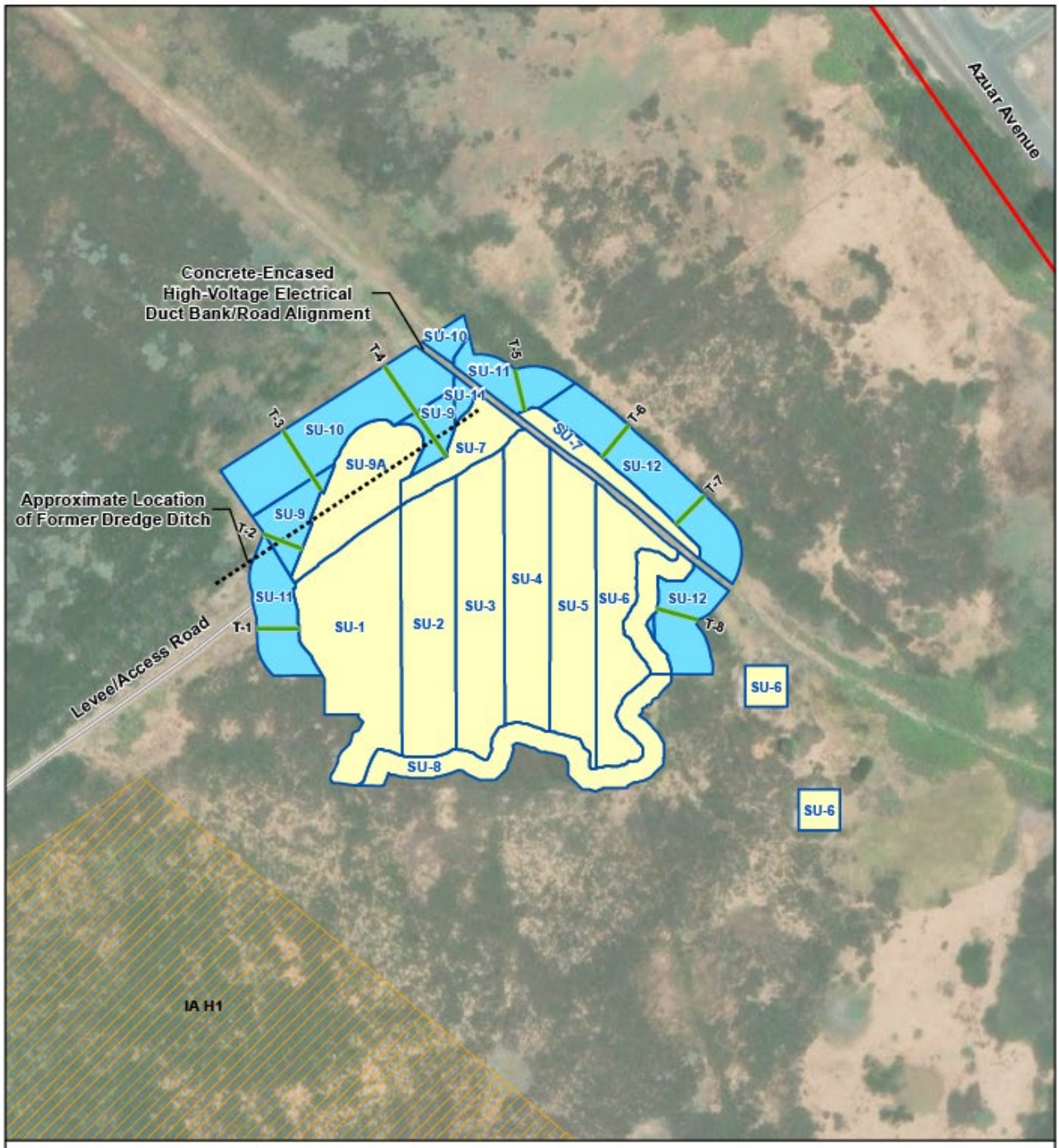
- Former Mare Island Naval Shipyard Boundary - Not Including Submerged Land
- Paint Waste Area

NOTE:
PWA = Paint Waste Area

Figure 1
Mare Island and Paint Waste Area Location Map
CEQA Initial Study
Former Mare Island Naval Shipyard
Vallejo, California

N
0 1,250 2,500 Feet
1 inch = 2,500 feet

\\Dc1ns01\GIS\NavyClean\SOUTHWESTMARE_ISLAND_NS\MapFiles\PWA_UXO13\CEQA_Initial_Study\FIGURE_1_MI_PWA_Location_Map.mxd 6/6/2025 AGAWNAM Jacobs



LEGEND

- Approximate Location of Former Dredge Ditch
- Levee/Access Road
- Remedial Investigation Trench (3 feet wide by 4 feet deep)
- Paint Waste Area Survey Unit
- Paint Waste Area Time-Critical Removal Action Excavation Area
- Paint Waste Area Vicinity Area
- IA H1 Boundary
- IA I Boundary

NOTE:
PWA = Paint Waste Area

Figure 2
Paint Waste Area Remedial Action Areas
CEQA Initial Study
Former Mare Island Naval Shipyard
Vallejo, California

