Appendix A. Notice of Preparation and Scoping Comments

Notice of Preparation

NOTICE OF PREPARATION

To: Agencies and Interested Parties

From: California Department of Water Resources

Date: October 8, 2020

Subject: **Notice of Preparation and Scoping Meeting for the Milburn Pond Isolation Project Environmental Impact Report**

Notice is hereby given that the California Department of Water Resources (DWR), as the Lead Agency under the California Environmental Quality Act (CEQA), will prepare an Environmental Impact Report (EIR) for the Milburn Pond Isolation Project (proposed project). A virtual public scoping meeting will be held via Zoom on **Thursday, October 22, 2020, at 5 p.m.** to receive comments on the scope and content of the EIR, as described below.

DWR invites each State responsible and trustee agency and each Federal agency to provide input as to the scope and content of the environmental information that is germane to the agency's statutory responsibilities in connection with the proposed project. DWR also is accepting comments from members of the public and Native American tribes on the scope and content of the EIR, as well as suggested alternatives to the proposed project that may be considered in the EIR.

INTRODUCTION

CEQA specifies that a public agency must prepare an EIR on any project that it proposes to carry out or approve that may have a potentially significant or significant direct, indirect, or cumulative effect on the physical environment. DWR is proposing to implement improvements at the Milburn Unit of the California Department of Fish and Wildlife (DFW) San Joaquin River Ecological Reserve (Reserve) to increase native fish survival in the San Joaquin River. DWR has determined that these improvements may result in potentially significant and significant effects on the physical environment. Therefore, DWR will prepare a project-level EIR that evaluates the potential significant environmental effects of these proposed improvements.

PROJECT LOCATION

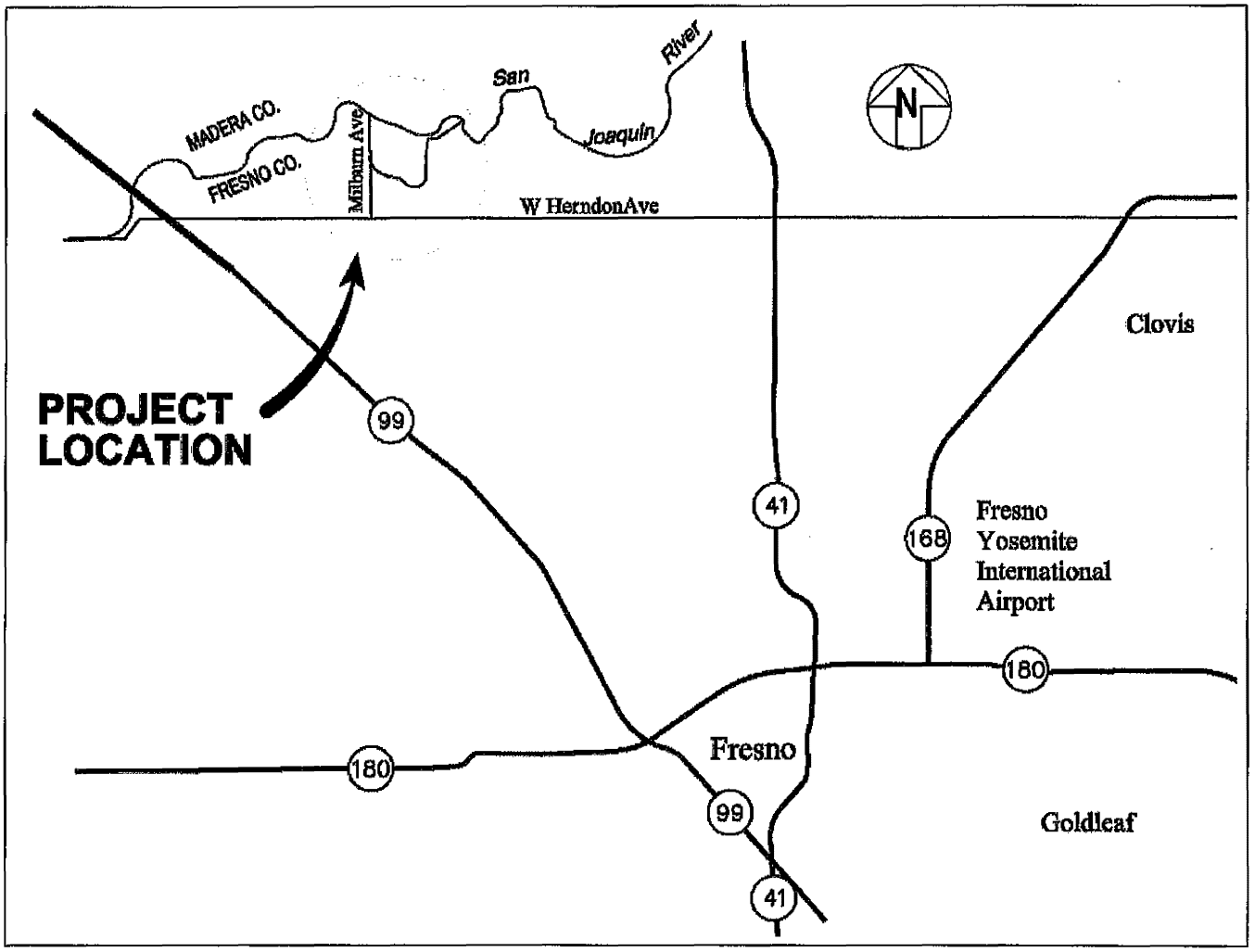
The project site is located in Fresno County and is bounded by the San Joaquin River to the north and the City of Fresno to the south (Figure 1). Privately owned agricultural land and the San Joaquin Country Club are adjacent to the upstream portion of the project site, and the San Joaquin River Conservancy (Conservancy) property currently leased to Bluff Pointe Golf Course and Learning Center is immediately downstream of the project site.

PROJECT DESCRIPTION

The proposed project would be the first phase of a potentially three-phase Milburn Habitat Restoration and Improvements Project. The EIR focuses on this initial phase because it has independent utility, must be completed prior to future phases, and its design has been funded and initiated; later phases are conceptual, do not yet have funding, and may not necessarily be implemented.

The proposed project would isolate the abandoned gravel pit known as Milburn Pond from the San Joaquin River channel to increase native fish survival by reducing movement of non-native warmwater fish species from the pond to the river and movement of native salmonids from the river to the pond.

Figure 1. Project Location



This would be accomplished by modifying the existing berm to fill existing breaches, strengthen weaker berm sections, and raise elevations of low-berm sections to minimize the potential for future breaches. Additional fish habitat improvements would include: constructing an equalization saddle structure within the berm to equalize Milburn Pond with the river during flow fluctuations, installing a modified French drain beneath the saddle to ensure water flow into Milburn Pond during low-flow conditions, creating a new high-flow side channel, and planting trees and other vegetation. The project would also install rock slope protection and biotechnical erosion protection to minimize erosion and would improve an existing access route along the southern and eastern boundary of Milburn Pond. Potential additional project components include modifying the portion of Milburn Avenue adjacent to the Reserve by raising the road berm elevation in low areas to avoid premature overtopping during flood releases from Friant Dam. Fencing, gates, and signage may also be installed along currently unfenced portions of the Reserve. The current site plan is provided as Figure 2, at the end of this document.

The EIR will analyze the potential environmental effects of construction, operation, and maintenance associated with the proposed project, the No-Project Alternative, and at least one other alternative. The proposed project and the alternatives will be defined, refined, and adjusted based on the information gathered during the scoping and environmental review processes, as well as through the continuing refinement of the engineering design.

PROBABLE ENVIRONMENTAL EFFECTS

The environmental analysis will focus on examining the potential environmental impacts associated with the improvements implemented as part of the proposed project and identifying feasible measures and alternatives that can be implemented to avoid, minimize, rectify, reduce, or compensate such impacts. The EIR will also evaluate cumulative effects of the proposed improvements when considered in conjunction with other related past, present, and reasonably foreseeable future projects.

Based on preliminary evaluations, the EIR is not anticipated to address the following resources, because there is no potential that these resources would be significantly impacted by the proposed project:

- **Energy.** Project implementation would not include wasteful or unnecessary consumption of energy resources, because it would be required to meet air quality and greenhouse gas criteria that require the use of efficient equipment. The project would be constructed within one field season using efficient equipment. Because the project would not change operations and maintenance from existing conditions, it would cause no long-term impacts to energy resources and would not conflict with renewable energy or energy efficiency plans. Consequently, the proposed project would not have the potential to cause a potentially significant impact on energy resources.

- **Mineral Resources**. The project site is designated MRZ-1 in the Fresno County General Plan; an MRZ-1designation means that adequate information indicates that no significant mineral deposits are present on the project site. Therefore, the proposed project would not result in the long-term loss of access to regionally or locally important deposits of mineral resources.

- **Population and Housing.** The proposed project does not include housing or commercial development that would directly or indirectly induce population growth. Project construction would occur in an undeveloped area, would not displace people or housing, and would be completed by local construction workers that would not need temporary housing. Consequently, the proposed project would have no impact on population and housing.

- **Public Services.** The proposed project would not require any new or increased public services. Moreover, the proposed project would not have any or only minimal effects on existing public services. The proposed project would be constructed within DFW's Reserve, which does not have public services that could be adversely affected. Consequently, the proposed project would not have the potential to cause a potentially significant impact on public services.

- **Utilities and Service Systems.** The proposed project does not require utility services and would not generate waste in excess of standards or infrastructure capacity. Consequently, the proposed project would have no impact on existing or future utilities and service systems.

Based on preliminary evaluations, the proposed project could have the following probable direct, indirect, and/or cumulative environmental effects:

- **Aesthetics**. Temporary changes in scenic views or visual character of the Reserve during construction, and potential long-term changes to aesthetics from modified berms and tree removal.

- **Agriculture and Forestry Resources**. Conversion of a small amount of farmland and woodland removal and restoration.

- **Air Quality**. Temporary, short-term increases in pollutant emissions associated with construction activities.

- **Biological Resources – Aquatic**. Short- and long-term effects on aquatic resources in the San Joaquin River and Milburn Pond, including special-status fish species and their habitats.

- **Biological Resources – Terrestrial**. Short- and long-term effects on terrestrial habitats, including wetlands, and special-status terrestrial species in the Reserve.

- **Cultural Resources**. Potential disturbance or destruction of known or unknown historic or archaeological resources during construction.

- **Geology, Soils, and Paleontological Resources**. Temporary and short-term increases in erosion during construction and potential disturbance or destruction of known or unknown paleontological resources during construction.

- **Greenhouse Gas Emissions**. Temporary, short-term increases in greenhouse gas emissions associated with construction activities.

- **Hazards and Hazardous Materials.** Potential introduction of contaminants into water courses and exposure of construction workers to hazardous materials during construction activities.

- **Hydrology and Water Quality.** Potential short- and long-term transport of sediments and other pollutants into water courses and potential effects on flood conveyance and flood control.

- **Land Use and Planning**. Potential conflicts with land use plans and zoning designations.

- **Noise.** Temporary and short-term increases in noise levels near sensitive receptors during construction.

- **Recreation**. Temporary and short-term disturbance of land-based recreational activities in areas adjacent to construction sites, and; long-term impacts to water-based recreation from isolating Milburn Pond from the San Joaquin River.

- **Transportation**. Temporary and short-term disruption of traffic or emergency access by haul truck traffic during construction.

- **Tribal Cultural Resources**. Potential disturbance or destruction of known Tribal cultural resources during construction.

- **Wildfire**. Temporary, short-term increase in wildfire risk associated with construction activities.

ALTERNATIVES

The No-Project Alternative and at least one other alternative to the proposed project will be evaluated in the EIR in accordance with CEQA and the State CEQA Guidelines. DWR conducted preliminary evaluations of potential alternatives as part of the preliminary design process to develop the proposed project and is currently identifying feasible alternatives that could reduce at least one potentially significant impact of the proposed project.

SCOPING MEETING

A virtual public scoping meeting will be held via Zoom on **Thursday, October 22, 2020, at 5 p.m.** The objective of the meeting is to brief interested parties about the proposed project, and obtain the views of agency representatives, interested parties, Native American Tribes, and the public on the EIR scope and content, including alternatives to be addressed and potentially significant environmental impacts.

Access to the virtual public scoping meeting is available at:
https://zoom.us/j/96186673204?pwd=MlhHdFRtVGZLTDEyWDRjdEFnWk41UT09

Access is also available by telephone at 669-900-9128.

WRITTEN COMMENTS

This Notice of Preparation is being circulated to obtain suggestions and information from interested parties, including responsible and/or trustee agencies, Native American Tribes, and members of the public, on the content and scope of issues that may be addressed in the EIR. Written comments from interested parties are invited to ensure that the full range of issues related to implementation of the proposed project is identified early in the CEQA process. Agencies organizations, Native American Tribes, and interested parties should provide a contact name and information in their letters. All comments received, including names and addresses, will become part of the official administrative record and may be made available to the public.

Written comments on the scope of the EIR must be received by DWR no later than **5 p.m. on Friday, November 6, 2020**. Written comments must be sent to:

Karen Dulik, Environmental Program Manager
California Department of Water Resources
South Central Region Office
3374 E. Shields Ave., Fresno, CA 93726

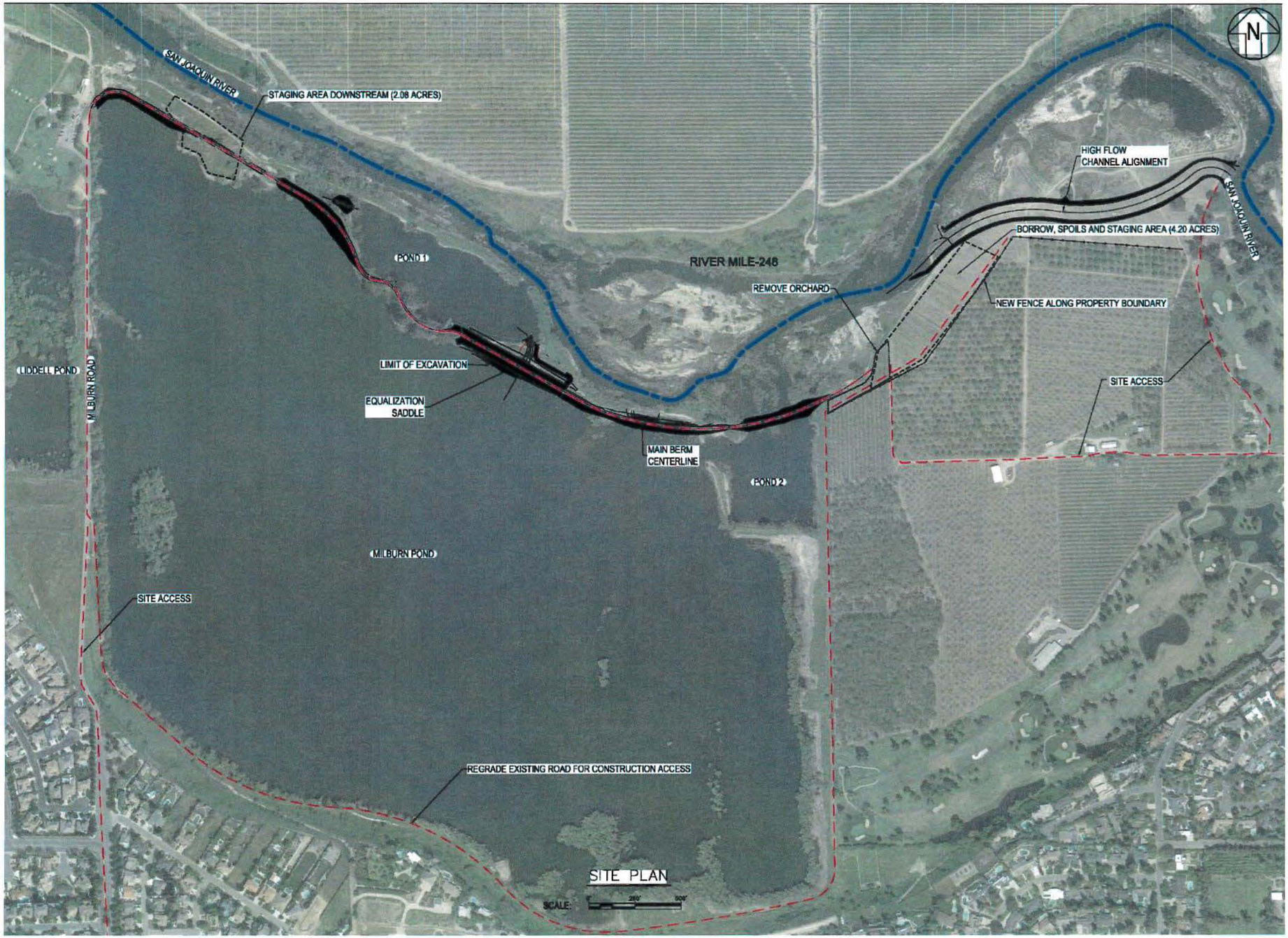
or via email to: Karen.Dulik@water.ca.gov

Interested parties may also provide written or oral comments on the proposed content and scope of the EIR at the public scoping meeting listed above. If you submit comments on the document, you will automatically be added to the distribution list for future notices and information about the environmental review process for the proposed project. If you do not wish to submit comments on the scope and content of the EIR, but would like to be added to the mailing list, you can submit your contact information, including email address, with a request to be added to the mailing list at the contact above.

Kevin Faulkenberry, Chief
South Central Region Office

10/8/2020
Date

Figure 2. Design Site Plan



Scoping Comments

California Department of Fish and Wildlife

California State Lands Commission

Native American Heritage Commission

S 3 Group, LLC

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

November 6, 2020

Karen Dulik, Environmental Program Manager
California Department of Water Resources
3374 East Shields Avenue
Fresno, California 93726

Subject: Milburn Pond Isolation Project
Notice of Preparation (NOP)
State Clearinghouse No. 2020100145

Dear Ms. Dulik:

The California Department of Fish and Wildlife (CDFW) received a NOP for a draft Environmental Impact Report from the California Department of Water Resources for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statue for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

In this role, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on Project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

PROJECT DESCRIPTION SUMMARY

Proponent: California Department of Water Resources

Objective: The proposed project, comprised of 370 acres, would be the first phase of a potentially three-phase Milburn Habitat Restoration and Improvements Project (Project). The scope of this NOP focuses on the first initial phase of the Project because it has independent utility, must be completed prior to future phases, and its design has been funded and initiated. The later phases are conceptual, do not yet have funding, and may not necessarily be implemented.

The first phase of the Project would isolate the abandoned gravel pit known as Milburn Pond from the San Joaquin River channel to increase native fish survival by reducing movement of non-native warmwater fish species from the pond to the river and movement of native salmonids from the river to the pond. This would be accomplished by modifying the existing berm to fill existing breaches, strengthen weaker berm sections, and raise elevations of low-berm sections to minimize the potential for future breaches. Other improvements would include: constructing an equalization saddle with a modified French drain within the berm to equalize Milburn Pond with the river during flow fluctuations, creating a high-flow side channel, and planting trees and other

vegetation. In addition, rock slope protection and biotechnical erosion protection would be installed to minimize erosion, and an existing access route along the southern and eastern boundary of Milburn Pond would be improved. Milburn Avenue is adjacent to the site and may need to be raised approximately 1 foot in low areas to avoid premature overtopping during flood releases from Friant Dam. Fencing, gates, and signage may also be installed along currently unfenced portions of the Milburn Pond. The Project will occur on a portion of the Milburn Pond, which is a unit of the California Department of Fish and Wildlife owned and managed San Joaquin River Ecological Reserve.

Location: The Project site is located in Fresno County and is bounded by the San Joaquin River to the north and the City of Fresno to the south. Privately owned agricultural land and the San Joaquin Country Club are adjacent to the upstream portion of the project site, and the San Joaquin River Conservancy (Conservancy) property currently leased to Bluff Pointe Golf Course and Learning Center is immediately downstream of the project site. Longitude/Latitude: 36°50'50"N/119°52'10"W, T12S, R19E, Sec 26, 27, 34, and 35. (APNs: 501-021-01T, 501-021-38ST, 502-020-11T, etc.).

Timeframe: Unspecified

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the County of Fresno in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

There are several special-status resources that may utilize the Project site, and these resources may need to be evaluated and addressed prior to any approvals that would allow ground-disturbing activities. CDFW is concerned regarding potential impacts to special-status species including, but not limited to, the State threatened Swainson's hawk (*Buteo swainsoni*), the State and federally threatened spring-run Chinook salmon (*Oncorhynchus tshawytscha*), the State species of special concern western pond turtle (*Emys marmorata*), and fall-run Chinook salmon.

COMMENT 1: Swainson's Hawk (SWHA)

Issue: SWHA have been documented to occur in the vicinity of the Project area (CDFW 2020). Review of aerial imagery indicates that large trees, which may support nesting SWHA, are present in the immediate vicinity of the Project area. In addition, habitat both within and surrounding the Project area may provide suitable foraging habitat for SWHA, increasing the likelihood of SWHA occurrence both within and in the immediate vicinity of the Project area.

Specific impact: Without appropriate avoidance and minimization measures for SWHA, potential significant impacts associated with Project activities include nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs and/or young) and direct mortality. Any take of SWHA without appropriate incidental take authorization would be a violation of Fish and Game Code.

