

INITIAL STUDY ADDENDUM

Georgiana Slough Erosion Control and Habitat Enhancement Project

June 2025



Lead Agency:

Brannan-Andrus Levee
Maintenance District
Post Office Box 338
Walnut Grove, CA 95690-0338



Prepared By:

Acorn Environmental
5170 Golden Foothill Pkwy.
El Dorado Hills, CA 95762
(916) 235-8224
www.acorn-env.com



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Section 1 Introduction

1.1 Project Background

An Initial Study / Mitigated Negative Declaration (IS/MND) was previously prepared for the Georgiana Slough Erosion Control and Habitat Enhancement Project (Proposed Project) to assess the construction of erosion control methods along the right bank levee of Georgiana Slough, on Lower Andrus Island, including the placement of quarry stone riprap (rock slope protection [RSP]) at the levee toe, which would serve as the foundation for a habitat bench to be constructed along the entire length of the Project Site. The Proposed Project would resolve upper slope erosion problems and a major lower slope undercutting issue along the right bank of the levee. Since the approval of the IS/MND by the Brannan-Andrus Levee Maintenance District (BALMD; Lead Agency) in August 2024, minor modifications have been made to the project description, including how construction activities are sequenced and how some materials are sourced, handled, placed, and compacted (Project Modifications). The Project Modifications also include additional material import and export, along with associated hauling trips required during construction, as detailed in **Section 2.2** below.

This IS/MND Addendum documents that the conditions described in CEQA Guidelines Section 15162 have not occurred and the preparation of an Addendum to the Approved IS/MND is appropriate for the revised project.

1.2 Regulatory Purpose and Basis for the Addendum

CEQA Guidelines Section 15164(a) provides that the lead agency or a responsible agency shall prepare an Addendum to a previously approved Negative Declaration (ND) if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a Subsequent ND have occurred.

An Addendum need not be circulated for public review but can be included in or attached to the previous ND (CEQA Guidelines Section 15164(c)). The decision-making body shall consider the Addendum with the previous environmental documents prior to making a decision on the project (CEQA Guidelines Section 15164(d)). An agency must also include a brief explanation of the decision not to prepare a subsequent ND pursuant to Section 15162 (CEQA Guidelines Section 15164(e)).

Consequently, once a ND has been approved for a project, no subsequent ND is required under CEQA unless, based on substantial evidence:

- 1) Substantial changes are proposed in the project which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- 2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- 3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous ND was approved, shows any of the following:

- a. The project will have one or more significant effects not discussed in the previous negative declaration;
- b. Significant effects previously examined will be substantially more severe than shown in the previous negative declaration;
- c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous ND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

1.3 Incorporation by Reference

In compliance with CEQA Guidelines Section 15150, this IS/MND Addendum incorporates by reference the IS/MND for the Georgiana Slough Erosion Control and Habitat Enhancement Project, approved August 2024 (State Clearinghouse No. 2024061227). Information from the Approved IS/MND has been incorporated by reference into this IS/MND Addendum. Relevant details have been briefly summarized in the appropriate sections which follow, and the relationship between the incorporated part of the referenced document and this IS/MND Addendum has been described.

Section 2 Project Modifications

2.1 Project Location

As described in greater detail in the Approved IS/MND, the approximately 6.7-acre Project Site is located on the right (south) bank of Georgiana Slough on Lower Andrus Island, within the primary zone of the Sacramento-San Joaquin Delta in Sacramento County. The Project Site extends over 1,500 LF from Levee Mile 5.51 (38.129721, -121.587691) to 5.80 (38.129592, -121.582281), approximately a quarter mile from the confluence of the Mokelumne River. There are no changes to the Project Site as a result of the Project Modifications described below.

2.2 Revisions to Project Description

The overall sequencing and intent of the Proposed Project remain consistent with what was described in the Approved IS/MND; however, a few select phases of construction have been revised, as outlined below.

Section 2.2.3 Site Preparation (Clearing/Grubbing/Trimming)

The Site Preparation phase of project construction will now include the removal of approximately 280 cubic yards (CY) of material from the existing levee crown and road base, which would be hauled to the BALMD's existing stockpile on Lower Andrus Island. This removal would require approximately 25 additional round-trip hauling trips over the duration of the entire 15-day Site Preparation phase. Previously, no off-hauling was anticipated and it was assumed that all excavated material could be beneficially reused onsite.

Section 2.2.4 Levee Slope and Bench Construction

The 'Levee Slope and Bench Construction' phase of the project description is divided into several subphases:

The 'Quarry Stone/RSP and 6-inch Minus Backfill Placement' subphase would be revised to clarify that a barge-mounted long-reach excavator would be used to remove excess overburden from the levee face and the immediate waterside edge of the Project Site. This excess overburden material would likely be handled twice: initially placed near the levee crown, then subsequently moved to the levee crown to be disced and prepared for final placement on the back/landslide slope of the levee (at a 3:1 slope) to expand the levee and increase landward stability.

The 'Crown Raising and Landside Slope Improvement' subphase would be removed and replaced with two separate subphases:

In the new 'Landside Slope Improvement' subphase, excavated spoils/material removed from the waterside slope will be placed temporarily onto the levee crown with a one-foot maximum thickness to be dried and disced for a period of approximately four (4) weeks. Once moisture content has been reduced to placement specifications, the borrowed fill material will be graded/placed on the landside slope in four (4) to six (6) inch layers with a small dozer or equivalent, and compacted with a sheepsfoot roller, or equivalent, to a relative compaction of not less than ninety (90) percent per ASTM D1557-91, dated 1991. Some of this borrow fill will also be used to construct the waterside bench but does not require the same level of compacted effort to allow for planting.

In the new 'Crown Raising' subphase, instead of using excavated material from the water side slope of the levee, engineered fill material will be imported and added to raise the levee crown to an elevation of +13.5 (NAVD88) to achieve sufficient freeboard above the Design Water Surface Elevation (DWSE) at +10.1 (NAVD88). The crown fill will be capped with 6 inches of $\frac{3}{4}$ " class II aggregate base material to support an all-weather roadway. The fill and aggregate base will be added in 4 to 6-inch layers (similar to the landside levee slope) and roller compacted with a sheepsfoot roller, or equivalent, to a relative compaction of not less than 95 percent per ASTM D1557-91, dated 1991. The material specified for this portion of construction will be both engineered fill and aggregate base with a sufficient component of clay to ensure relative compaction to 95 percent. This material will be trucked in using approximately 30 trucks over the entire 66-day Levee Slope and Bench Construction phase, likely coming from the George Reed facility at 3421 Jackson Valley Road, Lone, CA 95640. Any additional engineered fill will either be sourced from the George Reed facility in Lone, CA or get delivered by barge and sourced from Decker Island.

Section 3 Environmental Analysis

As described above, the Project Modifications would not alter the overall scope or intent of the Proposed Project, which is to provide erosion control and habitat enhancement along the Georgiana Slough levee. All operational components would remain unchanged. The modifications apply exclusively to construction activities, including how construction activities are sequenced and where materials are sourced from, handled, placed, and compacted. The refined construction approach incorporates higher-quality imported fill for crown raising, separates slope and crown work for more efficient sequencing, and reduces reliance on on-site excavated material for structurally critical components. However, all changes are within the boundaries of the previously assessed construction activities evaluated in the Approved IS/MND. The assessment below focuses on the potential for new or more severe significant impacts associated with the Project Modifications.

3.1 Aesthetics

As described in the Approved IS/MND, the visual character of the Project Site would be altered during construction and in the short term after construction is completed (i.e. until vegetation grows similarly to

the pre-construction condition). In the long term, the visual character of the Project Site and surrounding area would not be appreciably different from the visual character currently. While the Project Modifications would introduce minor changes to specific construction activities, including additional truck hauling trips and revised material placement methods, these changes are generally consistent with the construction activities evaluated in the Approved IS/MND, and would not significantly alter the design, scale, and visual appearance of the Proposed Project during construction or upon completion. There would be no increase in the severity of aesthetic impacts as result of the Project Modifications beyond what was previously analyzed. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to aesthetics.