N
0 85 170
Feet
1 inch = 170 feet

\\Dc1ns01\GIS\Navy\Clean\SOUTHWESTMARE_ISLAND_NS\MapFiles\PWA_UXO13\CEQA_Initial_Study\FIGURE_2_PWA_Remedial_Action_Areas.mxd 6/6/2025 AGAWWAA\Jacobs



LEGEND

- Paint Waste Area Survey Unit
- Target Treatment Zone A (Residual Paint Waste Area)
- Target Treatment Zone B (Paint Waste Vicinity)
- Paint Waste Area Boundary

NOTE:
PWA = Paint Waste Area

Figure 3
Paint Waste Area Remedial Action Target Treatment Zones
CEQA Initial Study
Former Mare Island Naval Shipyard
Vallejo, California

N
0 75 150 Feet
1 inch = 150 feet

\\dc1vs01\GIS\Navy Cleanup\SOUTHWEST MARE ISLAND_NS\MapFiles\PWA_UR013\CEQA_Initial_Study\FIGURE_3_PWA_Remedial_Action_Target_Treatment_Zones.mxd 6/6/2025 AGAWINAN Jacobs

Appendix A
California Emissions Estimator Model Emissions Calculation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mare Island Naval Shipyard

Solano-San Francisco County, Annual

1. Project Characteristics

2. Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	239.58	1000sqft	5.50	239,580.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	56
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction Schedule provided by project owner.

Off-road Equipment - Construction equipment provided by project owner.

Off-road Equipment - Construction equipment provided by project owner.

Off-road Equipment - Construction equipment provided by project owner.

Off-road Equipment - Construction equipment provided by project owner.

Trips and VMT - Construction activities provided by project owner.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	5.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	PhaseEndDate	7/27/2026	9/2/2025
tblConstructionPhase	PhaseEndDate	9/8/2025	8/22/2025
tblConstructionPhase	PhaseEndDate	8/11/2025	7/7/2025
tblConstructionPhase	PhaseStartDate	9/9/2025	7/23/2025
tblConstructionPhase	PhaseStartDate	8/12/2025	7/12/2025
tblConstructionPhase	PhaseStartDate	7/29/2025	7/1/2025
tblOffRoadEquipment	HorsePower	172.00	130.00
tblOffRoadEquipment	HorsePower	97.00	231.00
tblOffRoadEquipment	HorsePower	65.00	89.00
tblOffRoadEquipment	HorsePower	16.00	84.00
tblOffRoadEquipment	HorsePower	97.00	187.00
tblOffRoadEquipment	HorsePower	65.00	247.00
tblOffRoadEquipment	HorsePower	402.00	247.00
tblOffRoadEquipment	HorsePower	402.00	97.00
tblOffRoadEquipment	HorsePower	16.00	97.00
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.37	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.20
tblOffRoadEquipment	LoadFactor	0.38	0.74
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	LoadFactor	0.37	0.40
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentType	Pavers	Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType	Forklifts	Skid Steer Loaders

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentType	Generator Sets	Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType	Graders	Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Dumpers/Tenders
tblTripsAndVMT	HaulingTripLength	20.00	283.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0168	0.1190	0.1387	4.8000e-004	2.6900e-003	4.5400e-003	7.2300e-003	7.2000e-004	4.1800e-003	4.8900e-003	0.0000	42.6557	42.6557	0.0131	1.1000e-004	43.0152
Maximum	**0.0168**	**0.1190**	**0.1387**	**4.8000e-004**	**2.6900e-003**	**4.5400e-003**	**7.2300e-003**	**7.2000e-004**	**4.1800e-003**	**4.8900e-003**	**0.0000**	**42.6557**	**42.6557**	**0.0131**	**1.1000e-004**	**43.0152**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0168	0.1190	0.1387	4.8000e-004	2.6900e-003	4.5400e-003	7.2300e-003	7.2000e-004	4.1800e-003	4.8900e-003	0.0000	42.6557	42.6557	0.0131	1.1000e-004	43.0152
Maximum	**0.0168**	**0.1190**	**0.1387**	**4.8000e-004**	**2.6900e-003**	**4.5400e-003**	**7.2300e-003**	**7.2000e-004**	**4.1800e-003**	**4.8900e-003**	**0.0000**	**42.6557**	**42.6557**	**0.0131**	**1.1000e-004**	**43.0152**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2025	9-30-2025	0.1351	0.1351
		Highest	0.1351	0.1351