Evidence impact would be significant: SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat in the San Joaquin Valley limits the local distribution and abundance of SWHA (CDFW 2016). Depending on the timing of construction, activities including noise, vibration, and movement of workers or equipment that could affect nests present within the vicinity of the Project area and have the potential to result in nest abandonment and loss of foraging habitat, significantly impacting local nesting SWHA.

Recommended Potentially Feasible Mitigation Measure(s)
Because suitable nesting and foraging habitat for SWHA is present in the Project area, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into any CEQA document prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 1: Focused SWHA Surveys

To evaluate potential impacts, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting SWHA following the survey methods developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC, 2000) prior to project implementation. The survey protocol includes early season surveys to assist the project proponent in implementing necessary avoidance and minimization measures, and in identifying active nest sites prior to initiating ground-disturbing activities.

Recommended Mitigation Measure 2: SWHA Avoidance

If ground-disturbing Project activities are to take place during the normal bird breeding season (March 1 through September 15), CDFW recommends that additional pre-activity surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of Project implementation. CDFW recommends a minimum no-disturbance buffer of ½ mile be delineated around active nests until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.

Recommended Mitigation Measure 3: SWHA Take Authorization

CDFW recommends that in the event an active SWHA nest is detected during surveys and the ½-mile no-disturbance buffer around the nest cannot feasibly be implemented, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the issuance of an ITP, pursuant to Fish and Game Code section 2081(b) is necessary to comply with CESA.

Recommended Mitigation Measure 4: Loss of SWHA Foraging Habitat

CDFW recommends compensation for the loss of SWHA foraging habitat to reduce impacts to SWHA foraging habitat to less than significant based on CDFW's "*Staff Report Regarding Mitigation for Impacts to Swainson's Hawks*" (CDFG, 1994), which recommends that mitigation for habitat loss occur within a minimum distance of 10 miles from known nest sites and the amount of habitat compensation is dependent on nest proximity. In addition to fee title acquisition or conservation easement recorded on property with suitable grassland habitat features, mitigation may occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.

Recommended Mitigation Measure 5: SWHA Nest Trees

CDFW recommends that the removal of known raptor nest trees, even outside of the nesting season, be replaced with an appropriate native tree species planting at a ratio of 3:1 at or near the Project area or in another area that will be protected in perpetuity to reduce impacts resulting from the loss of nesting habitat.

COMMENT 2: Western Pond Turtle (WPT)

Issue: Suitable habitat features for WPT occur in the Project area. WPT are known to nest in the spring or early summer within 100 meters of a water body, although nest sites as far away as 500 meters have also been reported (Thomson et al. 2016).

Specific impact: Without appropriate avoidance and minimization measures for WPT, potentially significant impacts associated with Project activities could include nest reduction, inadvertent entrapment, reduced reproductive success, reduction in health or vigor of eggs and/or young, and direct mortality.

Evidence impact is potentially significant: The Project site is in close proximity of known WPT habitat. Additionally, noise, vegetation removal, movement of workers, and ground disturbance as a result of Project activities have the potential to significantly impact WPT populations.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to WPT, CDFW recommends conducting the following evaluation of the Project site, editing the CEQA document to include the following measures specific to WPT, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 6: WPT Surveys

CDFW recommends a qualified biologist determine if suitable habitat for WPT occurs at an individual Project site. If suitable habitat is determined to occur on an individual Project site, CDFW recommends that a qualified biologist conduct focused surveys for WPT 10 days prior to Project implementation. In addition, CDFW recommends that focused surveys for nests occur during the egg-laying season (March through August) and that any nests discovered remain undisturbed until the eggs have hatched.

Recommended Mitigation Measure 7: WPT Relocation

CDFW recommends that if any WPT are discovered at the site immediately prior to or during Project activities, they be allowed to move out of the area on their own.

COMMENT 3: Spring and Fall-Run Chinook Salmon

Issue: Activities such as vegetation removal within the riparian zone, landscaping, access roads, etc., could impact the San Joaquin River and adjacent riparian habitat, especially in areas that are seasonally flooded away from the main stem of the river. These floodplain areas provide seasonal habitat for rearing and holding of juvenile spring- and fall-run Chinook salmon and are potential breeding habitat for spring- and fall-run Chinook salmon.

Specific impact: Without appropriate avoidance and minimization measures, potential impacts to Chinook salmon include disrupted spawning behavior, reduced reproductive success, and inability to reproduce.

Evidence impact would be significant: The Project area contains a part of the San Joaquin River; ground-disturbing activities or in-water work have the potential to impact salmon. Spring-run Chinook salmon are believed to have been the more abundant run and once spawned as high in the watershed as Mammoth Pool, the

San Joaquin River represents the southernmost extent of the spring-run Chinook salmon geographic range and was once the largest such population in California (SJRRP 2018).

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to Chinook salmon associated with the Project, CDFW recommends conducting the following evaluation of Project sites, incorporating the following mitigation measures for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 8: Chinook Salmon Habitat Avoidance

CDFW recommends Project activities avoid work in water and floodplains whenever possible, conduct Project activities during less critical times of the year (late June through August), and avoid spawning riffles or holding pools.

Recommended Mitigation Measure 9: Tree Removal and Replacement

If Project activities will occur in the riparian environment, CDFW recommends avoidance of tree removal whenever possible. If tree removal avoidance is not feasible, CDFW recommends preparation of a revegetation plan that incorporates native tree plantings within the San Joaquin River Restoration Area to replace removed trees.

Recommended Mitigation Measure 10: Chinook Salmon Habitat Mitigation

If Project activities will occur in the Floodplain, CDFW advises consultation with us to determine how to minimize and mitigate impacts to juvenile salmon utilization.

II. Editorial Comments and/or Suggestions

Nesting birds: CDFW encourages that Project implementation occur during the bird non-nesting season; however, if ground-disturbing or vegetation-disturbing activities must occur during the breeding season (February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground or vegetation disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the Project sites to identify nests and determine their status. A sufficient area means any area potentially affected by the

Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends having a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends halting the work causing that change and consulting with CDFW for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction areas would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CDFW appreciates the opportunity to comment on the Project to assist the City of Merced in identifying and mitigating the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (https://www.wildlife.ca.gov/Conservation/Survey-Protocols). If you have any questions, please contact Kelley Nelson, Environmental Scientist, at the address provided on this letterhead, or by electronic mail at Kelley.Nelson@wildlife.ca.gov

Sincerely,

DocuSigned by:
Annee Ferranti
041A77B10D78486...

for Julie A. Vance
Regional Manager

Attachment

Literature Cited

CDFW. 2016. Five Year Status Review for Swainson's Hawk (*Buteo swainsoni*). California Department of Fish and Wildlife. April 11, 2016.

CDFW. 2020. Biogeographic Information and Observation System (BIOS). https://www.wildlife.ca.gov/Data/BIOS. Accessed 5 October July 2020.

Swainson's Hawk Technical Advisory Committee (SWHA TAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. Swainson's Hawk Technical Advisory Committee, May 31, 2000.

CDFW. 2020. Biogeographic Information and Observation System (BIOS). https://www.wildlife.ca.gov/Data/BIOS. Accessed October 16, 2020.

Thomson, R. C., A. N. Wright, and H. Bradley Shaffer, 2016. California Amphibian and Reptile Species of Special Concern. California Department of Fish and Wildlife and University of California Press.

CDFW. 2020. Biogeographic Information and Observation System (BIOS). https://www.wildlife.ca.gov/Data/BIOS. Accessed October 16, 2020.

SJRRP. 2018. Fisheries framework: spring-run and fall-run Chinook salmon. San Joaquin River Restoration Program. June 2018. 29 pp.

Attachment 1

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

PROJECT: Milburn Pond Isolation Project

SCH No. 2020100145

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
Mitigation Measure 1: Focused SWHA Surveys	
Mitigation Measure 3: SWHA Take Authorization	
Mitigation Measure 4: Loss of SWHA Foraging Habitat	
Mitigation Measure 6: WPT Surveys	
Mitigation Measure 7: WPT Relocation	
During Construction	
Mitigation Measure 2: SWHA Avoidance	
Mitigation Measure 5: SWHA Nest Trees	
Mitigation Measure 8: Chinook Salmon Habitat Avoidance	
Mitigation Measure 9: Tree Removal and Replacement	
Mitigation Measure 10: Chinook Salmon Habitat Mitigation	

CALIFORNIA STATE LANDS COMMISSION
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Sacramento, CA 95825-8202

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from Voice Phone **1-800-735-2922**

Contact Phone: **(916) 574-1890**

Established in 1938

November 6, 2020

File Ref: SCH # 2020100145

Karen Dulik, Environmental Program Manager
California Department of Water Resources
South Central Region Office
3374 E. Shields Ave., Fresno, CA 93726

VIA ELECTRONIC MAIL ONLY (Karen.Dulik@water.ca.gov)

Subject: Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the Millburn Pond Isolation Project, Fresno County

Dear Ms. Dulik:

The California State Lands Commission (Commission) staff has reviewed the subject NOP for an EIR for the Millburn Pond Isolation Project (Project), which is being prepared by the Department of Water Resources (Department). The Department, as the public agency proposing to carry out the Project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) The Commission is a trustee agency for projects that could directly or indirectly affect sovereign land and accompanying Public Trust resources or uses. Additionally, because the Project involves work on sovereign land, the Commission will act as a responsible agency. Commission staff requests that the Department consult with us on preparation of the Draft EIR as required by CEQA section 21104, subdivision (a), and the State CEQA Guidelines section 15086, subdivisions (a)(1) and (a)(2).

Commission Jurisdiction and Public Trust Lands

The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The state holds these lands for the benefit of all people of the state for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the state holds fee ownership of the bed of the waterway landward to the ordinary low-water mark and a Public Trust easement landward to the ordinary high-water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

Based on Commission staff's preliminary review of the submitted information contained in the NOP, in-house records, and information available to staff at this time, the project appears to encroach onto sovereign land. The modification of existing berms along the northern portion of Milburn Pond and adjacent to the River appear to be within Commission jurisdiction and will require a lease with the Commission. These comments are made without prejudice to any future assertion of State ownership or public rights, should circumstances change, or should additional information become available, and are not intended, nor should they be construed as a waiver or limitation of any right, title, or interest of the State of California in any lands under its jurisdiction. Please contact Kelly Connor, Public Land Management Specialist (see contact information below), for any specific jurisdiction-related questions.

Project Description

The Department proposes to isolate the abandoned gravel pit known as Millburn Pond to reduce the movement of non-native warmwater fish species into the San Joaquin River and to reduce the movement of native salmonids into the pond.

From the Project Description, Commission staff understands that the Project would include the following components that have potential to affect State sovereign land:

- Berm Modifications. The Project would fill existing berm breaches, strengthen weaker sections, raise the elevation of low-berm sections, and construct an equalization saddle. All of these activities would occur along the north side of Millburn Pond.
- High Flow Channel Alignment. The NOP provides no specific information regarding the purpose of this component and its associated activities. However, the alignment will impact the San Joaquin River and could involve in-water construction.
- Erosion Measures. The Project would include rock slope protection and biotechnical measures.
- Delineation Measures. The Project could include fencing, signage, and gates along currently unfenced portions of the San Joaquin River Ecological Reserve.

Environmental Review

Commission staff requests that the Department consider the following comments when preparing the Draft EIR, to ensure that impacts to State sovereign land are adequately analyzed for the Commission's use of the Final EIR to support a future lease approval for the Project.

General Comments

1. Project Description: A thorough and complete Project Description should be included in the Draft EIR to facilitate meaningful environmental review of potential impacts, mitigation measures, and alternatives. The Project Description should be as precise as possible in describing the details of all allowable activities (e.g., types of equipment or methods that may be used, maximum area of impact or volume of sediment removed or disturbed from the San Joaquin River, seasonal work windows, locations for material disposal, origin of any imported material for berm construction, etc.), as well as the details of the timing and length of activities. In particular, Commission staff requests that the Department illustrate on figures and engineering plans and provide written description of activities occurring below the ordinary high-water mark and ordinary low-water mark of the San Joaquin River. Thorough descriptions will facilitate Commission staff's determination of the extent and locations of its leasing jurisdiction, make for a more robust analysis of the work that may be performed, and minimize the potential need for subsequent environmental analysis.

Biological Resources

2. Sensitive Species and Habitats: For land under the Commission's jurisdiction, the Draft EIR should disclose and analyze all potentially significant effects on sensitive species and habitats in and around the Project area, including special-status wildlife, fish, and plants, and if appropriate, identify feasible mitigation measures to reduce those impacts. The Department should conduct queries of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database and U.S. Fish and Wildlife Service's (USFWS) Special Status Species Database to identify any special-status plant or wildlife species that may occur in the Project area. The Draft EIR should also include a discussion of consultation with the CDFW, USFWS, and National Marine Fisheries Service (NMFS) as applicable, including any recommended mitigation measures and potentially required permits identified by these agencies.

3. Invasive Species: One of the major stressors in California waterways is introduced species. Therefore, the Draft EIR should consider the Project's potential to encourage the establishment or proliferation of aquatic invasive species (AIS) such as the quagga mussel, or other nonindigenous, invasive species including aquatic and terrestrial plants. For example, construction boats and barges brought in from long stays at distant projects may transport new species to the Project area via hull biofouling, wherein marine and aquatic organisms attach to and accumulate on the

hull and other submerged parts of a vessel. If the analysis in the Draft EIR finds potentially significant AIS impacts, possible mitigation could include contracting vessels and barges from nearby or requiring contractors to perform hull cleaning prior to arrival at the project area. The Commission's Marine Invasive Species Program and the CDFW's Invasive Species Program could assist with this analysis as well as with the development of appropriate mitigation (information at https://www.wildlife.ca.gov/Conservation/Invasives).

4. Construction Noise: The Draft EIR should also evaluate noise and vibration impacts on fish and birds from construction, restoration, or flood control activities in the water if they are applicable to the proposed high flow channel alignment construction activities. Mitigation measures could include species-specific work windows as defined by CDFW, USFWS, and NMFS. Again, staff recommends early consultation with these agencies to minimize the impacts of the Project on sensitive species.

Climate Change

5. Greenhouse Gas (GHG): A GHG emissions analysis consistent with the California Global Warming Solutions Act (Assembly Bill [AB] 32) and required by the State CEQA Guidelines should be included in the Draft EIR. The NOP notes that GHG emissions will be evaluated in the Draft EIR. This analysis should identify a threshold for significance for GHG emissions, calculate the level of GHGs that will be emitted as a result of Project construction activities, determine the significance of the impacts of those emissions, and, if impacts are significant, identify mitigation measures that would reduce them to the extent feasible. In particular, Commission staff recommends that the Department identify a quantitative threshold if the regional air quality management district has not done so.

Cultural Resources

6. Submerged Resources: The Draft EIR should evaluate potential impacts to submerged cultural resources in the Project area. The Commission maintains a shipwrecks database that can assist with this analysis. Commission staff requests that the Department contact Staff Attorney Jamie Garrett (see contact information below) to obtain shipwrecks data from the database and Commission records for the Project site. The database includes known and potential vessels located on the State's tide and submerged lands; however, the locations of many shipwrecks remain unknown. Please note that any submerged archaeological site or submerged historic resource that has remained in state waters for more than 50 years is presumed to be significant. Because of this possibility, please add a mitigation measure requiring that in the event cultural resources are discovered during any construction activities, Project personnel shall halt all activities in the immediate area and notify a qualified archaeologist to determine the appropriate course of action.

7. Title to Resources: The Draft EIR should also mention that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the state and under the jurisdiction of

the Commission (Pub. Resources Code, § 6313). Commission staff requests that the Department consult with Staff Attorney Jamie Garrett, should any cultural resources on state lands be discovered during construction of the proposed Project. In addition, Commission staff requests that the following statement be included in the EIR's Mitigation and Monitoring Plan: "The final disposition of archaeological, historical, and paleontological resources recovered on state lands under the jurisdiction of the Commission must be approved by the Commission."

Alternatives

8. Alternatives: In addition to describing mitigation measures that would avoid or reduce the potentially significant impacts of the Project, the Department should identify and analyze a range of reasonable alternatives to the proposed Project that would attain most of the Project objectives while avoiding or reducing one or more of the potentially significant impacts (see State CEQA Guidelines, § 15126.6).

Thank you for the opportunity to comment on the NOP for the Project. As a trustee and responsible agency, Commission staff requests that you consult with us on this Project and keep us advised of changes to the Project Description and all other important developments. Please send additional information on the Project to the Commission staff listed below as the Draft EIR is being prepared:

- Please refer questions concerning environmental review to Alexandra Borack, Senior Environmental Scientist, at Alexandra.Borack@slc.ca.gov.
- For questions concerning archaeological or historic resources under Commission jurisdiction, please contact Staff Attorney Jamie Garrett at Jamie.Garrett@slc.ca.gov.
- For questions concerning Commission leasing jurisdiction, please contact Kelly Connor, Public Lands Management Specialist, at Kelly.Connor@slc.ca.gov.

Sincerely,

Nicole Dobroski, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
A. Borack, Commission
K. Connor, Commission
J. Garrett, Commission
L. Calvo, Commission

NATIVE AMERICAN HERITAGE COMMISSION

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October 8, 2020

Karen Dulik
California Department of Water Resources
South Central Region Office, 3374 E. Shields Ave.
Fresno, CA 93726

Re: 2020100145, Milburn Pond Isolation Project, Fresno County

Dear Ms. Dulik:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).

2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.

3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).

4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:

- **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
- **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:

- **a.** If part or all of the APE has been previously surveyed for cultural resources.
- **b.** If any known cultural resources have already been recorded on or adjacent to the APE.
- **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
- **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
- **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez-Lopez
Cultural Resources Analyst

cc: State Clearinghouse

Karen Dulik
Environmental Program Manager
California Department of Water Resources
South Central Region Office
3374 E. Shields Avenue
Fresno, CA 93726

Via email and U.S. Mail

RESPONSE TO NOTICE OF PREPARATION

FOR THE MILBURN PROJECT

ENVIRONMENTAL IMPACT REPORT

Ms. Dulik,

This letter is written on behalf of S 3 Group, LLC, owners of the approximately 90 acres in Fresno County with a street address of 7855 N. Valentine Avenue, Fresno, CA 93711.

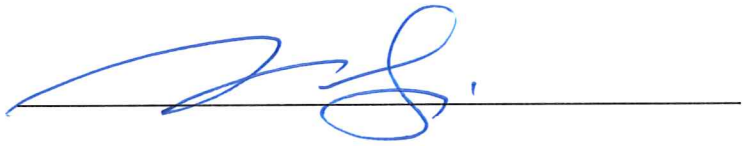
This property includes an existing residence, out buildings and approximately 90 acres of walnuts and pistachios. The subject property is depicted on the attached maps. The S 3 Group, LLC property is contiguous to the proposed Millburn Pond Isolation Project (Project). This letter is written more in the form of a request for information and clarification of the impact this Project may have on this S 3 Group, LLC property rather than Project objection at this stage. We have the following thoughts and questions:

- While our client provided you with temporary access, what are the proposed plans for long term access to the Project site?
- Will the long term access require crossing any portion of our client's property and if so, with what kind and frequency of traffic, would be involved?.
- What would be the height and location of the proposed berms that are referenced?
- Also, we would like to know the height, type, and location of proposed fencing for the property.

- What is the possibility of flooding any portion of the S 3 Group, LLC property as a result of the improvements you propose with this Project?
- The S 3 Group, LLC property has both operational wells and rights to divert river water from the San Joaquin River. Does this proposed Project have rights to a water supply?
- Would the Project have an interest in some of the right to water from the S 3 Group property? If so, please advise the quantity and timing for that need.
- Because of the client's right to divert water from the river system, we would like to work together on this, including withdrawing any water from the Project area.

We look forward to better understanding and working on this together for the benefit of your project and our S 3 Group, LLC property.