3.2 Agriculture and Forestry Resources

There are no agricultural land uses, forestry resources, or lands designated or zoned for forestry or timber in the Project Site. Therefore, the conclusions from the Approved IS/MND remain valid and there would be no new significant impacts or a substantial increase in the severity of a previously identified significant impact related to agriculture and forestry resources.

3.3 Air Quality

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

The Project Modifications would not result in population growth, changes to land use, or increased operational VMT or emissions that could conflict with the region's air quality planning efforts. As such, the Project Modifications would not result in impacts beyond those evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to compliance or consistency with the applicable air quality plan.

b) Would the project 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?

The Project Modifications would result in additional hauling trips during construction, which would generate criteria air pollutants (CAPs). A supplemental air quality and GHG evaluation was prepared in June 2025 to assess how the additional hauling trips would affect the emissions modeling and conclusions presented in the Approved IS/MND (see Section 4.3, Appendix B). The revised emissions modeling and analysis is documented in a Technical Memorandum (**Attachment A**). As described therein, construction-related emissions under the revised model would not exceed Sacramento Municipal Air Quality Management District (SMAQMD) adopted thresholds of significance; therefore, impacts would remain less than significant. The Project Modifications would not result in changes to the Proposed Project that would affect air quality beyond what was evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to air quality.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

The Project Modifications would result in additional hauling trips during project construction, which could generate emissions of diesel particulate matter (DPM), which is considered a toxic air contaminant (TAC).

However, these additional hauling trips would be temporary and intermittent and would not alter the less-than-significant impact conclusion of the Approved IS/MND. The nearest sensitive receptors include single-family residences located approximately 158 feet east of the Project Site. Given the short construction duration (approximately 120 days), the highly dispersive nature of DPM, and the distance to sensitive receptors, the additional hauling trips would not result in substantial pollutant concentrations beyond what was evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to the exposure of sensitive receptors to substantial pollutant emissions during construction.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The Project Modifications would result in additional hauling trips during project construction, which could generate odors from exhaust emissions. However, these hauling trips would be temporary and intermittent, and the associated odors would disperse quickly. As such, the Project Modifications would not result in significant odor impacts beyond those evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and there would be no new significant impacts or a substantial increase in the severity of a previously identified significant impact related to odorous emissions.

3.4 Biological Resources

A Biological Resources Assessment was prepared for the Proposed Project in April 2024, which concluded that impacts to biological resources within the Project Site would be less than significant with the implementation of mitigation measures BIO-1 through BIO-6 (see Appendix C of the Approved IS/MND). The Project Modifications would not affect the boundaries of the Project Site as identified in the IS/MND and therefore would not result in additional impacts to terrestrial and aquatic resources. The additional truck hauling trips associated with the Project Modifications would not result in increases in total suspended sediments (TSS) and turbidity levels in Georgiana Slough or any additional direct discharges of soil and sediment that could impact fish and other aquatic resources. This additional import and export would be minor and generally consistent with the construction activities evaluated in the Approved IS/MND. Erosion control and pollution prevention BMPs identified in the Approved IS/MND would continue to apply to the Project Modifications, ensuring that the less-than-significant impact conclusion of the Approved IS/MND is not altered. The Project Modifications would not result in changes to construction equipment and therefore would not introduce any additional temporary impacts related to underwater noise, propeller strikes and entrainment, shading from barges, or direct contact with construction equipment. The overall scope and intent of the Proposed Project remains unchanged, and in the long term, the creation of riparian habitat and wetland benches will enhance habitat complexity within the river channel, providing benefits to special-status species and other biological resources. No new or more severe impacts to biological resources beyond those identified in the Approved IS/MND are anticipated, and the implementation of mitigation measures and project BMPs from the Approved IS/MND continue to reduce impacts to less-than-significant levels. The conclusions from the Approved IS/MND remain valid, and the Project Modifications will not result in any new significant impacts or a substantial increase in the severity of previously identified impacts related to biological resources.

3.5 Cultural Resources

A Cultural Resources Assessment was prepared for the Proposed Project in March 2024, which included a records search, literature review, and archaeological field inspection of the APE (see Appendix G of the Approved IS/MND). The assessment identified one previously recorded cultural resource within the APE,

the Georgiana Slough Levee, which is encompassed by the Project Site and would be subject to construction activities. The Project Modifications would not alter the Project Site boundaries; therefore, the APE identified in the assessment remains applicable. The Project Modifications would not result in any additional ground disturbance or changes outside of what was previously evaluated and would not affect any cultural resources beyond those already documented and analyzed. Further, mitigation measures CULT-1 and CULT-2 for unanticipated discovery of archeological resources and discovery of human remains, outlined in the Approved IS/MND, remain applicable to the Proposed Project and would effectively reduce the potential for impacts to cultural resources to less than significant in the event that unanticipated resources or remains are uncovered during construction. No new or more severe impacts to cultural resources beyond those identified in the Approved IS/MND are anticipated. As such, the conclusions from the Approved IS/MND remain valid, and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to cultural resources.

3.6 Energy

The Project Modifications would result in new sources of energy use in the form of fuel consumption from the additional hauling trips anticipated during construction. However, this energy use would be temporary, minor, and would not change the less-than-significant impact conclusion of the Approved IS/MND. While the Project Modifications introduce minor changes to specific construction activities, they are generally consistent with those evaluated in the Approved IS/MND. Once the project is completed, there would be no utilization of energy resources during operations. Therefore, there will be no wasteful energy consumption or increased demand for energy resources beyond what was evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid, and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of previously identified impacts related to energy.

3.7 Soils and Geology

The Project Modifications would result in the removal of additional material from the existing levee crown and road base during the Site Preparation phase of construction and additional discing during the Landside Slope Improvement subphase, which could result in temporary and localized soil erosion. However, the potential for increases in soil erosion due to ground-disturbing activities was analyzed in the Approved IS/MND and BMPs were identified to reduce erosion impacts to less-than-significant levels. These BMPs would remain applicable to the Proposed Project, ensuring that the less-than-significant impact conclusion of the Approved IS/MND is not altered. The Project Modifications would not alter the boundaries of the Project Site as identified in the Approved IS/MND; therefore, the geologic features and underlying soils of the site would remain unchanged and would not result in any significant increase in impacts to soils and geology beyond what was previously analyzed. Mitigation measure GEO-1 identified in the Approved IS/MND for the accidental discovery of paleontological resources would remain applicable to the Proposed Project. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to soils and geology.

3.8 Greenhouse Gas Emissions

- a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

The Project Modifications would result in additional material import and export, along with associated hauling trips, which would generate increased greenhouse gas (GHG) emissions during construction of the Proposed Project. A supplemental air quality and GHG evaluation was prepared in June 2025 to assess how additional hauling trips would affect the emissions modeling and conclusions presented in the Approved IS/MND (see Section 4.8, Appendix B). The revised emissions modeling and analysis is documented in a Technical Memorandum (**Attachment A**). As described therein, revised modeling estimates that construction of the Proposed Project would generate approximately 699 metric tons carbon dioxide equivalent (MT CO₂e), representing a 4 Mt CO₂e (0.575 percent) increase over the 695 MT CO₂e previously evaluated in the Approved IS/MND. This increase remains below the SMAQMD 1,100 MT CO₂e significance threshold of GHG emissions; therefore, impacts would continue to be less than significant. The Project Modifications would not result in changes to the Proposed Project that would affect GHG emissions beyond what was evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to GHG emissions.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed in **Impact a)** above, the revised modeling concludes that the Proposed Project remains in compliance with SMAQMD thresholds for GHG emissions. As such, the Project Modifications would not result in changes to the Proposed Project that would affect GHG emissions beyond what was evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to potential conflicts with plans, policies, and regulations adopted to reduce GHG emissions.