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0608	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2800e-003	4.2800e-003	1.0000e-005	0.0000	4.5600e-003
Energy	0.0338	0.3075	0.2583	1.8400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	514.2602	514.2602	0.0355	9.6600e-003	518.0246
Mobile	0.5446	0.7390	5.1297	0.0111	1.1546	9.1800e-003	1.1638	0.3084	8.5900e-003	0.3170	0.0000	1,046.2740	1,046.2740	0.0628	0.0513	1,063.1262
Waste						0.0000	0.0000		0.0000	0.0000	60.3046	0.0000	60.3046	3.5639	0.0000	149.4020
Water						0.0000	0.0000		0.0000	0.0000	17.5768	27.7372	45.3140	1.8098	0.0432	103.4238
Total	**1.6392**	**1.0464**	**5.3902**	**0.0129**	**1.1546**	**0.0326**	**1.1872**	**0.3084**	**0.0320**	**0.3404**	**77.8813**	**1,588.2757**	**1,666.1570**	**5.4719**	**0.1041**	**1,833.9811**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0608	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2800e-003	4.2800e-003	1.0000e-005	0.0000	4.5600e-003
Energy	0.0338	0.3075	0.2583	1.8400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	514.2602	514.2602	0.0355	9.6600e-003	518.0246
Mobile	0.5446	0.7390	5.1297	0.0111	1.1546	9.1800e-003	1.1638	0.3084	8.5900e-003	0.3170	0.0000	1,046.2740	1,046.2740	0.0628	0.0513	1,063.1262
Waste						0.0000	0.0000		0.0000	0.0000	60.3046	0.0000	60.3046	3.5639	0.0000	149.4020
Water						0.0000	0.0000		0.0000	0.0000	17.5768	27.7372	45.3140	1.8098	0.0432	103.4238
Total	**1.6392**	**1.0464**	**5.3902**	**0.0129**	**1.1546**	**0.0326**	**1.1872**	**0.3084**	**0.0320**	**0.3404**	**77.8813**	**1,588.2757**	**1,666.1570**	**5.4719**	**0.1041**	**1,833.9811**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Site Preparation	Site Preparation	7/1/2025	7/7/2025	5	5	
2	Phase 2 Soil Excavation and Sampling	Trenching	7/12/2025	8/22/2025	5	30	
3	Phase 3 Backfill Soil Excavations	Trenching	7/23/2025	9/2/2025	5	30	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Phase 4 Site Restoration	Paving	7/29/2025	8/6/2025	5	7

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 4 Site Restoration	Other Construction Equipment	1	8.00	130	0.42
Phase 1 Site Preparation	Other Construction Equipment	1	8.00	172	0.42
Phase 3 Backfill Soil Excavations	Tractors/Loaders/Backhoes	1	8.00	231	0.29
Phase 3 Backfill Soil Excavations	Skid Steer Loaders	1	8.00	89	0.20
Phase 3 Backfill Soil Excavations	Dumpers/Tenders	1	8.00	84	0.74
Phase 2 Soil Excavation and Sampling	Tractors/Loaders/Backhoes	1	8.00	187	0.41
Phase 2 Soil Excavation and Sampling	Off-Highway Trucks	1	8.00	402	0.38
Phase 2 Soil Excavation and Sampling	Skid Steer Loaders	1	8.00	247	0.40
Phase 1 Site Preparation	Off-Highway Trucks	1	8.00	247	0.40
Phase 3 Backfill Soil Excavations	Off-Highway Trucks	1	8.00	97	0.37
Phase 2 Soil Excavation and Sampling	Dumpers/Tenders	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 4 Site Restoration	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Soil Excavation and Sampl	4	10.00	0.00	1.00	10.80	7.30	283.00	LD_Mix	HDT_Mix	HHDT
Phase 3 Backfill Soil Excavations	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

1. Mitigation Measures Construction

Water Exposed Area

2. Phase 1 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0118	0.0152	4.0000e-005		5.4000e-004	5.4000e-004		5.0000e-004	5.0000e-004	0.0000	3.1968	3.1968	1.0300e-003	0.0000	3.2226
Total	**1.5400e-003**	**0.0118**	**0.0152**	**4.0000e-005**	**0.0000**	**5.4000e-004**	**5.4000e-004**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**3.1968**	**3.1968**	**1.0300e-003**	**0.0000**	**3.2226**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Phase 1 Site Preparation - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0772	0.0772	0.0000	0.0000	0.0778
Total	**3.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0772**	**0.0772**	**0.0000**	**0.0000**	**0.0778**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0118	0.0152	4.0000e-005		5.4000e-004	5.4000e-004		5.0000e-004	5.0000e-004	0.0000	3.1968	3.1968	1.0300e-003	0.0000	3.2226
Total	**1.5400e-003**	**0.0118**	**0.0152**	**4.0000e-005**	**0.0000**	**5.4000e-004**	**5.4000e-004**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**3.1968**	**3.1968**	**1.0300e-003**	**0.0000**	**3.2226**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Phase 1 Site Preparation - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0772	0.0772	0.0000	0.0000	0.0778
Total	**3.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0772**	**0.0772**	**0.0000**	**0.0000**	**0.0778**