Respectfully submitted,



A. Ben Ewell, Jr.
Attorney at Law
Chairman
Ewell Group
735 W. Alluvial Avenue Ste. 103
Fresno, CA 93711
Tel 559 437 19990
Fax 559 437 1992

CC: S B Group, LLC c/o Lakhvir Sran
Austin B. Ewell, III

Scale 1 inch = 375.07 feet

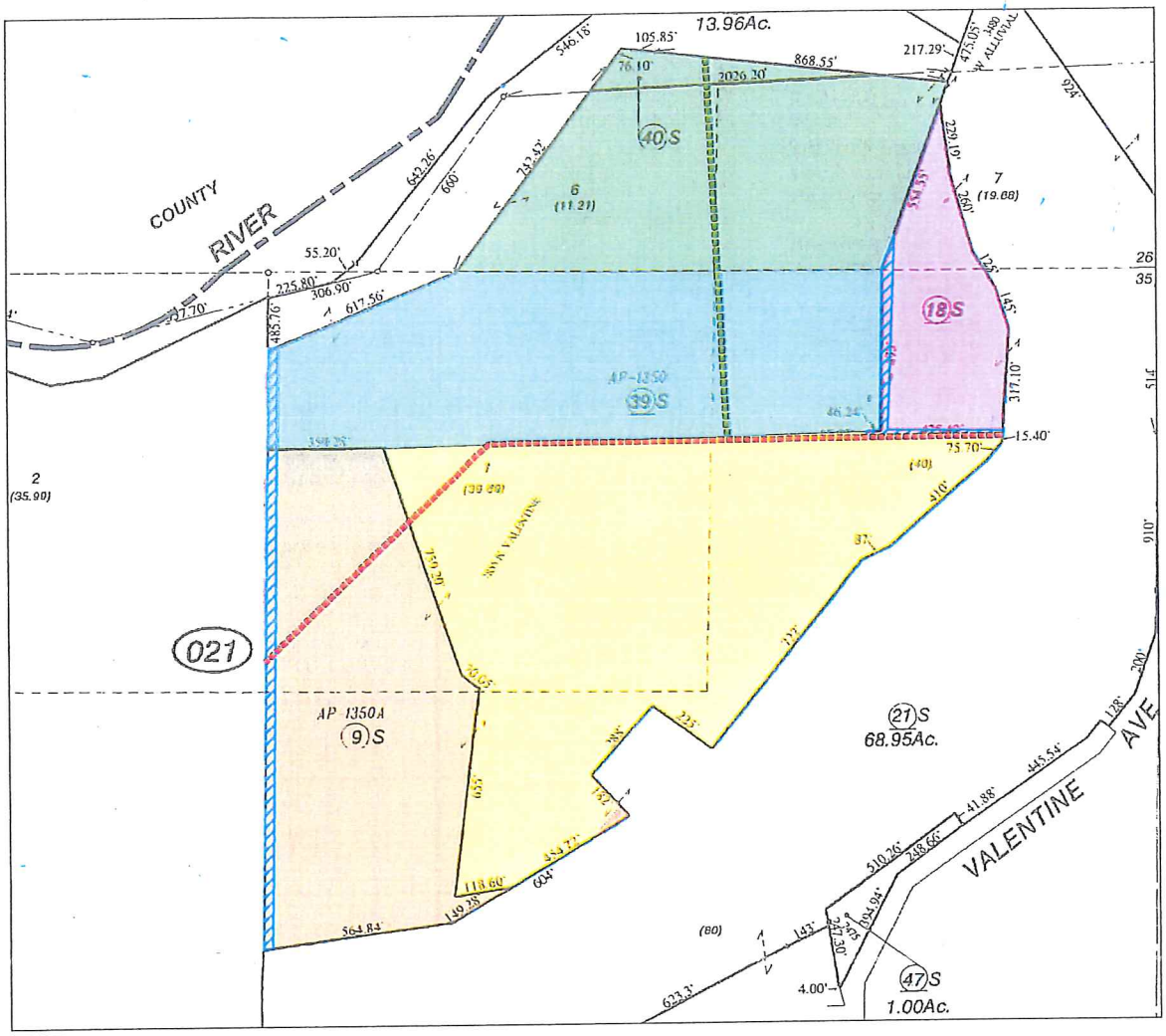
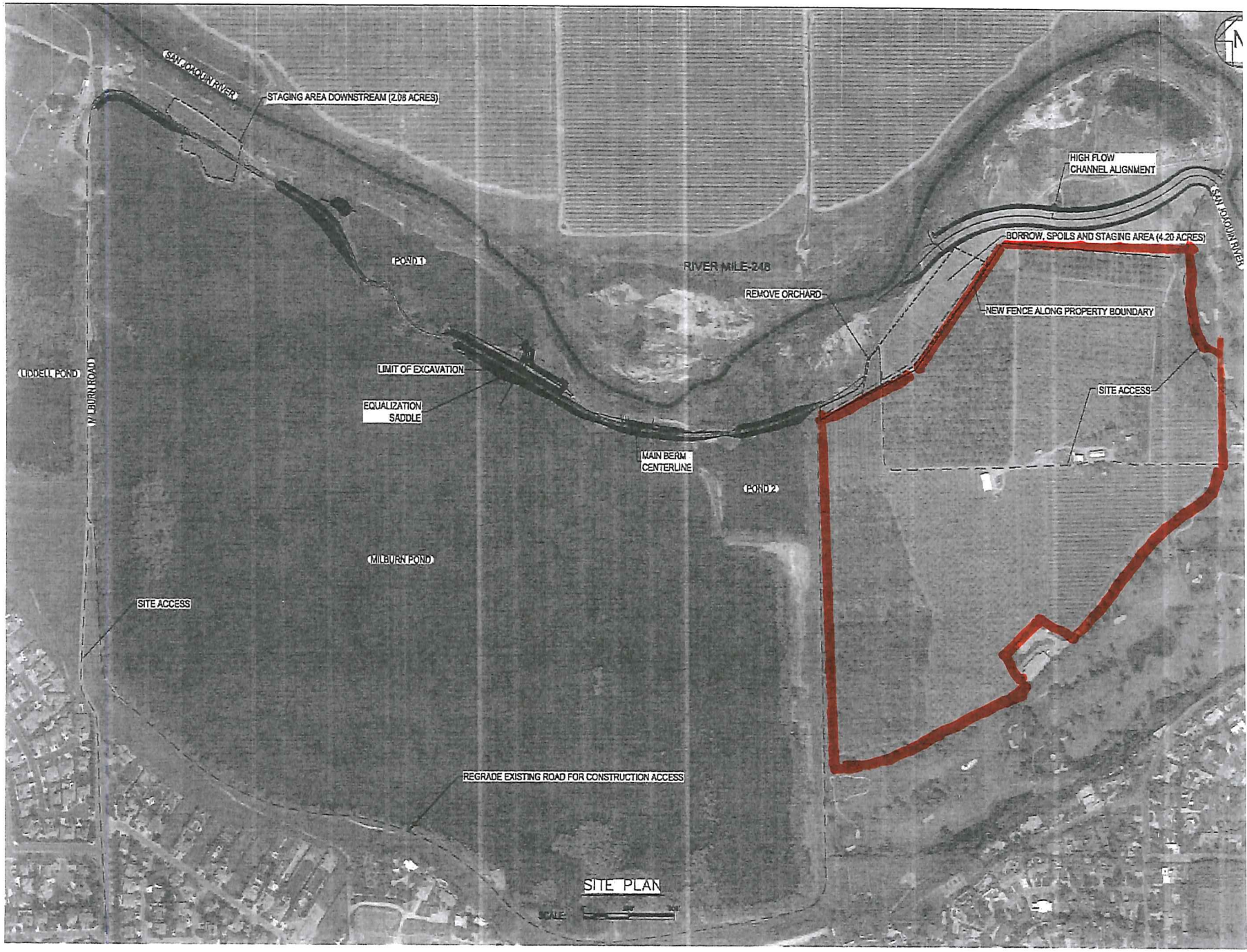


Figure 2. Design Site Plan



Appendix B. Air Quality and Greenhouse Gas Emissions Modeling Results

DWR Milburn - San Joaquin River Restoration

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	364.00	User Defined Unit	364.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total project area (acres)

Construction Phase - Construction schedule compressed to 7 months to conservatively represent worst case conditions.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

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Trips and VMT -
Worker Trips - max. 12 personnel per day, plus 3 lunch/break trips; up to 40 miles RT to/from Fresno area.
Hauling Trips - truck trips for boulder delivery and haul-out of replaced asphalt; 200 miles RT from quarries, 40 miles RT to disposal facility.

Grading -
Material Exported - Milburn Avenue modification 200 cu. yd. of replaced asphalt.
Total Acres Graded - calculated based on anticipated equipment per phase (Graders = 0.5 acres/8hr-day, Rubber Tired Dozers = 0.5 acres/8hr-day, Scrapers = 1 acre/8hr-day).

Vehicle Trips - Maintenance trips - Up to 4 trips per day (up to 6 occurrences per year).

Vehicle Emission Factors -

Water And Wastewater - Anticipated consumption for plant waterings (up to 5 years).

Construction Off-road Equipment Mitigation - Dust control best practices.

Operational Off-Road Equipment - Water truck based on 28,800 gal/year and approx. 2,000 gal truck = 14.4 visits per year (one truck).

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	150	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstructionPhase	NumDays	620.00	60.00
tblConstructionPhase	NumDays	620.00	90.00
tblConstructionPhase	NumDays	620.00	20.00
tblConstructionPhase	NumDays	620.00	110.00
tblConstructionPhase	NumDays	620.00	15.00
tblConstructionPhase	NumDays	620.00	15.00
tblConstructionPhase	NumDays	240.00	10.00
tblConstructionPhase	NumDays	240.00	5.00
tblConstructionPhase	NumDays	240.00	10.00
tblConstructionPhase	NumDays	240.00	10.00
tblConstructionPhase	NumDays	240.00	30.00
tblGrading	AcresOfGrading	0.00	60.00
tblGrading	AcresOfGrading	360.00	250.00
tblGrading	AcresOfGrading	22.50	7.00
tblGrading	AcresOfGrading	5.00	2.50
tblGrading	AcresOfGrading	5.00	10.00
tblGrading	MaterialExported	0.00	200.00
tblLandUse	LotAcreage	0.00	364.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	15.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	200.00
tblTripsAndVMT	HaulingTripLength	20.00	200.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,500.00
tblTripsAndVMT	HaulingTripNumber	0.00	300.00
tblTripsAndVMT	HaulingTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	23.00	15.00
tblTripsAndVMT	WorkerTripNumber	25.00	15.00
tblTripsAndVMT	WorkerTripNumber	10.00	15.00

tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblVehicleTrips	CC_TL	7.30	40.00
tblVehicleTrips	CNW_TL	7.30	40.00
tblVehicleTrips	CW_TL	9.50	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	2.5400e-004
tblWater	OutdoorWaterUseRate	0.00	28,800.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.6366	5.9221	4.6660	0.0189	1.3904	0.2088	1.5992	0.6212	0.1921	0.8133	0.0000	1,704.1107	1,704.1107	0.3600	0.0000	1,713.1110
Maximum	**0.6366**	**5.9221**	**4.6660**	**0.0189**	**1.3904**	**0.2088**	**1.5992**	**0.6212**	**0.1921**	**0.8133**	**0.0000**	**1,704.1107**	**1,704.1107**	**0.3600**	**0.0000**	**1,713.1110**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.6366	5.9221	4.6660	0.0189	0.7302	0.2088	0.9389	0.3024	0.1921	0.4946	0.0000	1,704.1094	1,704.1094	0.3600	0.0000	1,713.1097
Maximum	**0.6366**	**5.9221**	**4.6660**	**0.0189**	**0.7302**	**0.2088**	**0.9389**	**0.3024**	**0.1921**	**0.4946**	**0.0000**	**1,704.1094**	**1,704.1094**	**0.3600**	**0.0000**	**1,713.1097**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**47.49**	**0.00**	**41.29**	**51.32**	**0.00**	**39.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-1-2023	7-31-2023	3.6289	3.6289
2	8-1-2023	9-30-2023	2.1817	2.1817
		Highest	3.6289	3.6289

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1000e-004	3.0000e-005	3.3400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5000e-003	6.5000e-003	2.0000e-005	0.0000	6.9300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	5.0000e-005	5.3000e-004	7.8000e-004	1.0000e-005	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.4800	0.4800	2.0000e-005	0.0000	0.4803
Offroad	3.7300e-003	0.0250	0.0244	1.0000e-004		9.0000e-004	9.0000e-004		8.3000e-004	8.3000e-004	0.0000	8.7114	8.7114	2.8200e-003	0.0000	8.7818
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0293	0.0293	0.0000	0.0000	0.0294
Total	**4.0900e-003**	**0.0255**	**0.0285**	**1.1000e-004**	**3.7000e-004**	**9.1000e-004**	**1.2800e-003**	**1.0000e-004**	**8.4000e-004**	**9.4000e-004**	**0.0000**	**9.2271**	**9.2271**	**2.8600e-003**	**0.0000**	**9.2985**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1000e-004	3.0000e-005	3.3400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5000e-003	6.5000e-003	2.0000e-005	0.0000	6.9300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	5.0000e-005	5.3000e-004	7.8000e-004	1.0000e-005	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.4800	0.4800	2.0000e-005	0.0000	0.4803
Offroad	3.7300e-003	0.0250	0.0244	1.0000e-004		9.0000e-004	9.0000e-004		8.3000e-004	8.3000e-004	0.0000	8.7114	8.7114	2.8200e-003	0.0000	8.7818
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0293	0.0293	0.0000	0.0000	0.0294
Total	**4.0900e-003**	**0.0255**	**0.0285**	**1.1000e-004**	**3.7000e-004**	**9.1000e-004**	**1.2800e-003**	**1.0000e-004**	**8.4000e-004**	**9.4000e-004**	**0.0000**	**9.2271**	**9.2271**	**2.8600e-003**	**0.0000**	**9.2985**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mobilization	Site Preparation	5/1/2023	5/12/2023	5	10	
2	Site preparation	Site Preparation	5/1/2023	5/12/2023	5	10	
3	Berm improvements	Grading	5/13/2023	8/4/2023	5	60	
4	High-flow channel excavation	Grading	5/13/2023	9/15/2023	5	90	
5	Modified French drain construction	Grading	5/13/2023	6/9/2023	5	20	
6	Saddle construction	Grading	6/12/2023	11/10/2023	5	110	
7	Erosion protection	Grading	8/5/2023	8/25/2023	5	15	
8	Milburn Avenue modification	Grading	8/5/2023	8/25/2023	5	15	
9	Vegetation planting	Site Preparation	11/11/2023	12/22/2023	5	30	
10	Reserve fencing installation	Site Preparation	11/11/2023	11/17/2023	5	5	
11	Demobilization and site cleanup	Site Preparation	11/11/2023	11/24/2023	5	10	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mobilization	Off-Highway Trucks	2	8.00	402	0.38
Mobilization	Rubber Tired Loaders	1	8.00	203	0.36
Site preparation	Graders	1	8.00	187	0.41
Site preparation	Off-Highway Trucks	3	8.00	402	0.38
Site preparation	Rubber Tired Dozers	1	8.00	247	0.40

Berm improvements	Excavators	2	8.00	158	0.38
Berm improvements	Off-Highway Trucks	4	8.00	402	0.38
Berm improvements	Rollers	1	8.00	80	0.38
Berm improvements	Rubber Tired Dozers	2	8.00	247	0.40
High-flow channel excavation	Excavators	3	8.00	158	0.38
High-flow channel excavation	Off-Highway Trucks	1	8.00	402	0.38
High-flow channel excavation	Rubber Tired Dozers	2	8.00	247	0.40
High-flow channel excavation	Scrapers	4	8.00	367	0.48
Modified French drain construction	Excavators	1	8.00	158	0.38
Modified French drain construction	Off-Highway Trucks	2	8.00	402	0.38
Modified French drain construction	Rubber Tired Loaders	1	8.00	203	0.36
Saddle construction	Excavators	1	8.00	158	0.38
Saddle construction	Off-Highway Trucks	3	8.00	402	0.38
Saddle construction	Rubber Tired Loaders	1	8.00	203	0.36
Erosion protection	Off-Highway Trucks	4	8.00	402	0.38
Erosion protection	Rubber Tired Loaders	1	8.00	203	0.36
Milburn Avenue modification	Graders	1	8.00	187	0.41
Milburn Avenue modification	Off-Highway Trucks	1	8.00	402	0.38
Milburn Avenue modification	Rollers	1	8.00	80	0.38
Milburn Avenue modification	Rubber Tired Dozers	1	8.00	247	0.40
Milburn Avenue modification	Scrapers	1	8.00	367	0.48
Vegetation planting	Off-Highway Trucks	2	8.00	402	0.38
Vegetation planting	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Reserve fencing installation	Off-Highway Trucks	2	8.00	402	0.38
Reserve fencing installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Demobilization and site cleanup	Graders	1	8.00	187	0.41
Demobilization and site cleanup	Off-Highway Trucks	2	8.00	402	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mobilization	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site preparation	5	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Berm improvements	9	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
High-flow channel excavation	10	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Modified French drain construction	4	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Saddle construction	5	15.00	0.00	1,500.00	40.00	7.30	200.00	LD_Mix	HDT_Mix	HHDT
Erosion protection	5	15.00	0.00	300.00	40.00	7.30	200.00	LD_Mix	HDT_Mix	HHDT
Milburn Avenue modification	5	15.00	0.00	10.00	40.00	7.30	40.00	LD_Mix	HDT_Mix	HHDT
Vegetation planting	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Reserve fencing installation	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demobilization and site cleanup	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Mobilization - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3900e-003	0.0490	0.0404	1.6000e-004		1.7300e-003	1.7300e-003		1.6000e-003	1.6000e-003	0.0000	14.3577	14.3577	4.6400e-003	0.0000	14.4738
Total	**6.3900e-003**	**0.0490**	**0.0404**	**1.6000e-004**	**0.0000**	**1.7300e-003**	**1.7300e-003**	**0.0000**	**1.6000e-003**	**1.6000e-003**	**0.0000**	**14.3577**	**14.3577**	**4.6400e-003**	**0.0000**	**14.4738**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	4.9000e-004	5.0100e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6848	1.6848	3.0000e-005	0.0000	1.6856
Total	**7.6000e-004**	**4.9000e-004**	**5.0100e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6848**	**1.6848**	**3.0000e-005**	**0.0000**	**1.6856**

3.2 Mobilization - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3900e-003	0.0490	0.0404	1.6000e-004		1.7300e-003	1.7300e-003		1.6000e-003	1.6000e-003	0.0000	14.3577	14.3577	4.6400e-003	0.0000	14.4738
Total	**6.3900e-003**	**0.0490**	**0.0404**	**1.6000e-004**	**0.0000**	**1.7300e-003**	**1.7300e-003**	**0.0000**	**1.6000e-003**	**1.6000e-003**	**0.0000**	**14.3577**	**14.3577**	**4.6400e-003**	**0.0000**	**14.4738**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	4.9000e-004	5.0100e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6848	1.6848	3.0000e-005	0.0000	1.6856
Total	**7.6000e-004**	**4.9000e-004**	**5.0100e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6848**	**1.6848**	**3.0000e-005**	**0.0000**	**1.6856**

3.3 Site preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0354	0.0000	0.0354	0.0171	0.0000	0.0171	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0129	0.1124	0.0733	2.7000e-004		4.2900e-003	4.2900e-003		3.9500e-003	3.9500e-003	0.0000	24.0745	24.0745	7.7900e-003	0.0000	24.2692
Total	**0.0129**	**0.1124**	**0.0733**	**2.7000e-004**	**0.0354**	**4.2900e-003**	**0.0397**	**0.0171**	**3.9500e-003**	**0.0211**	**0.0000**	**24.0745**	**24.0745**	**7.7900e-003**	**0.0000**	**24.2692**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	4.9000e-004	5.0100e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6848	1.6848	3.0000e-005	0.0000	1.6856
Total	**7.6000e-004**	**4.9000e-004**	**5.0100e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6848**	**1.6848**	**3.0000e-005**	**0.0000**	**1.6856**

3.3 Site preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0151	0.0000	0.0151	7.3200e-003	0.0000	7.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0129	0.1124	0.0733	2.7000e-004		4.2900e-003	4.2900e-003		3.9500e-003	3.9500e-003	0.0000	24.0745	24.0745	7.7900e-003	0.0000	24.2691
Total	**0.0129**	**0.1124**	**0.0733**	**2.7000e-004**	**0.0151**	**4.2900e-003**	**0.0194**	**7.3200e-003**	**3.9500e-003**	**0.0113**	**0.0000**	**24.0745**	**24.0745**	**7.7900e-003**	**0.0000**	**24.2691**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	4.9000e-004	5.0100e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6848	1.6848	3.0000e-005	0.0000	1.6856
Total	**7.6000e-004**	**4.9000e-004**	**5.0100e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6848**	**1.6848**	**3.0000e-005**	**0.0000**	**1.6856**

3.4 Berm improvements - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3931	0.0000	0.3931	0.2021	0.0000	0.2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1175	0.9970	0.8320	2.4900e-003		0.0419	0.0419		0.0386	0.0386	0.0000	218.4830	218.4830	0.0707	0.0000	220.2495
Total	**0.1175**	**0.9970**	**0.8320**	**2.4900e-003**	**0.3931**	**0.0419**	**0.4351**	**0.2021**	**0.0386**	**0.2406**	**0.0000**	**218.4830**	**218.4830**	**0.0707**	**0.0000**	**220.2495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5400e-003	2.9300e-003	0.0301	1.1000e-004	0.0133	7.0000e-005	0.0134	3.5400e-003	7.0000e-005	3.6000e-003	0.0000	10.1085	10.1085	2.0000e-004	0.0000	10.1134
Total	**4.5400e-003**	**2.9300e-003**	**0.0301**	**1.1000e-004**	**0.0133**	**7.0000e-005**	**0.0134**	**3.5400e-003**	**7.0000e-005**	**3.6000e-003**	**0.0000**	**10.1085**	**10.1085**	**2.0000e-004**	**0.0000**	**10.1134**

3.4 Berm improvements - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1681	0.0000	0.1681	0.0864	0.0000	0.0864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1175	0.9970	0.8320	2.4900e-003		0.0419	0.0419		0.0386	0.0386	0.0000	218.4827	218.4827	0.0707	0.0000	220.2492
Total	**0.1175**	**0.9970**	**0.8320**	**2.4900e-003**	**0.1681**	**0.0419**	**0.2100**	**0.0864**	**0.0386**	**0.1250**	**0.0000**	**218.4827**	**218.4827**	**0.0707**	**0.0000**	**220.2492**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5400e-003	2.9300e-003	0.0301	1.1000e-004	0.0133	7.0000e-005	0.0134	3.5400e-003	7.0000e-005	3.6000e-003	0.0000	10.1085	10.1085	2.0000e-004	0.0000	10.1134
Total	**4.5400e-003**	**2.9300e-003**	**0.0301**	**1.1000e-004**	**0.0133**	**7.0000e-005**	**0.0134**	**3.5400e-003**	**7.0000e-005**	**3.6000e-003**	**0.0000**	**10.1085**	**10.1085**	**2.0000e-004**	**0.0000**	**10.1134**

3.5 High-flow channel excavation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6746	0.0000	0.6746	0.3122	0.0000	0.3122	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2514	2.5021	1.9720	4.7900e-003		0.1034	0.1034		0.0951	0.0951	0.0000	421.0811	421.0811	0.1362	0.0000	424.4858
Total	**0.2514**	**2.5021**	**1.9720**	**4.7900e-003**	**0.6746**	**0.1034**	**0.7779**	**0.3122**	**0.0951**	**0.4073**	**0.0000**	**421.0811**	**421.0811**	**0.1362**	**0.0000**	**424.4858**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8100e-003	4.3900e-003	0.0451	1.7000e-004	0.0200	1.1000e-004	0.0201	5.3100e-003	1.0000e-004	5.4000e-003	0.0000	15.1628	15.1628	3.0000e-004	0.0000	15.1701
Total	**6.8100e-003**	**4.3900e-003**	**0.0451**	**1.7000e-004**	**0.0200**	**1.1000e-004**	**0.0201**	**5.3100e-003**	**1.0000e-004**	**5.4000e-003**	**0.0000**	**15.1628**	**15.1628**	**3.0000e-004**	**0.0000**	**15.1701**

3.5 High-flow channel excavation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2884	0.0000	0.2884	0.1335	0.0000	0.1335	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2514	2.5021	1.9720	4.7900e-003		0.1034	0.1034		0.0951	0.0951	0.0000	421.0806	421.0806	0.1362	0.0000	424.4853
Total	**0.2514**	**2.5021**	**1.9720**	**4.7900e-003**	**0.2884**	**0.1034**	**0.3918**	**0.1335**	**0.0951**	**0.2286**	**0.0000**	**421.0806**	**421.0806**	**0.1362**	**0.0000**	**424.4853**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8100e-003	4.3900e-003	0.0451	1.7000e-004	0.0200	1.1000e-004	0.0201	5.3100e-003	1.0000e-004	5.4000e-003	0.0000	15.1628	15.1628	3.0000e-004	0.0000	15.1701
Total	**6.8100e-003**	**4.3900e-003**	**0.0451**	**1.7000e-004**	**0.0200**	**1.1000e-004**	**0.0201**	**5.3100e-003**	**1.0000e-004**	**5.4000e-003**	**0.0000**	**15.1628**	**15.1628**	**3.0000e-004**	**0.0000**	**15.1701**

3.6 Modified French drain construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1134	0.1135	3.8000e-004		4.2300e-003	4.2300e-003		3.8900e-003	3.8900e-003	0.0000	33.2524	33.2524	0.0108	0.0000	33.5212
Total	**0.0147**	**0.1134**	**0.1135**	**3.8000e-004**	**0.0000**	**4.2300e-003**	**4.2300e-003**	**0.0000**	**3.8900e-003**	**3.8900e-003**	**0.0000**	**33.2524**	**33.2524**	**0.0108**	**0.0000**	**33.5212**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5100e-003	9.8000e-004	0.0100	4.0000e-005	4.4400e-003	2.0000e-005	4.4600e-003	1.1800e-003	2.0000e-005	1.2000e-003	0.0000	3.3695	3.3695	7.0000e-005	0.0000	3.3711
Total	**1.5100e-003**	**9.8000e-004**	**0.0100**	**4.0000e-005**	**4.4400e-003**	**2.0000e-005**	**4.4600e-003**	**1.1800e-003**	**2.0000e-005**	**1.2000e-003**	**0.0000**	**3.3695**	**3.3695**	**7.0000e-005**	**0.0000**	**3.3711**

3.6 Modified French drain construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1134	0.1135	3.8000e-004		4.2300e-003	4.2300e-003		3.8900e-003	3.8900e-003	0.0000	33.2523	33.2523	0.0108	0.0000	33.5212
Total	**0.0147**	**0.1134**	**0.1135**	**3.8000e-004**	**0.0000**	**4.2300e-003**	**4.2300e-003**	**0.0000**	**3.8900e-003**	**3.8900e-003**	**0.0000**	**33.2523**	**33.2523**	**0.0108**	**0.0000**	**33.5212**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5100e-003	9.8000e-004	0.0100	4.0000e-005	4.4400e-003	2.0000e-005	4.4600e-003	1.1800e-003	2.0000e-005	1.2000e-003	0.0000	3.3695	3.3695	7.0000e-005	0.0000	3.3711
Total	**1.5100e-003**	**9.8000e-004**	**0.0100**	**4.0000e-005**	**4.4400e-003**	**2.0000e-005**	**4.4600e-003**	**1.1800e-003**	**2.0000e-005**	**1.2000e-003**	**0.0000**	**3.3695**	**3.3695**	**7.0000e-005**	**0.0000**	**3.3711**

3.7 Saddle construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1084	0.8199	0.8048	2.8100e-003		0.0304	0.0304		0.0279	0.0279	0.0000	246.7482	246.7482	0.0798	0.0000	248.7432
Total	**0.1084**	**0.8199**	**0.8048**	**2.8100e-003**	**0.0000**	**0.0304**	**0.0304**	**0.0000**	**0.0279**	**0.0279**	**0.0000**	**246.7482**	**246.7482**	**0.0798**	**0.0000**	**248.7432**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0281	0.6516	0.1799	4.8400e-003	0.1281	1.9500e-003	0.1301	0.0352	1.8700e-003	0.0371	0.0000	460.7930	460.7930	5.9100e-003	0.0000	460.9408
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3200e-003	5.3700e-003	0.0551	2.0000e-004	0.0244	1.3000e-004	0.0245	6.4800e-003	1.2000e-004	6.6000e-003	0.0000	18.5323	18.5323	3.6000e-004	0.0000	18.5413
Total	**0.0364**	**0.6570**	**0.2350**	**5.0400e-003**	**0.1525**	**2.0800e-003**	**0.1546**	**0.0417**	**1.9900e-003**	**0.0437**	**0.0000**	**479.3252**	**479.3252**	**6.2700e-003**	**0.0000**	**479.4821**

3.7 Saddle construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1084	0.8199	0.8048	2.8100e-003		0.0304	0.0304		0.0279	0.0279	0.0000	246.7479	246.7479	0.0798	0.0000	248.7429
Total	**0.1084**	**0.8199**	**0.8048**	**2.8100e-003**	**0.0000**	**0.0304**	**0.0304**	**0.0000**	**0.0279**	**0.0279**	**0.0000**	**246.7479**	**246.7479**	**0.0798**	**0.0000**	**248.7429**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0281	0.6516	0.1799	4.8400e-003	0.1281	1.9500e-003	0.1301	0.0352	1.8700e-003	0.0371	0.0000	460.7930	460.7930	5.9100e-003	0.0000	460.9408
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3200e-003	5.3700e-003	0.0551	2.0000e-004	0.0244	1.3000e-004	0.0245	6.4800e-003	1.2000e-004	6.6000e-003	0.0000	18.5323	18.5323	3.6000e-004	0.0000	18.5413
Total	**0.0364**	**0.6570**	**0.2350**	**5.0400e-003**	**0.1525**	**2.0800e-003**	**0.1546**	**0.0417**	**1.9900e-003**	**0.0437**	**0.0000**	**479.3252**	**479.3252**	**6.2700e-003**	**0.0000**	**479.4821**

3.8 Erosion protection - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1270	0.1100	4.4000e-004		4.5400e-003	4.5400e-003		4.1700e-003	4.1700e-003	0.0000	38.9530	38.9530	0.0126	0.0000	39.2680
Total	**0.0171**	**0.1270**	**0.1100**	**4.4000e-004**	**0.0000**	**4.5400e-003**	**4.5400e-003**	**0.0000**	**4.1700e-003**	**4.1700e-003**	**0.0000**	**38.9530**	**38.9530**	**0.0126**	**0.0000**	**39.2680**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6200e-003	0.1303	0.0360	9.7000e-004	0.0256	3.9000e-004	0.0260	7.0400e-003	3.7000e-004	7.4100e-003	0.0000	92.1586	92.1586	1.1800e-003	0.0000	92.1882
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	7.3000e-004	7.5100e-003	3.0000e-005	3.3300e-003	2.0000e-005	3.3500e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.5271	2.5271	5.0000e-005	0.0000	2.5284
Total	**6.7600e-003**	**0.1311**	**0.0435**	**1.0000e-003**	**0.0290**	**4.1000e-004**	**0.0294**	**7.9200e-003**	**3.9000e-004**	**8.3100e-003**	**0.0000**	**94.6857**	**94.6857**	**1.2300e-003**	**0.0000**	**94.7165**

3.8 Erosion protection - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1270	0.1100	4.4000e-004		4.5400e-003	4.5400e-003		4.1700e-003	4.1700e-003	0.0000	38.9530	38.9530	0.0126	0.0000	39.2679
Total	**0.0171**	**0.1270**	**0.1100**	**4.4000e-004**	**0.0000**	**4.5400e-003**	**4.5400e-003**	**0.0000**	**4.1700e-003**	**4.1700e-003**	**0.0000**	**38.9530**	**38.9530**	**0.0126**	**0.0000**	**39.2679**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6200e-003	0.1303	0.0360	9.7000e-004	0.0256	3.9000e-004	0.0260	7.0400e-003	3.7000e-004	7.4100e-003	0.0000	92.1586	92.1586	1.1800e-003	0.0000	92.1882
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	7.3000e-004	7.5100e-003	3.0000e-005	3.3300e-003	2.0000e-005	3.3500e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.5271	2.5271	5.0000e-005	0.0000	2.5284
Total	**6.7600e-003**	**0.1311**	**0.0435**	**1.0000e-003**	**0.0290**	**4.1000e-004**	**0.0294**	**7.9200e-003**	**3.9000e-004**	**8.3100e-003**	**0.0000**	**94.6857**	**94.6857**	**1.2300e-003**	**0.0000**	**94.7165**

3.9 Milburn Avenue modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0489	0.0000	0.0489	0.0252	0.0000	0.0252	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.1893	0.1206	3.5000e-004		7.6100e-003	7.6100e-003		7.0000e-003	7.0000e-003	0.0000	30.4269	30.4269	9.8400e-003	0.0000	30.6729
Total	**0.0188**	**0.1893**	**0.1206**	**3.5000e-004**	**0.0489**	**7.6100e-003**	**0.0565**	**0.0252**	**7.0000e-003**	**0.0322**	**0.0000**	**30.4269**	**30.4269**	**9.8400e-003**	**0.0000**	**30.6729**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.1900e-003	2.6000e-004	1.0000e-005	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.6604	0.6604	2.0000e-005	0.0000	0.6610
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	7.3000e-004	7.5100e-003	3.0000e-005	3.3300e-003	2.0000e-005	3.3500e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.5271	2.5271	5.0000e-005	0.0000	2.5284
Total	**1.1800e-003**	**1.9200e-003**	**7.7700e-003**	**4.0000e-005**	**3.5000e-003**	**2.0000e-005**	**3.5200e-003**	**9.3000e-004**	**2.0000e-005**	**9.5000e-004**	**0.0000**	**3.1875**	**3.1875**	**7.0000e-005**	**0.0000**	**3.1893**

3.9 Milburn Avenue modification - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0209	0.0000	0.0209	0.0108	0.0000	0.0108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.1893	0.1206	3.5000e-004		7.6100e-003	7.6100e-003		7.0000e-003	7.0000e-003	0.0000	30.4268	30.4268	9.8400e-003	0.0000	30.6728
Total	**0.0188**	**0.1893**	**0.1206**	**3.5000e-004**	**0.0209**	**7.6100e-003**	**0.0285**	**0.0108**	**7.0000e-003**	**0.0178**	**0.0000**	**30.4268**	**30.4268**	**9.8400e-003**	**0.0000**	**30.6728**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.1900e-003	2.6000e-004	1.0000e-005	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.6604	0.6604	2.0000e-005	0.0000	0.6610
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	7.3000e-004	7.5100e-003	3.0000e-005	3.3300e-003	2.0000e-005	3.3500e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.5271	2.5271	5.0000e-005	0.0000	2.5284
Total	**1.1800e-003**	**1.9200e-003**	**7.7700e-003**	**4.0000e-005**	**3.5000e-003**	**2.0000e-005**	**3.5200e-003**	**9.3000e-004**	**2.0000e-005**	**9.5000e-004**	**0.0000**	**3.1875**	**3.1875**	**7.0000e-005**	**0.0000**	**3.1893**

3.10 Vegetation planting - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0174	0.1301	0.1321	4.4000e-004		5.0100e-003	5.0100e-003		4.6100e-003	4.6100e-003	0.0000	38.9366	38.9366	0.0126	0.0000	39.2515
Total	**0.0174**	**0.1301**	**0.1321**	**4.4000e-004**	**0.0000**	**5.0100e-003**	**5.0100e-003**	**0.0000**	**4.6100e-003**	**4.6100e-003**	**0.0000**	**38.9366**	**38.9366**	**0.0126**	**0.0000**	**39.2515**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2700e-003	1.4600e-003	0.0150	6.0000e-005	6.6600e-003	4.0000e-005	6.6900e-003	1.7700e-003	3.0000e-005	1.8000e-003	0.0000	5.0543	5.0543	1.0000e-004	0.0000	5.0567
Total	**2.2700e-003**	**1.4600e-003**	**0.0150**	**6.0000e-005**	**6.6600e-003**	**4.0000e-005**	**6.6900e-003**	**1.7700e-003**	**3.0000e-005**	**1.8000e-003**	**0.0000**	**5.0543**	**5.0543**	**1.0000e-004**	**0.0000**	**5.0567**

3.10 Vegetation planting - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0174	0.1301	0.1321	4.4000e-004		5.0100e-003	5.0100e-003		4.6100e-003	4.6100e-003	0.0000	38.9366	38.9366	0.0126	0.0000	39.2514
Total	**0.0174**	**0.1301**	**0.1321**	**4.4000e-004**	**0.0000**	**5.0100e-003**	**5.0100e-003**	**0.0000**	**4.6100e-003**	**4.6100e-003**	**0.0000**	**38.9366**	**38.9366**	**0.0126**	**0.0000**	**39.2514**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2700e-003	1.4600e-003	0.0150	6.0000e-005	6.6600e-003	4.0000e-005	6.6900e-003	1.7700e-003	3.0000e-005	1.8000e-003	0.0000	5.0543	5.0543	1.0000e-004	0.0000	5.0567
Total	**2.2700e-003**	**1.4600e-003**	**0.0150**	**6.0000e-005**	**6.6600e-003**	**4.0000e-005**	**6.6900e-003**	**1.7700e-003**	**3.0000e-005**	**1.8000e-003**	**0.0000**	**5.0543**	**5.0543**	**1.0000e-004**	**0.0000**	**5.0567**

3.11 Reserve fencing installation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0217	0.0220	7.0000e-005		8.3000e-004	8.3000e-004		7.7000e-004	7.7000e-004	0.0000	6.4894	6.4894	2.1000e-003	0.0000	6.5419
Total	**2.9000e-003**	**0.0217**	**0.0220**	**7.0000e-005**	**0.0000**	**8.3000e-004**	**8.3000e-004**	**0.0000**	**7.7000e-004**	**7.7000e-004**	**0.0000**	**6.4894**	**6.4894**	**2.1000e-003**	**0.0000**	**6.5419**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.4000e-004	2.5000e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.8424	0.8424	2.0000e-005	0.0000	0.8428
Total	**3.8000e-004**	**2.4000e-004**	**2.5000e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.8424**	**0.8424**	**2.0000e-005**	**0.0000**	**0.8428**

3.11 Reserve fencing installation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0217	0.0220	7.0000e-005		8.3000e-004	8.3000e-004		7.7000e-004	7.7000e-004	0.0000	6.4894	6.4894	2.1000e-003	0.0000	6.5419
Total	**2.9000e-003**	**0.0217**	**0.0220**	**7.0000e-005**	**0.0000**	**8.3000e-004**	**8.3000e-004**	**0.0000**	**7.7000e-004**	**7.7000e-004**	**0.0000**	**6.4894**	**6.4894**	**2.1000e-003**	**0.0000**	**6.5419**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.4000e-004	2.5000e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.8424	0.8424	2.0000e-005	0.0000	0.8428
Total	**3.8000e-004**	**2.4000e-004**	**2.5000e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.8424**	**0.8424**	**2.0000e-005**	**0.0000**	**0.8428**

3.12 Demobilization and site cleanup - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9600e-003	0.0589	0.0414	1.7000e-004		2.0400e-003	2.0400e-003		1.8800e-003	1.8800e-003	0.0000	14.5178	14.5178	4.7000e-003	0.0000	14.6352
Total	**6.9600e-003**	**0.0589**	**0.0414**	**1.7000e-004**	**1.3300e-003**	**2.0400e-003**	**3.3700e-003**	**1.4000e-004**	**1.8800e-003**	**2.0200e-003**	**0.0000**	**14.5178**	**14.5178**	**4.7000e-003**	**0.0000**	**14.6352**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	4.9000e-004	5.0100e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6848	1.6848	3.0000e-005	0.0000	1.6856
Total	**7.6000e-004**	**4.9000e-004**	**5.0100e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6848**	**1.6848**	**3.0000e-005**	**0.0000**	**1.6856**

3.12 Demobilization and site cleanup - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.7000e-004	0.0000	5.7000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9600e-003	0.0589	0.0414	1.7000e-004		2.0400e-003	2.0400e-003		1.8800e-003	1.8800e-003	0.0000	14.5178	14.5178	4.7000e-003	0.0000	14.6352
Total	**6.9600e-003**	**0.0589**	**0.0414**	**1.7000e-004**	**5.7000e-004**	**2.0400e-003**	**2.6100e-003**	**6.0000e-005**	**1.8800e-003**	**1.9400e-003**	**0.0000**	**14.5178**	**14.5178**	**4.7000e-003**	**0.0000**	**14.6352**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	4.9000e-004	5.0100e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6848	1.6848	3.0000e-005	0.0000	1.6856
Total	**7.6000e-004**	**4.9000e-004**	**5.0100e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6848**	**1.6848**	**3.0000e-005**	**0.0000**	**1.6856**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.0000e-005	5.3000e-004	7.8000e-004	1.0000e-005	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.4800	0.4800	2.0000e-005	0.0000	0.4803
Unmitigated	5.0000e-005	5.3000e-004	7.8000e-004	1.0000e-005	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.4800	0.4800	2.0000e-005	0.0000	0.4803

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.09	0.00	0.00	962	962
Total	0.09	0.00	0.00	962	962

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	40.00	40.00	40.00	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.501421	0.030018	0.171383	0.107490	0.013683	0.004097	0.033773	0.127911	0.002341	0.001406	0.004884	0.001058	0.000535

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1000e-004	3.0000e-005	3.3400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5000e-003	6.5000e-003	2.0000e-005	0.0000	6.9300e-003
Unmitigated	3.1000e-004	3.0000e-005	3.3400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5000e-003	6.5000e-003	2.0000e-005	0.0000	6.9300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.3400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5000e-003	6.5000e-003	2.0000e-005	0.0000	6.9300e-003
Total	**3.1000e-004**	**3.0000e-005**	**3.3400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.5000e-003**	**6.5000e-003**	**2.0000e-005**	**0.0000**	**6.9300e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.3400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5000e-003	6.5000e-003	2.0000e-005	0.0000	6.9300e-003
Total	**3.1000e-004**	**3.0000e-005**	**3.3400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.5000e-003**	**6.5000e-003**	**2.0000e-005**	**0.0000**	**6.9300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0293	0.0000	0.0000	0.0294
Unmitigated	0.0293	0.0000	0.0000	0.0294

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0.0288	0.0293	0.0000	0.0000	0.0294
Total		**0.0293**	**0.0000**	**0.0000**	**0.0294**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0.0288	0.0293	0.0000	0.0000	0.0294
Total		**0.0293**	**0.0000**	**0.0000**	**0.0294**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	8.00	15	402	0.38	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Off-Highway Trucks	3.7300e-003	0.0250	0.0244	1.0000e-004		9.0000e-004	9.0000e-004		8.3000e-004	8.3000e-004	0.0000	8.7114	8.7114	2.8200e-003	0.0000	8.7818
Total	**3.7300e-003**	**0.0250**	**0.0244**	**1.0000e-004**		**9.0000e-004**	**9.0000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**8.7114**	**8.7114**	**2.8200e-003**	**0.0000**	**8.7818**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

DWR Milburn - San Joaquin River Restoration

Fresno County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	364.00	User Defined Unit	364.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total project area (acres)

Construction Phase - Construction schedule compressed to 7 months to conservatively represent worst case conditions.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

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Off-road Equipment - Anticipated project equipment.

Trips and VMT -
Worker Trips - max. 12 personnel per day, plus 3 lunch/break trips; up to 40 miles RT to/from Fresno area.
Hauling Trips - truck trips for boulder delivery and haul-out of replaced asphalt; 200 miles RT from quarries, 40 miles RT to disposal facility.

Grading -
Material Exported - Milburn Avenue modification 200 cu. yd. of replaced asphalt.
Total Acres Graded - calculated based on anticipated equipment per phase (Graders = 0.5 acres/8hr-day, Rubber Tired Dozers = 0.5 acres/8hr-day, Scrapers = 1 acre/8hr-day).

Vehicle Trips - Maintenance trips - Up to 4 trips per day (up to 6 occurrences per year).

Vehicle Emission Factors -

Water And Wastewater - Anticipated consumption for plant waterings (up to 5 years).

Construction Off-road Equipment Mitigation - Dust control best practices.

Operational Off-Road Equipment - Water truck based on 28,800 gal/year and approx. 2,000 gal truck = 14.4 visits per year (one truck).

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	150	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstructionPhase	NumDays	620.00	60.00
tblConstructionPhase	NumDays	620.00	90.00
tblConstructionPhase	NumDays	620.00	20.00
tblConstructionPhase	NumDays	620.00	110.00
tblConstructionPhase	NumDays	620.00	15.00
tblConstructionPhase	NumDays	620.00	15.00
tblConstructionPhase	NumDays	240.00	10.00
tblConstructionPhase	NumDays	240.00	5.00
tblConstructionPhase	NumDays	240.00	10.00
tblConstructionPhase	NumDays	240.00	10.00
tblConstructionPhase	NumDays	240.00	30.00
tblGrading	AcresOfGrading	0.00	60.00
tblGrading	AcresOfGrading	360.00	250.00
tblGrading	AcresOfGrading	22.50	7.00
tblGrading	AcresOfGrading	5.00	2.50
tblGrading	AcresOfGrading	5.00	10.00
tblGrading	MaterialExported	0.00	200.00
tblLandUse	LotAcreage	0.00	364.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	15.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	200.00
tblTripsAndVMT	HaulingTripLength	20.00	200.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,500.00
tblTripsAndVMT	HaulingTripNumber	0.00	300.00
tblTripsAndVMT	HaulingTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	23.00	15.00
tblTripsAndVMT	WorkerTripNumber	25.00	15.00
tblTripsAndVMT	WorkerTripNumber	10.00	15.00

tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblVehicleTrips	CC_TL	7.30	40.00
tblVehicleTrips	CNW_TL	7.30	40.00
tblVehicleTrips	CW_TL	9.50	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01
tblWater	OutdoorWaterUseRate	0.00	28,800.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	14.2516	141.1756	102.1511	0.4975	31.8477	4.5655	36.1375	14.6899	4.2035	18.6379	0.0000	49,990.9803	49,990.9803	8.5538	0.0000	50,204.8238
Maximum	**14.2516**	**141.1756**	**102.1511**	**0.4975**	**31.8477**	**4.5655**	**36.1375**	**14.6899**	**4.2035**	**18.6379**	**0.0000**	**49,990.9803**	**49,990.9803**	**8.5538**	**0.0000**	**50,204.8238**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	14.2516	141.1756	102.1511	0.4975	16.9253	4.5655	21.4908	6.8618	4.2035	10.8098	0.0000	49,990.9802	49,990.9802	8.5538	0.0000	50,204.8238
Maximum	**14.2516**	**141.1756**	**102.1511**	**0.4975**	**16.9253**	**4.5655**	**21.4908**	**6.8618**	**4.2035**	**10.8098**	**0.0000**	**49,990.9802**	**49,990.9802**	**8.5538**	**0.0000**	**50,204.8238**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**46.86**	**0.00**	**40.53**	**53.29**	**0.00**	**42.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0176	0.1692	0.3005	1.8000e-003	0.1260	9.6000e-004	0.1270	0.0339	9.0000e-004	0.0348		184.7585	184.7585	5.7100e-003		184.9013
Offroad	0.4970	3.3279	3.2502	0.0132		0.1198	0.1198		0.1102	0.1102		1,280.3504	1,280.3504	0.4141		1,290.7027
Total	**0.5180**	**3.4974**	**3.5878**	**0.0150**	**0.1260**	**0.1209**	**0.2469**	**0.0339**	**0.1113**	**0.1452**		**1,465.1886**	**1,465.1886**	**0.4200**	**0.0000**	**1,475.6888**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0176	0.1692	0.3005	1.8000e-003	0.1260	9.6000e-004	0.1270	0.0339	9.0000e-004	0.0348		184.7585	184.7585	5.7100e-003		184.9013
Offroad	0.4970	3.3279	3.2502	0.0132		0.1198	0.1198		0.1102	0.1102		1,280.3504	1,280.3504	0.4141		1,290.7027
Total	**0.5180**	**3.4974**	**3.5878**	**0.0150**	**0.1260**	**0.1209**	**0.2469**	**0.0339**	**0.1113**	**0.1452**		**1,465.1886**	**1,465.1886**	**0.4200**	**0.0000**	**1,475.6888**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mobilization	Site Preparation	5/1/2023	5/12/2023	5	10	
2	Site preparation	Site Preparation	5/1/2023	5/12/2023	5	10	
3	Berm improvements	Grading	5/13/2023	8/4/2023	5	60	
4	High-flow channel excavation	Grading	5/13/2023	9/15/2023	5	90	
5	Modified French drain construction	Grading	5/13/2023	6/9/2023	5	20	
6	Saddle construction	Grading	6/12/2023	11/10/2023	5	110	
7	Erosion protection	Grading	8/5/2023	8/25/2023	5	15	
8	Milburn Avenue modification	Grading	8/5/2023	8/25/2023	5	15	
9	Vegetation planting	Site Preparation	11/11/2023	12/22/2023	5	30	
10	Reserve fencing installation	Site Preparation	11/11/2023	11/17/2023	5	5	
11	Demobilization and site cleanup	Site Preparation	11/11/2023	11/24/2023	5	10	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mobilization	Off-Highway Trucks	2	8.00	402	0.38
Mobilization	Rubber Tired Loaders	1	8.00	203	0.36
Site preparation	Graders	1	8.00	187	0.41
Site preparation	Off-Highway Trucks	3	8.00	402	0.38
Site preparation	Rubber Tired Dozers	1	8.00	247	0.40

Berm improvements	Excavators	2	8.00	158	0.38
Berm improvements	Off-Highway Trucks	4	8.00	402	0.38
Berm improvements	Rollers	1	8.00	80	0.38
Berm improvements	Rubber Tired Dozers	2	8.00	247	0.40
High-flow channel excavation	Excavators	3	8.00	158	0.38
High-flow channel excavation	Off-Highway Trucks	1	8.00	402	0.38
High-flow channel excavation	Rubber Tired Dozers	2	8.00	247	0.40
High-flow channel excavation	Scrapers	4	8.00	367	0.48
Modified French drain construction	Excavators	1	8.00	158	0.38
Modified French drain construction	Off-Highway Trucks	2	8.00	402	0.38
Modified French drain construction	Rubber Tired Loaders	1	8.00	203	0.36
Saddle construction	Excavators	1	8.00	158	0.38
Saddle construction	Off-Highway Trucks	3	8.00	402	0.38
Saddle construction	Rubber Tired Loaders	1	8.00	203	0.36
Erosion protection	Off-Highway Trucks	4	8.00	402	0.38
Erosion protection	Rubber Tired Loaders	1	8.00	203	0.36
Milburn Avenue modification	Graders	1	8.00	187	0.41
Milburn Avenue modification	Off-Highway Trucks	1	8.00	402	0.38
Milburn Avenue modification	Rollers	1	8.00	80	0.38
Milburn Avenue modification	Rubber Tired Dozers	1	8.00	247	0.40
Milburn Avenue modification	Scrapers	1	8.00	367	0.48
Vegetation planting	Off-Highway Trucks	2	8.00	402	0.38
Vegetation planting	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Reserve fencing installation	Off-Highway Trucks	2	8.00	402	0.38
Reserve fencing installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Demobilization and site cleanup	Graders	1	8.00	187	0.41
Demobilization and site cleanup	Off-Highway Trucks	2	8.00	402	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mobilization	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site preparation	5	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Berm improvements	9	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
High-flow channel excavation	10	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Modified French drain construction	4	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Saddle construction	5	15.00	0.00	1,500.00	40.00	7.30	200.00	LD_Mix	HDT_Mix	HHDT
Erosion protection	5	15.00	0.00	300.00	40.00	7.30	200.00	LD_Mix	HDT_Mix	HHDT
Milburn Avenue modification	5	15.00	0.00	10.00	40.00	7.30	40.00	LD_Mix	HDT_Mix	HHDT
Vegetation planting	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Reserve fencing installation	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demobilization and site cleanup	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Mobilization - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2782	9.7905	8.0868	0.0327		0.3469	0.3469		0.3192	0.3192		3,165.3381	3,165.3381	1.0237		3,190.9315
Total	**1.2782**	**9.7905**	**8.0868**	**0.0327**	**0.0000**	**0.3469**	**0.3469**	**0.0000**	**0.3192**	**0.3192**		**3,165.3381**	**3,165.3381**	**1.0237**		**3,190.9315**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.2 Mobilization - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2782	9.7905	8.0868	0.0327		0.3469	0.3469		0.3192	0.3192	0.0000	3,165.3381	3,165.3381	1.0237		3,190.9315
Total	**1.2782**	**9.7905**	**8.0868**	**0.0327**	**0.0000**	**0.3469**	**0.3469**	**0.0000**	**0.3192**	**0.3192**	**0.0000**	**3,165.3381**	**3,165.3381**	**1.0237**		**3,190.9315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.3 Site preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.5797	22.4839	14.6645	0.0548		0.8587	0.8587		0.7900	0.7900		5,307.5214	5,307.5214	1.7166		5,350.4354
Total	**2.5797**	**22.4839**	**14.6645**	**0.0548**	**7.0826**	**0.8587**	**7.9413**	**3.4247**	**0.7900**	**4.2148**		**5,307.5214**	**5,307.5214**	**1.7166**		**5,350.4354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.3 Site preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0278	0.0000	3.0278	1.4641	0.0000	1.4641			0.0000			0.0000
Off-Road	2.5797	22.4839	14.6645	0.0548		0.8587	0.8587		0.7900	0.7900	0.0000	5,307.5214	5,307.5214	1.7166		5,350.4354
Total	**2.5797**	**22.4839**	**14.6645**	**0.0548**	**3.0278**	**0.8587**	**3.8865**	**1.4641**	**0.7900**	**2.2541**	**0.0000**	**5,307.5214**	**5,307.5214**	**1.7166**		**5,350.4354**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.4 Berm improvements - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.1047	0.0000	13.1047	6.7350	0.0000	6.7350			0.0000			0.0000
Off-Road	3.9159	33.2333	27.7344	0.0829		1.3981	1.3981		1.2862	1.2862		8,027.8744	8,027.8744	2.5964		8,092.7838
Total	**3.9159**	**33.2333**	**27.7344**	**0.0829**	**13.1047**	**1.3981**	**14.5028**	**6.7350**	**1.2862**	**8.0212**		**8,027.8744**	**8,027.8744**	**2.5964**		**8,092.7838**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.4 Berm improvements - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.6023	0.0000	5.6023	2.8792	0.0000	2.8792			0.0000			0.0000
Off-Road	3.9159	33.2333	27.7344	0.0829		1.3981	1.3981		1.2862	1.2862	0.0000	8,027.8744	8,027.8744	2.5964		8,092.7838
Total	**3.9159**	**33.2333**	**27.7344**	**0.0829**	**5.6023**	**1.3981**	**7.0003**	**2.8792**	**1.2862**	**4.1654**	**0.0000**	**8,027.8744**	**8,027.8744**	**2.5964**		**8,092.7838**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.5 High-flow channel excavation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.9900	0.0000	14.9900	6.9385	0.0000	6.9385			0.0000			0.0000
Off-Road	5.5863	55.6017	43.8225	0.1065		2.2974	2.2974		2.1136	2.1136		10,314.7220	10,314.7220	3.3360		10,398.1218
Total	**5.5863**	**55.6017**	**43.8225**	**0.1065**	**14.9900**	**2.2974**	**17.2874**	**6.9385**	**2.1136**	**9.0522**		**10,314.7220**	**10,314.7220**	**3.3360**		**10,398.1218**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.5 High-flow channel excavation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4082	0.0000	6.4082	2.9662	0.0000	2.9662			0.0000			0.0000
Off-Road	5.5863	55.6017	43.8225	0.1065		2.2974	2.2974		2.1136	2.1136	0.0000	10,314.7220	10,314.7220	3.3360		10,398.1218
Total	**5.5863**	**55.6017**	**43.8225**	**0.1065**	**6.4082**	**2.2974**	**8.7057**	**2.9662**	**2.1136**	**5.0799**	**0.0000**	**10,314.7220**	**10,314.7220**	**3.3360**		**10,398.1218**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.6 Modified French drain construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4669	11.3391	11.3445	0.0379		0.4227	0.4227		0.3889	0.3889		3,665.4438	3,665.4438	1.1855		3,695.0807
Total	**1.4669**	**11.3391**	**11.3445**	**0.0379**	**0.0000**	**0.4227**	**0.4227**	**0.0000**	**0.3889**	**0.3889**		**3,665.4438**	**3,665.4438**	**1.1855**		**3,695.0807**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.6 Modified French drain construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4669	11.3391	11.3445	0.0379		0.4227	0.4227		0.3889	0.3889	0.0000	3,665.4438	3,665.4438	1.1855		3,695.0807
Total	**1.4669**	**11.3391**	**11.3445**	**0.0379**	**0.0000**	**0.4227**	**0.4227**	**0.0000**	**0.3889**	**0.3889**	**0.0000**	**3,665.4438**	**3,665.4438**	**1.1855**		**3,695.0807**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.7 Saddle construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.9708	14.9070	14.6330	0.0511		0.5517	0.5517		0.5076	0.5076		4,945.3323	4,945.3323	1.5994		4,985.3178
Total	**1.9708**	**14.9070**	**14.6330**	**0.0511**	**0.0000**	**0.5517**	**0.5517**	**0.0000**	**0.5076**	**0.5076**		**4,945.3323**	**4,945.3323**	**1.5994**		**4,985.3178**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5105	11.3434	3.2621	0.0881	2.3851	0.0355	2.4205	0.6538	0.0340	0.6877		9,245.2200	9,245.2200	0.1152		9,248.1003
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.6683**	**11.4344**	**4.4807**	**0.0922**	**2.8410**	**0.0379**	**2.8789**	**0.7746**	**0.0361**	**0.8108**		**9,653.0713**	**9,653.0713**	**0.1234**		**9,656.1573**

3.7 Saddle construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.9708	14.9070	14.6330	0.0511		0.5517	0.5517		0.5076	0.5076	0.0000	4,945.3323	4,945.3323	1.5994		4,985.3178
Total	**1.9708**	**14.9070**	**14.6330**	**0.0511**	**0.0000**	**0.5517**	**0.5517**	**0.0000**	**0.5076**	**0.5076**	**0.0000**	**4,945.3323**	**4,945.3323**	**1.5994**		**4,985.3178**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5105	11.3434	3.2621	0.0881	2.3851	0.0355	2.4205	0.6538	0.0340	0.6877		9,245.2200	9,245.2200	0.1152		9,248.1003
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.6683**	**11.4344**	**4.4807**	**0.0922**	**2.8410**	**0.0379**	**2.8789**	**0.7746**	**0.0361**	**0.8108**		**9,653.0713**	**9,653.0713**	**0.1234**		**9,656.1573**

3.8 Erosion protection - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.2860	16.9263	14.6638	0.0592		0.6049	0.6049		0.5566	0.5566		5,725.1151	5,725.1151	1.8516		5,771.4056
Total	**2.2860**	**16.9263**	**14.6638**	**0.0592**	**0.0000**	**0.6049**	**0.6049**	**0.0000**	**0.5566**	**0.5566**		**5,725.1151**	**5,725.1151**	**1.8516**		**5,771.4056**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7487	16.6370	4.7844	0.1292	3.4981	0.0521	3.5501	0.9588	0.0498	1.0086		13,559.6561	13,559.6561	0.1690		13,563.8804
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.9065**	**16.7280**	**6.0030**	**0.1332**	**3.9541**	**0.0544**	**4.0085**	**1.0797**	**0.0520**	**1.1317**		**13,967.5074**	**13,967.5074**	**0.1772**		**13,971.9374**

3.8 Erosion protection - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.2860	16.9263	14.6638	0.0592		0.6049	0.6049		0.5566	0.5566	0.0000	5,725.1151	5,725.1151	1.8516		5,771.4056
Total	**2.2860**	**16.9263**	**14.6638**	**0.0592**	**0.0000**	**0.6049**	**0.6049**	**0.0000**	**0.5566**	**0.5566**	**0.0000**	**5,725.1151**	**5,725.1151**	**1.8516**		**5,771.4056**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7487	16.6370	4.7844	0.1292	3.4981	0.0521	3.5501	0.9588	0.0498	1.0086		13,559.6561	13,559.6561	0.1690		13,563.8804
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.9065**	**16.7280**	**6.0030**	**0.1332**	**3.9541**	**0.0544**	**4.0085**	**1.0797**	**0.0520**	**1.1317**		**13,967.5074**	**13,967.5074**	**0.1772**		**13,971.9374**

3.9 Milburn Avenue modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5185	0.0000	6.5185	3.3639	0.0000	3.3639			0.0000			0.0000
Off-Road	2.5125	25.2416	16.0767	0.0462		1.0141	1.0141		0.9329	0.9329		4,471.9808	4,471.9808	1.4463		4,508.1391
Total	**2.5125**	**25.2416**	**16.0767**	**0.0462**	**6.5185**	**1.0141**	**7.5326**	**3.3639**	**0.9329**	**4.2968**		**4,471.9808**	**4,471.9808**	**1.4463**		**4,508.1391**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5700e-003	0.1546	0.0342	9.3000e-004	0.0233	3.5000e-004	0.0237	6.4000e-003	3.4000e-004	6.7300e-003		97.5487	97.5487	3.2900e-003		97.6309
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1634**	**0.2456**	**1.2528**	**5.0200e-003**	**0.4793**	**2.7200e-003**	**0.4820**	**0.1273**	**2.5200e-003**	**0.1298**		**505.4000**	**505.4000**	**0.0115**		**505.6879**

3.9 Milburn Avenue modification - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7867	0.0000	2.7867	1.4381	0.0000	1.4381			0.0000			0.0000
Off-Road	2.5125	25.2416	16.0767	0.0462		1.0141	1.0141		0.9329	0.9329	0.0000	4,471.9808	4,471.9808	1.4463		4,508.1391
Total	**2.5125**	**25.2416**	**16.0767**	**0.0462**	**2.7867**	**1.0141**	**3.8007**	**1.4381**	**0.9329**	**2.3710**	**0.0000**	**4,471.9808**	**4,471.9808**	**1.4463**		**4,508.1391**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5700e-003	0.1546	0.0342	9.3000e-004	0.0233	3.5000e-004	0.0237	6.4000e-003	3.4000e-004	6.7300e-003		97.5487	97.5487	3.2900e-003		97.6309
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1634**	**0.2456**	**1.2528**	**5.0200e-003**	**0.4793**	**2.7200e-003**	**0.4820**	**0.1273**	**2.5200e-003**	**0.1298**		**505.4000**	**505.4000**	**0.0115**		**505.6879**

3.10 Vegetation planting - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1591	8.6715	8.8083	0.0296		0.3338	0.3338		0.3071	0.3071		2,861.3535	2,861.3535	0.9254		2,884.4890
Total	**1.1591**	**8.6715**	**8.8083**	**0.0296**	**0.0000**	**0.3338**	**0.3338**	**0.0000**	**0.3071**	**0.3071**		**2,861.3535**	**2,861.3535**	**0.9254**		**2,884.4890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.10 Vegetation planting - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1591	8.6715	8.8083	0.0296		0.3338	0.3338		0.3071	0.3071	0.0000	2,861.3535	2,861.3535	0.9254		2,884.4890
Total	**1.1591**	**8.6715**	**8.8083**	**0.0296**	**0.0000**	**0.3338**	**0.3338**	**0.0000**	**0.3071**	**0.3071**	**0.0000**	**2,861.3535**	**2,861.3535**	**0.9254**		**2,884.4890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.11 Reserve fencing installation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1591	8.6715	8.8083	0.0296		0.3338	0.3338		0.3071	0.3071		2,861.3535	2,861.3535	0.9254		2,884.4890
Total	**1.1591**	**8.6715**	**8.8083**	**0.0296**	**0.0000**	**0.3338**	**0.3338**	**0.0000**	**0.3071**	**0.3071**		**2,861.3535**	**2,861.3535**	**0.9254**		**2,884.4890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.11 Reserve fencing installation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1591	8.6715	8.8083	0.0296		0.3338	0.3338		0.3071	0.3071	0.0000	2,861.3535	2,861.3535	0.9254		2,884.4890
Total	**1.1591**	**8.6715**	**8.8083**	**0.0296**	**0.0000**	**0.3338**	**0.3338**	**0.0000**	**0.3071**	**0.3071**	**0.0000**	**2,861.3535**	**2,861.3535**	**0.9254**		**2,884.4890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.12 Demobilization and site cleanup - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2651	0.0000	0.2651	0.0286	0.0000	0.0286			0.0000			0.0000
Off-Road	1.3912	11.7888	8.2696	0.0331		0.4088	0.4088		0.3761	0.3761		3,200.6322	3,200.6322	1.0352		3,226.5109
Total	**1.3912**	**11.7888**	**8.2696**	**0.0331**	**0.2651**	**0.4088**	**0.6739**	**0.0286**	**0.3761**	**0.4047**		**3,200.6322**	**3,200.6322**	**1.0352**		**3,226.5109**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

3.12 Demobilization and site cleanup - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1133	0.0000	0.1133	0.0122	0.0000	0.0122			0.0000			0.0000
Off-Road	1.3912	11.7888	8.2696	0.0331		0.4088	0.4088		0.3761	0.3761	0.0000	3,200.6322	3,200.6322	1.0352		3,226.5109
Total	**1.3912**	**11.7888**	**8.2696**	**0.0331**	**0.1133**	**0.4088**	**0.5221**	**0.0122**	**0.3761**	**0.3883**	**0.0000**	**3,200.6322**	**3,200.6322**	**1.0352**		**3,226.5109**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.0910	1.2186	4.0900e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		407.8513	407.8513	8.2300e-003		408.0570
Total	**0.1579**	**0.0910**	**1.2186**	**4.0900e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**407.8513**	**407.8513**	**8.2300e-003**		**408.0570**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0176	0.1692	0.3005	1.8000e-003	0.1260	9.6000e-004	0.1270	0.0339	9.0000e-004	0.0348		184.7585	184.7585	5.7100e-003		184.9013
Unmitigated	0.0176	0.1692	0.3005	1.8000e-003	0.1260	9.6000e-004	0.1270	0.0339	9.0000e-004	0.0348		184.7585	184.7585	5.7100e-003		184.9013

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	4.00	0.00	0.00	41,642	41,642
Total	4.00	0.00	0.00	41,642	41,642

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	40.00	40.00	40.00	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.501421	0.030018	0.171383	0.107490	0.013683	0.004097	0.033773	0.127911	0.002341	0.001406	0.004884	0.001058	0.000535

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Unmitigated	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Total	**3.4300e-003**	**3.4000e-004**	**0.0371**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0797**	**0.0797**	**2.1000e-004**		**0.0849**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Total	**3.4300e-003**	**3.4000e-004**	**0.0371**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0797**	**0.0797**	**2.1000e-004**		**0.0849**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	8.00	15	402	0.38	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Off-Highway Trucks	0.4970	3.3279	3.2502	0.0132		0.1198	0.1198		0.1102	0.1102		1,280.3504	1,280.3504	0.4141		1,290.7027
Total	**0.4970**	**3.3279**	**3.2502**	**0.0132**		**0.1198**	**0.1198**		**0.1102**	**0.1102**		**1,280.3504**	**1,280.3504**	**0.4141**		**1,290.7027**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

DWR Milburn - San Joaquin River Restoration

Fresno County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	364.00	User Defined Unit	364.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total project area (acres)

Construction Phase - Construction schedule compressed to 7 months to conservatively represent worst case conditions.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

Off-road Equipment - Anticipated project equipment.

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Off-road Equipment - Anticipated project equipment.

Trips and VMT -
Worker Trips - max. 12 personnel per day, plus 3 lunch/break trips; up to 40 miles RT to/from Fresno area.
Hauling Trips - truck trips for boulder delivery and haul-out of replaced asphalt; 200 miles RT from quarries, 40 miles RT to disposal facility.

Grading -
Material Exported - Milburn Avenue modification 200 cu. yd. of replaced asphalt.
Total Acres Graded - calculated based on anticipated equipment per phase (Graders = 0.5 acres/8hr-day, Rubber Tired Dozers = 0.5 acres/8hr-day, Scrapers = 1 acre/8hr-day).

Vehicle Trips - Maintenance trips - Up to 4 trips per day (up to 6 occurrences per year).

Vehicle Emission Factors -

Water And Wastewater - Anticipated consumption for plant waterings (up to 5 years).

Construction Off-road Equipment Mitigation - Dust control best practices.

Operational Off-Road Equipment - Water truck based on 28,800 gal/year and approx. 2,000 gal truck = 14.4 visits per year (one truck).

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	150	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstructionPhase	NumDays	620.00	60.00
tblConstructionPhase	NumDays	620.00	90.00
tblConstructionPhase	NumDays	620.00	20.00
tblConstructionPhase	NumDays	620.00	110.00
tblConstructionPhase	NumDays	620.00	15.00
tblConstructionPhase	NumDays	620.00	15.00
tblConstructionPhase	NumDays	240.00	10.00
tblConstructionPhase	NumDays	240.00	5.00
tblConstructionPhase	NumDays	240.00	10.00
tblConstructionPhase	NumDays	240.00	10.00
tblConstructionPhase	NumDays	240.00	30.00
tblGrading	AcresOfGrading	0.00	60.00
tblGrading	AcresOfGrading	360.00	250.00
tblGrading	AcresOfGrading	22.50	7.00
tblGrading	AcresOfGrading	5.00	2.50
tblGrading	AcresOfGrading	5.00	10.00
tblGrading	MaterialExported	0.00	200.00
tblLandUse	LotAcreage	0.00	364.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	15.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	200.00
tblTripsAndVMT	HaulingTripLength	20.00	200.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,500.00
tblTripsAndVMT	HaulingTripNumber	0.00	300.00
tblTripsAndVMT	HaulingTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripLength	10.80	40.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	23.00	15.00
tblTripsAndVMT	WorkerTripNumber	25.00	15.00
tblTripsAndVMT	WorkerTripNumber	10.00	15.00

tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblVehicleTrips	CC_TL	7.30	40.00
tblVehicleTrips	CNW_TL	7.30	40.00
tblVehicleTrips	CW_TL	9.50	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01
tblWater	OutdoorWaterUseRate	0.00	28,800.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	14.3046	142.9289	101.1021	0.4949	31.8477	4.5656	36.1375	14.6899	4.2036	18.6379	0.0000	49,726.8756	49,726.8756	8.5682	0.0000	49,941.0791
Maximum	**14.3046**	**142.9289**	**101.1021**	**0.4949**	**31.8477**	**4.5656**	**36.1375**	**14.6899**	**4.2036**	**18.6379**	**0.0000**	**49,726.8756**	**49,726.8756**	**8.5682**	**0.0000**	**49,941.0791**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	14.3046	142.9289	101.1021	0.4949	16.9253	4.5656	21.4909	6.8618	4.2036	10.8098	0.0000	49,726.8756	49,726.8756	8.5682	0.0000	49,941.0791
Maximum	**14.3046**	**142.9289**	**101.1021**	**0.4949**	**16.9253**	**4.5656**	**21.4909**	**6.8618**	**4.2036**	**10.8098**	**0.0000**	**49,726.8756**	**49,726.8756**	**8.5682**	**0.0000**	**49,941.0791**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**46.86**	**0.00**	**40.53**	**53.29**	**0.00**	**42.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0157	0.1785	0.2515	1.6800e-003	0.1260	9.6000e-004	0.1270	0.0339	9.0000e-004	0.0348		172.7537	172.7537	5.8100e-003		172.8988
Offroad	0.4970	3.3279	3.2502	0.0132		0.1198	0.1198		0.1102	0.1102		1,280.3504	1,280.3504	0.4141		1,290.7027
Total	**0.5161**	**3.5067**	**3.5389**	**0.0149**	**0.1260**	**0.1209**	**0.2470**	**0.0339**	**0.1113**	**0.1452**		**1,453.1838**	**1,453.1838**	**0.4201**	**0.0000**	**1,463.6864**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0157	0.1785	0.2515	1.6800e-003	0.1260	9.6000e-004	0.1270	0.0339	9.0000e-004	0.0348		172.7537	172.7537	5.8100e-003		172.8988
Offroad	0.4970	3.3279	3.2502	0.0132		0.1198	0.1198		0.1102	0.1102		1,280.3504	1,280.3504	0.4141		1,290.7027
Total	**0.5161**	**3.5067**	**3.5389**	**0.0149**	**0.1260**	**0.1209**	**0.2470**	**0.0339**	**0.1113**	**0.1452**		**1,453.1838**	**1,453.1838**	**0.4201**	**0.0000**	**1,463.6864**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mobilization	Site Preparation	5/1/2023	5/12/2023	5	10	
2	Site preparation	Site Preparation	5/1/2023	5/12/2023	5	10	
3	Berm improvements	Grading	5/13/2023	8/4/2023	5	60	
4	High-flow channel excavation	Grading	5/13/2023	9/15/2023	5	90	
5	Modified French drain construction	Grading	5/13/2023	6/9/2023	5	20	
6	Saddle construction	Grading	6/12/2023	11/10/2023	5	110	
7	Erosion protection	Grading	8/5/2023	8/25/2023	5	15	
8	Milburn Avenue modification	Grading	8/5/2023	8/25/2023	5	15	
9	Vegetation planting	Site Preparation	11/11/2023	12/22/2023	5	30	
10	Reserve fencing installation	Site Preparation	11/11/2023	11/17/2023	5	5	
11	Demobilization and site cleanup	Site Preparation	11/11/2023	11/24/2023	5	10	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mobilization	Off-Highway Trucks	2	8.00	402	0.38
Mobilization	Rubber Tired Loaders	1	8.00	203	0.36
Site preparation	Graders	1	8.00	187	0.41
Site preparation	Off-Highway Trucks	3	8.00	402	0.38
Site preparation	Rubber Tired Dozers	1	8.00	247	0.40

Berm improvements	Excavators	2	8.00	158	0.38
Berm improvements	Off-Highway Trucks	4	8.00	402	0.38
Berm improvements	Rollers	1	8.00	80	0.38
Berm improvements	Rubber Tired Dozers	2	8.00	247	0.40
High-flow channel excavation	Excavators	3	8.00	158	0.38
High-flow channel excavation	Off-Highway Trucks	1	8.00	402	0.38
High-flow channel excavation	Rubber Tired Dozers	2	8.00	247	0.40
High-flow channel excavation	Scrapers	4	8.00	367	0.48
Modified French drain construction	Excavators	1	8.00	158	0.38
Modified French drain construction	Off-Highway Trucks	2	8.00	402	0.38
Modified French drain construction	Rubber Tired Loaders	1	8.00	203	0.36
Saddle construction	Excavators	1	8.00	158	0.38
Saddle construction	Off-Highway Trucks	3	8.00	402	0.38
Saddle construction	Rubber Tired Loaders	1	8.00	203	0.36
Erosion protection	Off-Highway Trucks	4	8.00	402	0.38
Erosion protection	Rubber Tired Loaders	1	8.00	203	0.36
Milburn Avenue modification	Graders	1	8.00	187	0.41
Milburn Avenue modification	Off-Highway Trucks	1	8.00	402	0.38
Milburn Avenue modification	Rollers	1	8.00	80	0.38
Milburn Avenue modification	Rubber Tired Dozers	1	8.00	247	0.40
Milburn Avenue modification	Scrapers	1	8.00	367	0.48
Vegetation planting	Off-Highway Trucks	2	8.00	402	0.38
Vegetation planting	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Reserve fencing installation	Off-Highway Trucks	2	8.00	402	0.38
Reserve fencing installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Demobilization and site cleanup	Graders	1	8.00	187	0.41
Demobilization and site cleanup	Off-Highway Trucks	2	8.00	402	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mobilization	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site preparation	5	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Berm improvements	9	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
High-flow channel excavation	10	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Modified French drain construction	4	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Saddle construction	5	15.00	0.00	1,500.00	40.00	7.30	200.00	LD_Mix	HDT_Mix	HHDT
Erosion protection	5	15.00	0.00	300.00	40.00	7.30	200.00	LD_Mix	HDT_Mix	HHDT
Milburn Avenue modification	5	15.00	0.00	10.00	40.00	7.30	40.00	LD_Mix	HDT_Mix	HHDT
Vegetation planting	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Reserve fencing installation	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demobilization and site cleanup	3	15.00	0.00	0.00	40.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Mobilization - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2782	9.7905	8.0868	0.0327		0.3469	0.3469		0.3192	0.3192		3,165.3381	3,165.3381	1.0237		3,190.9315
Total	**1.2782**	**9.7905**	**8.0868**	**0.0327**	**0.0000**	**0.3469**	**0.3469**	**0.0000**	**0.3192**	**0.3192**		**3,165.3381**	**3,165.3381**	**1.0237**		**3,190.9315**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.2 Mobilization - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2782	9.7905	8.0868	0.0327		0.3469	0.3469		0.3192	0.3192	0.0000	3,165.3381	3,165.3381	1.0237		3,190.9315
Total	**1.2782**	**9.7905**	**8.0868**	**0.0327**	**0.0000**	**0.3469**	**0.3469**	**0.0000**	**0.3192**	**0.3192**	**0.0000**	**3,165.3381**	**3,165.3381**	**1.0237**		**3,190.9315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.3 Site preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.5797	22.4839	14.6645	0.0548		0.8587	0.8587		0.7900	0.7900		5,307.5214	5,307.5214	1.7166		5,350.4354
Total	**2.5797**	**22.4839**	**14.6645**	**0.0548**	**7.0826**	**0.8587**	**7.9413**	**3.4247**	**0.7900**	**4.2148**		**5,307.5214**	**5,307.5214**	**1.7166**		**5,350.4354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.3 Site preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0278	0.0000	3.0278	1.4641	0.0000	1.4641			0.0000			0.0000
Off-Road	2.5797	22.4839	14.6645	0.0548		0.8587	0.8587		0.7900	0.7900	0.0000	5,307.5214	5,307.5214	1.7166		5,350.4354
Total	**2.5797**	**22.4839**	**14.6645**	**0.0548**	**3.0278**	**0.8587**	**3.8865**	**1.4641**	**0.7900**	**2.2541**	**0.0000**	**5,307.5214**	**5,307.5214**	**1.7166**		**5,350.4354**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.4 Berm improvements - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.1047	0.0000	13.1047	6.7350	0.0000	6.7350			0.0000			0.0000
Off-Road	3.9159	33.2333	27.7344	0.0829		1.3981	1.3981		1.2862	1.2862		8,027.8744	8,027.8744	2.5964		8,092.7838
Total	**3.9159**	**33.2333**	**27.7344**	**0.0829**	**13.1047**	**1.3981**	**14.5028**	**6.7350**	**1.2862**	**8.0212**		**8,027.8744**	**8,027.8744**	**2.5964**		**8,092.7838**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.4 Berm improvements - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.6023	0.0000	5.6023	2.8792	0.0000	2.8792			0.0000			0.0000
Off-Road	3.9159	33.2333	27.7344	0.0829		1.3981	1.3981		1.2862	1.2862	0.0000	8,027.8744	8,027.8744	2.5964		8,092.7838
Total	**3.9159**	**33.2333**	**27.7344**	**0.0829**	**5.6023**	**1.3981**	**7.0003**	**2.8792**	**1.2862**	**4.1654**	**0.0000**	**8,027.8744**	**8,027.8744**	**2.5964**		**8,092.7838**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.5 High-flow channel excavation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.9900	0.0000	14.9900	6.9385	0.0000	6.9385			0.0000			0.0000
Off-Road	5.5863	55.6017	43.8225	0.1065		2.2974	2.2974		2.1136	2.1136		10,314.7220	10,314.7220	3.3360		10,398.1218
Total	**5.5863**	**55.6017**	**43.8225**	**0.1065**	**14.9900**	**2.2974**	**17.2874**	**6.9385**	**2.1136**	**9.0522**		**10,314.7220**	**10,314.7220**	**3.3360**		**10,398.1218**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.5 High-flow channel excavation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4082	0.0000	6.4082	2.9662	0.0000	2.9662			0.0000			0.0000
Off-Road	5.5863	55.6017	43.8225	0.1065		2.2974	2.2974		2.1136	2.1136	0.0000	10,314.7220	10,314.7220	3.3360		10,398.1218
Total	**5.5863**	**55.6017**	**43.8225**	**0.1065**	**6.4082**	**2.2974**	**8.7057**	**2.9662**	**2.1136**	**5.0799**	**0.0000**	**10,314.7220**	**10,314.7220**	**3.3360**		**10,398.1218**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.6 Modified French drain construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4669	11.3391	11.3445	0.0379		0.4227	0.4227		0.3889	0.3889		3,665.4438	3,665.4438	1.1855		3,695.0807
Total	**1.4669**	**11.3391**	**11.3445**	**0.0379**	**0.0000**	**0.4227**	**0.4227**	**0.0000**	**0.3889**	**0.3889**		**3,665.4438**	**3,665.4438**	**1.1855**		**3,695.0807**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.6 Modified French drain construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4669	11.3391	11.3445	0.0379		0.4227	0.4227		0.3889	0.3889	0.0000	3,665.4438	3,665.4438	1.1855		3,695.0807
Total	**1.4669**	**11.3391**	**11.3445**	**0.0379**	**0.0000**	**0.4227**	**0.4227**	**0.0000**	**0.3889**	**0.3889**	**0.0000**	**3,665.4438**	**3,665.4438**	**1.1855**		**3,695.0807**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.7 Saddle construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.9708	14.9070	14.6330	0.0511		0.5517	0.5517		0.5076	0.5076		4,945.3323	4,945.3323	1.5994		4,985.3178
Total	**1.9708**	**14.9070**	**14.6330**	**0.0511**	**0.0000**	**0.5517**	**0.5517**	**0.0000**	**0.5076**	**0.5076**		**4,945.3323**	**4,945.3323**	**1.5994**		**4,985.3178**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5124	12.0266	3.2847	0.0878	2.3851	0.0355	2.4206	0.6538	0.0340	0.6878		9,221.4198	9,221.4198	0.1231		9,224.4975
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.6823**	**12.1333**	**4.2267**	**0.0914**	**2.8410**	**0.0379**	**2.8789**	**0.7746**	**0.0362**	**0.8108**		**9,578.2126**	**9,578.2126**	**0.1300**		**9,581.4618**

3.7 Saddle construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.9708	14.9070	14.6330	0.0511		0.5517	0.5517		0.5076	0.5076	0.0000	4,945.3323	4,945.3323	1.5994		4,985.3178
Total	**1.9708**	**14.9070**	**14.6330**	**0.0511**	**0.0000**	**0.5517**	**0.5517**	**0.0000**	**0.5076**	**0.5076**	**0.0000**	**4,945.3323**	**4,945.3323**	**1.5994**		**4,985.3178**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5124	12.0266	3.2847	0.0878	2.3851	0.0355	2.4206	0.6538	0.0340	0.6878		9,221.4198	9,221.4198	0.1231		9,224.4975
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.6823**	**12.1333**	**4.2267**	**0.0914**	**2.8410**	**0.0379**	**2.8789**	**0.7746**	**0.0362**	**0.8108**		**9,578.2126**	**9,578.2126**	**0.1300**		**9,581.4618**

3.8 Erosion protection - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.2860	16.9263	14.6638	0.0592		0.6049	0.6049		0.5566	0.5566		5,725.1151	5,725.1151	1.8516		5,771.4056
Total	**2.2860**	**16.9263**	**14.6638**	**0.0592**	**0.0000**	**0.6049**	**0.6049**	**0.0000**	**0.5566**	**0.5566**		**5,725.1151**	**5,725.1151**	**1.8516**		**5,771.4056**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7515	17.6391	4.8176	0.1288	3.4981	0.0521	3.5502	0.9588	0.0499	1.0087		13,524.7490	13,524.7490	0.1806		13,529.2631
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.9214**	**17.7458**	**5.7595**	**0.1324**	**3.9541**	**0.0545**	**4.0085**	**1.0797**	**0.0520**	**1.1318**		**13,881.5419**	**13,881.5419**	**0.1874**		**13,886.2274**

3.8 Erosion protection - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.2860	16.9263	14.6638	0.0592		0.6049	0.6049		0.5566	0.5566	0.0000	5,725.1151	5,725.1151	1.8516		5,771.4056
Total	**2.2860**	**16.9263**	**14.6638**	**0.0592**	**0.0000**	**0.6049**	**0.6049**	**0.0000**	**0.5566**	**0.5566**	**0.0000**	**5,725.1151**	**5,725.1151**	**1.8516**		**5,771.4056**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7515	17.6391	4.8176	0.1288	3.4981	0.0521	3.5502	0.9588	0.0499	1.0087		13,524.7490	13,524.7490	0.1806		13,529.2631
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.9214**	**17.7458**	**5.7595**	**0.1324**	**3.9541**	**0.0545**	**4.0085**	**1.0797**	**0.0520**	**1.1318**		**13,881.5419**	**13,881.5419**	**0.1874**		**13,886.2274**

3.9 Milburn Avenue modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5185	0.0000	6.5185	3.3639	0.0000	3.3639			0.0000			0.0000
Off-Road	2.5125	25.2416	16.0767	0.0462		1.0141	1.0141		0.9329	0.9329		4,471.9808	4,471.9808	1.4463		4,508.1391
Total	**2.5125**	**25.2416**	**16.0767**	**0.0462**	**6.5185**	**1.0141**	**7.5326**	**3.3639**	**0.9329**	**4.2968**		**4,471.9808**	**4,471.9808**	**1.4463**		**4,508.1391**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6800e-003	0.1598	0.0360	9.2000e-004	0.0233	3.5000e-004	0.0237	6.4000e-003	3.4000e-004	6.7400e-003		96.3852	96.3852	3.6800e-003		96.4771
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1756**	**0.2665**	**0.9779**	**4.5000e-003**	**0.4793**	**2.7200e-003**	**0.4820**	**0.1273**	**2.5200e-003**	**0.1298**		**453.1780**	**453.1780**	**0.0105**		**453.4414**

3.9 Milburn Avenue modification - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7867	0.0000	2.7867	1.4381	0.0000	1.4381			0.0000			0.0000
Off-Road	2.5125	25.2416	16.0767	0.0462		1.0141	1.0141		0.9329	0.9329	0.0000	4,471.9808	4,471.9808	1.4463		4,508.1391
Total	**2.5125**	**25.2416**	**16.0767**	**0.0462**	**2.7867**	**1.0141**	**3.8007**	**1.4381**	**0.9329**	**2.3710**	**0.0000**	**4,471.9808**	**4,471.9808**	**1.4463**		**4,508.1391**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6800e-003	0.1598	0.0360	9.2000e-004	0.0233	3.5000e-004	0.0237	6.4000e-003	3.4000e-004	6.7400e-003		96.3852	96.3852	3.6800e-003		96.4771
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1756**	**0.2665**	**0.9779**	**4.5000e-003**	**0.4793**	**2.7200e-003**	**0.4820**	**0.1273**	**2.5200e-003**	**0.1298**		**453.1780**	**453.1780**	**0.0105**		**453.4414**

3.10 Vegetation planting - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1591	8.6715	8.8083	0.0296		0.3338	0.3338		0.3071	0.3071		2,861.3535	2,861.3535	0.9254		2,884.4890
Total	**1.1591**	**8.6715**	**8.8083**	**0.0296**	**0.0000**	**0.3338**	**0.3338**	**0.0000**	**0.3071**	**0.3071**		**2,861.3535**	**2,861.3535**	**0.9254**		**2,884.4890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.10 Vegetation planting - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1591	8.6715	8.8083	0.0296		0.3338	0.3338		0.3071	0.3071	0.0000	2,861.3535	2,861.3535	0.9254		2,884.4890
Total	**1.1591**	**8.6715**	**8.8083**	**0.0296**	**0.0000**	**0.3338**	**0.3338**	**0.0000**	**0.3071**	**0.3071**	**0.0000**	**2,861.3535**	**2,861.3535**	**0.9254**		**2,884.4890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.11 Reserve fencing installation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1591	8.6715	8.8083	0.0296		0.3338	0.3338		0.3071	0.3071		2,861.3535	2,861.3535	0.9254		2,884.4890
Total	**1.1591**	**8.6715**	**8.8083**	**0.0296**	**0.0000**	**0.3338**	**0.3338**	**0.0000**	**0.3071**	**0.3071**		**2,861.3535**	**2,861.3535**	**0.9254**		**2,884.4890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.11 Reserve fencing installation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1591	8.6715	8.8083	0.0296		0.3338	0.3338		0.3071	0.3071	0.0000	2,861.3535	2,861.3535	0.9254		2,884.4890
Total	**1.1591**	**8.6715**	**8.8083**	**0.0296**	**0.0000**	**0.3338**	**0.3338**	**0.0000**	**0.3071**	**0.3071**	**0.0000**	**2,861.3535**	**2,861.3535**	**0.9254**		**2,884.4890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.12 Demobilization and site cleanup - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2651	0.0000	0.2651	0.0286	0.0000	0.0286			0.0000			0.0000
Off-Road	1.3912	11.7888	8.2696	0.0331		0.4088	0.4088		0.3761	0.3761		3,200.6322	3,200.6322	1.0352		3,226.5109
Total	**1.3912**	**11.7888**	**8.2696**	**0.0331**	**0.2651**	**0.4088**	**0.6739**	**0.0286**	**0.3761**	**0.4047**		**3,200.6322**	**3,200.6322**	**1.0352**		**3,226.5109**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

3.12 Demobilization and site cleanup - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1133	0.0000	0.1133	0.0122	0.0000	0.0122			0.0000			0.0000
Off-Road	1.3912	11.7888	8.2696	0.0331		0.4088	0.4088		0.3761	0.3761	0.0000	3,200.6322	3,200.6322	1.0352		3,226.5109
Total	**1.3912**	**11.7888**	**8.2696**	**0.0331**	**0.1133**	**0.4088**	**0.5221**	**0.0122**	**0.3761**	**0.3883**	**0.0000**	**3,200.6322**	**3,200.6322**	**1.0352**		**3,226.5109**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1699	0.1067	0.9420	3.5800e-003	0.4560	2.3700e-003	0.4583	0.1209	2.1800e-003	0.1231		356.7928	356.7928	6.8600e-003		356.9643
Total	**0.1699**	**0.1067**	**0.9420**	**3.5800e-003**	**0.4560**	**2.3700e-003**	**0.4583**	**0.1209**	**2.1800e-003**	**0.1231**		**356.7928**	**356.7928**	**6.8600e-003**		**356.9643**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0157	0.1785	0.2515	1.6800e-003	0.1260	9.6000e-004	0.1270	0.0339	9.0000e-004	0.0348		172.7537	172.7537	5.8100e-003		172.8988
Unmitigated	0.0157	0.1785	0.2515	1.6800e-003	0.1260	9.6000e-004	0.1270	0.0339	9.0000e-004	0.0348		172.7537	172.7537	5.8100e-003		172.8988

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	4.00	0.00	0.00	41,642	41,642
Total	4.00	0.00	0.00	41,642	41,642

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	40.00	40.00	40.00	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.501421	0.030018	0.171383	0.107490	0.013683	0.004097	0.033773	0.127911	0.002341	0.001406	0.004884	0.001058	0.000535

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Unmitigated	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Total	**3.4300e-003**	**3.4000e-004**	**0.0371**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0797**	**0.0797**	**2.1000e-004**		**0.0849**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4300e-003	3.4000e-004	0.0371	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Total	**3.4300e-003**	**3.4000e-004**	**0.0371**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0797**	**0.0797**	**2.1000e-004**		**0.0849**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	8.00	15	402	0.38	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Off-Highway Trucks	0.4970	3.3279	3.2502	0.0132		0.1198	0.1198		0.1102	0.1102		1,280.3504	1,280.3504	0.4141		1,290.7027
Total	**0.4970**	**3.3279**	**3.2502**	**0.0132**		**0.1198**	**0.1198**		**0.1102**	**0.1102**		**1,280.3504**	**1,280.3504**	**0.4141**		**1,290.7027**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix C. Biological Resources Survey and Database Search Results

California Native Plant Society Species List

California Natural Diversity Database Plant and Animal Species Lists

National Marine Fisheries Service Species List

U.S. Fish and Wildlife Service Species List

CNPS California Native Plant Society

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

14 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3611988, 3611987, 3611986, 3611978, 3611977, 3611976, 3611968 3611967 and 3611966;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Calycadenia hooveri	Hoover's calycadenia	Asteraceae	annual herb	Jul-Sep	1B.3	S2	G2
Castilleja campestris var. succulenta	succulent owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	(Mar)Apr-May	1B.2	S2S3	G4? T2T3
Caulanthus californicus	California jewelflower	Brassicaceae	annual herb	Feb-May	1B.1	S1	G1
Delphinium hansenii ssp. ewanianum	Ewan's larkspur	Ranunculaceae	perennial herb	Mar-May	4.2	S3	G4T3
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
Eryngium spinosepalum	spiny-sepaled button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.2	S2	G2
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	2B.1	S3	G4
Leptosiphon serrulatus	Madera leptosiphon	Polemoniaceae	annual herb	Apr-May	1B.2	S3	G3
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Poaceae	annual herb	Apr-Sep	1B.1	S1	G1
Orcuttia pilosa	hairy Orcutt grass	Poaceae	annual herb	May-Sep	1B.1	S1	G1
Pseudobahia bahiifolia	Hartweg's golden sunburst	Asteraceae	annual herb	Mar-Apr	1B.1	S2	G2
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
Tropidocarpum capparideum	caper-fruited tropidocarpum	Brassicaceae	annual herb	Mar-Apr	1B.1	S1	G1
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	1B.1	S1	G1

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 04 October 2020].

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The Jepson Flora Project
The Consortium of California Herbaria
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Questions and Comments
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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Gregg (3611988) OR Lanes Bridge (3611987) OR Friant (3611986) OR Herndon (3611978) OR Fresno North (3611977) OR Clovis (3611976) OR Kearney Park (3611968) OR Fresno South (3611967) OR Malaga (3611966))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Calycadenia hooveri Hoover's calycadenia	PDAST1P040	None	None	G2	S2	1B.3
Castilleja campestris var. succulenta succulent owl's-clover	PDSCR0D3Z1	Threatened	Endangered	G4?T2T3	S2S3	1B.2
Caulanthus californicus California jewelflower	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Eryngium spinosepalum spiny-sepaled button-celery	PDAPI0Z0Y0	None	None	G2	S2	1B.2
Imperata brevifolia California satintail	PMPOA3D020	None	None	G4	S3	2B.1
Layia munzii Munz's tidy-tips	PDAST5N0B0	None	None	G2	S2	1B.2
Leptosiphon serrulatus Madera leptosiphon	PDPLM09130	None	None	G3	S3	1B.2
Navarretia myersii ssp. myersii pincushion navarretia	PDPLM0C0X1	None	None	G2T2	S2	1B.1
Orcuttia inaequalis San Joaquin Valley Orcutt grass	PMPOA4G060	Threatened	Endangered	G1	S1	1B.1
Orcuttia pilosa hairy Orcutt grass	PMPOA4G040	Endangered	Endangered	G1	S1	1B.1
Pseudobahia bahiifolia Hartweg's golden sunburst	PDAST7P010	Endangered	Endangered	G1	S1	1B.1
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Tropidocarpum capparideum caper-fruited tropidocarpum	PDBRA2R010	None	None	G1	S1	1B.1
Tuctoria greenei Greene's tuctoria	PMPOA6N010	Endangered	Rare	G1	S1	1B.1

Record Count: 15

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Gregg (3611988) OR Lanes Bridge (3611987) OR Friant (3611986) OR Herndon (3611978) OR Fresno North (3611977) OR Clovis (3611976) OR Kearney Park (3611968) OR Fresno South (3611967) OR Malaga (3611966))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Dipodomys nitratoides exilis Fresno kangaroo rat	AMAFD03151	Endangered	Endangered	G3TH	SH	
Efferia antiochi Antioch efferian robberfly	IIDIP07010	None	None	G1G2	S1S2	
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Euderma maculatum spotted bat	AMACC07010	None	None	G4	S3	SSC
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4	
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Lytta moesta moestan blister beetle	IICOL4C020	None	None	G2	S2	
Lytta molesta molestan blister beetle	IICOL4C030	None	None	G2	S2	
Metapogon hurdi Hurd's metapogon robberfly	IIDIP08010	None	None	G1G2	S1S2	
Mylopharodon conocephalus hardhead	AFCJB25010	None	None	G3	S3	SSC
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Perognathus inornatus San Joaquin pocket mouse	AMAFD01060	None	None	G2G3	S2S3	
Phalacrocorax auritus double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 34

Quad Name **Herndon**
Quad Number **36119-G8**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

Quad Name **Fresno North**
Quad Number **36119-G7**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - X
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

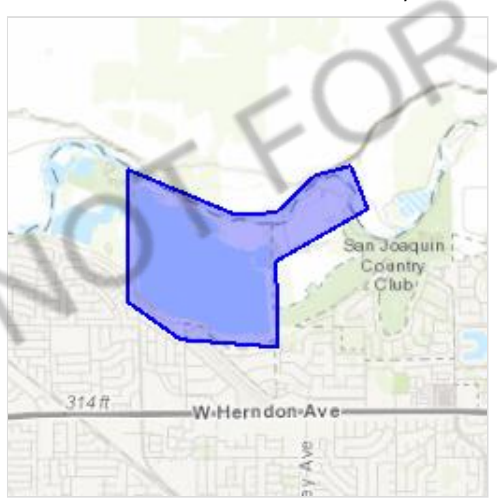
Project information

NAME

Milburn Pond Isolation Project

LOCATION

Fresno and Madera counties, California



DESCRIPTION

The project would isolate an existing pond created by past mining activities by modifying an existing berm and constructing an equalization saddle.

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600

(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Fresno Kangaroo Rat Dipodomys nitratoides exilis — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/5150

San Joaquin Kit Fox Vulpes macrotis mutica — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2873

Reptiles

NAME	STATUS

Blunt-nosed Leopard Lizard Gambelia silus — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/625

Giant Garter Snake Thamnophis gigas — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4482

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander Ambystoma californiense — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS

Delta Smelt Hypomesus transpacificus — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/321

Crustaceans

NAME	STATUS

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Fleshy Owl's-clover Castilleja campestris ssp. succulenta There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8095	Threatened
Hairy Orcutt Grass Orcuttia pilosa There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2262	Endangered
San Joaquin Orcutt Grass Orcuttia inaequalis There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5506	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31
Common Yellowthroat *Geothlypis trichas sinuosa* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Rufous Hummingbird selasphorus rufus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

Song Sparrow Melospiza melodia — Breeds Feb 20 to Sep 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee Pipilo maculatus clementae — Breeds Apr 15 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/4243

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

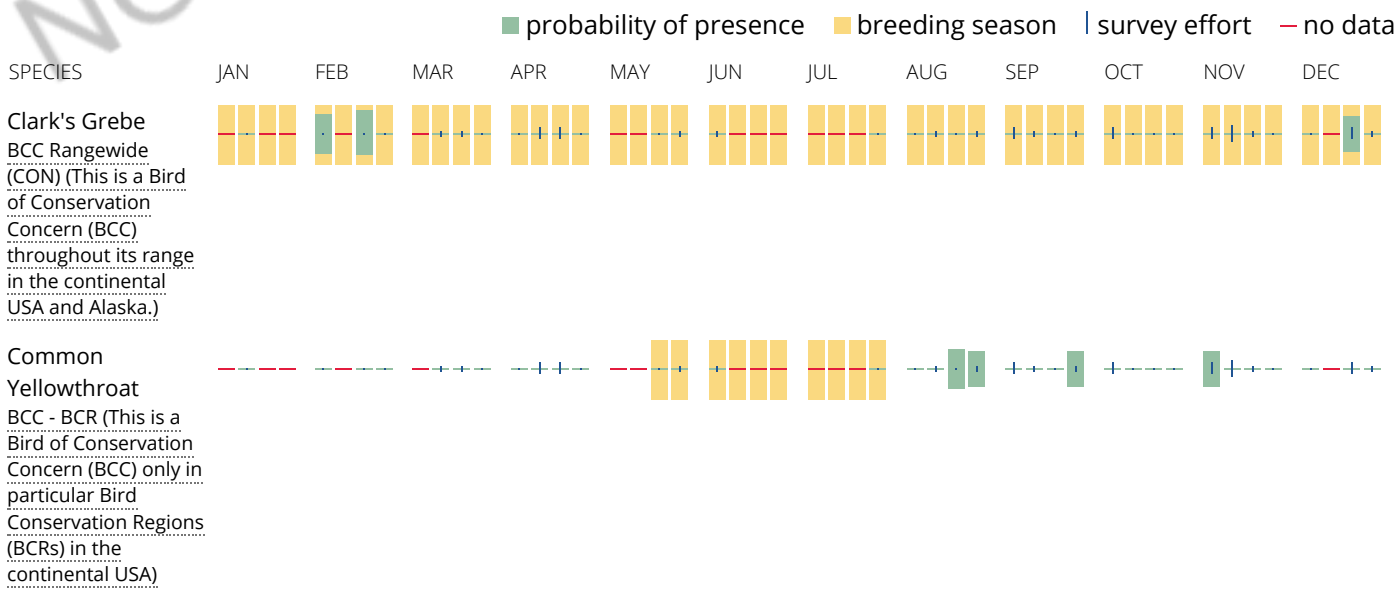
Breeding Season (▬)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

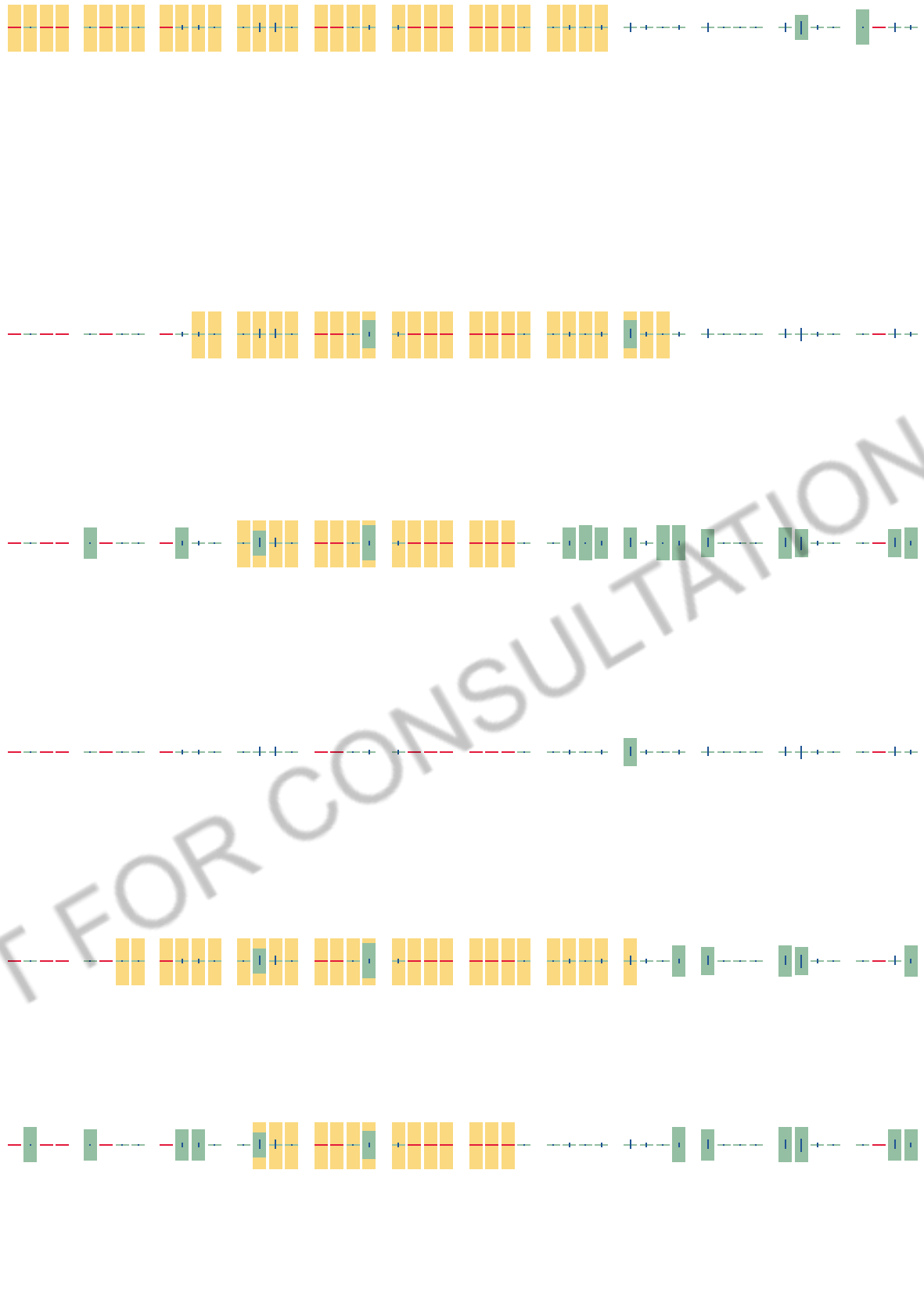
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Golden Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Lawrence's Goldfinch
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Nuttall's Woodpecker
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Rufous Hummingbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Song Sparrow
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Spotted Towhee
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to

occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

PEM1C

FRESHWATER FORESTED/SHRUB WETLAND

PSSC

FRESHWATER POND

PUBHx
PUBFx
PUBF

LAKE

L1UBHx

RIVERINE

R2UBH
R5UBF

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix D. Native American Tribe Coordination

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
SOUTH CENTRAL REGION OFFICE
3374 EAST SHIELDS AVENUE, ROOM 3
FRESNO, CA 93726-6913

May 22, 2020

The Honorable Benjamin Charley
Chairman
Dunlap Band of Mono Indians
Post Office Box 14
Dunlap, California 93621

Notification for Milburn Habitat Restoration and Improvements Project

Dear Chairman Charley:

This letter serves as an invitation to Dunlap Band of Mono Indians (the Tribe) to consult with the California Department of Water Resources (DWR or Department) on the proposed Milburn Habitat Restoration and Improvements Project (Project). The Department is committed to working together with your tribe consistent with its Tribal Engagement Policy and the California Natural Resources Agency's Tribal Engagement Policy.

The Department is initiating planning and design work for habitat restoration along the San Joaquin River. The overall habitat restoration Project would include isolating Milburn pond from the river channel, help protect the berm from future breaches, fill smaller ponds connected to the channel, create new or improved floodplain habitat, improve channel habitat, and improve public access. The Project area is within Fresno County and is shown on Attachment 1 and 2.

The CEQA document will consider the overall habitat restoration Project, but the Department will focus on the initial phase of the Project to isolate the pond from the channel. This includes features such as a rebuilt berm, equalization saddle, and integrated modified French drain in addition to other modifications along the existing berms that contain the pond. A rebuilt berm in this area will not follow the old berm alignment but will more closely mimic the pre-mining left bank alignment. Sweeping in a large arc, flood flows will be directed around the longer curve and have less erosive power than they did with the previous configuration. To protect the berm further, the river side of the berm upstream of the saddle will require bank stabilization measures such as rock slope protection and biotechnical erosion protection. The berm construction and improvements will require materials borrowed from the upstream Hansen portion of the reach; those borrow areas will be reconfigured to add a new high-flow side channel. Excavation of a portion of the berm at Pond 1 will also be required to accommodate installation of the equalization saddle. Additional features include modifications to Milburn Avenue to ensure minimum berm elevations are maintained and revegetation to mitigate any tree removal.

DWR hopes to begin work on the Project in January 2023 and estimates that it will take about 8 months to complete construction. DWR will be applying for federal permits for the Project. The U.S. Army Corps of Engineers would be the lead federal agency for the Project.

Cultural Resources work has been initiated for the Project area. In 2018 some geotechnical work was conducted on the site and Tribal outreach was done as well as archival research. Further cultural research including land surveys will be conducted by GEI consultants with DWR oversight.

The Department is the lead agency under the California Environmental Quality Act (CEQA) and is proposing to prepare a CEQA document for the Project. As part of the cultural resources review of the proposed Project under CEQA, we are writing to provide your tribe with the opportunity to submit any information that you are willing to share about cultural resources that may be in close proximity to the proposed Project area shown in Attachment 1, especially Tribal Cultural Resources as defined in PRC section 21074. We understand that the locations of these resources are sensitive and resource locations will not be disclosed in public documents and will be kept confidential as provided for under California Government Code section 6254.10.

DWR is committed to working together with the Tribe to properly account for and manage resources important to the Tribe and we welcome any recommendations regarding appropriate management or treatment of resources that occur within the Project area. This notification does not limit the ability of your tribe to submit information regarding the significance of the tribal cultural resources, the significance of the Project's impact on tribal cultural resources, or any appropriate mitigation measures (PRC § 21080.3.2(c)(1)).

If you have any questions or need additional information, you may contact me at 559-230-3361 or by email at Karen.Dulik@water.ca.gov.

Sincerely,

Karen Dulik
Environmental Program Manager
South Central Region Office

cc: Daniel Jackson

enclosures

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM,** *Governor*

DEPARTMENT OF WATER RESOURCES
SOUTH CENTRAL REGION OFFICE
3374 EAST SHIELDS AVENUE, ROOM 3
FRESNO, CA 93726-6913

May 22, 2020

Mr. Dirk Charley
Tribal Secretary
Dunlap Bank of Mono Indians
5509 East McKenzie Avenue
Fresno, California 93727

Notification for Milburn Habitat Restoration and Improvements Project

Dear Tribal Secretary Charley:

This letter serves as an invitation to Dunlap Band of Mono Indians (the Tribe) to consult with the California Department of Water Resources (DWR or Department) on the proposed Milburn Habitat Restoration and Improvements Project (Project). The Department is committed to working together with your tribe consistent with its Tribal Engagement Policy and the California Natural Resources Agency's Tribal Engagement Policy.

The Department is initiating planning and design work for habitat restoration along the San Joaquin River. The overall habitat restoration Project would include isolating Milburn pond from the river channel, help protect the berm from future breaches, fill smaller ponds connected to the channel, create new or improved floodplain habitat, improve channel habitat, and improve public access. The Project area is within Fresno County and is shown on Attachment 1 and 2.

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DWR hopes to begin work on the Project in January 2023 and estimates that it will take about 8 months to complete construction. DWR will be applying for federal permits for the Project. The U.S. Army Corps of Engineers would be the lead federal agency for the Project.

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DWR is committed to working together with the Tribe to properly account for and manage resources important to the Tribe and we welcome any recommendations regarding appropriate management or treatment of resources that occur within the Project area. This notification does not limit the ability of your tribe to submit information regarding the significance of the tribal cultural resources, the significance of the Project's impact on tribal cultural resources, or any appropriate mitigation measures (PRC § 21080.3.2(c)(1)).

If you have any questions or need additional information, you may contact me at 559-230-3361 or by email at Karen.Dulik@water.ca.gov.

Sincerely,

Karen Dulik
Environmental Program Manager
South Central Region Office

cc: Daniel Jackson

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STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

GAVIN NEWSOM, *Governor*

DEPARTMENT OF WATER RESOURCES
SOUTH CENTRAL REGION OFFICE
3374 EAST SHIELDS AVENUE, ROOM 3
FRESNO, CA 93726-6913

May 22, 2020

The Honorable Stan Alec
Kings River Choinumni Farm Tribe
3515 East Fedora Avenue
Fresno, California 93726

Notification for Milburn Habitat Restoration and Improvements Project

Dear Chairman Alec:

This letter serves as an invitation to Kings River Choinumni farm Tribe (the Tribe) to consult with the California Department of Water Resources (DWR or Department) on the proposed Milburn Habitat Restoration and Improvements Project (Project). The Department is committed to working together with your tribe consistent with its Tribal Engagement Policy and the California Natural Resources Agency's Tribal Engagement Policy.

The Department is initiating planning and design work for habitat restoration along the San Joaquin River. The overall habitat restoration Project would include isolating Milburn pond from the river channel, help protect the berm from future breaches, fill smaller ponds connected to the channel, create new or improved floodplain habitat, improve channel habitat, and improve public access. The Project area is within Fresno County and is shown on Attachment 1 and 2.

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DWR hopes to begin work on the Project in January 2023 and estimates that it will take about 8 months to complete construction. DWR will be applying for federal permits for the Project. The U.S. Army Corps of Engineers would be the lead federal agency for the Project.

Cultural Resources work has been initiated for the Project area. In 2018 some geotechnical work was conducted on the site and Tribal outreach was done as well as archival research. Further cultural research including land surveys will be conducted by GEI consultants with DWR oversight.

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DWR is committed to working together with the Tribe to properly account for and manage resources important to the Tribe and we welcome any recommendations regarding appropriate management or treatment of resources that occur within the Project area. This notification does not limit the ability of your tribe to submit information regarding the significance of the tribal cultural resources, the significance of the Project's impact on tribal cultural resources, or any appropriate mitigation measures (PRC § 21080.3.2(c)(1)).

If you have any questions or need additional information, you may contact me at 559-230-3361 or by email at Karen.Dulik@water.ca.gov.

Sincerely,

Karen Dulik
Environmental Program Manager
South Central Region Office

cc: Daniel Jackson

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DEPARTMENT OF WATER RESOURCES
SOUTH CENTRAL REGION OFFICE
3374 EAST SHIELDS AVENUE, ROOM 3
FRESNO, CA 93726-6913

May 22, 2020

The Honorable Ron Goode
Chairman
North Fork Mono Tribe
13396 Tollhouse Road
Clovis, California 93619

Notification for Milburn Habitat Restoration and Improvements Project

Dear Chairman Goode:

This letter serves as an invitation to North Fork Mono Tribe (the Tribe) to consult with the California Department of Water Resources (DWR or Department) on the proposed Milburn Habitat Restoration and Improvements Project (Project). The Department is committed to working together with your tribe consistent with its Tribal Engagement Policy and the California Natural Resources Agency's Tribal Engagement Policy.

The Department is initiating planning and design work for habitat restoration along the San Joaquin River. The overall habitat restoration Project would include isolating Milburn pond from the river channel, help protect the berm from future breaches, fill smaller ponds connected to the channel, create new or improved floodplain habitat, improve channel habitat, and improve public access. The Project area is within Fresno County and is shown on Attachment 1 and 2.

The CEQA document will consider the overall habitat restoration Project, but the Department will focus on the initial phase of the Project to isolate the pond from the channel. This includes features such as a rebuilt berm, equalization saddle, and integrated modified French drain in addition to other modifications along the existing berms that contain the pond. A rebuilt berm in this area will not follow the old berm alignment but will more closely mimic the pre-mining left bank alignment. Sweeping in a large arc, flood flows will be directed around the longer curve and have less erosive power than they did with the previous configuration. To protect the berm further, the river side of the berm upstream of the saddle will require bank stabilization measures such as rock slope protection and biotechnical erosion protection. The berm construction and improvements will require materials borrowed from the upstream Hansen portion of the reach; those borrow areas will be reconfigured to add a new high-flow side channel. Excavation of a portion of the berm at Pond 1 will also be required to accommodate installation of the equalization saddle. Additional features include modifications to Milburn Avenue to ensure minimum berm elevations are maintained and revegetation to mitigate any tree removal.

DWR hopes to begin work on the Project in January 2023 and estimates that it will take about 8 months to complete construction. DWR will be applying for federal permits for the Project. The U.S. Army Corps of Engineers would be the lead federal agency for the Project.

Cultural Resources work has been initiated for the Project area. In 2018 some geotechnical work was conducted on the site and Tribal outreach was done as well as archival research. Further cultural research including land surveys will be conducted by GEI consultants with DWR oversight.

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DWR is committed to working together with the Tribe to properly account for and manage resources important to the Tribe and we welcome any recommendations regarding appropriate management or treatment of resources that occur within the Project area. This notification does not limit the ability of your tribe to submit information regarding the significance of the tribal cultural resources, the significance of the Project's impact on tribal cultural resources, or any appropriate mitigation measures (PRC § 21080.3.2(c)(1)).

If you have any questions or need additional information, you may contact me at 559-230-3361 or by email at Karen.Dulik@water.ca.gov.

Sincerely,

Karen Dulik
Environmental Program Manager
South Central Region Office

cc: Daniel Jackson

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STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
SOUTH CENTRAL REGION OFFICE
3374 EAST SHIELDS AVENUE, ROOM 3
FRESNO, CA 93726-6913

May 22, 2020

The Honorable Leo Sisco
Chairman
Santa Rosa Rancheria Tachi Yokut Tribe
Post Office Box 8
Lemoore, California 93245

Notification for Milburn Habitat Restoration and Improvements Project

Dear Chairman Sisco:

This letter serves as an invitation to Big Sandy Rancheria of Western Mono Indians (the Tribe) to consult with the California Department of Water Resources (DWR or Department) on the proposed Milburn Habitat Restoration and Improvements Project (Project). The Department is committed to working together with your tribe consistent with its Tribal Engagement Policy and the California Natural Resources Agency's Tribal Engagement Policy.

The Department is initiating planning and design work for habitat restoration along the San Joaquin River. The overall habitat restoration Project would include isolating Milburn pond from the river channel, help protect the berm from future breaches, fill smaller ponds connected to the channel, create new or improved floodplain habitat, improve channel habitat, and improve public access. The Project area is within Fresno County and is shown on Attachment 1 and 2.

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DWR hopes to begin work on the Project in January 2023 and estimates that it will take about 8 months to complete construction. DWR will be applying for federal permits for the Project. The U.S. Army Corps of Engineers would be the lead federal agency for the Project.

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If you have any questions or need additional information, you may contact me at 559-230-3361 or by email at Karen.Dulik@water.ca.gov.

Sincerely,

Karen Dulik
Environmental Program Manager
South Central Region Office

cc: Daniel Jackson

enclosures

DEPARTMENT OF WATER RESOURCES
SOUTH CENTRAL REGION OFFICE
3374 EAST SHIELDS AVENUE, ROOM 3
FRESNO, CA 93726-6913

May 22, 2020

The Honorable Leanne Walker-Grant
Chairwoman
Table Mountain Rancheria of California
Post Office Box 410
Friant, California 93626

Notification for Milburn Habitat Restoration and Improvements Project

Dear Chairwoman Walker-Grant:

This letter serves as an invitation to Table Mountain Rancheria of California (the Tribe) to consult with the California Department of Water Resources (DWR or Department) on the proposed Milburn Habitat Restoration and Improvements Project (Project). The Department is committed to working together with your tribe consistent with its Tribal Engagement Policy and the California Natural Resources Agency's Tribal Engagement Policy.

The Department is initiating planning and design work for habitat restoration along the San Joaquin River. The overall habitat restoration Project would include isolating Milburn pond from the river channel, help protect the berm from future breaches, fill smaller ponds connected to the channel, create new or improved floodplain habitat, improve channel habitat, and improve public access. The Project area is within Fresno County and is shown on Attachment 1 and 2.

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DWR is committed to working together with the Tribe to properly account for and manage resources important to the Tribe and we welcome any recommendations regarding appropriate management or treatment of resources that occur within the Project area. This notification does not limit the ability of your tribe to submit information regarding the significance of the tribal cultural resources, the significance of the Project's impact on tribal cultural resources, or any appropriate mitigation measures (PRC § 21080.3.2(c)(1)).

If you have any questions or need additional information, you may contact me at 559-230-3361 or by email at Karen.Dulik@water.ca.gov.

Sincerely,

Karen Dulik
Environmental Program Manager
South Central Region Office

cc: Daniel Jackson

enclosures

Appendix E. Noise Modeling Results

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/07/2020
Case Description: Access Road Improvement

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dump Truck	No	40	76.5	100.0		0.0
Dozer	No	40	81.7	100.0		0.0
Grader	No	40	85.0	100.0		0.0
Dump Truck	No	40	76.5	100.0		0.0
Pickup Truck	No	40	75.0	100.0		0.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dump Truck	70.4	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	79.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	70.4	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69.0	65.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	79.0	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dump Truck	No	40	76.5	200.0		0.0
Dozer	No	40	81.7	200.0		0.0
Grader	No	40	85.0	200.0		0.0
Dump Truck	No	40	76.5	200.0		0.0
Pickup Truck	No	40	75.0	200.0		0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Noise Limits (dBA) Day Lmax	Noise Limits (dBA) Day Leq	Noise Limits (dBA) Evening Lmax	Noise Limits (dBA) Evening Leq	Noise Limits (dBA) Night Lmax	Noise Limits (dBA) Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Noise Limit Exceedance (dBA) Day Leq	Noise Limit Exceedance (dBA) Evening Lmax	Noise Limit Exceedance (dBA) Evening Leq	Noise Limit Exceedance (dBA) Night Lmax	Noise Limit Exceedance (dBA) Night Leq
Dump Truck	64.4	60.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	73.0	69.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	64.4	60.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	63.0	59.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	73.0	71.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dump Truck	No	40	76.5	300.0		0.0
Dozer	No	40	81.7	300.0		0.0
Grader	No	40	85.0	300.0		0.0
Dump Truck	No	40	76.5	300.0		0.0
Pickup Truck	No	40	75.0	300.0		0.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dump Truck	60.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	66.1	62.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	69.4	65.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	60.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	59.4	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	69.4	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #4 ****

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dump Truck	No	40		76.5	400.0	0.0
Dozer	No	40		81.7	400.0	0.0
Grader	No	40	85.0		400.0	0.0
Dump Truck	No	40		76.5	400.0	0.0
Pickup Truck	No	40		75.0	400.0	0.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dump Truck	58.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	66.9	63.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A
Dump Truck 58.4 54.4 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Pickup Truck 56.9 53.0 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Total 66.9 65.6 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

**** Receptor #5 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dump Truck	No	40		76.5	500.0	0.0
Dozer	No	40		81.7	500.0	0.0
Grader	No	40		85.0	500.0	0.0
Dump Truck	No	40		76.5	500.0	0.0
Pickup Truck	No	40		75.0	500.0	0.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dump Truck	56.5	52.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	65.0	61.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	56.5	52.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	55.0	51.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	65.0	63.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #6 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night

Homes Residential 60.0 55.0 50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dump Truck	No	40	76.5	800.0		0.0
Dozer	No	40	81.7	800.0		0.0
Grader	No	40	85.0	800.0		0.0
Dump Truck	No	40	76.5	800.0		0.0
Pickup Truck	No	40	75.0	800.0		0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Noise Limits (dBA) Day Lmax	Noise Limits (dBA) Day Leq	Noise Limits (dBA) Evening Lmax	Noise Limits (dBA) Evening Leq	Noise Limits (dBA) Night Lmax	Noise Limits (dBA) Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Noise Limit Exceedance (dBA) Day Leq	Noise Limit Exceedance (dBA) Evening Lmax	Noise Limit Exceedance (dBA) Evening Leq	Noise Limit Exceedance (dBA) Night Lmax	Noise Limit Exceedance (dBA) Night Leq
Dump Truck	52.4	48.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	57.6	53.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	60.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	52.4	48.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	50.9	46.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	60.9	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/07/2020
Case Description: Berm Improvements and Drain/Saddle Construction

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Front End Loader	No	40		79.1	2500.0	0.0
Excavator	No	40		80.7	2500.0	0.0
Dump Truck	No	40		76.5	2500.0	0.0
Dump Truck	No	40		76.5	2500.0	0.0
Pickup Truck	No	40		75.0	2500.0	0.0
Dozer	No	40		81.7	2500.0	0.0
Dozer	No	40		81.7	2500.0	0.0
Dump Truck	No	40		76.5	2500.0	0.0
Dump Truck	No	40		76.5	2500.0	0.0
Dump Truck	No	40		76.5	2500.0	0.0
Excavator	No	40		80.7	2500.0	0.0
Excavator	No	40		80.7	2500.0	0.0
Roller	No	20		80.0	2500.0	0.0
Pickup Truck	No	40		75.0	2500.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Front End Loader	45.1	41.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	46.7	42.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	42.5	38.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	42.5	38.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	41.0	37.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	47.7	43.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A														
Dozer	47.7	43.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Dump Truck	42.5	38.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Dump Truck	42.5	38.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Dump Truck	42.5	38.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Excavator	46.7	42.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Excavator	46.7	42.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Roller	46.0	39.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Pickup Truck	41.0	37.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Total	47.7	52.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														

**** Receptor #2 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
BPGC	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Front End Loader	No	40	79.1	100.0		0.0
Excavator	No	40	80.7	100.0		0.0
Dump Truck	No	40	76.5	100.0		0.0
Dump Truck	No	40	76.5	100.0		0.0
Pickup Truck	No	40	75.0	100.0		0.0
Dozer	No	40	81.7	2500.0		0.0
Dozer	No	40	81.7	2500.0		0.0
Dump Truck	No	40	76.5	2500.0		0.0
Dump Truck	No	40	76.5	2500.0		0.0
Dump Truck	No	40	76.5	2500.0		0.0
Excavator	No	40	80.7	2500.0		0.0
Excavator	No	40	80.7	2500.0		0.0
Roller	No	20	80.0	2500.0		0.0
Pickup Truck	No	40	75.0	2500.0		0.0

Results

Calculated (dBA)	Noise Limits (dBA) Day	Evening	Night	Noise Limit Exceedance (dBA) Day	Evening	Night

Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	70.4	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	70.4	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69.0	65.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	47.7	43.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	47.7	43.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	42.5	38.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	42.5	38.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	42.5	38.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	46.7	42.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	46.7	42.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	46.0	39.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	41.0	37.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	74.7	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/07/2020
Case Description: High-Flow Channel Excavation and Berm Improvements

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Scraper	No	40	83.6	1100.0		0.0
Scraper	No	40	83.6	1100.0		0.0
Scraper	No	40	83.6	1100.0		0.0
Scraper	No	40	83.6	1100.0		0.0
Excavator	No	40	80.7	1100.0		0.0
Excavator	No	40	80.7	1100.0		0.0
Excavator	No	40	80.7	1100.0		0.0
Dozer	No	40	81.7	1100.0		0.0
Dozer	No	40	81.7	1100.0		0.0
Pickup Truck	No	40	75.0	1100.0		0.0
Dozer	No	40	81.7	1800.0		0.0
Dozer	No	40	81.7	1800.0		0.0
Dump Truck	No	40	76.5	1800.0		0.0
Dump Truck	No	40	76.5	1800.0		0.0
Dump Truck	No	40	76.5	1800.0		0.0
Excavator	No	40	80.7	1800.0		0.0
Excavator	No	40	80.7	1800.0		0.0
Roller	No	20	80.0	1800.0		0.0
Pickup Truck	No	40	75.0	1800.0		0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Noise Limit Exceedance (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Scraper	56.7	52.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	56.7	52.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	56.7	52.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Scraper	56.7	52.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	53.9	49.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	53.9	49.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	53.9	49.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	54.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	54.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	48.2	44.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	50.5	46.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	50.5	46.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	45.3	41.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	45.3	41.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	45.3	41.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	49.6	45.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	49.6	45.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	48.9	41.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	43.9	39.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	56.7	61.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
SJCC	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Scraper	No	40	83.6	500.0	0.0	
Scraper	No	40	83.6	500.0	0.0	
Scraper	No	40	83.6	500.0	0.0	
Scraper	No	40	83.6	500.0	0.0	
Excavator	No	40	80.7	500.0	0.0	
Excavator	No	40	80.7	500.0	0.0	

Excavator	No	40	80.7	500.0	0.0
Dozer	No	40	81.7	2200.0	0.0
Dozer	No	40	81.7	2200.0	0.0
Pickup Truck	No	40	75.0	2200.0	0.0
Dozer	No	40	81.7	2200.0	0.0
Dozer	No	40	81.7	2200.0	0.0
Dump Truck	No	40	76.5	2200.0	0.0
Dump Truck	No	40	76.5	2200.0	0.0
Dump Truck	No	40	76.5	2200.0	0.0
Excavator	No	40	80.7	2200.0	0.0
Excavator	No	40	80.7	2200.0	0.0
Roller	No	20	80.0	2200.0	0.0
Pickup Truck	No	40	75.0	2200.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Scraper	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	48.8	44.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	48.8	44.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	42.1	38.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	48.8	44.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	48.8	44.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	43.6	39.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	43.6	39.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	43.6	39.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	47.8	43.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A															
Excavator	47.8	43.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	47.1	40.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	42.1	38.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	63.6	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/07/2020
Case Description: Milburn Hauling

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dump Truck	No	40		76.5	50.0	0.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dump Truck	76.5	72.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	76.5	72.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dump Truck	No	40		76.5	100.0	0.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					

	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dump Truck	70.4	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	70.4	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dump Truck	No	40		76.5	200.0	0.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dump Truck	64.4	60.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	64.4	60.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #4 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dump Truck	No	40		76.5	300.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dump Truck	60.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	60.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/07/2020
Case Description: Milburn Avenue Raise

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
BPGC	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Scraper	No	40		83.6	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Grader	No	40	85.0		100.0	0.0
Roller	No	20		80.0	100.0	0.0
Dump Truck	No	40		76.5	100.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Scraper	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	79.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	74.0	67.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	70.4	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	79.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A