3.9 Hazards and Hazardous Materials

The Project Modifications would result in additional hauling trips during construction of the Proposed Project, which could lead to additional potential for accidental release of fuel, oil, or other construction-related hazardous materials during transport to and from the Project Site. However, these emissions would be minor and construction activities would remain generally consistent with those evaluated in the Approved IS/MND. As described in the Approved IS/MND, there are no schools within one-quarter mile of the Project Site, and no hazardous materials sites located in the vicinity of the Project Site. Further, the Proposed Project does not include an operational component that would involve hazardous material use or transport. As such, the Project Modifications would not result in changes to the Proposed Project that would affect hazardous materials beyond what was evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to hazards and hazardous materials.

3.10 Hydrology and Water Quality

During construction, the Project Modifications would result in additional material import and export, as well as associated hauling trips, but no changes to in-water work are proposed that could increase TSS and turbidity levels in Georgiana Slough. The Project Modifications would result in the removal of additional material from the existing levee crown and road base during the Site Preparation phase of construction and additional discing during the Landside Slope Improvement subphase, which could result in temporary and localized soil erosion. However, the potential for increases in erosion that could affect

water quality due to ground-disturbing activities was analyzed in the Approved IS/MND and BMPs were identified to reduce water quality impacts to less-than-significant levels. Erosion control and pollution prevention BMPs and environmental commitments identified in the Approved IS/MND would continue to apply to the Project Modifications, ensuring that the less-than-significant impact conclusion of the Approved IS/MND is not altered. Compliance with regulatory requirements, including the implementation of a Stormwater Pollution Prevention Plan and adherence to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, remain adequate to address potential hydrology and water quality impacts associated with the Proposed Project. As such, the conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to hydrology and water quality.

3.11 Land Use and Planning

The Project Modifications would not alter the overall scope and intent of the Proposed Project, which involves erosion control and habitat enhancement on the Georgiana Slough levee. As a result, there would be no changes in land use on or near the Project Site resulting from the Project Modifications that would alter the less-than-significant impact conclusion of the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to land use.

3.12 Mineral Resources

There are no known mineral resources within the Project Site or surrounding Delta. The Project Modifications do not change the boundaries of the Project Site; therefore, the Project Modifications would not result in the removal of any known mineral resources. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to mineral resources.

3.13 Noise

The Project Modifications would result in minor changes to construction activities; however, the overall scope and duration of construction activities remain consistent with those evaluated in the Approved IS/MND and would not generate significant additional noise or vibration impacts. While the additional hauling trips may generate temporary traffic-related noise on adjacent roadways, such impacts would be minor and short-term. The Project Modifications would not significantly alter the quantity, type, or duration of construction equipment used for the Proposed Project. Mitigation measure NZ-1 identified in the Approved IS/MND to address noise from woodchippers would remain applicable to the Proposed Project and would reduce potential noise impacts during construction to less-than-significant levels. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to noise.

3.14 Population and Housing

The Project Modifications would not result in changes to the Proposed Project that would affect population and housing beyond what was evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to population and housing.

3.15 Public Services

The Project Modifications would not result in changes to the Proposed Project that would affect public services beyond what was evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to population and housing.

3.16 Recreation

The Project Modifications would result in minor changes to construction activities; however, the overall scope and duration of construction activities remain consistent with those evaluated in the Approved IS/MND. No additional barges or noise-generating construction equipment are proposed that would interfere with recreational activities on Georgiana Slough or the Mokelumne River, including fishing, beyond what was previously evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to recreation.

3.17 Transportation

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The Project Modifications would not result in changes to the transportation system infrastructure within or adjacent to the Project Site or result in additional traffic from long-term operation beyond what was evaluated in the Approved IS/MND. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to conflicts with programs, plans, ordinances or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

b) Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

The Project Modifications would result in 25 additional round-trip hauling trips during the entire 15-day duration of the Site Preparation phase and 30 additional round-trip hauling trips during the entire 66-day duration of the Crown Raising subphase of the Levee Slope and Bench Construction phase. These additional trips would be temporary, occurring over the approximately 120-day construction period, and would not significantly increase construction-related traffic beyond what was evaluated in the Approved IS/MND. Assuming a conservative scenario in which all hauling trips occur on the same day, project construction vehicle trips are estimated to result in at most 61 daily round trips, which would not constitute a significant increase in VMT. Additionally, the Proposed Project would not generate new operational vehicle trips and therefore would not result in increased VMT during operation. The Proposed Project would be consistent with CEQA Guidelines Section 15064.3 and impacts would remain less than significant. As such, the conclusions from the Approved IS/MND remain valid, and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to inconsistencies CEQA Guidelines § 15064.3, subdivision (b).

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

The Project Modifications would not result in changes to the transportation system infrastructure within or adjacent to the Project Site, including physical changes to area roadways, or generate additional traffic from long-term operations. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to transportation hazards or incompatible uses.

d) Result in inadequate emergency access?

The Project Modifications would not generate additional traffic during construction that would inhibit State Route (SR) 12 or local roadway traffic. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to emergency access.

3.18 Tribal Cultural Resources

Because the Project Modifications do not alter the boundaries of the Project Site or the APE evaluated in the Cultural Resources Assessment, no new tribal cultural resources beyond those identified in the Approved IS/MND are anticipated. Nevertheless, Mitigation Measure TRIB-1 for the accidental discovery of tribal cultural resources, as outlined in the Approved IS/MND, remains applicable to the Proposed Project and would continue to reduce potential impacts to tribal cultural resources to less than significant levels in the event unanticipated resources of Native American origin are encountered during construction. No new or more severe impacts to tribal cultural resources beyond those identified in the Approved IS/MND are anticipated. As such, the conclusions from the Approved IS/MND remain valid, and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to tribal cultural resources.

3.19 Utilities and Service Systems

The Project Modifications would not result in changes to the Proposed Project that would affect utilities and service systems beyond what was evaluated in the Approved IS/MND. The approximately 280 CY of material removed from the existing levee crown and road base would be hauled to BALMD's stockpile on Lower Andrus Island, rather than to a designated landfill, avoiding new impacts due to solid waste disposal. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to utilities and service systems.

3.20 Wildfire

The Project Modifications would result in additional temporary hauling trips during project construction; however, these trips would not substantially affect the capacity or congestion patterns on affected roads and therefore would not interfere with emergency response or evacuation beyond what was evaluated in the Approved IS/MND. The overall scope and duration of construction activities would remain consistent with those evaluated in the Approved IS/MND and would not have the potential to exacerbate wildfire risk. The conclusions from the Approved IS/MND remain valid and the Project Modifications would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to wildfire.

Section 4 Conclusion

This IS/MND Addendum evaluates the environmental impacts of the Project Modifications and has determined that no new significant impacts and no substantial increase in the severity of previously identified impacts in the Approved IS/MND would occur. Although the Project Modifications would introduce minor changes to specific construction activities, the overall scope and intent of the Proposed Project remains consistent with the previously approved IS/MND for the Georgiana Slough Erosion Control and Habitat Enhancement Project. No new significant environmental effects or substantial increases in the severity of previously identified effects have been identified. Additionally, there are no substantial changes in circumstances requiring major revisions to the Approved IS/MND due to new significant environmental effects or substantially more severe impacts, nor is there new information of substantial importance revealing significant effects not previously discussed. As such, the Proposed Project does not meet any of the conditions outlined in CEQA Guidelines Section 15162, and a subsequent IS/MND is not required. The changes reflected in this IS/MND Addendum are minor clarifications and amplifications of the analysis contained in the Approved IS/MND. They do not constitute significant new information under CEQA Guidelines Section 15162 that would necessitate further environmental review.