3.3 Phase 2 Soil Excavation and Sampling - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.0680	0.0710	3.0000e-004		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	26.0729	26.0729	8.4300e-003	0.0000	26.2837
Total	**0.0103**	**0.0680**	**0.0710**	**3.0000e-004**		**2.5000e-003**	**2.5000e-003**		**2.3000e-003**	**2.3000e-003**	**0.0000**	**26.0729**	**26.0729**	**8.4300e-003**	**0.0000**	**26.2837**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Phase 2 Soil Excavation and Sampling - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	7.7000e-004	9.0000e-005	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3708	0.3708	0.0000	6.0000e-005	0.3881
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.2000e-004	2.8900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9259	0.9259	2.0000e-005	2.0000e-005	0.9334
Total	**3.7000e-004**	**9.9000e-004**	**2.9800e-003**	**1.0000e-005**	**1.3100e-003**	**2.0000e-005**	**1.3300e-003**	**3.5000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.2965**	**1.2965**	**2.0000e-005**	**8.0000e-005**	**1.3215**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.0680	0.0710	3.0000e-004		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	26.0729	26.0729	8.4300e-003	0.0000	26.2837
Total	**0.0103**	**0.0680**	**0.0710**	**3.0000e-004**		**2.5000e-003**	**2.5000e-003**		**2.3000e-003**	**2.3000e-003**	**0.0000**	**26.0729**	**26.0729**	**8.4300e-003**	**0.0000**	**26.2837**

3.3 Phase 2 Soil Excavation and Sampling - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	7.7000e-004	9.0000e-005	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3708	0.3708	0.0000	6.0000e-005	0.3881
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.2000e-004	2.8900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9259	0.9259	2.0000e-005	2.0000e-005	0.9334
Total	**3.7000e-004**	**9.9000e-004**	**2.9800e-003**	**1.0000e-005**	**1.3100e-003**	**2.0000e-005**	**1.3300e-003**	**3.5000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.2965**	**1.2965**	**2.0000e-005**	**8.0000e-005**	**1.3215**

3.4 Phase 3 Backfill Soil Excavations - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3900e-003	0.0307	0.0356	1.1000e-004		1.1100e-003	1.1100e-003		1.0200e-003	1.0200e-003	0.0000	9.5852	9.5852	3.1000e-003	0.0000	9.6627
Total	**3.3900e-003**	**0.0307**	**0.0356**	**1.1000e-004**		**1.1100e-003**	**1.1100e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**9.5852**	**9.5852**	**3.1000e-003**	**0.0000**	**9.6627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Phase 3 Backfill Soil Excavations - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.2000e-004	2.8900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9259	0.9259	2.0000e-005	2.0000e-005	0.9334
Total	**3.6000e-004**	**2.2000e-004**	**2.8900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9259**	**0.9259**	**2.0000e-005**	**2.0000e-005**	**0.9334**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3900e-003	0.0307	0.0356	1.1000e-004		1.1100e-003	1.1100e-003		1.0200e-003	1.0200e-003	0.0000	9.5851	9.5851	3.1000e-003	0.0000	9.6626
Total	**3.3900e-003**	**0.0307**	**0.0356**	**1.1000e-004**		**1.1100e-003**	**1.1100e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**9.5851**	**9.5851**	**3.1000e-003**	**0.0000**	**9.6626**

3.4 Phase 3 Backfill Soil Excavations - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.2000e-004	2.8900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9259	0.9259	2.0000e-005	2.0000e-005	0.9334
Total	**3.6000e-004**	**2.2000e-004**	**2.8900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9259**	**0.9259**	**2.0000e-005**	**2.0000e-005**	**0.9334**

3.5 Phase 4 Site Restoration - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9000e-004	7.3100e-003	0.0106	2.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.4366	1.4366	4.6000e-004	0.0000	1.4482
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9000e-004**	**7.3100e-003**	**0.0106**	**2.0000e-005**		**3.8000e-004**	**3.8000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.4366**	**1.4366**	**4.6000e-004**	**0.0000**	**1.4482**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Phase 4 Site Restoration - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.0000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0648	0.0648	0.0000	0.0000	0.0653
Total	**3.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0648**	**0.0648**	**0.0000**	**0.0000**	**0.0653**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9000e-004	7.3100e-003	0.0106	2.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.4366	1.4366	4.6000e-004	0.0000	1.4482
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9000e-004**	**7.3100e-003**	**0.0106**	**2.0000e-005**		**3.8000e-004**	**3.8000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.4366**	**1.4366**	**4.6000e-004**	**0.0000**	**1.4482**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Phase 4 Site Restoration - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.0000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0648	0.0648	0.0000	0.0000	0.0653
Total	**3.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0648**	**0.0648**	**0.0000**	**0.0000**	**0.0653**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5446	0.7390	5.1297	0.0111	1.1546	9.1800e-003	1.1638	0.3084	8.5900e-003	0.3170	0.0000	1,046.2740	1,046.2740	0.0628	0.0513	1,063.1262
Unmitigated	0.5446	0.7390	5.1297	0.0111	1.1546	9.1800e-003	1.1638	0.3084	8.5900e-003	0.3170	0.0000	1,046.2740	1,046.2740	0.0628	0.0513	1,063.1262

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	941.55	1,538.10	1219.46	3,113,581	3,113,581
Total	941.55	1,538.10	1,219.46	3,113,581	3,113,581

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.563549	0.053630	0.165033	0.126526	0.026088	0.006630	0.007849	0.015325	0.001025	0.000392	0.028762	0.000794	0.004397

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	179.5515	179.5515	0.0291	3.5200e-003	181.3269
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	179.5515	179.5515	0.0291	3.5200e-003	181.3269
NaturalGas Mitigated	0.0338	0.3075	0.2583	1.8400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	334.7087	334.7087	6.4200e-003	6.1400e-003	336.6977
NaturalGas Unmitigated	0.0338	0.3075	0.2583	1.8400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	334.7087	334.7087	6.4200e-003	6.1400e-003	336.6977

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	6.2722e+006	0.0338	0.3075	0.2583	1.8400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	334.7087	334.7087	6.4200e-003	6.1400e-003	336.6977
Total		**0.0338**	**0.3075**	**0.2583**	**1.8400e-003**		**0.0234**	**0.0234**		**0.0234**	**0.0234**	**0.0000**	**334.7087**	**334.7087**	**6.4200e-003**	**6.1400e-003**	**336.6977**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	6.2722e+006	0.0338	0.3075	0.2583	1.8400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	334.7087	334.7087	6.4200e-003	6.1400e-003	336.6977
Total		**0.0338**	**0.3075**	**0.2583**	**1.8400e-003**		**0.0234**	**0.0234**		**0.0234**	**0.0234**	**0.0000**	**334.7087**	**334.7087**	**6.4200e-003**	**6.1400e-003**	**336.6977**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	1.9406e+006	179.5515	0.0291	3.5200e-003	181.3269
Total		**179.5515**	**0.0291**	**3.5200e-003**	**181.3269**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	1.9406e+006	179.5515	0.0291	3.5200e-003	181.3269
Total		**179.5515**	**0.0291**	**3.5200e-003**	**181.3269**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0608	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2800e-003	4.2800e-003	1.0000e-005	0.0000	4.5600e-003
Unmitigated	1.0608	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2800e-003	4.2800e-003	1.0000e-005	0.0000	4.5600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9357					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2800e-003	4.2800e-003	1.0000e-005	0.0000	4.5600e-003
Total	**1.0608**	**2.0000e-005**	**2.2000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.2800e-003**	**4.2800e-003**	**1.0000e-005**	**0.0000**	**4.5600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9357					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2800e-003	4.2800e-003	1.0000e-005	0.0000	4.5600e-003
Total	**1.0608**	**2.0000e-005**	**2.2000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.2800e-003**	**4.2800e-003**	**1.0000e-005**	**0.0000**	**4.5600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	45.3140	1.8098	0.0432	103.4238
Unmitigated	45.3140	1.8098	0.0432	103.4238

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	55.4029 / 0	45.3140	1.8098	0.0432	103.4238
Total		**45.3140**	**1.8098**	**0.0432**	**103.4238**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	55.4029 / 0	45.3140	1.8098	0.0432	103.4238
Total		**45.3140**	**1.8098**	**0.0432**	**103.4238**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	60.3046	3.5639	0.0000	149.4020
Unmitigated	60.3046	3.5639	0.0000	149.4020

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	297.08	60.3046	3.5639	0.0000	149.4020
Total		**60.3046**	**3.5639**	**0.0000**	**149.4020**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	297.08	60.3046	3.5639	0.0000	149.4020
Total		**60.3046**	**3.5639**	**0.0000**	**149.4020**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mare Island Naval Shipyard

Solano-San Francisco County, Summer

1. Project Characteristics

2. Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	239.58	1000sqft	5.50	239,580.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	56
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction Schedule provided by project owner.

Off-road Equipment - Construction equipment provided by project owner.

Off-road Equipment - Construction equipment provided by project owner.

Off-road Equipment - Construction equipment provided by project owner.

Off-road Equipment - Construction equipment provided by project owner.

Trips and VMT - Construction activities provided by project owner.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	5.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	PhaseEndDate	7/27/2026	9/2/2025
tblConstructionPhase	PhaseEndDate	9/8/2025	8/22/2025
tblConstructionPhase	PhaseEndDate	8/11/2025	7/7/2025
tblConstructionPhase	PhaseStartDate	9/9/2025	7/23/2025
tblConstructionPhase	PhaseStartDate	8/12/2025	7/12/2025
tblConstructionPhase	PhaseStartDate	7/29/2025	7/1/2025
tblOffRoadEquipment	HorsePower	172.00	130.00
tblOffRoadEquipment	HorsePower	97.00	231.00
tblOffRoadEquipment	HorsePower	65.00	89.00
tblOffRoadEquipment	HorsePower	16.00	84.00
tblOffRoadEquipment	HorsePower	97.00	187.00
tblOffRoadEquipment	HorsePower	65.00	247.00
tblOffRoadEquipment	HorsePower	402.00	247.00
tblOffRoadEquipment	HorsePower	402.00	97.00
tblOffRoadEquipment	HorsePower	16.00	97.00
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.37	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.20
tblOffRoadEquipment	LoadFactor	0.38	0.74
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	LoadFactor	0.37	0.40
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentType	Pavers	Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType	Forklifts	Skid Steer Loaders