ATTACHMENT A:

Air Quality and Greenhouse Gas Technical Memorandum

Technical Memorandum



To: Brannan Andrus Levee Maintenance District

From: Emma Miller, Environmental Analyst
Annalee Sanborn, Project Manager

Copy: Emily Pappalardo, DCC Engineering

Date: June 20, 2025

Subject: Supplemental Air Quality and Greenhouse Gas Evaluation for the Georgiana Slough
Erosion Control and Habitat Enhancement Project

This supplemental air quality and greenhouse gas (GHG) evaluation has been prepared to assess modifications to the project description for the Georgiana Slough Erosion Control and Habitat Enhancement Project (Proposed Project), including the addition of new material import and export quantities and associated hauling trips during project construction. The purpose of this evaluation is to determine how these project modifications affect the air quality and GHG emissions analysis presented within the Initial Study/Mitigated Negative Declaration (IS/MND), which was approved by the Brannan Andrus Levee Maintenance District (BALMD) in August 2024.

Project Description Modifications

The Proposed Project as analyzed in the IS/MND adopted by BALMD included the following main phases: 1) Mobilization, 2) Site Preparation, 3) Levee Slope and Bench Construction, and 4) Site Demobilization. All material fill was proposed to be delivered to the site via barge or generated onsite by reusing excavated materials. The modifications to the project description include the removal of approximately 280 cubic yards (CY) of material from the existing levee crown and road base to be hauled by truck to the BALMD yard on Lower Andrus Island during the Site Preparation phase of construction, requiring an additional 50 one-way hauling trips. Additionally, the modified project description assumes that engineered fill and aggregate base material would need to be hauled to the Project Site from the George Reed facility, requiring approximately 60 one-way hauling trips during the Levee Slope and Bench Construction phase of project construction to raise the crown of the levee.

Impact Analysis

The air quality model for the Proposed Project was revised to incorporate the additional hauling trips during the Site Preparation and Levee Slope and Bench Construction phases of construction, as described above. Only the criteria air pollutant (CAP) emissions associated with these two phases of construction are affected by the project modifications. The modeling methodology and all other input assumptions for the revised model remain consistent with those presented in Section 4.3, 4.8, and Appendix B of the IS/MND.

Air Quality

The project modifications are assumed to occur entirely within the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). Maximum daily construction emissions for each construction phase within the SMAQMD (as originally presented in Table 4.3-4 of the IS/MND), are presented in **Table 1** with the additional estimated emissions from the project modifications. The model outputs are provided in **Exhibit A**. As shown, construction-related emissions when including the additional truck hauling trips would not exceed SMAQMD's adopted significance thresholds, and impacts would remain less than significant, consistent with the conclusions presented in Section 4.3 of the IS/MND.

Table 1: Estimated Revised Construction Emissions by Phase within the SMAQMD

Phases	Pollutant					
	ROG	NO _x	Total PM ₁₀	Total PM _{2.5}	Exhaust PM ₁₀	Exhaust PM _{2.5}
Phase 1: Mobilization	0.26	0.38	0.64	0.15	0.00	0.00
Barge Mobilization	2.24	26.59	1.53	1.36	1.53	1.36
Phase Total	2.50	26.97	2.17	1.51	1.53	1.36
Phase 2: Site Preparation	0.38	2.21	0.79	0.23	0.05	0.05
Waterside slope grading of overburden and landside slope fill placement	1.32	10.35	7.60	3.92	0.44	0.41
<u>New Truck Hauling</u>	<u>0.0</u>	<u>0.46</u>	<u>.07</u>	<u>0.02</u>	<u>0.01</u>	<u>0.0</u>
Phase Total	1.70	13.02	8.46	4.17	0.50	0.45
Phase 3: Levee Slope and Bench Construction	1.87	21.12	8.63	4.33	0.66	0.61
Barge Transport	3.26	38.17	2.19	1.95	2.19	1.95
Removal/Relocation of Encroachments	0.13	0.09	0.30	0.07	0.00	0.00
Installation of Plants	1.04	6.07	0.62	0.29	0.20	0.18
<u>New Truck Hauling</u>	<u>0.0</u>	<u>0.12</u>	<u>0.02</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
Phase Total	6.29	65.57	11.76	6.63	3.04	2.74
Phase 4: Site Demobilization	0.23	0.23	0.61	0.14	0.00	0.00
Barge Demobilization	3.26	38.81	2.24	1.99	2.24	1.99
Phase Total	3.49	39.04	2.85	2.13	2.24	1.99
Maximum Day Emissions	6.29	65.57	11.76	6.63	3.04	2.74
SMAQMD Significance Threshold	-	85	80	82	-	-
Significant?	No	No	No	No	No	No

Note: new modeling results associated with the truck trips is presented in Phase 2 and Phase 3 in underlined italicized text. All other information remains unchanged from the analysis within the IS/MND.

Source: **Exhibit A**

Greenhouse Gases

The project modifications would generate additional GHG emissions from hauling trips during project construction. As shown in **Table 2**, construction activity for the Proposed Project under the revised model would generate an estimated 699 MT of CO₂e, which is an increase of 4 MT CO₂e compared to the original

project analyzed in the IS/MND. Additional model outputs in are shown in **Exhibit A**. Project generated annual GHG emissions would not exceed the 1,100 MT CO₂e threshold and impacts would remain less than significant, consistent with the conclusions within Section 4.8 of the IS/MND.

Table 2: Estimated Revised Construction Emissions of GHGs

Construction Year	Annual Emissions (CO ₂ e MT/year)
2025	699

Source: **Exhibit A**

Summary

The project modifications would result in negligible increases in air quality and GHG emissions beyond what was analyzed and disclosed in the IS/MND. Revised modeling confirms that these increases would not cause construction-related emissions or GHG emissions to exceed applicable SMAQMD thresholds. As such, impact to air quality and GHG would remain less than significant, consistent with the conclusions of the IS/MND.

Georgiana Slough v2 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Georgiana Slough v2
Construction Start Date	6/15/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.70
Precipitation (days)	20.6
Location	38.12934530180215, -121.5838252659411
County	Sacramento
City	Unincorporated
Air District	Sacramento Metropolitan AQMD
Air Basin	Sacramento Valley
TAZ	715
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Linear	0.28	Mile	5.80	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	16.4	187	10.0	8.41	18.4	8.95	3.83	12.8	22,818
Mit.	16.4	187	10.0	4.32	14.3	8.95	1.76	10.7	22,818
% Reduced	—	—	—	49%	22%	—	54%	16%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	16.6	188	10.0	9.02	19.0	8.95	3.97	12.9	23,341
Mit.	16.6	188	10.0	4.93	14.9	8.95	1.90	10.8	23,341
% Reduced	—	—	—	45%	22%	—	52%	16%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	3.03	34.4	1.83	2.26	4.09	1.63	1.05	2.68	4,224
Mit.	3.03	34.4	1.83	1.13	2.95	1.63	0.47	2.10	4,224
% Reduced	—	—	—	50%	28%	—	55%	22%	—
Annual (Max)	—	—	—	—	—	—	—	—	—

Unmit.	0.55	6.28	0.33	0.41	0.75	0.30	0.19	0.49	699
Mit.	0.55	6.28	0.33	0.21	0.54	0.30	0.09	0.38	699
% Reduced	—	—	—	50%	28%	—	55%	22%	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	16.4	187	10.0	8.41	18.4	8.95	3.83	12.8	22,818
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	16.6	188	10.0	9.02	19.0	8.95	3.97	12.9	23,341
Average Daily	—	—	—	—	—	—	—	—	—
2025	3.03	34.4	1.83	2.26	4.09	1.63	1.05	2.68	4,224
Annual	—	—	—	—	—	—	—	—	—
2025	0.55	6.28	0.33	0.41	0.75	0.30	0.19	0.49	699