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentType	Generator Sets	Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType	Graders	Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Dumpers/Tenders
tblTripsAndVMT	HaulingTripLength	20.00	283.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	1.1987	8.7473	10.6181	0.0336	0.1972	0.3494	0.5467	0.0524	0.3215	0.3739	0.0000	3,268.1087	3,268.1087	0.9977	7.9400e-003	3,295.4213
Maximum	**1.1987**	**8.7473**	**10.6181**	**0.0336**	**0.1972**	**0.3494**	**0.5467**	**0.0524**	**0.3215**	**0.3739**	**0.0000**	**3,268.1087**	**3,268.1087**	**0.9977**	**7.9400e-003**	**3,295.4213**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	1.1987	8.7473	10.6181	0.0336	0.1972	0.3494	0.5467	0.0524	0.3215	0.3739	0.0000	3,268.1087	3,268.1087	0.9977	7.9400e-003	3,295.4213
Maximum	**1.1987**	**8.7473**	**10.6181**	**0.0336**	**0.1972**	**0.3494**	**0.5467**	**0.0524**	**0.3215**	**0.3739**	**0.0000**	**3,268.1087**	**3,268.1087**	**0.9977**	**7.9400e-003**	**3,295.4213**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.8138	2.2000e-004	0.0244	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0524	0.0524	1.4000e-004		0.0558
Energy	0.1853	1.6847	1.4152	0.0101		0.1280	0.1280		0.1280	0.1280		2,021.6614	2,021.6614	0.0388	0.0371	2,033.6751
Mobile	4.8671	5.3992	41.3710	0.0927	9.4625	0.0728	9.5353	2.5210	0.0682	2.5891		9,660.5415	9,660.5415	0.5183	0.4279	9,801.0230
Total	**10.8662**	**7.0841**	**42.8106**	**0.1028**	**9.4625**	**0.2009**	**9.6634**	**2.5210**	**0.1963**	**2.7172**		**11,682.2553**	**11,682.2553**	**0.5572**	**0.4650**	**11,834.7539**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.8138	2.2000e-004	0.0244	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0524	0.0524	1.4000e-004		0.0558
Energy	0.1853	1.6847	1.4152	0.0101		0.1280	0.1280		0.1280	0.1280		2,021.6614	2,021.6614	0.0388	0.0371	2,033.6751
Mobile	4.8671	5.3992	41.3710	0.0927	9.4625	0.0728	9.5353	2.5210	0.0682	2.5891		9,660.5415	9,660.5415	0.5183	0.4279	9,801.0230
Total	**10.8662**	**7.0841**	**42.8106**	**0.1028**	**9.4625**	**0.2009**	**9.6634**	**2.5210**	**0.1963**	**2.7172**		**11,682.2553**	**11,682.2553**	**0.5572**	**0.4650**	**11,834.7539**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Site Preparation	Site Preparation	7/1/2025	7/7/2025	5	5	
2	Phase 2 Soil Excavation and Sampling	Trenching	7/12/2025	8/22/2025	5	30	
3	Phase 3 Backfill Soil Excavations	Trenching	7/23/2025	9/2/2025	5	30	
4	Phase 4 Site Restoration	Paving	7/29/2025	8/6/2025	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 4 Site Restoration	Other Construction Equipment	1	8.00	130	0.42
Phase 1 Site Preparation	Other Construction Equipment	1	8.00	172	0.42
Phase 3 Backfill Soil Excavations	Tractors/Loaders/Backhoes	1	8.00	231	0.29
Phase 3 Backfill Soil Excavations	Skid Steer Loaders	1	8.00	89	0.20
Phase 3 Backfill Soil Excavations	Dumpers/Tenders	1	8.00	84	0.74
Phase 2 Soil Excavation and Sampling	Tractors/Loaders/Backhoes	1	8.00	187	0.41
Phase 2 Soil Excavation and Sampling	Off-Highway Trucks	1	8.00	402	0.38

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase 2 Soil Excavation and Sampling	Skid Steer Loaders	1	8.00	247	0.40
Phase 1 Site Preparation	Off-Highway Trucks	1	8.00	247	0.40
Phase 3 Backfill Soil Excavations	Off-Highway Trucks	1	8.00	97	0.37
Phase 2 Soil Excavation and Sampling	Dumpers/Tenders	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 4 Site Restoration	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Soil Excavation and Sampl	4	10.00	0.00	1.00	10.80	7.30	283.00	LD_Mix	HDT_Mix	HHDT
Phase 3 Backfill Soil Excavations	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

1. Mitigation Measures Construction

Water Exposed Area

2. Phase 1 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6179	4.6983	6.0655	0.0146		0.2165	0.2165		0.1991	0.1991		1,409.5360	1,409.5360	0.4559		1,420.9328
Total	**0.6179**	**4.6983**	**6.0655**	**0.0146**	**0.0000**	**0.2165**	**0.2165**	**0.0000**	**0.1991**	**0.1991**		**1,409.5360**	**1,409.5360**	**0.4559**		**1,420.9328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Phase 1 Site Preparation - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0131	6.6800e-003	0.1050	3.5000e-004	0.0411	1.9000e-004	0.0413	0.0109	1.7000e-004	0.0111		36.5230	36.5230	8.1000e-004	8.0000e-004	36.7810
Total	**0.0131**	**6.6800e-003**	**0.1050**	**3.5000e-004**	**0.0411**	**1.9000e-004**	**0.0413**	**0.0109**	**1.7000e-004**	**0.0111**		**36.5230**	**36.5230**	**8.1000e-004**	**8.0000e-004**	**36.7810**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6179	4.6983	6.0655	0.0146		0.2165	0.2165		0.1991	0.1991	0.0000	1,409.5360	1,409.5360	0.4559		1,420.9328
Total	**0.6179**	**4.6983**	**6.0655**	**0.0146**	**0.0000**	**0.2165**	**0.2165**	**0.0000**	**0.1991**	**0.1991**	**0.0000**	**1,409.5360**	**1,409.5360**	**0.4559**		**1,420.9328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Phase 1 Site Preparation - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0131	6.6800e-003	0.1050	3.5000e-004	0.0411	1.9000e-004	0.0413	0.0109	1.7000e-004	0.0111		36.5230	36.5230	8.1000e-004	8.0000e-004	36.7810
Total	**0.0131**	**6.6800e-003**	**0.1050**	**3.5000e-004**	**0.0411**	**1.9000e-004**	**0.0413**	**0.0109**	**1.7000e-004**	**0.0111**		**36.5230**	**36.5230**	**8.1000e-004**	**8.0000e-004**	**36.7810**

3.3 Phase 2 Soil Excavation and Sampling - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6859	4.5355	4.7345	0.0198		0.1664	0.1664		0.1531	0.1531		1,916.0304	1,916.0304	0.6197		1,931.5225
Total	**0.6859**	**4.5355**	**4.7345**	**0.0198**		**0.1664**	**0.1664**		**0.1531**	**0.1531**		**1,916.0304**	**1,916.0304**	**0.6197**		**1,931.5225**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Phase 2 Soil Excavation and Sampling - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.2000e-004	0.0489	5.9600e-003	2.6000e-004	8.2800e-003	5.5000e-004	8.8100e-003	2.2800e-003	5.3000e-004	2.7900e-003		27.2350	27.2350	1.5000e-004	4.2800e-003	28.5154
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0134	0.2100	7.0000e-004	0.0822	3.8000e-004	0.0825	0.0218	3.5000e-004	0.0221		73.0461	73.0461	1.6200e-003	1.5900e-003	73.5620
Total	**0.0267**	**0.0623**	**0.2160**	**9.6000e-004**	**0.0904**	**9.3000e-004**	**0.0913**	**0.0241**	**8.8000e-004**	**0.0249**		**100.2811**	**100.2811**	**1.7700e-003**	**5.8700e-003**	**102.0774**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6859	4.5355	4.7345	0.0198		0.1664	0.1664		0.1531	0.1531	0.0000	1,916.0304	1,916.0304	0.6197		1,931.5225
Total	**0.6859**	**4.5355**	**4.7345**	**0.0198**		**0.1664**	**0.1664**		**0.1531**	**0.1531**	**0.0000**	**1,916.0304**	**1,916.0304**	**0.6197**		**1,931.5225**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Phase 2 Soil Excavation and Sampling - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.2000e-004	0.0489	5.9600e-003	2.6000e-004	8.2800e-003	5.5000e-004	8.8100e-003	2.2800e-003	5.3000e-004	2.7900e-003		27.2350	27.2350	1.5000e-004	4.2800e-003	28.5154
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0134	0.2100	7.0000e-004	0.0822	3.8000e-004	0.0825	0.0218	3.5000e-004	0.0221		73.0461	73.0461	1.6200e-003	1.5900e-003	73.5620
Total	**0.0267**	**0.0623**	**0.2160**	**9.6000e-004**	**0.0904**	**9.3000e-004**	**0.0913**	**0.0241**	**8.8000e-004**	**0.0249**		**100.2811**	**100.2811**	**1.7700e-003**	**5.8700e-003**	**102.0774**

3.4 Phase 3 Backfill Soil Excavations - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2259	2.0449	2.3743	7.2800e-003		0.0737	0.0737		0.0678	0.0678		704.3882	704.3882	0.2278		710.0836
Total	**0.2259**	**2.0449**	**2.3743**	**7.2800e-003**		**0.0737**	**0.0737**		**0.0678**	**0.0678**		**704.3882**	**704.3882**	**0.2278**		**710.0836**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Phase 3 Backfill Soil Excavations - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0134	0.2100	7.0000e-004	0.0822	3.8000e-004	0.0825	0.0218	3.5000e-004	0.0221		73.0461	73.0461	1.6200e-003	1.5900e-003	73.5620
Total	**0.0262**	**0.0134**	**0.2100**	**7.0000e-004**	**0.0822**	**3.8000e-004**	**0.0825**	**0.0218**	**3.5000e-004**	**0.0221**		**73.0461**	**73.0461**	**1.6200e-003**	**1.5900e-003**	**73.5620**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2259	2.0449	2.3743	7.2800e-003		0.0737	0.0737		0.0678	0.0678	0.0000	704.3882	704.3882	0.2278		710.0836
Total	**0.2259**	**2.0449**	**2.3743**	**7.2800e-003**		**0.0737**	**0.0737**		**0.0678**	**0.0678**	**0.0000**	**704.3882**	**704.3882**	**0.2278**		**710.0836**