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	16.4	187	10.0	4.32	14.3	8.95	1.76	10.7	22,818
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	16.6	188	10.0	4.93	14.9	8.95	1.90	10.8	23,341
Average Daily	—	—	—	—	—	—	—	—	—
2025	3.03	34.4	1.83	1.13	2.95	1.63	0.47	2.10	4,224

Annual	—	—	—	—	—	—	—	—	—
2025	0.55	6.28	0.33	0.21	0.54	0.30	0.09	0.38	699

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.10	0.04	—	0.04	0.04	—	0.04	291
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	12.0
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.98
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.25	0.17	0.00	0.61	0.61	0.00	0.14	0.14	691
Vendor	< 0.005	0.14	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	70.6
Hauling	0.02	1.25	0.01	0.18	0.19	0.01	0.05	0.06	727
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	0.01	0.01	25.9
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.90
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	29.9
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.28
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.48
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.94

3.2. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.10	0.04	—	0.04	0.04	—	0.04	291
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	12.0
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.98
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.25	0.17	0.00	0.61	0.61	0.00	0.14	0.14	691
Vendor	< 0.005	0.14	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	70.6
Hauling	0.02	1.25	0.01	0.18	0.19	0.01	0.05	0.06	727
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	0.01	0.01	25.9
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.90
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	29.9
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.28
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.48
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.94

3.3. Installation of Plants (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	5.47	0.19	—	0.19	0.18	—	0.18	2,673
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	5.47	0.19	—	0.19	0.18	—	0.18	2,673
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.67	0.02	—	0.02	0.02	—	0.02	330
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	54.6
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.13	0.09	0.00	0.30	0.30	0.00	0.07	0.07	346
Vendor	0.01	0.51	< 0.005	0.12	0.12	< 0.005	0.03	0.03	421
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.00	0.30	0.30	0.00	0.07	0.07	306
Vendor	0.01	0.55	< 0.005	0.12	0.12	< 0.005	0.03	0.03	420
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	38.8
Vendor	< 0.005	0.07	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	51.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.42
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.59
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Installation of Plants (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	5.47	0.19	—	0.19	0.18	—	0.18	2,673

Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	5.47	0.19	—	0.19	0.18	—	0.18	2,673
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.67	0.02	—	0.02	0.02	—	0.02	330
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	54.6
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.13	0.09	0.00	0.30	0.30	0.00	0.07	0.07	346
Vendor	0.01	0.51	< 0.005	0.12	0.12	< 0.005	0.03	0.03	421
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Worker	0.11	0.11	0.00	0.30	0.30	0.00	0.07	0.07	306
Vendor	0.01	0.55	< 0.005	0.12	0.12	< 0.005	0.03	0.03	420
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	38.8
Vendor	< 0.005	0.07	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	51.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.42
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.59
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Mobilization (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.25	0.17	0.00	0.61	0.61	0.00	0.14	0.14	691
Vendor	0.01	0.21	< 0.005	0.03	0.03	< 0.005	0.01	0.01	121
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	5.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.86
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.16
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Mobilization (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.25	0.17	0.00	0.61	0.61	0.00	0.14	0.14	691
Vendor	0.01	0.21	< 0.005	0.03	0.03	< 0.005	0.01	0.01	121
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	5.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.86
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.16
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Waterside slope grading of overburden and landside slope fill placement (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	10.2	0.44	—	0.44	0.41	—	0.41	1,674
Dust From Material Movement	—	—	—	6.55	6.55	—	3.37	3.37	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.00	0.04	—	0.04	0.04	—	0.04	165
Dust From Material Movement	—	—	—	0.65	0.65	—	0.33	0.33	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.18	0.01	—	0.01	0.01	—	0.01	27.3
Dust From Material Movement	—	—	—	0.12	0.12	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.25	0.17	0.00	0.61	0.61	0.00	0.14	0.14	691
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.06	0.06	0.00	0.01	0.01	62.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Waterside slope grading of overburden and landside slope fill placement (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	10.2	0.44	—	0.44	0.41	—	0.41	1,674
Dust From Material Movement	—	—	—	2.56	2.56	—	1.31	1.31	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.00	0.04	—	0.04	0.04	—	0.04	165
Dust From Material Movement	—	—	—	0.25	0.25	—	0.13	0.13	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.18	0.01	—	0.01	0.01	—	0.01	27.3
Dust From Material Movement	—	—	—	0.05	0.05	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.25	0.17	0.00	0.61	0.61	0.00	0.14	0.14	691
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.06	0.06	0.00	0.01	0.01	62.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Demobilization (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.23	0.22	0.00	0.61	0.61	0.00	0.14	0.14	612
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.43

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Site Demobilization (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.23	0.22	0.00	0.61	0.61	0.00	0.14	0.14	612
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Barge Traffic Mobilization (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	12.3	147	8.43	—	8.43	7.51	—	7.51	10,379
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.40	0.02	—	0.02	0.02	—	0.02	28.4
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.71
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Barge Traffic Mobilization (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Off-Road Equipment	12.3	147	8.43	—	8.43	7.51	—	7.51	10,379
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.40	0.02	—	0.02	0.02	—	0.02	28.4
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.71
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Barge Traffic Transport (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	13.5	160	9.16	—	9.16	8.16	—	8.16	11,406
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	13.5	160	9.16	—	9.16	8.16	—	8.16	11,406
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.37	28.0	1.61	—	1.61	1.43	—	1.43	2,000
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	5.12	0.29	—	0.29	0.26	—	0.26	331
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Barge Traffic Transport (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	13.5	160	9.16	—	9.16	8.16	—	8.16	11,406
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	13.5	160	9.16	—	9.16	8.16	—	8.16	11,406
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.37	28.0	1.61	—	1.61	1.43	—	1.43	2,000
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	5.12	0.29	—	0.29	0.26	—	0.26	331
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Barge Traffic Demobilization (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.30	63.1	3.63	—	3.63	3.23	—	3.23	4,462

Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.17	0.01	—	0.01	0.01	—	0.01	12.2
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.02
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Barge Traffic Demobilization (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.30	63.1	3.63	—	3.63	3.23	—	3.23	4,462
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.17	0.01	—	0.01	0.01	—	0.01	12.2
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.02
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Removal/Relocation of Encroachments (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—

Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.13	0.09	0.00	0.30	0.30	0.00	0.07	0.07	346
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	15.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Removal/Relocation of Encroachments (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.13	0.09	0.00	0.30	0.30	0.00	0.07	0.07	346
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	15.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.57

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Waterside Levee Slope and Bench Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.64	14.3	0.59	—	0.59	0.54	—	0.54	3,606
Dust From Material Movement	—	—	—	6.71	6.71	—	3.39	3.39	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.64	14.3	0.59	—	0.59	0.54	—	0.54	3,606
Dust From Material Movement	—	—	—	6.71	6.71	—	3.39	3.39	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	2.58	0.11	—	0.11	0.10	—	0.10	652
Dust From Material Movement	—	—	—	1.21	1.21	—	0.61	0.61	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.47	0.02	—	0.02	0.02	—	0.02	108
Dust From Material Movement	—	—	—	0.22	0.22	—	0.11	0.11	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.13	0.09	0.00	0.30	0.30	0.00	0.07	0.07	346
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	6.89	0.07	0.98	1.05	0.07	0.26	0.33	4,020
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.00	0.30	0.30	0.00	0.07	0.07	306
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	7.40	0.07	0.98	1.05	0.07	0.26	0.33	4,012
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.05	0.05	0.00	0.01	0.01	56.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.32	0.01	0.18	0.19	0.01	0.05	0.06	726
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.24	< 0.005	0.03	0.03	< 0.005	0.01	0.01	120

3.20. Waterside Levee Slope and Bench Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.64	14.3	0.59	—	0.59	0.54	—	0.54	3,606
Dust From Material Movement	—	—	—	2.62	2.62	—	1.32	1.32	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.64	14.3	0.59	—	0.59	0.54	—	0.54	3,606
Dust From Material Movement	—	—	—	2.62	2.62	—	1.32	1.32	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	2.58	0.11	—	0.11	0.10	—	0.10	652
Dust From Material Movement	—	—	—	0.47	0.47	—	0.24	0.24	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.47	0.02	—	0.02	0.02	—	0.02	108
Dust From Material Movement	—	—	—	0.09	0.09	—	0.04	0.04	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.13	0.09	0.00	0.30	0.30	0.00	0.07	0.07	346

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	6.89	0.07	0.98	1.05	0.07	0.26	0.33	4,020
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.00	0.30	0.30	0.00	0.07	0.07	306
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	7.40	0.07	0.98	1.05	0.07	0.26	0.33	4,012
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.05	0.05	0.00	0.01	0.01	56.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.32	0.01	0.18	0.19	0.01	0.05	0.06	726
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.24	< 0.005	0.03	0.03	< 0.005	0.01	0.01	120

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Linear, Grubbing & Land Clearing	6/19/2025	7/5/2025	6.00	15.0	—
Installation of Plants	Linear, Grubbing & Land Clearing	9/7/2025	10/29/2025	6.00	45.0	—
Mobilization	Linear, Grading & Excavation	6/15/2025	6/18/2025	6.00	3.00	—
Waterside slope grading of overburden and landside slope fill placement	Linear, Grading & Excavation	7/6/2025	8/16/2025	6.00	36.0	—
Site Demobilization	Linear, Grading & Excavation	10/28/2025	11/1/2025	6.00	5.00	—
Barge Traffic Mobilization	Linear, Grading & Excavation	8/18/2025	8/18/2025	6.00	1.00	Start from Rio Vista

Barge Traffic Transport	Linear, Grading & Excavation	8/19/2025	10/31/2025	6.00	64.0	Back and forth
Barge Traffic Demobilization	Linear, Grading & Excavation	11/1/2025	11/1/2025	6.00	1.00	End in Rio Vista
Removal/Relocation of Encroachments	Linear, Drainage, Utilities, & Sub-Grade	8/18/2025	9/6/2025	6.00	18.0	—
Waterside Levee Slope and Bench Construction	Linear, Drainage, Utilities, & Sub-Grade	8/18/2025	11/1/2025	6.00	66.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Installation of Plants	Off-Highway Trucks	Diesel	Average	2.00	8.00	376	0.38
Waterside slope grading of overburden and landside slope fill placement	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Waterside slope grading of overburden and landside slope fill placement	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Barge Traffic Mobilization	Other Construction Equipment	Diesel	Average	1.00	9.00	1,700	0.50
Barge Traffic Mobilization	Other Construction Equipment	Diesel	Average	1.00	1.00	575	0.50
Barge Traffic Transport	Other Construction Equipment	Diesel	Average	1.00	3.00	575	0.50
Barge Traffic Transport	Other Construction Equipment	Diesel	Average	1.00	9.00	1,700	0.50
Barge Traffic Transport	Other Construction Equipment	Diesel	Average	1.00	4.00	125	0.42

Barge Traffic Demobilization	Other Construction Equipment	Diesel	Average	1.00	3.00	1,700	0.50
Barge Traffic Demobilization	Other Construction Equipment	Diesel	Average	1.00	3.00	575	0.50
Waterside Levee Slope and Bench Construction	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Waterside Levee Slope and Bench Construction	Excavators	Diesel	Average	1.00	10.0	364	0.38
Waterside Levee Slope and Bench Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	10.0	84.0	0.37
Waterside Levee Slope and Bench Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Waterside Levee Slope and Bench Construction	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Installation of Plants	Off-Highway Trucks	Diesel	Average	2.00	8.00	376	0.38
Waterside slope grading of overburden and landside slope fill placement	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Waterside slope grading of overburden and landside slope fill placement	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Barge Traffic Mobilization	Other Construction Equipment	Diesel	Average	1.00	9.00	1,700	0.50

Barge Traffic Mobilization	Other Construction Equipment	Diesel	Average	1.00	1.00	575	0.50
Barge Traffic Transport	Other Construction Equipment	Diesel	Average	1.00	3.00	575	0.50
Barge Traffic Transport	Other Construction Equipment	Diesel	Average	1.00	9.00	1,700	0.50
Barge Traffic Transport	Other Construction Equipment	Diesel	Average	1.00	4.00	125	0.42
Barge Traffic Demobilization	Other Construction Equipment	Diesel	Average	1.00	3.00	1,700	0.50
Barge Traffic Demobilization	Other Construction Equipment	Diesel	Average	1.00	3.00	575	0.50
Waterside Levee Slope and Bench Construction	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Waterside Levee Slope and Bench Construction	Excavators	Diesel	Average	1.00	10.0	364	0.38
Waterside Levee Slope and Bench Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	10.0	84.0	0.37
Waterside Levee Slope and Bench Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Waterside Levee Slope and Bench Construction	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Mobilization	—	—	—	—
Mobilization	Worker	60.0	14.3	LDA,LDT1,LDT2

Mobilization	Vendor	4.00	8.80	HHDT,MHDT
Mobilization	Hauling	0.00	20.0	HHDT
Mobilization	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	60.0	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	2.00	8.80	HHDT
Site Preparation	Hauling	9.33	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Waterside slope grading of overburden and landside slope fill placement	—	—	—	—
Waterside slope grading of overburden and landside slope fill placement	Worker	60.0	14.3	LDA,LDT1,LDT2
Waterside slope grading of overburden and landside slope fill placement	Vendor	0.00	8.80	HHDT,MHDT
Waterside slope grading of overburden and landside slope fill placement	Hauling	0.00	20.0	HHDT
Waterside slope grading of overburden and landside slope fill placement	Onsite truck	—	—	HHDT
Removal/Relocation of Encroachments	—	—	—	—
Removal/Relocation of Encroachments	Worker	30.0	14.3	LDA,LDT1,LDT2
Removal/Relocation of Encroachments	Vendor	0.00	8.80	HHDT,MHDT
Removal/Relocation of Encroachments	Hauling	0.00	20.0	HHDT
Removal/Relocation of Encroachments	Onsite truck	—	—	HHDT
Installation of Plants	—	—	—	—

Installation of Plants	Worker	30.0	14.3	LDA,LDT1,LDT2
Installation of Plants	Vendor	2.00	75.0	MHDT
Installation of Plants	Hauling	0.00	20.0	HHDT
Installation of Plants	Onsite truck	—	—	HHDT
Site Demobilization	—	—	—	—
Site Demobilization	Worker	60.0	14.3	LDA,LDT1,LDT2
Site Demobilization	Vendor	0.00	8.80	HHDT,MHDT
Site Demobilization	Hauling	0.00	20.0	HHDT
Site Demobilization	Onsite truck	—	—	HHDT
Waterside Levee Slope and Bench Construction	—	—	—	—
Waterside Levee Slope and Bench Construction	Worker	30.0	14.3	LDA,LDT1,LDT2
Waterside Levee Slope and Bench Construction	Vendor	0.00	8.80	HHDT,MHDT
Waterside Levee Slope and Bench Construction	Hauling	51.6	20.0	HHDT
Waterside Levee Slope and Bench Construction	Onsite truck	—	—	HHDT
Barge Traffic Mobilization	—	—	—	—
Barge Traffic Mobilization	Worker	0.00	14.3	LDA,LDT1,LDT2
Barge Traffic Mobilization	Vendor	0.00	8.80	HHDT,MHDT
Barge Traffic Mobilization	Hauling	0.00	20.0	HHDT
Barge Traffic Mobilization	Onsite truck	—	—	HHDT
Barge Traffic Transport	—	—	—	—
Barge Traffic Transport	Worker	0.00	14.3	LDA,LDT1,LDT2
Barge Traffic Transport	Vendor	0.00	8.80	HHDT,MHDT
Barge Traffic Transport	Hauling	0.00	20.0	HHDT
Barge Traffic Transport	Onsite truck	—	—	HHDT
Barge Traffic Demobilization	—	—	—	—

Barge Traffic Demobilization	Worker	0.00	14.3	LDA,LDT1,LDT2
Barge Traffic Demobilization	Vendor	0.00	8.80	HHDT,MHDT
Barge Traffic Demobilization	Hauling	0.00	20.0	HHDT
Barge Traffic Demobilization	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Mobilization	—	—	—	—
Mobilization	Worker	60.0	14.3	LDA,LDT1,LDT2
Mobilization	Vendor	4.00	8.80	HHDT,MHDT
Mobilization	Hauling	0.00	20.0	HHDT
Mobilization	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	60.0	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	2.00	8.80	HHDT
Site Preparation	Hauling	9.33	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Waterside slope grading of overburden and landside slope fill placement	—	—	—	—
Waterside slope grading of overburden and landside slope fill placement	Worker	60.0	14.3	LDA,LDT1,LDT2
Waterside slope grading of overburden and landside slope fill placement	Vendor	0.00	8.80	HHDT,MHDT
Waterside slope grading of overburden and landside slope fill placement	Hauling	0.00	20.0	HHDT
Waterside slope grading of overburden and landside slope fill placement	Onsite truck	—	—	HHDT

Removal/Relocation of Encroachments	—	—	—	—
Removal/Relocation of Encroachments	Worker	30.0	14.3	LDA,LDT1,LDT2
Removal/Relocation of Encroachments	Vendor	0.00	8.80	HHDT,MHDT
Removal/Relocation of Encroachments	Hauling	0.00	20.0	HHDT
Removal/Relocation of Encroachments	Onsite truck	—	—	HHDT
Installation of Plants	—	—	—	—
Installation of Plants	Worker	30.0	14.3	LDA,LDT1,LDT2
Installation of Plants	Vendor	2.00	75.0	MHDT
Installation of Plants	Hauling	0.00	20.0	HHDT
Installation of Plants	Onsite truck	—	—	HHDT
Site Demobilization	—	—	—	—
Site Demobilization	Worker	60.0	14.3	LDA,LDT1,LDT2
Site Demobilization	Vendor	0.00	8.80	HHDT,MHDT
Site Demobilization	Hauling	0.00	20.0	HHDT
Site Demobilization	Onsite truck	—	—	HHDT
Waterside Levee Slope and Bench Construction	—	—	—	—
Waterside Levee Slope and Bench Construction	Worker	30.0	14.3	LDA,LDT1,LDT2
Waterside Levee Slope and Bench Construction	Vendor	0.00	8.80	HHDT,MHDT
Waterside Levee Slope and Bench Construction	Hauling	51.6	20.0	HHDT
Waterside Levee Slope and Bench Construction	Onsite truck	—	—	HHDT
Barge Traffic Mobilization	—	—	—	—
Barge Traffic Mobilization	Worker	0.00	14.3	LDA,LDT1,LDT2

Barge Traffic Mobilization	Vendor	0.00	8.80	HHDT,MHDT
Barge Traffic Mobilization	Hauling	0.00	20.0	HHDT
Barge Traffic Mobilization	Onsite truck	—	—	HHDT
Barge Traffic Transport	—	—	—	—
Barge Traffic Transport	Worker	0.00	14.3	LDA,LDT1,LDT2
Barge Traffic Transport	Vendor	0.00	8.80	HHDT,MHDT
Barge Traffic Transport	Hauling	0.00	20.0	HHDT
Barge Traffic Transport	Onsite truck	—	—	HHDT
Barge Traffic Demobilization	—	—	—	—
Barge Traffic Demobilization	Worker	0.00	14.3	LDA,LDT1,LDT2
Barge Traffic Demobilization	Vendor	0.00	8.80	HHDT,MHDT
Barge Traffic Demobilization	Hauling	0.00	20.0	HHDT
Barge Traffic Demobilization	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
------------	--	--	--	--	-----------------------------

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	280	0.00	0.00	—
Installation of Plants	—	—	0.00	0.00	—

Mobilization	—	—	0.00	0.00	—
Waterside slope grading of overburden and landside slope fill placement	—	—	0.00	0.00	—
Site Demobilization	—	—	0.00	0.00	—
Barge Traffic Mobilization	—	—	0.00	0.00	—
Barge Traffic Transport	—	—	0.00	0.00	—
Barge Traffic Demobilization	—	—	0.00	0.00	—
Removal/Relocation of Encroachments	—	—	0.00	0.00	—
Waterside Levee Slope and Bench Construction	33,820	—	5.80	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	5.80	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
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Temperature and Extreme Heat	22.6	annual days of extreme heat
Extreme Precipitation	2.60	annual days with precipitation above 20 mm
Sea Level Rise	0.08	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	1	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	1	1	1	2
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	37.8
AQ-PM	20.3
AQ-DPM	16.3
Drinking Water	71.9
Lead Risk Housing	47.7
Pesticides	77.6
Toxic Releases	34.7

Traffic	25.7
Effect Indicators	—
CleanUp Sites	2.59
Groundwater	77.5
Haz Waste Facilities/Generators	50.1
Impaired Water Bodies	91.9
Solid Waste	35.7
Sensitive Population	—
Asthma	49.1
Cardio-vascular	68.3
Low Birth Weights	23.1
Socioeconomic Factor Indicators	—
Education	53.4
Housing	64.8
Linguistic	20.6
Poverty	66.3
Unemployment	73.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	28.32028744
Employed	8.571795201
Median HI	21.2498396
Education	—
Bachelor's or higher	23.67509303
High school enrollment	100

Preschool enrollment	1.873476197
Transportation	—
Auto Access	59.70742974
Active commuting	77.19748492
Social	—
2-parent households	79.69973053
Voting	76.63287566
Neighborhood	—
Alcohol availability	42.64083152
Park access	7.211600154
Retail density	3.002694726
Supermarket access	11.29218529
Tree canopy	66.14910817
Housing	—
Homeownership	70.80713461
Housing habitability	43.47491338
Low-inc homeowner severe housing cost burden	24.72731939
Low-inc renter severe housing cost burden	40.31823431
Uncrowded housing	57.46182471
Health Outcomes	—
Insured adults	43.11561658
Arthritis	0.0
Asthma ER Admissions	63.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0

Diagnosed Diabetes	0.0
Life Expectancy at Birth	9.0
Cognitively Disabled	7.9
Physically Disabled	3.6
Heart Attack ER Admissions	54.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	94.3
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	92.2
Elderly	4.1
English Speaking	58.3
Foreign-born	22.7
Outdoor Workers	7.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	88.6
Traffic Density	31.3
Traffic Access	23.0
Other Indices	—

Hardship	67.7
Other Decision Support	—
2016 Voting	70.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	57.0
Healthy Places Index Score for Project Location (b)	28.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	See Project Components and Construction Phasing. Barge Traffic calculated separately depending on route.
Construction: Off-Road Equipment	See Project Description. Barge traffic isolated by trip route so that emissions can be broken down per air district.
Construction: Dust From Material Movement	Amount of Material Import and Acres Graded from Project Engineer.

Construction: Off-Road Equipment EF	See SMAQMD Harborcraft, Dredge and Barge Emission Factor Calculator - Main Engine Emission Rates Assumptions.
Construction: Trips and VMT	See Project Description.

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3.12. Barge Traffic Mobilization (2025) - Mitigated

3. Construction Emissions Details

3.12. Barge Traffic Mobilization (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	11.9	141	8.13	—	8.13	7.24	—	7.24
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.39	0.02	—	0.02	0.02	—	0.02
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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3.12. Barge Traffic Mobilization (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	5.31	0.31	—	0.31	0.27	—	0.27
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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3. Construction Emissions Details

3.14. Barge Traffic Transport (2025) - Mitigated

3. Construction Emissions Details

3.14. Barge Traffic Transport (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	11.9	141	8.13	—	8.13	7.24	—	7.24
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	11.9	141	8.13	—	8.13	7.24	—	7.24
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	2.08	24.8	1.43	—	1.43	1.27	—	1.27
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	4.53	0.26	—	0.26	0.23	—	0.23
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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3. Construction Emissions Details

3.14. Barge Traffic Transport (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34	15.9	0.92	—	0.92	0.82	—	0.82
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34	15.9	0.92	—	0.92	0.82	—	0.82
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.80	0.16	—	0.16	0.14	—	0.14
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.51	0.03	—	0.03	0.03	—	0.03
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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3.14. Barge Traffic Transport (2025) - Mitigated

3. Construction Emissions Details

3.14. Barge Traffic Transport (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.55	0.12	—	0.12	0.11	—	0.11
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.55	0.12	—	0.12	0.11	—	0.11
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.45	0.02	—	0.02	0.02	—	0.02
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Georgiana Slough Custom Report

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3. Construction Emissions Details

3.16. Barge Traffic Demobilization (2025) - Mitigated

3. Construction Emissions Details

3.16. Barge Traffic Demobilization (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	3.96	47.1	2.71	—	2.71	2.41	—	2.41
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.01	—	0.01	0.01	—	0.01
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Georgiana Slough Custom Report

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3. Construction Emissions Details

3.16. Barge Traffic Demobilization (2025) - Mitigated

3. Construction Emissions Details

3.16. Barge Traffic Demobilization (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34	15.9	0.92	—	0.92	0.82	—	0.82
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

[illegible]

Trip Type	Trip Code
Site – Decker Island (fill)	A
Site – SRRQ (rock)	B
Site – Rio Vista	C
Rio Vista – SRRQ	D
Rio Vista - Decker I	E
Site - Korths	F

Miles in each air district					Total miles
BAAQMD	YSAQMD	SMAQMD	SJAQMD		
3.3	1.25	9.82	1.9		16.27
35	10.7	11.32	1.9		58.92
3.45	2.3	12.27	1.9		19.92
30.9	13.2	9.3			53.4
	3.7	2.3			6
		2.1	1.5		3.6

Percentages in each air district					Total
BAAQMD	YSAQMD	SMAQMD	SJAQMD		
0.20	0.08	0.60	0.12		1.00
0.59	0.18	0.19	0.03		1.00
0.17	0.12	0.62	0.10		1.00
0.58	0.25	0.17	0.00		1.00
0.00	0.62	0.38	0.00		1.00
0.00	0.00	0.58	0.42		1.00

		Total Trip Emissions				Emissions in each air district (Maximum lbs/day)					BAAQMD Annualized Emissions (lbs/day)			
		NOx	ROG	PM10	PM2.5	BAAQMD	YSAQMD	SMAQMD	SJAQMD	Total	# of Trips		Total Emissions	
Barge Mobilization														
D	Material Barge	141	11.9	8.13	7.24	81.6	34.9	24.6	0.0	141.00				
E	Crane Barge	5.31	0.45	0.31	0.27	0.0	3.3	2.0	0.0	5.31	1		81.58989	
						Total NOx	81.59	38.1	26.59	0.00				
						6.9	2.9	2.1	0.0	11.90				
						0.0	0.3	0.2	0.0	0.45	1		6.885955	
						Total ROG	6.9	3.2	2.24	0.0				
						4.7	2.0	1.4	0.0	8.13				
						0.0	0.2	0.1	0.0	0.31	1		4.704438	
						Total PM10	4.7	2.2	1.53	0.0				
						4.2	1.8	1.3	0.0	7.24				
						0.0	0.2	0.1	0.0	0.27	1		4.189438	
						Total PM2.5	4.2	2.0	1.36	0.0				
Barge Transport														
B	Material Barge	141	11.9	8.13	7.24	83.8	25.6	27.1	4.5	141.00	30		2512.729	
A	Crane Barge	15.9	1.34	0.92	0.82	3.2	1.2	9.6	1.9	15.90	10		32.24954	
F	Workboat	2.55	0.29	0.12	0.11	0.0	0.0	1.5	1.1	2.55	0		0	
						Total NOx	87.0	26.8	38.17	7.5			2544.979	
						7.1	2.2	2.3	0.4	11.90	30		212.0672	
						0.3	0.1	0.8	0.2	1.34	10		2.717886	
						0.0	0.0	0.2	0.1	0.29	0		0	
						Total ROG	7.3	2.3	3.26	0.7			214.7851	
						4.8	1.5	1.6	0.3	8.13	30		144.8829	
						0.2	0.1	0.6	0.1	0.92	10		1.866011	
						0.0	0.0	0.1	0.1	0.12	0		0	
						Total PM10	5.0	1.5	2.19	0.4			146.7489	
						4.3	1.3	1.4	0.2	7.24	30		129.0224	
						0.2	0.1	0.5	0.1	0.82	10		1.663184	
						0.0	0.0	0.1	0.0	0.11	0		0	
						Total PM2.5	4.5	1.4	2.0	0.4			130.6856	
Barge Demobilization														
C	Material Barge	47.1	3.96	2.71	2.41	8.2	5.4	29.0	4.5	47.10				
C	Crane Barge	15.9	1.34	0.92	0.82	2.8	1.8	9.8	1.5	15.90	1		10.91114	
						0.7	0.5	2.4	0.4	3.96				
						0.2	0.2	0.8	0.1	1.34	1		0.917922	
						0.5	0.3	1.7	0.3	2.71				
						0.2	0.1	0.6	0.1	0.92	1		0.62869	
						Total PM10	0.6	0.4	2.24	0.3				
						0.4	0.3	1.5	0.2	2.41				
						0.1	0.1	0.5	0.1	0.82	1		0.559413	
						Total PM2.5	0.6	0.4	1.99	0.3				
											Total		Days	Avg.
											NOx	2637.48	66	40.0
											ROG	222.589	66	3.4
											PM10	152.082	66	2.3
											PM2.5	135.4344	66	2.1

SMAQMD Harborcraft, Dredge and Barge Emission Factor Calculator - Input Data Page

INSTRUCTIONS:

1. Enter inputs into tables A1, A2, A3, and A4 below. Required inputs must be entered to estimate emission rates, optional inputs should be entered if available.
2. After entering inputs, review status and error messages (cell E14); make changes as necessary until this cell is green indicating that inputs are ready.
3. Results may be reviewed in "MainEngineEmissRates" and "AuxEngineEmissRates" tabs, both colored yellow.

Inputs and Status

Inputs color legend	Required Input
	Optional Input
Status and error messages	OK. Default values will be applied to blank model year and HP

A1. Inventory Calendar year

Inventory Calendar Year	2025
-------------------------	------

A2. Main Engine Inputs

[illegible]

A4. Project Information

Inputs

Date (mm/dd/yyyy):	4/25/2024
Project Name:	Georgiana Slough Erosion Control and Habitat Enhancement
Project Location:	Georgiana Slough
Contact Person:	
Company Name:	
Mailing Address:	
Phone Number:	
Email Address:	

A3. Auxiliary Engine Inputs

[illegible]