3.4 Phase 3 Backfill Soil Excavations - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0134	0.2100	7.0000e-004	0.0822	3.8000e-004	0.0825	0.0218	3.5000e-004	0.0221		73.0461	73.0461	1.6200e-003	1.5900e-003	73.5620
Total	**0.0262**	**0.0134**	**0.2100**	**7.0000e-004**	**0.0822**	**3.8000e-004**	**0.0825**	**0.0218**	**3.5000e-004**	**0.0221**		**73.0461**	**73.0461**	**1.6200e-003**	**1.5900e-003**	**73.5620**

3.5 Phase 4 Site Restoration - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2261	2.0872	3.0204	4.6700e-003		0.1079	0.1079		0.0993	0.0993		452.4490	452.4490	0.1463		456.1073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2261**	**2.0872**	**3.0204**	**4.6700e-003**		**0.1079**	**0.1079**		**0.0993**	**0.0993**		**452.4490**	**452.4490**	**0.1463**		**456.1073**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Phase 4 Site Restoration - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8600e-003	4.0100e-003	0.0630	2.1000e-004	0.0246	1.1000e-004	0.0248	6.5400e-003	1.0000e-004	6.6400e-003		21.9138	21.9138	4.9000e-004	4.8000e-004	22.0686
Total	**7.8600e-003**	**4.0100e-003**	**0.0630**	**2.1000e-004**	**0.0246**	**1.1000e-004**	**0.0248**	**6.5400e-003**	**1.0000e-004**	**6.6400e-003**		**21.9138**	**21.9138**	**4.9000e-004**	**4.8000e-004**	**22.0686**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2261	2.0872	3.0204	4.6700e-003		0.1079	0.1079		0.0993	0.0993	0.0000	452.4490	452.4490	0.1463		456.1073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2261**	**2.0872**	**3.0204**	**4.6700e-003**		**0.1079**	**0.1079**		**0.0993**	**0.0993**	**0.0000**	**452.4490**	**452.4490**	**0.1463**		**456.1073**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Phase 4 Site Restoration - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8600e-003	4.0100e-003	0.0630	2.1000e-004	0.0246	1.1000e-004	0.0248	6.5400e-003	1.0000e-004	6.6400e-003		21.9138	21.9138	4.9000e-004	4.8000e-004	22.0686
Total	**7.8600e-003**	**4.0100e-003**	**0.0630**	**2.1000e-004**	**0.0246**	**1.1000e-004**	**0.0248**	**6.5400e-003**	**1.0000e-004**	**6.6400e-003**		**21.9138**	**21.9138**	**4.9000e-004**	**4.8000e-004**	**22.0686**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.8671	5.3992	41.3710	0.0927	9.4625	0.0728	9.5353	2.5210	0.0682	2.5891		9,660.5415	9,660.5415	0.5183	0.4279	9,801.0230
Unmitigated	4.8671	5.3992	41.3710	0.0927	9.4625	0.0728	9.5353	2.5210	0.0682	2.5891		9,660.5415	9,660.5415	0.5183	0.4279	9,801.0230

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	941.55	1,538.10	1219.46	3,113,581	3,113,581
Total	941.55	1,538.10	1,219.46	3,113,581	3,113,581

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.563549	0.053630	0.165033	0.126526	0.026088	0.006630	0.007849	0.015325	0.001025	0.000392	0.028762	0.000794	0.004397

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1853	1.6847	1.4152	0.0101		0.1280	0.1280		0.1280	0.1280		2,021.6614	2,021.6614	0.0388	0.0371	2,033.6751
NaturalGas Unmitigated	0.1853	1.6847	1.4152	0.0101		0.1280	0.1280		0.1280	0.1280		2,021.6614	2,021.6614	0.0388	0.0371	2,033.6751

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	17184.1	0.1853	1.6847	1.4152	0.0101		0.1280	0.1280		0.1280	0.1280		2,021.6614	2,021.6614	0.0388	0.0371	2,033.6751
Total		**0.1853**	**1.6847**	**1.4152**	**0.0101**		**0.1280**	**0.1280**		**0.1280**	**0.1280**		**2,021.6614**	**2,021.6614**	**0.0388**	**0.0371**	**2,033.6751**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	17.1841	0.1853	1.6847	1.4152	0.0101		0.1280	0.1280		0.1280	0.1280		2,021.6614	2,021.6614	0.0388	0.0371	2,033.6751
Total		**0.1853**	**1.6847**	**1.4152**	**0.0101**		**0.1280**	**0.1280**		**0.1280**	**0.1280**		**2,021.6614**	**2,021.6614**	**0.0388**	**0.0371**	**2,033.6751**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.8138	2.2000e-004	0.0244	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0524	0.0524	1.4000e-004		0.0558
Unmitigated	5.8138	2.2000e-004	0.0244	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0524	0.0524	1.4000e-004		0.0558

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2500e-003	2.2000e-004	0.0244	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0524	0.0524	1.4000e-004		0.0558
Total	**5.8138**	**2.2000e-004**	**0.0244**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0524**	**0.0524**	**1.4000e-004**		**0.0558**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2500e-003	2.2000e-004	0.0244	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0524	0.0524	1.4000e-004		0.0558
Total	**5.8138**	**2.2000e-004**	**0.0244**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0524**	**0.0524**	**1.4000e-004**		**0.0558**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation