



Newman Community Conservation Area Master Plan
Initial Study and Proposed Mitigated Negative Declaration
March 2021

APPENDIX C: Air Quality & GHG Modeling Results



Cover photograph: courtesy of Vollmar Natural Lands Consulting



TO: Anna Buising, PhD, PG, Redtail Consulting

FROM: Todd Tamura, QEP

RE: Air Emissions Estimates for Newman Community Conservation Area (NCCA) Master Plan projects

DATE: March 10, 2021

This memo includes the following:

1. A description of how air emissions for the four distinct NCCA Master Plan restoration projects were estimated;
2. Discussion of Results/comparisons to applicable emissions thresholds;
3. A short contextual calculation of GHG emissions that is referenced in the IS/MND and brief calculation of emissions associated with Mitigation Measures involving hazardous waste hauling; and
4. Analytical details/QA.

The total acreage of the parcels is 102 acres—most but not all of which would be worked by one of the four projects. While there are city park aspects (such as potential play areas, shade structures, and picnic areas in the NNP project, and trails around the 78-acre site) and education aspects (such as a potential outdoor classroom area, wildlife and native plant demonstration gardens, a rainwater harvesting and reuse demonstration area, and composting and greywater demonstration areas), much of the acreage would be wetlands not directly accessible by the public. As shown in Tables 3-19 and 3-22 of the IS/MND the traffic analysis provided identifies that for all four NCCA Master Plan projects combined, approximate visitor projections are for 45 one-way trips (< 50 miles) per day for local residents (only one of which would involve a heavy-duty vehicle with more than 8 occupants) and 125 one-way trips (75 miles per trip) per day for regional visitors (with roughly five bus trips per day); trips for operations and maintenance are negligible in comparison.

Given the size and scale of the project, there is a reasonable argument that no quantification of emissions is necessary. SJV APCD issued guidance in November 2020 identifying that certain sizes of projects—including city parks of less than 256 acres (and generating an average of less than 20 daily one-way 50-mile trips for HHDTs¹ and less than 1,100 average daily one-way trips for non-HHDTs) and educational facilities with less than 1,000 students (and generating an average of less than 15 daily one-way 50-mile trips for HHDTs and less than 1,000 average daily one-way trips for non-HHDTs)—“are excluded from quantifying criteria pollutant emissions for CEQA purposes” because “it is reasonable to conclude that a project would not exceed applicable thresholds of significance”.² However, out of an abundance of caution—and

¹ Heavy heavy-duty trucks.

² [SJV APCD, “Small Project Analysis Levels \(SPAL\)”, November 13, 2020.](#)

recognizing that during construction there would be considerably more HHDT truck trips than what is identified in the District guidance—we have completed an emissions analysis anyway.

1. Emissions Estimation

In this CEQA analysis, we calculated emissions based on the most conservative assumptions, in part to also help incorporate any potential minor project changes. For example, in cases where the construction estimator estimated “2-4” piece of a certain type of construction equipment, we assumed 4; in cases where the estimator estimated “20-40” days, we assumed 40; etc.

A popular tool used for emissions estimation for land use developments is the California Emissions Estimator Model (CalEEMod®)³ developed for the California Air Pollution Control Officers Association (CAPCOA). It incorporates estimates of several different types of emissions (including but not limited to fugitive dust from dirt handling, evaporative emissions from paving, etc.) and accordingly that tool was used for this study. However, it is recognized that (a) the model output does not document the equations used, and (b) for on-road mobile sources, the algorithms are outdated (based on EMFAC2014, whereas the California Air Resources Board (CARB)’s EMFAC2017 has an easy-to-use up-to-date tool for calculating emissions.⁴

Accordingly, after using CalEEMod®, key emissions (from construction equipment and haul trucks) were checked using (a) a calculation spreadsheet which executes the equations for off-road equipment emissions identified in CalEEMod® documentation (and shows results for each phase of construction), and (b) CARB’s EMFAC tool for calculating emissions from on-road vehicles. (The latter was also applied to operational traffic trips estimated for the NCCA estimated by KD Anderson & Associates.)

a. CalEEMod® Inputs

There are several inputs to CalEEMod®, which are identified in the attached output files for the model, but below is a summary of key project-specific inputs with regard to (a) grading, which can potentially be a key source of fugitive dust (particulate matter); (b) “off-road” construction equipment, (c) haul trucks, and (d) operational traffic, which are the predominant sources of NO_x, CO, and GHGs during construction and operation; and (e) schedule. CalEEMod® was run for all of the projects except the MDTW project (which as described in Section 2 of the IS/MND is assumed to be similar to the NEWS project, except that the acreage is roughly $15.8/21 = 75\%$ of the NEWS project and therefore annual emissions were assumed to be approximately 75% of those of the NEWS project; max. hourly emissions were assumed to be the same as for the NEWS project).

³ The latest version of this model is version 2016.3.2, and it is available from <http://www.caleemod.com/>.

⁴ CARB, EMFAC Scenario Analysis, <https://arb.ca.gov/emfac/scenario-analysis/generate-template>, accessed December 2020. The tool provides results from EMFAC2017 v1.0.3.

i. Site acreage

Project	Land Use Type/Subtype ^a	Site Acreage
NEWS	Recreational/City Park	21
Wetland	Recreational/City Park	11
NNP	Recreational/City Park ^b	25
Water service extension	Parking/Other Asphalt Surfaces	0.2 ^c

^aCalEEMod® allows seven primary land use types—Commercial, Educational, Industrial, Parking, Recreational, Residential, and Retail—and 63 subtypes.

^bWhile the NNP project has an “education” component to it, the CalEEMod® subtypes for the “education” type were entities like elementary schools, high schools, colleges, churches, etc. Given the scale and outdoor nature of this project, the “City Park” subtype is more appropriate.

^cAcreage based on a 2-foot width multiplied by the length indicated by the longer of the two options (Option 2, roughly 4,000 feet) = 8,000 square feet ≈ 0.18 acres

ii. Off-road construction equipment

For the NEWS project, project-specific estimates of construction equipment numbers and makes/models were estimated in Table 2-8 of the Initial Study. Attachment A to this memo provides pictures and horsepower ratings for that equipment. For the wetlands project and NNP project, construction equipment numbers and types were available (Initial Study Tables 2-10, 2-12), but not make/model numbers. For equipment types that were in the NEWS project, the same horsepower ratings were used; for other equipment, CalEEMod® type-specific default horsepower ratings were used.

iii. Construction haul truck trips

Except where noted otherwise, the following information is from Section 2 of the IS/MND:

NEWS project	
Clearing and grubbing/grading	120 trucks (240 trips)/day (offhaul-excavated matl.)
Access/Trail finishing	158 trucks (316 trips) total (inhaul of aggregate)
Concrete pad construction	120 trucks (240 trips) total (inhaul of concrete)
Finishing/stabilization (planting etc.)	9-11 trucks (18-22 trips) with 53' flatbeds ⁵
Wetlands project	
Grading	55 trucks (110 trips) total (offhaul-marsh reest.) due to soil balancing on-site
Civil construction	
Live plant material collection	
Planting	
Inoculum collection	
Inoculum spreading	1 truck (2 trips) total

⁵ Per Tim Pruss (Rick Engineering), e-mail to Tom Martin (Rick Engineering), Dec. 4, 2020.

NNP project Clearing and grubbing Grading Access/circulation and utilities Site improvements and furnishings Planting	None ⁶ None ⁶ 3,000 cy total (fill-plaza/parking) ⁶ (negligible) (negligible)
Pipeline Trenching Paving	10 trips total (CalEEMod® default) 60 trips total (CalEEMod® default)

For purposes of estimation, it was estimated that clearing/grubbing greenwaste would be trucked to Modesto (36 miles away), cut/fill material would be going to/coming from somewhere within the City’s sphere of influence (maximum 5.2 miles away), and aggregate/concrete would come from up to 35 miles away. CalEEMod® mitigation for fugitive dust was applied; however, CalEEMod® does not have a means of quantifying emissions reductions associated with all of the specific District requirements, and therefore fugitive dust emissions are overestimated relative to the case where the impacts of those regulations were quantified.

iv. Transportation Mitigation (on-road parking)

Assuming NEWS is constructed before NNP, the NEWS project will incorporate improvements to the north shoulder (only) of Inyo Avenue (approximately 750 feet by 10 feet) to provide for safe accommodation of overflow parking. The should will be graded if necessary and will be graveled and/or paved for parking.

As part of the NNP, the City will provide improvements to the shoulders of Brazo Road (approximately 500 feet by 8 feet) to provide for safe accommodation of overflow parking.

Separate CalEEMod runs were done for this on-street/shoulder grading/paving. Though not all of the area may be paved—i.e., some parking may only be gravel—it was conservatively assumed that it would all be paved.

b. Off-Road Construction Equipment emissions by spreadsheet

Off-road construction equipment is the largest source of emissions—i.e., NO_x emissions—from construction and can sometimes deserve a more detailed/auditable calculation. Accordingly, spreadsheets were used to implement and document the CalEEMod® formulas and parameters. As was the case with the CalEEMod® runs, in general, in cases where the contractor identified specific makes and models of equipment for the NEWS project, the corresponding horsepower was identified for all of the NCCA projects rather than the CalEEMod® defaults, but where no specific horsepower information was provided, the CalEEMod® default horsepower was used. Emissions from equipment get cleaner every year; 2021 was conservatively assumed as the modeling year, given that some of the construction could start as early as 2021.

⁶ Per M. Mills (RMM Design Group), e-mail to A. Buising, Nov. 24, 2020 (estimate of 1,500-3,000 cy divided by 10 cy per truck)

c. On-Road Vehicle emissions by CARB EMFAC2017

CARB's EMFAC "Scenario Analysis" was used to calculate emissions from both haul trucks used during construction and operational vehicle traffic. For the haul trucks (which are the most significant source of on-road vehicle emissions during construction; i.e., the occasional worker pickup is negligible by comparison), the EMFAC scenario was set up for 4,800 vehicle-miles traveled per day, and calculated annual-average daily emissions based on vehicle information (i.e., vehicle age distributions and vehicle type distributions) representative of Stanislaus County.⁷ Gross vehicle weight rating (GVWR) for the 16-cy haul trucks was estimated as being in the T7 EMFAC category and the VMT was assigned to T7 CAIRP and T7 non-CAIRP⁸ construction trucks proportional to EMFAC's estimates of the relative VMT estimated for each of these categories in the County (approximately 29% CAIRP/71% non-CAIRP). As with off-road equipment, emissions from the on-road vehicle fleet get cleaner every year; 2021 was conservatively assumed as the modeling year.

For the operational traffic, VMT were provided by K.D. Anderson & Associates in terms of passenger vehicle and bus trips of various lengths (Initial Study Tables 3-20, 3-23). EMFAC output identifying the distribution of passenger vehicle VMT (across light-duty cars, trucks of various sizes, medium-duty SUVs, etc.) was used to distribute the passenger vehicle trips (local users and regional users from the general public) and to also calculate results specific to the buses (research students).

2. Discussion of Results/Comparisons to Applicable Emissions Thresholds

The District's CEQA Significance Thresholds and the less-stringent Federal General Conformity thresholds are based on an annual timeframe (tons per year). Although four projects will be approved independently, the analysis conservatively considered them in combination, taking into account the scheduling of the various construction activities. Although construction schedules can be subject to some changes, the overall expectation is as follows:

- (1) As identified in Table 2-11, the wetlands project would start in 2021, and complete earthwork (i.e., all phases except inoculum collection/spreading) that same year. Inoculum collection/spreading would occur during the dry season of 2022.
- (2) The NEWS project is expected to break ground in 2021. While some of the earliest phases—i.e., clearing/grubbing and grading phases, and possibly access/trail finishing—would be completed in 2022, others would not occur until 2022 and possibly as late as 2023.
- (3) If it is funded in 2021, the NNP project would likely break ground in 2023 and would be completed in 2024, with earthwork possible in both years. If funding is not obtained in 2021, the NNP project would likely be delayed by a year or more.
- (4) The MDTW project is not expected to begin until 2024 or later, since a funding source has not been identified and it is still in the conceptual stages.

⁷ Assuming Merced County instead of Stanislaus County makes no difference in haul truck emissions and negligible difference in operational emissions (<10%).

⁸ California International Registration Plan

- Wetlands and NEWS projects (and water extension) occurring entirely within the same year
- NNP and MDTW projects (and water extension) occurring entirely within the same year

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Total CO2	CH4	CO2e
	tons/yr						MT/yr		
<u>Worst-Case Construction Scenario 1 (2021)</u>									
Wetland	0.07	0.76	0.51	1.33E-03	0.043	0.029	118	0.0345	119
NEWS	0.22	2.44	1.12	5.27E-03	0.233	0.109	524	0.0897	526
Inyo Ave. parking	0.00	0.02	0.02	3.91E-05	0.002	0.001	3	0.000809	3
Water Service Ext.	0.02	0.21	0.21	4.70E-04	0.013	0.010	41	7.94E-03	41
Total tons/yr, 2021:	0.3	3.4	1.9	0.01	0.3	0.1			
<u>Worst-Case Construction Scenario 2 (2023)</u>									
NNP	0.24	2.44	2.32	5.00E-03	0.168	0.101	441	0.1382	444
Brazo Rd. parking	0.001	0.01	0.01	2.09E-05	0.001	0.001	2	0.000431	2
Water Service Ext.	0.02	0.21	0.21	4.70E-04	0.013	0.010	41	0.00794	41
MDTW	0.17	1.83	0.84	0.003951	0.175	0.081	393	0.067275	394
Total tons/yr, 2023:	0.4	4.5	3.4	0.01	0.4	0.2			
	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Total CO2	CH4	CO2e
<u>Operational</u>	0.8	1.6	5.7	0.01	0.5	0.1	1,472	0.09	1,475
SJV Significance Thresholds	10	10	100	27	15	15			
General Conformity Thresholds	10	10	100	100	100	100			

⁹ SJVAPCD, “Project Ambient Air Quality Analysis Applicability Determination under CEQA”, APR-2030, June 12, 2018.

Mitigated Construction On-Site (worst-case phase for each project)						
	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	lb/day					
NEWS grading-pond	5.5	51	25	0.09	2.4	1.8
NEWS Inyo Ave parking	0.5	5	6	0.01	0.8	0.5
Wetland-grading	3.2	38	20	0.05	1.4	1.4
NNP-grading	2.9	33	28	0.06	1.4	1.2
NNP Brazo Rd parking	0.3	3	3	0.01	0.4	0.3
MDTW	5.5	51	25	0.09	2.4	1.8
Water Service Ext.	1.5	14	14	0.03	0.71	0.67

This shows that emissions from each project are well below the 100 lb/day threshold. The water service extension could occur as part of either the NEWS project or the NNP project; however, when emissions from the water service extension are combined with emissions from either of those projects, the emissions are still below the 100 lb/day threshold. (Waiving the dispersion modeling analysis is also reasonable given that the emissions for these projects will be spread over relatively large areas and most of the work will be occurring at a good distance from the nearest receptors.)

3. Contextual Calculation of GHG Emissions/Potential Mitigation Emissions

For GHG, given the lack of significance thresholds for temporary construction activities (and the lack of well-justified thresholds for annual operational emissions), we provide the following additional information for a GHG source that people are more likely to have some familiarity with: a single semi-tractor trailer truck travels an average of roughly 63,000 miles per year and consumes approximately 10,000 gallons of diesel fuel per year.¹⁰ The corresponding CO₂ emissions from that truck are therefore $(10,000 \text{ gal/yr}) \times (0.138 \text{ mmBtu/gal}) \times (74 \text{ kg CO}_2/\text{mmBtu}) \times (\text{MT}/1000 \text{ kg}) = 102 \text{ MT CO}_2/\text{yr}$.¹¹

If at some point in the future, hazardous waste were to be discovered at the site, mitigation identified in the IS/MND identifies that such waste could need to be hauled to an appropriate Class I hazardous waste disposal site—i.e., Kettleman Hills or Buttonwillow, roughly 150-200 miles away. There would be emissions associated with the hauling of that waste. Assuming 16-cubic yard haul trucks (EMFAC class T7), the emissions associated with a single 400-mile roundtrip would be as shown below. These are not substantive compared to the overall operational emissions.

¹⁰ These are national averages based on the Federal Highway Administration's "Annual Vehicle Distance Traveled in Miles and Related Data – 2018(1) by Highway Category and Vehicle Type" for combination trucks, available at <https://www.fhwa.dot.gov/policyinformation/statistics/2018/pdf/vm1.pdf>.

¹¹ The mmBtu/gal factors and kg CO₂/mmBtu factors in this equation are from EPA's "Default CO₂ Emission Factors and High Heat Values for Various Types of Fuel", Table C-1 in EPA Regulations on Mandatory Greenhouse Gas Reporting, 40 CFR 98, Subpart C (values for "Distillate Fuel Oil No. 2"). Total CO₂e (i.e., including CH₄ and N₂O emissions) would only be slightly (< 0.5%) higher than the CO₂ emissions alone.

ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}	CO ₂
0.32 lb	5.9 lb	1.2 lb	0.016 lb	0.07 lb	0.07 lb	1645 lb
0.00016 tons	0.003 tons	0.0006 tons	8×10 ⁻⁶ tons	4×10 ⁻⁵ tons	4×10 ⁻⁵ tons	0.75 MT

4. Analytical Details/QA

The initial step in the analysis involved running CalEEMod®. Annual emissions results from just that model are shown below:

Annual CalEEMod® Results										
2.1 Overall Construction										
Mitigated Construction (total, including on-site and off-site, all years)										
	ROG	NO _x	CO	SO ₂	PM10 Total	PM2.5 Total	Total CO2	CH4	N2O	CO2e
	tons/yr						MT/yr			
NEWS	0.22	3.39	1.24	9.18E-03	0.226	0.102	867	0.0897	0	869
Inyo Ave. parking	0.00	0.02	0.02	3.91E-05	0.002	0.001	3	0.000809	0	3
Wetland	0.07	0.75	0.51	1.32E-03	0.042	0.029	117	0.0345	0	117
NNP	0.24	2.54	2.33	5.35E-03	0.102	0.193	474	0.1382	0	477
Brazo Rd. parking	0.00	0.01	0.01	2.09E-05	0.001	0.001	2	4.31E-04	0	2
MDTW	0.17	2.54	0.93	0.006885	0.169	0.076	650	0.067275	0	652
Water Service Ext.	0.02	0.21	0.21	4.70E-04	0.013	0.010	41	7.94E-03	0	41
2.2 Overall Operational										
Mitigated Operational (Total)										
	ROG	NO _x	CO	SO ₂	PM10 Total	PM2.5 Total	Total CO2	CH4	N2O	CO2e
	tons/yr						MT/yr			
NEWS	0.0552	0.321	0.4976	1.87E-03	0.1379	0.0381	198	0.0317	2.40E-04	199
Wetland	5.75E-03	0.00E+00	1.30E-04	0.00E+00	0.0771	0.0189	13	1.20E-02	1.20E-04	14
NNP	0.0613	0.2693	0.39	1.53E-03	0.1136	0.0313	151	0.0161	9.00E-05	151
MDTW	0.0552	0.321	0.4976	0.00187	0.1379	0.0381	198	0.0317	0.00024	199
Water Service Ext.	5.60E-04	0	0	0.00E+00	0	0.00E+00	0	0	0.00E+00	0

Clearly, emissions from construction are substantially higher than emissions from operation.

Quality assurance of daily construction equipment emissions was conducted using the spreadsheet tool described previously for the highest-emitting construction phases:

(lb/day)	CalEEMod®	Spreadsheet
NEWS grading – berm construction	41.9	41.9
NEWS grading – pond and berm finishing	51.4	51.4
NEWS access/trail finishing	32.4	32.4
Wetland grading	37.8	37.8
NNP grading	32.6	32.6

For off-site haul truck emissions, emissions for the NEWS, wetland, and NNP projects—i.e., the projects where VMT estimates were provided by project personnel rather than CalEEMod® defaults—were calculated using EMFAC and these results were compared to the CalEEMod®

results. EMFAC predicted somewhat higher emissions for the haul trucks (partly as a result of QA of the truck trip distances), and these adjustments were made in the final table of results shown in Section 3 of the IS/MND. Since EMFAC results were higher, the estimates of construction emissions for these projects were adjusted upwards accordingly.

For operational emissions, emissions from the combined projects were also calculated using EMFAC based on the traffic data provided by K.D. Anderson & Associates, and yielded somewhat higher results than CalEEMod®; accordingly, the latter were replaced by the former:

2.2 Overall Operational										
Mitigated Operational (Total)										
	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Total CO2	CH4	N2O	CO2e
	tons/yr						MT/yr			
NEWS	0.0552	0.321	0.4976	1.87E-03	0.1379	0.0381	198	0.0317	2.40E-04	199
Wetland	5.75E-03	0.00E+00	1.30E-04	0.00E+00	0.0771	0.0189	13	1.20E-02	1.20E-04	14
NNP	0.0613	0.2693	0.39	1.53E-03	0.1136	0.0313	151	0.0161	9.00E-05	151
MDTW	0.0552	0.321	0.4976	0.00187	0.1379	0.0381	198	0.0317	0.00024	199
Water Service Ext.	5.60E-04	0	0	0.00E+00	0	0.00E+00	0	0	0.00E+00	0
All projects	0.18	0.91	1.39	0.01	0.47	0.13	560	0.09	0.00	563
Revised exhaust emis based on KDA/EMFAC	0.76	1.58	5.72	0.01	0.48	0.14	1,472	0.09		1474.71

Attachment A: Specified Construction Equipment

Attachment B: CalEEMod® Output Files

Attachment C: Spreadsheet calculations of off-road emissions

Attachment D: EMFAC/spreadsheet calculations of on-road emissions from haul trucks and operational traffic

Attachment A.

Appendix A-Listed Off-road Construction Equipment

Model	Type	Actual HP	(Default CalEEMod® Type HP)
Tiger TM72 	Tractors/ Loaders/ Backhoes	155	97
CAT 326 	Excavators	201	158
CAT 262D3 	Skid Steer Loader	74	65

Model	Type	Actual HP	(Default CalEEMod® Type HP)
CAT D6 	Crawler Tractor	215	212
CAT 966 	Rubber Tired Loader	276	203
CAT CP563 	Roller	157	80

Model	Type	Actual HP	(Default CalEEMod® Type HP)
CAT 24 	Grader	535	187
CAT CS563 	Roller	157	80
CAT 930 	Rubber Tired Loader	168	203
Finn T60 	Other General Industrial Equipment	24	88

Redtail- NEWS Project - Merced County, Annual

Redtail- NEWS Project
Merced County, Annual**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	21.00	Acre	21.00	914,760.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Redtail- NEWS Project - Merced County, Annual

Project Characteristics -

Land Use -

Construction Phase - Total days based on Section 2 of restoration proposal

Off-road Equipment - Based on model specs

Off-road Equipment - Based on Model Specs

Off-road Equipment -

Off-road Equipment - Based on model specs

Off-road Equipment - Based on model specs

Off-road Equipment - Based on model specs

Off-road Equipment - Based on model Specs

Trips and VMT - Based on Section 2 construction estimates

Grading - Max graded land acreage

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	13.00
tblConstructionPhase	NumDays	35.00	30.00
tblConstructionPhase	NumDays	35.00	10.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	10.00	30.00
tblGrading	AcresOfGrading	26.00	0.00
tblGrading	AcresOfGrading	90.00	13.00
tblGrading	AcresOfGrading	20.00	8.00
tblGrading	MaterialImported	0.00	2,528.00
tblOffRoadEquipment	HorsePower	187.00	535.00
tblOffRoadEquipment	HorsePower	187.00	535.00
tblOffRoadEquipment	HorsePower	97.00	150.00

Redtail- NEWS Project - Merced County, Annual

tblOffRoadEquipment	HorsePower	97.00	168.00
tblOffRoadEquipment	HorsePower	212.00	215.00
tblOffRoadEquipment	HorsePower	212.00	215.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	88.00	24.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	203.00	277.00
tblOffRoadEquipment	HorsePower	203.00	277.00
tblOffRoadEquipment	HorsePower	65.00	74.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	36.00
tblTripsAndVMT	HaulingTripLength	20.00	5.20
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,200.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,120.00
tblTripsAndVMT	HaulingTripNumber	0.00	7,200.00

Redtail- NEWS Project - Merced County, Annual

tblTripsAndVMT	HaulingTripNumber	316.00	158.00
tblTripsAndVMT	HaulingTripNumber	0.00	240.00
tblTripsAndVMT	HaulingTripNumber	0.00	120.00
tblTripsAndVMT	HaulingTripNumber	0.00	22.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

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					
2021	0.2243	3.3863	1.2427	9.1800e-003	0.1632	0.0627	0.2258	0.0429	0.0589	0.1018	0.0000	866.7606	866.7606	0.0897	0.0000	869.0021
Maximum	0.2243	3.3863	1.2427	9.1800e-003	0.1632	0.0627	0.2258	0.0429	0.0589	0.1018	0.0000	866.7606	866.7606	0.0897	0.0000	869.0021

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					
2021	0.2243	3.3863	1.2427	9.1800e-003	0.1632	0.0627	0.2258	0.0429	0.0589	0.1018	0.0000	866.7603	866.7603	0.0897	0.0000	869.0017
Maximum	0.2243	3.3863	1.2427	9.1800e-003	0.1632	0.0627	0.2258	0.0429	0.0589	0.1018	0.0000	866.7603	866.7603	0.0897	0.0000	869.0017

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	2.6156	2.6156
2	6-1-2021	8-31-2021	0.6339	0.6339
3	9-1-2021	9-30-2021	0.0769	0.0769
		Highest	2.6156	2.6156

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	8.6200e-003	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
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	0.0465	0.3210	0.4974	1.8700e-003	0.1363	1.6700e-003	0.1379	0.0365	1.5700e-003	0.0381	0.0000	172.1341	172.1341	8.7900e-003	0.0000	172.3539
Waste						0.0000	0.0000		0.0000	0.0000	0.3674	0.0000	0.3674	0.0217	0.0000	0.9103
Water						0.0000	0.0000		0.0000	0.0000	0.0000	25.4763	25.4763	1.1500e-003	2.4000e-004	25.5761
Total	0.0552	0.3210	0.4976	1.8700e-003	0.1363	1.6700e-003	0.1379	0.0365	1.5700e-003	0.0381	0.3674	197.6107	197.9781	0.0317	2.4000e-004	198.8407

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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	8.6200e-003	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
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	0.0465	0.3210	0.4974	1.8700e-003	0.1363	1.6700e-003	0.1379	0.0365	1.5700e-003	0.0381	0.0000	172.1341	172.1341	8.7900e-003	0.0000	172.3539
Waste						0.0000	0.0000		0.0000	0.0000	0.3674	0.0000	0.3674	0.0217	0.0000	0.9103
Water						0.0000	0.0000		0.0000	0.0000	0.0000	25.4763	25.4763	1.1500e-003	2.4000e-004	25.5761
Total	0.0552	0.3210	0.4976	1.8700e-003	0.1363	1.6700e-003	0.1379	0.0365	1.5700e-003	0.0381	0.3674	197.6107	197.9781	0.0317	2.4000e-004	198.8407

	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
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**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Clearing and Grubbing	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading- Berm Construction	Grading	4/13/2021	4/29/2021	5	13	
3	Grading- Pond and Berm Finishing	Grading	4/27/2021	6/7/2021	5	30	
4	Access/Trail Finishing	Grading	6/8/2021	6/21/2021	5	10	
5	Construction of Concrete Pad	Paving	6/24/2021	9/15/2021	5	60	
6	Culvert Installation	Site Preparation	9/16/2021	10/13/2021	5	20	
7	Finishing/Stabalization	Site Preparation	10/14/2021	11/24/2021	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Clearing and Grubbing	Excavators	4	8.00	201	0.38
Clearing and Grubbing	Skid Steer Loaders	4	8.00	74	0.37
Clearing and Grubbing	Tractors/Loaders/Backhoes	2	8.00	150	0.37
Grading- Berm Construction	Crawler Tractors	4	8.00	215	0.43
Grading- Berm Construction	Rollers	2	8.00	157	0.38
Grading- Berm Construction	Rubber Tired Loaders	2	8.00	277	0.36
Grading- Pond and Berm Finishing	Crawler Tractors	4	8.00	215	0.43
Grading- Pond and Berm Finishing	Graders	2	8.00	535	0.41
Grading- Pond and Berm Finishing	Rubber Tired Loaders	2	8.00	277	0.36
Access/Trail Finishing	Graders	4	8.00	535	0.41
Access/Trail Finishing	Rollers	2	8.00	157	0.38
Construction of Concrete Pad	Cement and Mortar Mixers	1	8.00	9	0.56
Culvert Installation	Excavators	2	8.00	201	0.38
Culvert Installation	Tractors/Loaders/Backhoes	2	8.00	168	0.37
Finishing/Stabalization	Excavators	2	8.00	201	0.38
Finishing/Stabalization	Other General Industrial Equipment	2	8.00	24	0.34

Trips and VMT

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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
Clearing and Grubbing	10	10.00	0.00	1,200.00	16.80	6.60	36.00	LD_Mix	HDT_Mix	HHDT
Grading- Berm Construction	8	20.00	0.00	3,120.00	16.80	6.60	5.20	LD_Mix	HDT_Mix	HHDT
Grading- Pond and Berm Finishing	8	20.00	0.00	7,200.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Access/Trail Finishing	6	10.00	0.00	158.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Construction of Concrete Pad	1	3.00	0.00	240.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Culvert Installation	4	10.00	0.00	120.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Finishing/Stabalization	4	10.00	0.00	22.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Clearing and Grubbing - 2021

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	8.2700e-003	0.0890	0.0916	2.3000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	19.8183	19.8183	6.4100e-003	0.0000	19.9786
Total	8.2700e-003	0.0890	0.0916	2.3000e-004	0.0000	3.3600e-003	3.3600e-003	0.0000	3.0900e-003	3.0900e-003	0.0000	19.8183	19.8183	6.4100e-003	0.0000	19.9786

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3.2 Clearing and Grubbing - 2021**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	7.2800e-003	0.2291	0.0383	7.9000e-004	0.0185	8.7000e-004	0.0193	5.0700e-003	8.4000e-004	5.9100e-003	0.0000	75.2570	75.2570	3.2800e-003	0.0000	75.3390
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	2.9000e-004	2.1000e-004	2.2000e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5423	0.5423	2.0000e-005	0.0000	0.5427
Total	7.5700e-003	0.2293	0.0405	8.0000e-004	0.0191	8.7000e-004	0.0199	5.2300e-003	8.4000e-004	6.0800e-003	0.0000	75.7993	75.7993	3.3000e-003	0.0000	75.8817

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	8.2700e-003	0.0890	0.0916	2.3000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	19.8183	19.8183	6.4100e-003	0.0000	19.9785
Total	8.2700e-003	0.0890	0.0916	2.3000e-004	0.0000	3.3600e-003	3.3600e-003	0.0000	3.0900e-003	3.0900e-003	0.0000	19.8183	19.8183	6.4100e-003	0.0000	19.9785

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3.2 Clearing and Grubbing - 2021**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	7.2800e-003	0.2291	0.0383	7.9000e-004	0.0185	8.7000e-004	0.0193	5.0700e-003	8.4000e-004	5.9100e-003	0.0000	75.2570	75.2570	3.2800e-003	0.0000	75.3390
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	2.9000e-004	2.1000e-004	2.2000e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5423	0.5423	2.0000e-005	0.0000	0.5427
Total	7.5700e-003	0.2293	0.0405	8.0000e-004	0.0191	8.7000e-004	0.0199	5.2300e-003	8.4000e-004	6.0800e-003	0.0000	75.7993	75.7993	3.3000e-003	0.0000	75.8817

3.3 Grading- Berm Construction - 2021**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	0.0232	0.2724	0.1392	3.8000e-004		0.0105	0.0105		9.6300e-003	9.6300e-003	0.0000	33.7509	33.7509	0.0109	0.0000	34.0238
Total	0.0232	0.2724	0.1392	3.8000e-004	0.0000	0.0105	0.0105	0.0000	9.6300e-003	9.6300e-003	0.0000	33.7509	33.7509	0.0109	0.0000	34.0238

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3.3 Grading- Berm Construction - 2021**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	5.4100e-003	0.2208	0.0270	4.7000e-004	6.9600e-003	4.1000e-004	7.3700e-003	1.9200e-003	3.9000e-004	2.3100e-003	0.0000	45.0566	45.0566	7.5400e-003	0.0000	45.2452
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	7.5000e-004	5.5000e-004	5.7300e-003	2.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.4100	1.4100	4.0000e-005	0.0000	1.4110
Total	6.1600e-003	0.2213	0.0327	4.9000e-004	8.5700e-003	4.2000e-004	8.9900e-003	2.3500e-003	4.0000e-004	2.7500e-003	0.0000	46.4666	46.4666	7.5800e-003	0.0000	46.6563

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	0.0232	0.2724	0.1392	3.8000e-004		0.0105	0.0105		9.6300e-003	9.6300e-003	0.0000	33.7508	33.7508	0.0109	0.0000	34.0237
Total	0.0232	0.2724	0.1392	3.8000e-004	0.0000	0.0105	0.0105	0.0000	9.6300e-003	9.6300e-003	0.0000	33.7508	33.7508	0.0109	0.0000	34.0237

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3.3 Grading- Berm Construction - 2021**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	5.4100e-003	0.2208	0.0270	4.7000e-004	6.9600e-003	4.1000e-004	7.3700e-003	1.9200e-003	3.9000e-004	2.3100e-003	0.0000	45.0566	45.0566	7.5400e-003	0.0000	45.2452
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	7.5000e-004	5.5000e-004	5.7300e-003	2.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.4100	1.4100	4.0000e-005	0.0000	1.4110
Total	6.1600e-003	0.2213	0.0327	4.9000e-004	8.5700e-003	4.2000e-004	8.9900e-003	2.3500e-003	4.0000e-004	2.7500e-003	0.0000	46.4666	46.4666	7.5800e-003	0.0000	46.6563

3.4 Grading- Pond and Berm Finishing - 2021**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					6.8900e-003	0.0000	6.8900e-003	7.4000e-004	0.0000	7.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0826	0.7716	0.3689	1.3100e-003		0.0285	0.0285		0.0268	0.0268	0.0000	124.2057	124.2057	0.0237	0.0000	124.7972
Total	0.0826	0.7716	0.3689	1.3100e-003	6.8900e-003	0.0285	0.0354	7.4000e-004	0.0268	0.0276	0.0000	124.2057	124.2057	0.0237	0.0000	124.7972

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3.4 Grading- Pond and Berm Finishing - 2021**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	0.0427	1.3464	0.2241	4.6300e-003	0.1076	5.1000e-003	0.1127	0.0296	4.8800e-003	0.0345	0.0000	440.2574	440.2574	0.0196	0.0000	440.7475
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	1.7400e-003	1.2800e-003	0.0132	4.0000e-005	3.7200e-003	3.0000e-005	3.7500e-003	9.9000e-004	3.0000e-005	1.0100e-003	0.0000	3.2538	3.2538	1.0000e-004	0.0000	3.2562
Total	0.0444	1.3477	0.2373	4.6700e-003	0.1114	5.1300e-003	0.1165	0.0306	4.9100e-003	0.0355	0.0000	443.5113	443.5113	0.0197	0.0000	444.0038

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					6.8900e-003	0.0000	6.8900e-003	7.4000e-004	0.0000	7.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0826	0.7716	0.3689	1.3100e-003		0.0285	0.0285		0.0268	0.0268	0.0000	124.2056	124.2056	0.0237	0.0000	124.7971
Total	0.0826	0.7716	0.3689	1.3100e-003	6.8900e-003	0.0285	0.0354	7.4000e-004	0.0268	0.0276	0.0000	124.2056	124.2056	0.0237	0.0000	124.7971

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3.4 Grading- Pond and Berm Finishing - 2021**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	0.0427	1.3464	0.2241	4.6300e-003	0.1076	5.1000e-003	0.1127	0.0296	4.8800e-003	0.0345	0.0000	440.2574	440.2574	0.0196	0.0000	440.7475
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	1.7400e-003	1.2800e-003	0.0132	4.0000e-005	3.7200e-003	3.0000e-005	3.7500e-003	9.9000e-004	3.0000e-005	1.0100e-003	0.0000	3.2538	3.2538	1.0000e-004	0.0000	3.2562
Total	0.0444	1.3477	0.2373	4.6700e-003	0.1114	5.1300e-003	0.1165	0.0306	4.9100e-003	0.0355	0.0000	443.5113	443.5113	0.0197	0.0000	444.0038

3.5 Access/Trail Finishing - 2021**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					4.3800e-003	0.0000	4.3800e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0255	0.1622	0.1242	4.4000e-004		5.9800e-003	5.9800e-003		5.8900e-003	5.8900e-003	0.0000	44.3954	44.3954	3.3500e-003	0.0000	44.4792
Total	0.0255	0.1622	0.1242	4.4000e-004	4.3800e-003	5.9800e-003	0.0104	4.8000e-004	5.8900e-003	6.3700e-003	0.0000	44.3954	44.3954	3.3500e-003	0.0000	44.4792

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3.5 Access/Trail Finishing - 2021**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	9.4000e-004	0.0296	4.9200e-003	1.0000e-004	2.3600e-003	1.1000e-004	2.4700e-003	6.5000e-004	1.1000e-004	7.6000e-004	0.0000	9.6612	9.6612	4.3000e-004	0.0000	9.6720
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	2.9000e-004	2.1000e-004	2.2000e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5423	0.5423	2.0000e-005	0.0000	0.5427
Total	1.2300e-003	0.0298	7.1200e-003	1.1000e-004	2.9800e-003	1.1000e-004	3.0900e-003	8.1000e-004	1.1000e-004	9.3000e-004	0.0000	10.2035	10.2035	4.5000e-004	0.0000	10.2147

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					4.3800e-003	0.0000	4.3800e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0255	0.1622	0.1242	4.4000e-004		5.9800e-003	5.9800e-003		5.8900e-003	5.8900e-003	0.0000	44.3953	44.3953	3.3500e-003	0.0000	44.4791
Total	0.0255	0.1622	0.1242	4.4000e-004	4.3800e-003	5.9800e-003	0.0104	4.8000e-004	5.8900e-003	6.3700e-003	0.0000	44.3953	44.3953	3.3500e-003	0.0000	44.4791

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3.5 Access/Trail Finishing - 2021**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	9.4000e-004	0.0296	4.9200e-003	1.0000e-004	2.3600e-003	1.1000e-004	2.4700e-003	6.5000e-004	1.1000e-004	7.6000e-004	0.0000	9.6612	9.6612	4.3000e-004	0.0000	9.6720
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	2.9000e-004	2.1000e-004	2.2000e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5423	0.5423	2.0000e-005	0.0000	0.5427
Total	1.2300e-003	0.0298	7.1200e-003	1.1000e-004	2.9800e-003	1.1000e-004	3.0900e-003	8.1000e-004	1.1000e-004	9.3000e-004	0.0000	10.2035	10.2035	4.5000e-004	0.0000	10.2147

3.6 Construction of Concrete Pad - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7600e-003	0.0111	9.2500e-003	2.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	1.3748	1.3748	1.4000e-004	0.0000	1.3784
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.7600e-003	0.0111	9.2500e-003	2.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	1.3748	1.3748	1.4000e-004	0.0000	1.3784

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3.6 Construction of Concrete Pad - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4200e-003	0.0449	7.4700e-003	1.5000e-004	3.5900e-003	1.7000e-004	3.7600e-003	9.9000e-004	1.6000e-004	1.1500e-003	0.0000	14.6753	14.6753	6.5000e-004	0.0000	14.6916
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	5.2000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9762	0.9762	3.0000e-005	0.0000	0.9769
Total	1.9400e-003	0.0453	0.0114	1.6000e-004	4.7100e-003	1.8000e-004	4.8800e-003	1.2900e-003	1.7000e-004	1.4500e-003	0.0000	15.6514	15.6514	6.8000e-004	0.0000	15.6685

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7600e-003	0.0111	9.2500e-003	2.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	1.3748	1.3748	1.4000e-004	0.0000	1.3784
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.7600e-003	0.0111	9.2500e-003	2.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	1.3748	1.3748	1.4000e-004	0.0000	1.3784

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3.6 Construction of Concrete Pad - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4200e-003	0.0449	7.4700e-003	1.5000e-004	3.5900e-003	1.7000e-004	3.7600e-003	9.9000e-004	1.6000e-004	1.1500e-003	0.0000	14.6753	14.6753	6.5000e-004	0.0000	14.6916
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	5.2000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9762	0.9762	3.0000e-005	0.0000	0.9769
Total	1.9400e-003	0.0453	0.0114	1.6000e-004	4.7100e-003	1.8000e-004	4.8800e-003	1.2900e-003	1.7000e-004	1.4500e-003	0.0000	15.6514	15.6514	6.8000e-004	0.0000	15.6685

3.7 Culvert Installation - 2021**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	9.2300e-003	0.0912	0.0975	2.4000e-004		3.6900e-003	3.6900e-003		3.4000e-003	3.4000e-003	0.0000	20.8311	20.8311	6.7400e-003	0.0000	20.9995
Total	9.2300e-003	0.0912	0.0975	2.4000e-004	0.0000	3.6900e-003	3.6900e-003	0.0000	3.4000e-003	3.4000e-003	0.0000	20.8311	20.8311	6.7400e-003	0.0000	20.9995

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3.7 Culvert Installation - 2021**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	7.1000e-004	0.0224	3.7300e-003	8.0000e-005	1.7900e-003	8.0000e-005	1.8800e-003	4.9000e-004	8.0000e-005	5.7000e-004	0.0000	7.3376	7.3376	3.3000e-004	0.0000	7.3458
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	5.8000e-004	4.3000e-004	4.4100e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0846	1.0846	3.0000e-005	0.0000	1.0854
Total	1.2900e-003	0.0229	8.1400e-003	9.0000e-005	3.0300e-003	9.0000e-005	3.1300e-003	8.2000e-004	9.0000e-005	9.1000e-004	0.0000	8.4222	8.4222	3.6000e-004	0.0000	8.4312

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	9.2300e-003	0.0912	0.0975	2.4000e-004		3.6900e-003	3.6900e-003		3.4000e-003	3.4000e-003	0.0000	20.8311	20.8311	6.7400e-003	0.0000	20.9995
Total	9.2300e-003	0.0912	0.0975	2.4000e-004	0.0000	3.6900e-003	3.6900e-003	0.0000	3.4000e-003	3.4000e-003	0.0000	20.8311	20.8311	6.7400e-003	0.0000	20.9995

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3.7 Culvert Installation - 2021**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	7.1000e-004	0.0224	3.7300e-003	8.0000e-005	1.7900e-003	8.0000e-005	1.8800e-003	4.9000e-004	8.0000e-005	5.7000e-004	0.0000	7.3376	7.3376	3.3000e-004	0.0000	7.3458
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	5.8000e-004	4.3000e-004	4.4100e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0846	1.0846	3.0000e-005	0.0000	1.0854
Total	1.2900e-003	0.0229	8.1400e-003	9.0000e-005	3.0300e-003	9.0000e-005	3.1300e-003	8.2000e-004	9.0000e-005	9.1000e-004	0.0000	8.4222	8.4222	3.6000e-004	0.0000	8.4312

3.8 Finishing/Stabalization - 2021**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	0.0102	0.0880	0.0675	2.2000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	19.3580	19.3580	6.2600e-003	0.0000	19.5145
Total	0.0102	0.0880	0.0675	2.2000e-004	0.0000	3.3600e-003	3.3600e-003	0.0000	3.0900e-003	3.0900e-003	0.0000	19.3580	19.3580	6.2600e-003	0.0000	19.5145

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3.8 Finishing/Stabalization - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3000e-004	4.1100e-003	6.8000e-004	1.0000e-005	3.3000e-004	2.0000e-005	3.4000e-004	9.0000e-005	1.0000e-005	1.1000e-004	0.0000	1.3452	1.3452	6.0000e-005	0.0000	1.3467
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	8.7000e-004	6.4000e-004	6.6100e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6269	1.6269	5.0000e-005	0.0000	1.6281
Total	1.0000e-003	4.7500e-003	7.2900e-003	3.0000e-005	2.1900e-003	3.0000e-005	2.2100e-003	5.8000e-004	2.0000e-005	6.2000e-004	0.0000	2.9722	2.9722	1.1000e-004	0.0000	2.9749

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	0.0102	0.0880	0.0675	2.2000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	19.3580	19.3580	6.2600e-003	0.0000	19.5145
Total	0.0102	0.0880	0.0675	2.2000e-004	0.0000	3.3600e-003	3.3600e-003	0.0000	3.0900e-003	3.0900e-003	0.0000	19.3580	19.3580	6.2600e-003	0.0000	19.5145

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3.8 Finishing/Stabalization - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3000e-004	4.1100e-003	6.8000e-004	1.0000e-005	3.3000e-004	2.0000e-005	3.4000e-004	9.0000e-005	1.0000e-005	1.1000e-004	0.0000	1.3452	1.3452	6.0000e-005	0.0000	1.3467
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	8.7000e-004	6.4000e-004	6.6100e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6269	1.6269	5.0000e-005	0.0000	1.6281
Total	1.0000e-003	4.7500e-003	7.2900e-003	3.0000e-005	2.1900e-003	3.0000e-005	2.2100e-003	5.8000e-004	2.0000e-005	6.2000e-004	0.0000	2.9722	2.9722	1.1000e-004	0.0000	2.9749

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0465	0.3210	0.4974	1.8700e-003	0.1363	1.6700e-003	0.1379	0.0365	1.5700e-003	0.0381	0.0000	172.1341	172.1341	8.7900e-003	0.0000	172.3539
Unmitigated	0.0465	0.3210	0.4974	1.8700e-003	0.1363	1.6700e-003	0.1379	0.0365	1.5700e-003	0.0381	0.0000	172.1341	172.1341	8.7900e-003	0.0000	172.3539

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	39.69	477.75	351.54	362,088	362,088
Total	39.69	477.75	351.54	362,088	362,088

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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.552050	0.036079	0.182449	0.124563	0.019215	0.004844	0.016098	0.055414	0.001187	0.001496	0.005121	0.000613	0.000871

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

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5.2 Energy by Land Use - NaturalGas**Mitigated**

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

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	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	8.6200e-003	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Unmitigated	8.6200e-003	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004

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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	8.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Total	8.6200e-003	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004

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	8.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Total	8.6200e-003	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	25.4763	1.1500e-003	2.4000e-004	25.5761
Unmitigated	25.4763	1.1500e-003	2.4000e-004	25.5761

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 25.0211	25.4763	1.1500e-003	2.4000e-004	25.5761
Total		25.4763	1.1500e-003	2.4000e-004	25.5761

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 25.0211	25.4763	1.1500e-003	2.4000e-004	25.5761
Total		25.4763	1.1500e-003	2.4000e-004	25.5761

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.3674	0.0217	0.0000	0.9103
Unmitigated	0.3674	0.0217	0.0000	0.9103

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.81	0.3674	0.0217	0.0000	0.9103
Total		0.3674	0.0217	0.0000	0.9103

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.81	0.3674	0.0217	0.0000	0.9103
Total		0.3674	0.0217	0.0000	0.9103

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
----------------	--------

11.0 Vegetation

Redtail- NEWS Project - Merced County, Summer

Redtail- NEWS Project

Merced County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	21.00	Acre	21.00	914,760.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2021
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

Redtail- NEWS Project - Merced County, Summer

Project Characteristics -

Land Use -

Construction Phase - Total days based on Section 2 of restoration proposal

Off-road Equipment - Based on model specs

Off-road Equipment - Based on Model Specs

Off-road Equipment -

Off-road Equipment - Based on model specs

Off-road Equipment - Based on model specs

Off-road Equipment - Based on model specs

Off-road Equipment - Based on model Specs

Trips and VMT - Based on Section 2 construction estimates

Grading - Max graded land acreage

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	13.00
tblConstructionPhase	NumDays	35.00	30.00
tblConstructionPhase	NumDays	35.00	10.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	10.00	30.00
tblGrading	AcresOfGrading	26.00	0.00
tblGrading	AcresOfGrading	90.00	13.00
tblGrading	AcresOfGrading	20.00	8.00
tblGrading	MaterialImported	0.00	2,528.00
tblOffRoadEquipment	HorsePower	187.00	535.00
tblOffRoadEquipment	HorsePower	187.00	535.00
tblOffRoadEquipment	HorsePower	97.00	150.00

Redtail- NEWS Project - Merced County, Summer

tblOffRoadEquipment	HorsePower	97.00	168.00
tblOffRoadEquipment	HorsePower	212.00	215.00
tblOffRoadEquipment	HorsePower	212.00	215.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	88.00	24.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	203.00	277.00
tblOffRoadEquipment	HorsePower	203.00	277.00
tblOffRoadEquipment	HorsePower	65.00	74.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	36.00
tblTripsAndVMT	HaulingTripLength	20.00	5.20
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,200.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,120.00
tblTripsAndVMT	HaulingTripNumber	0.00	7,200.00

Redtail- NEWS Project - Merced County, Summer

tblTripsAndVMT	HaulingTripNumber	316.00	158.00
tblTripsAndVMT	HaulingTripNumber	0.00	240.00
tblTripsAndVMT	HaulingTripNumber	0.00	120.00
tblTripsAndVMT	HaulingTripNumber	0.00	22.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

2.0 Emissions Summary

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Non- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	12.9587	214.6064	66.2373	0.5368	9.4300	3.9152	13.3452	2.5059	3.6562	6.1621	0.0000	55,751.5624	55,751.5624	6.1848	0.0000	55,906.1826
Maximum	12.9587	214.6064	66.2373	0.5368	9.4300	3.9152	13.3452	2.5059	3.6562	6.1621	0.0000	55,751.5624	55,751.5624	6.1848	0.0000	55,906.1826

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					
2021	12.9587	214.6064	66.2373	0.5368	9.4300	3.9152	13.3452	2.5059	3.6562	6.1621	0.0000	55,751.5624	55,751.5624	6.1848	0.0000	55,906.1826
Maximum	12.9587	214.6064	66.2373	0.5368	9.4300	3.9152	13.3452	2.5059	3.6562	6.1621	0.0000	55,751.5624	55,751.5624	6.1848	0.0000	55,906.1826

[illegible]

Redtail- NEWS Project - Merced County, Summer

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	0.0473	2.0000e-005	2.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6000e-003	4.6000e-003	1.0000e-005		4.9000e-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
Mobile	0.9928	5.6125	9.5112	0.0355	2.5081	0.0297	2.5378	0.6708	0.0279	0.6987		3,600.375 2	3,600.375 2	0.1722		3,604.681 2
Total	1.0401	5.6125	9.5133	0.0355	2.5081	0.0297	2.5378	0.6708	0.0279	0.6987		3,600.379 8	3,600.379 8	0.1723	0.0000	3,604.686 1

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	0.0473	2.0000e-005	2.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6000e-003	4.6000e-003	1.0000e-005		4.9000e-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
Mobile	0.9928	5.6125	9.5112	0.0355	2.5081	0.0297	2.5378	0.6708	0.0279	0.6987		3,600.375 2	3,600.375 2	0.1722		3,604.681 2
Total	1.0401	5.6125	9.5133	0.0355	2.5081	0.0297	2.5378	0.6708	0.0279	0.6987		3,600.379 8	3,600.379 8	0.1723	0.0000	3,604.686 1

Redtail- NEWS Project - Merced County, Summer

	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
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	Clearing and Grubbing	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading- Berm Construction	Grading	4/13/2021	4/29/2021	5	13	
3	Grading- Pond and Berm Finishing	Grading	4/27/2021	6/7/2021	5	30	
4	Access/Trail Finishing	Grading	6/8/2021	6/21/2021	5	10	
5	Construction of Concrete Pad	Paving	6/24/2021	9/15/2021	5	60	
6	Culvert Installation	Site Preparation	9/16/2021	10/13/2021	5	20	
7	Finishing/Stabalization	Site Preparation	10/14/2021	11/24/2021	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Redtail- NEWS Project - Merced County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Clearing and Grubbing	Excavators	4	8.00	201	0.38
Clearing and Grubbing	Skid Steer Loaders	4	8.00	74	0.37
Clearing and Grubbing	Tractors/Loaders/Backhoes	2	8.00	150	0.37
Grading- Berm Construction	Crawler Tractors	4	8.00	215	0.43
Grading- Berm Construction	Rollers	2	8.00	157	0.38
Grading- Berm Construction	Rubber Tired Loaders	2	8.00	277	0.36
Grading- Pond and Berm Finishing	Crawler Tractors	4	8.00	215	0.43
Grading- Pond and Berm Finishing	Graders	2	8.00	535	0.41
Grading- Pond and Berm Finishing	Rubber Tired Loaders	2	8.00	277	0.36
Access/Trail Finishing	Graders	4	8.00	535	0.41
Access/Trail Finishing	Rollers	2	8.00	157	0.38
Construction of Concrete Pad	Cement and Mortar Mixers	1	8.00	9	0.56
Culvert Installation	Excavators	2	8.00	201	0.38
Culvert Installation	Tractors/Loaders/Backhoes	2	8.00	168	0.37
Finishing/Stabalization	Excavators	2	8.00	201	0.38
Finishing/Stabalization	Other General Industrial Equipment	2	8.00	24	0.34

Trips and VMT

Redtail- NEWS Project - Merced County, Summer

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
Clearing and Grubbing	10	10.00	0.00	1,200.00	16.80	6.60	36.00	LD_Mix	HDT_Mix	HHDT
Grading- Berm Construction	8	20.00	0.00	3,120.00	16.80	6.60	5.20	LD_Mix	HDT_Mix	HHDT
Grading- Pond and Berm Finishing	8	20.00	0.00	7,200.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Access/Trail Finishing	6	10.00	0.00	158.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Construction of Concrete Pad	1	3.00	0.00	240.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Culvert Installation	4	10.00	0.00	120.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Finishing/Stabalization	4	10.00	0.00	22.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Clearing and Grubbing - 2021

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	1.6537	17.7983	18.3251	0.0451		0.6713	0.6713		0.6176	0.6176		4,369.189 2	4,369.189 2	1.4131		4,404.516 3
Total	1.6537	17.7983	18.3251	0.0451	0.0000	0.6713	0.6713	0.0000	0.6176	0.6176		4,369.189 2	4,369.189 2	1.4131		4,404.516 3

Retail- NEWS Project - Merced County, Summer

3.2 Clearing and Grubbing - 2021**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	1.4430	44.4816	7.4294	0.1591	3.7858	0.1737	3.9595	1.0384	0.1662	1.2046		16,686.97 25	16,686.97 25	0.6879		16,704.16 95
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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	1.5069	44.5210	7.9481	0.1604	3.9135	0.1746	4.0882	1.0723	0.1670	1.2394		16,817.81 51	16,817.81 51	0.6918		16,835.11 09

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	1.6537	17.7983	18.3251	0.0451		0.6713	0.6713		0.6176	0.6176	0.0000	4,369.189 2	4,369.189 2	1.4131		4,404.516 3
Total	1.6537	17.7983	18.3251	0.0451	0.0000	0.6713	0.6713	0.0000	0.6176	0.6176	0.0000	4,369.189 2	4,369.189 2	1.4131		4,404.516 3

Retail- NEWS Project - Merced County, Summer

3.2 Clearing and Grubbing - 2021**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	1.4430	44.4816	7.4294	0.1591	3.7858	0.1737	3.9595	1.0384	0.1662	1.2046		16,686.97 25	16,686.97 25	0.6879		16,704.16 95
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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	1.5069	44.5210	7.9481	0.1604	3.9135	0.1746	4.0882	1.0723	0.1670	1.2394		16,817.81 51	16,817.81 51	0.6918		16,835.11 09

3.3 Grading- Berm Construction - 2021**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	3.5704	41.9036	21.4140	0.0591		1.6110	1.6110		1.4821	1.4821		5,723.687 7	5,723.687 7	1.8512		5,769.966 6
Total	3.5704	41.9036	21.4140	0.0591	0.0000	1.6110	1.6110	0.0000	1.4821	1.4821		5,723.687 7	5,723.687 7	1.8512		5,769.966 6

Redtail- NEWS Project - Merced County, Summer

3.3 Grading- Berm Construction - 2021**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	0.8053	33.9311	3.6573	0.0747	1.0981	0.0610	1.1591	0.3016	0.0584	0.3600		7,832.2775	7,832.2775	1.2087		7,862.4945
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	0.1279	0.0788	1.0373	2.6300e-003	0.2555	1.8100e-003	0.2573	0.0678	1.6700e-003	0.0694		261.6851	261.6851	7.9100e-003		261.8828
Total	0.9332	34.0099	4.6947	0.0773	1.3536	0.0628	1.4164	0.3693	0.0601	0.4294		8,093.9627	8,093.9627	1.2166		8,124.3774

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	3.5704	41.9036	21.4140	0.0591		1.6110	1.6110		1.4821	1.4821	0.0000	5,723.6877	5,723.6877	1.8512		5,769.9666
Total	3.5704	41.9036	21.4140	0.0591	0.0000	1.6110	1.6110	0.0000	1.4821	1.4821	0.0000	5,723.6877	5,723.6877	1.8512		5,769.9666

Redtail- NEWS Project - Merced County, Summer

3.3 Grading- Berm Construction - 2021**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	0.8053	33.9311	3.6573	0.0747	1.0981	0.0610	1.1591	0.3016	0.0584	0.3600		7,832.2775	7,832.2775	1.2087		7,862.4945
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	0.1279	0.0788	1.0373	2.6300e-003	0.2555	1.8100e-003	0.2573	0.0678	1.6700e-003	0.0694		261.6851	261.6851	7.9100e-003		261.8828
Total	0.9332	34.0099	4.6947	0.0773	1.3536	0.0628	1.4164	0.3693	0.0601	0.4294		8,093.9627	8,093.9627	1.2166		8,124.3774

3.4 Grading- Pond and Berm Finishing - 2021**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					0.4596	0.0000	0.4596	0.0496	0.0000	0.0496			0.0000			0.0000
Off-Road	5.5088	51.4378	24.5962	0.0875		1.9014	1.9014		1.7889	1.7889		9,127.5568	9,127.5568	1.7388		9,171.0275
Total	5.5088	51.4378	24.5962	0.0875	0.4596	1.9014	2.3610	0.0496	1.7889	1.8385		9,127.5568	9,127.5568	1.7388		9,171.0275

Redtail- NEWS Project - Merced County, Summer

3.4 Grading- Pond and Berm Finishing - 2021**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	2.8184	87.1764	14.4951	0.3103	7.3615	0.3382	7.6996	2.0192	0.3235	2.3428		32,544.6701	32,544.6701	1.3703		32,578.9284
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	0.1279	0.0788	1.0373	2.6300e-003	0.2555	1.8100e-003	0.2573	0.0678	1.6700e-003	0.0694		261.6851	261.6851	7.9100e-003		261.8828
Total	2.9463	87.2552	15.5324	0.3129	7.6169	0.3400	7.9569	2.0870	0.3252	2.4122		32,806.3552	32,806.3552	1.3782		32,840.8112

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					0.4596	0.0000	0.4596	0.0496	0.0000	0.0496			0.0000			0.0000
Off-Road	5.5088	51.4378	24.5962	0.0875		1.9014	1.9014		1.7889	1.7889	0.0000	9,127.5568	9,127.5568	1.7388		9,171.0275
Total	5.5088	51.4378	24.5962	0.0875	0.4596	1.9014	2.3610	0.0496	1.7889	1.8385	0.0000	9,127.5568	9,127.5568	1.7388		9,171.0275

Redtail- NEWS Project - Merced County, Summer

3.4 Grading- Pond and Berm Finishing - 2021**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	2.8184	87.1764	14.4951	0.3103	7.3615	0.3382	7.6996	2.0192	0.3235	2.3428		32,544.6701	32,544.6701	1.3703		32,578.9284
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	0.1279	0.0788	1.0373	2.6300e-003	0.2555	1.8100e-003	0.2573	0.0678	1.6700e-003	0.0694		261.6851	261.6851	7.9100e-003		261.8828
Total	2.9463	87.2552	15.5324	0.3129	7.6169	0.3400	7.9569	2.0870	0.3252	2.4122		32,806.3552	32,806.3552	1.3782		32,840.8112

3.5 Access/Trail Finishing - 2021**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					0.8770	0.0000	0.8770	0.0959	0.0000	0.0959			0.0000			0.0000
Off-Road	5.0948	32.4332	24.8347	0.0876		1.1951	1.1951		1.1787	1.1787		9,787.5047	9,787.5047	0.7391		9,805.9811
Total	5.0948	32.4332	24.8347	0.0876	0.8770	1.1951	2.0721	0.0959	1.1787	1.2747		9,787.5047	9,787.5047	0.7391		9,805.9811

Retail- NEWS Project - Merced County, Summer

3.5 Access/Trail Finishing - 2021**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	0.1856	5.7391	0.9543	0.0204	0.4846	0.0223	0.5069	0.1329	0.0213	0.1542		2,142.524 1	2,142.524 1	0.0902		2,144.779 5
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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	0.2495	5.7785	1.4729	0.0217	0.6124	0.0232	0.6355	0.1668	0.0221	0.1889		2,273.366 7	2,273.366 7	0.0942		2,275.720 9

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					0.8770	0.0000	0.8770	0.0959	0.0000	0.0959			0.0000			0.0000
Off-Road	5.0948	32.4332	24.8347	0.0876		1.1951	1.1951		1.1787	1.1787	0.0000	9,787.504 7	9,787.504 7	0.7391		9,805.981 1
Total	5.0948	32.4332	24.8347	0.0876	0.8770	1.1951	2.0721	0.0959	1.1787	1.2747	0.0000	9,787.504 7	9,787.504 7	0.7391		9,805.981 1

Redtail- NEWS Project - Merced County, Summer

3.5 Access/Trail Finishing - 2021**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	0.1856	5.7391	0.9543	0.0204	0.4846	0.0223	0.5069	0.1329	0.0213	0.1542		2,142.524 1	2,142.524 1	0.0902		2,144.779 5
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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	0.2495	5.7785	1.4729	0.0217	0.6124	0.0232	0.6355	0.1668	0.0221	0.1889		2,273.366 7	2,273.366 7	0.0942		2,275.720 9

3.6 Construction of Concrete Pad - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0588	0.3682	0.3084	7.1000e-004		0.0143	0.0143		0.0143	0.0143		50.5163	50.5163	5.2400e-003		50.6474
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0588	0.3682	0.3084	7.1000e-004		0.0143	0.0143		0.0143	0.0143		50.5163	50.5163	5.2400e-003		50.6474

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3.6 Construction of Concrete Pad - 2021**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	0.0470	1.4529	0.2416	5.1700e-003	0.1227	5.6400e-003	0.1283	0.0337	5.3900e-003	0.0391		542.4112	542.4112	0.0228		542.9821
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	0.0192	0.0118	0.1556	3.9000e-004	0.0383	2.7000e-004	0.0386	0.0102	2.5000e-004	0.0104		39.2528	39.2528	1.1900e-003		39.2824
Total	0.0662	1.4648	0.3972	5.5600e-003	0.1610	5.9100e-003	0.1669	0.0438	5.6400e-003	0.0495		581.6639	581.6639	0.0240		582.2646

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0588	0.3682	0.3084	7.1000e-004		0.0143	0.0143		0.0143	0.0143	0.0000	50.5163	50.5163	5.2400e-003		50.6474
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0588	0.3682	0.3084	7.1000e-004		0.0143	0.0143		0.0143	0.0143	0.0000	50.5163	50.5163	5.2400e-003		50.6474

Retail- NEWS Project - Merced County, Summer

3.6 Construction of Concrete Pad - 2021**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	0.0470	1.4529	0.2416	5.1700e-003	0.1227	5.6400e-003	0.1283	0.0337	5.3900e-003	0.0391		542.4112	542.4112	0.0228		542.9821
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	0.0192	0.0118	0.1556	3.9000e-004	0.0383	2.7000e-004	0.0386	0.0102	2.5000e-004	0.0104		39.2528	39.2528	1.1900e-003		39.2824
Total	0.0662	1.4648	0.3972	5.5600e-003	0.1610	5.9100e-003	0.1669	0.0438	5.6400e-003	0.0495		581.6639	581.6639	0.0240		582.2646

3.7 Culvert Installation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9232	9.1173	9.7491	0.0237		0.3691	0.3691		0.3395	0.3395		2,296.2337	2,296.2337	0.7427		2,314.7999
Total	0.9232	9.1173	9.7491	0.0237	0.0000	0.3691	0.3691	0.0000	0.3395	0.3395		2,296.2337	2,296.2337	0.7427		2,314.7999

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3.7 Culvert Installation - 2021**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	0.0705	2.1794	0.3624	7.7600e-003	0.1840	8.4500e-003	0.1925	0.0505	8.0900e-003	0.0586		813.6168	813.6168	0.0343		814.4732
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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	0.1344	2.2188	0.8810	9.0700e-003	0.3118	9.3600e-003	0.3211	0.0844	8.9200e-003	0.0933		944.4593	944.4593	0.0382		945.4146

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9232	9.1173	9.7491	0.0237		0.3691	0.3691		0.3395	0.3395	0.0000	2,296.2337	2,296.2337	0.7427		2,314.7999
Total	0.9232	9.1173	9.7491	0.0237	0.0000	0.3691	0.3691	0.0000	0.3395	0.3395	0.0000	2,296.2337	2,296.2337	0.7427		2,314.7999

Redtail- NEWS Project - Merced County, Summer

3.7 Culvert Installation - 2021**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	0.0705	2.1794	0.3624	7.7600e-003	0.1840	8.4500e-003	0.1925	0.0505	8.0900e-003	0.0586		813.6168	813.6168	0.0343		814.4732
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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	0.1344	2.2188	0.8810	9.0700e-003	0.3118	9.3600e-003	0.3211	0.0844	8.9200e-003	0.0933		944.4593	944.4593	0.0382		945.4146

3.8 Finishing/Stabalization - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6779	5.8694	4.5018	0.0147		0.2240	0.2240		0.2061	0.2061		1,422.5690	1,422.5690	0.4601		1,434.0712
Total	0.6779	5.8694	4.5018	0.0147	0.0000	0.2240	0.2240	0.0000	0.2061	0.2061		1,422.5690	1,422.5690	0.4601		1,434.0712

Redtail- NEWS Project - Merced County, Summer

3.8 Finishing/Stabalization - 2021**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	8.6100e-003	0.2664	0.0443	9.5000e-004	0.0225	1.0300e-003	0.0235	6.1700e-003	9.9000e-004	7.1600e-003		99.4421	99.4421	4.1900e-003		99.5467
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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	0.0726	0.3058	0.5630	2.2600e-003	0.1502	1.9400e-003	0.1522	0.0400	1.8200e-003	0.0419		230.2846	230.2846	8.1400e-003		230.4882

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6779	5.8694	4.5018	0.0147		0.2240	0.2240		0.2061	0.2061	0.0000	1,422.5690	1,422.5690	0.4601		1,434.0712
Total	0.6779	5.8694	4.5018	0.0147	0.0000	0.2240	0.2240	0.0000	0.2061	0.2061	0.0000	1,422.5690	1,422.5690	0.4601		1,434.0712

Retail- NEWS Project - Merced County, Summer

3.8 Finishing/Stabalization - 2021**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	8.6100e-003	0.2664	0.0443	9.5000e-004	0.0225	1.0300e-003	0.0235	6.1700e-003	9.9000e-004	7.1600e-003		99.4421	99.4421	4.1900e-003		99.5467
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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	0.0726	0.3058	0.5630	2.2600e-003	0.1502	1.9400e-003	0.1522	0.0400	1.8200e-003	0.0419		230.2846	230.2846	8.1400e-003		230.4882

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Redtail- NEWS Project - Merced County, Summer

	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	0.9928	5.6125	9.5112	0.0355	2.5081	0.0297	2.5378	0.6708	0.0279	0.6987		3,600.375 2	3,600.375 2	0.1722		3,604.681 2
Unmitigated	0.9928	5.6125	9.5112	0.0355	2.5081	0.0297	2.5378	0.6708	0.0279	0.6987		3,600.375 2	3,600.375 2	0.1722		3,604.681 2

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	39.69	477.75	351.54	362,088	362,088
Total	39.69	477.75	351.54	362,088	362,088

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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.552050	0.036079	0.182449	0.124563	0.019215	0.004844	0.016098	0.055414	0.001187	0.001496	0.005121	0.000613	0.000871

5.0 Energy Detail

Historical Energy Use: N

Redtail- NEWS Project - Merced County, Summer

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					
City Park	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

Retail- NEWS Project - Merced County, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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	0.0473	2.0000e-005	2.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6000e-003	4.6000e-003	1.0000e-005		4.9000e-003
Unmitigated	0.0473	2.0000e-005	2.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6000e-003	4.6000e-003	1.0000e-005		4.9000e-003

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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	0.0471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6000e-003	4.6000e-003	1.0000e-005		4.9000e-003
Total	0.0473	2.0000e-005	2.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6000e-003	4.6000e-003	1.0000e-005		4.9000e-003

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	0.0471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6000e-003	4.6000e-003	1.0000e-005		4.9000e-003
Total	0.0473	2.0000e-005	2.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6000e-003	4.6000e-003	1.0000e-005		4.9000e-003

7.0 Water Detail

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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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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11.0 Vegetation

Redtail- Wetlands Project - Merced County, Annual

Redtail- Wetlands Project

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	14.00	Acre	14.00	609,840.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2021
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 -

Construction Phase - Based on Section 2 report

Off-road Equipment - Based on model specs

Off-road Equipment - Based on model specs

Off-road Equipment - based on model specs

Off-road Equipment - Based on model specs

Trips and VMT - Estimations

Grading - Max acres graded

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Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.06	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.8440e-003	0.00
tblFleetMix	MCY	5.1210e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.7100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	6.1300e-004	0.00
tblFleetMix	UBUS	1.4960e-003	0.00
tblGrading	AcresOfGrading	90.00	14.00
tblGrading	MaterialExported	0.00	550.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	212.00	215.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	124.00	155.00
tblOffRoadEquipment	HorsePower	65.00	74.00
tblOffRoadEquipment	HorsePower	97.00	168.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	1.20	0.95
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00

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tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripNumber	69.00	110.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblWater	OutdoorWaterUseRate	16,680,738.90	13,106,294.85

2.0 Emissions Summary

Redtail- Wetlands Project - Merced County, Annual

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					
2021	0.0671	0.7543	0.5084	1.3200e-003	0.0139	0.0284	0.0423	2.5400e-003	0.0261	0.0287	0.0000	116.5038	116.5038	0.0345	0.0000	117.3673
Maximum	0.0671	0.7543	0.5084	1.3200e-003	0.0139	0.0284	0.0423	2.5400e-003	0.0261	0.0287	0.0000	116.5038	116.5038	0.0345	0.0000	117.3673

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					
2021	0.0671	0.7543	0.5084	1.3200e-003	0.0139	0.0284	0.0423	2.5400e-003	0.0261	0.0287	0.0000	116.5037	116.5037	0.0345	0.0000	117.3672
Maximum	0.0671	0.7543	0.5084	1.3200e-003	0.0139	0.0284	0.0423	2.5400e-003	0.0261	0.0287	0.0000	116.5037	116.5037	0.0345	0.0000	117.3672

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	9-1-2021	9-30-2021	0.4558	0.4558
		Highest	0.4558	0.4558

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	5.7500e-003	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
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	0.0000	0.0000	0.0000	0.0000	0.0771	0.0000	0.0771	0.0189	0.0000	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.1928	0.0000	0.1928	0.0114	0.0000	0.4778
Water						0.0000	0.0000		0.0000	0.0000	0.0000	13.3447	13.3447	6.0000e-004	1.2000e-004	13.3970
Total	5.7500e-003	0.0000	1.3000e-004	0.0000	0.0771	0.0000	0.0771	0.0189	0.0000	0.0189	0.1928	13.3450	13.5378	0.0120	1.2000e-004	13.8750

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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	5.7500e-003	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
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	0.0000	0.0000	0.0000	0.0000	0.0771	0.0000	0.0771	0.0189	0.0000	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.1928	0.0000	0.1928	0.0114	0.0000	0.4778
Water						0.0000	0.0000		0.0000	0.0000	0.0000	13.3447	13.3447	6.0000e-004	1.2000e-004	13.3970
Total	5.7500e-003	0.0000	1.3000e-004	0.0000	0.0771	0.0000	0.0771	0.0189	0.0000	0.0189	0.1928	13.3450	13.5378	0.0120	1.2000e-004	13.8750

	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
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**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	9/1/2021	10/12/2021	5	30	
2	Civil Construction	Trenching	10/6/2021	11/16/2021	5	30	
3	Planting	Site Preparation	11/17/2021	11/30/2021	5	10	
4	Inoculum Collection	Site Preparation	12/1/2021	12/14/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14

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
Grading	Crawler Tractors	2	8.00	215	0.43
Grading	Excavators	1	8.00	201	0.38
Grading	Scrapers	2	8.00	367	0.48
Civil Construction	Excavators	2	8.00	201	0.38
Civil Construction	Tractors/Loaders/Backhoes	2	8.00	168	0.37
Planting	Skid Steer Loaders	2	8.00	74	0.37
Inoculum Collection	Off-Highway Tractors	1	8.00	155	0.44

Trips and VMT

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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
Grading	5	13.00	0.00	110.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Civil Construction	4	10.00	0.00	0.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Planting	2	5.00	0.00	0.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Inoculum Collection	1	3.00	0.00	2.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2021

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					7.4500e-003	0.0000	7.4500e-003	8.1000e-004	0.0000	8.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0479	0.5676	0.3065	7.9000e-004		0.0215	0.0215		0.0198	0.0198	0.0000	69.5850	69.5850	0.0225	0.0000	70.1477
Total	0.0479	0.5676	0.3065	7.9000e-004	7.4500e-003	0.0215	0.0290	8.1000e-004	0.0198	0.0206	0.0000	69.5850	69.5850	0.0225	0.0000	70.1477

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3.2 Grading - 2021**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	6.5000e-004	0.0206	3.4200e-003	7.0000e-005	1.6400e-003	8.0000e-005	1.7200e-003	4.5000e-004	7.0000e-005	5.3000e-004	0.0000	6.7262	6.7262	3.0000e-004	0.0000	6.7336
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	1.1300e-003	8.3000e-004	8.5900e-003	2.0000e-005	2.4200e-003	2.0000e-005	2.4400e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	2.1150	2.1150	6.0000e-005	0.0000	2.1166
Total	1.7800e-003	0.0214	0.0120	9.0000e-005	4.0600e-003	1.0000e-004	4.1600e-003	1.0900e-003	9.0000e-005	1.1900e-003	0.0000	8.8411	8.8411	3.6000e-004	0.0000	8.8502

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					7.4500e-003	0.0000	7.4500e-003	8.1000e-004	0.0000	8.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0479	0.5676	0.3065	7.9000e-004		0.0215	0.0215		0.0198	0.0198	0.0000	69.5850	69.5850	0.0225	0.0000	70.1476
Total	0.0479	0.5676	0.3065	7.9000e-004	7.4500e-003	0.0215	0.0290	8.1000e-004	0.0198	0.0206	0.0000	69.5850	69.5850	0.0225	0.0000	70.1476

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3.2 Grading - 2021**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	6.5000e-004	0.0206	3.4200e-003	7.0000e-005	1.6400e-003	8.0000e-005	1.7200e-003	4.5000e-004	7.0000e-005	5.3000e-004	0.0000	6.7262	6.7262	3.0000e-004	0.0000	6.7336
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	1.1300e-003	8.3000e-004	8.5900e-003	2.0000e-005	2.4200e-003	2.0000e-005	2.4400e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	2.1150	2.1150	6.0000e-005	0.0000	2.1166
Total	1.7800e-003	0.0214	0.0120	9.0000e-005	4.0600e-003	1.0000e-004	4.1600e-003	1.0900e-003	9.0000e-005	1.1900e-003	0.0000	8.8411	8.8411	3.6000e-004	0.0000	8.8502

3.3 Civil Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0139	0.1368	0.1462	3.6000e-004		5.5400e-003	5.5400e-003		5.0900e-003	5.0900e-003	0.0000	31.2466	31.2466	0.0101	0.0000	31.4993
Total	0.0139	0.1368	0.1462	3.6000e-004		5.5400e-003	5.5400e-003		5.0900e-003	5.0900e-003	0.0000	31.2466	31.2466	0.0101	0.0000	31.4993

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3.3 Civil Construction - 2021**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	8.7000e-004	6.4000e-004	6.6100e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6269	1.6269	5.0000e-005	0.0000	1.6281
Total	8.7000e-004	6.4000e-004	6.6100e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6269	1.6269	5.0000e-005	0.0000	1.6281

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0139	0.1368	0.1462	3.6000e-004		5.5400e-003	5.5400e-003		5.0900e-003	5.0900e-003	0.0000	31.2466	31.2466	0.0101	0.0000	31.4992
Total	0.0139	0.1368	0.1462	3.6000e-004		5.5400e-003	5.5400e-003		5.0900e-003	5.0900e-003	0.0000	31.2466	31.2466	0.0101	0.0000	31.4992

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3.3 Civil Construction - 2021**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	8.7000e-004	6.4000e-004	6.6100e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6269	1.6269	5.0000e-005	0.0000	1.6281
Total	8.7000e-004	6.4000e-004	6.6100e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6269	1.6269	5.0000e-005	0.0000	1.6281

3.4 Planting - 2021**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	8.6000e-004	0.0114	0.0158	2.0000e-005		4.6000e-004	4.6000e-004		4.3000e-004	4.3000e-004	0.0000	2.0676	2.0676	6.7000e-004	0.0000	2.0844
Total	8.6000e-004	0.0114	0.0158	2.0000e-005	0.0000	4.6000e-004	4.6000e-004	0.0000	4.3000e-004	4.3000e-004	0.0000	2.0676	2.0676	6.7000e-004	0.0000	2.0844

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3.4 Planting - 2021**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	1.4000e-004	1.1000e-004	1.1000e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2714
Total	1.4000e-004	1.1000e-004	1.1000e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2714

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	8.6000e-004	0.0114	0.0158	2.0000e-005		4.6000e-004	4.6000e-004		4.3000e-004	4.3000e-004	0.0000	2.0676	2.0676	6.7000e-004	0.0000	2.0844
Total	8.6000e-004	0.0114	0.0158	2.0000e-005	0.0000	4.6000e-004	4.6000e-004	0.0000	4.3000e-004	4.3000e-004	0.0000	2.0676	2.0676	6.7000e-004	0.0000	2.0844

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3.4 Planting - 2021**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	1.4000e-004	1.1000e-004	1.1000e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2714
Total	1.4000e-004	1.1000e-004	1.1000e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2714

3.5 Inoculum Collection - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0160	0.0194	3.0000e-005		7.7000e-004	7.7000e-004		7.1000e-004	7.1000e-004	0.0000	2.5803	2.5803	8.3000e-004	0.0000	2.6011
Total	1.5600e-003	0.0160	0.0194	3.0000e-005	0.0000	7.7000e-004	7.7000e-004	0.0000	7.1000e-004	7.1000e-004	0.0000	2.5803	2.5803	8.3000e-004	0.0000	2.6011

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3.5 Inoculum Collection - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.7000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1223	0.1223	1.0000e-005	0.0000	0.1224
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	9.0000e-005	6.0000e-005	6.6000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1627	0.1627	0.0000	0.0000	0.1628
Total	1.0000e-004	4.3000e-004	7.2000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2850	0.2850	1.0000e-005	0.0000	0.2852

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0160	0.0194	3.0000e-005		7.7000e-004	7.7000e-004		7.1000e-004	7.1000e-004	0.0000	2.5803	2.5803	8.3000e-004	0.0000	2.6011
Total	1.5600e-003	0.0160	0.0194	3.0000e-005	0.0000	7.7000e-004	7.7000e-004	0.0000	7.1000e-004	7.1000e-004	0.0000	2.5803	2.5803	8.3000e-004	0.0000	2.6011

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3.5 Inoculum Collection - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.7000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1223	0.1223	1.0000e-005	0.0000	0.1224
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	9.0000e-005	6.0000e-005	6.6000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1627	0.1627	0.0000	0.0000	0.1628
Total	1.0000e-004	4.3000e-004	7.2000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2850	0.2850	1.0000e-005	0.0000	0.2852

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0771	0.0000	0.0771	0.0189	0.0000	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0771	0.0000	0.0771	0.0189	0.0000	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	26.46	318.50	234.36	241,392	241,392
Total	26.46	318.50	234.36	241,392	241,392

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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

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5.2 Energy by Land Use - NaturalGas**Mitigated**

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

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	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	5.7500e-003	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Unmitigated	5.7500e-003	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004

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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	5.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	5.7400e-003	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004

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	5.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	5.7400e-003	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.3447	6.0000e-004	1.2000e-004	13.3970
Unmitigated	13.3447	6.0000e-004	1.2000e-004	13.3970

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 13.1063	13.3447	6.0000e-004	1.2000e-004	13.3970
Total		13.3447	6.0000e-004	1.2000e-004	13.3970

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 13.1063	13.3447	6.0000e-004	1.2000e-004	13.3970
Total		13.3447	6.0000e-004	1.2000e-004	13.3970

8.0 Waste Detail

8.1 Mitigation Measures Waste**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1928	0.0114	0.0000	0.4778
Unmitigated	0.1928	0.0114	0.0000	0.4778

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.95	0.1928	0.0114	0.0000	0.4778
Total		0.1928	0.0114	0.0000	0.4778

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.95	0.1928	0.0114	0.0000	0.4778
Total		0.1928	0.0114	0.0000	0.4778

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Redtail- Wetlands Project - Merced County, Summer

Redtail- Wetlands Project

Merced County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	14.00	Acre	14.00	609,840.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2021
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 -

Construction Phase - Based on Section 2 report

Off-road Equipment - Based on model specs

Off-road Equipment - Based on model specs

Off-road Equipment - based on model specs

Off-road Equipment - Based on model specs

Trips and VMT - Estimations

Grading - Max acres graded

Redtail- Wetlands Project - Merced County, Summer

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.06	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.8440e-003	0.00
tblFleetMix	MCY	5.1210e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.7100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	6.1300e-004	0.00
tblFleetMix	UBUS	1.4960e-003	0.00
tblGrading	AcresOfGrading	90.00	14.00
tblGrading	MaterialExported	0.00	550.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	212.00	215.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	124.00	155.00
tblOffRoadEquipment	HorsePower	65.00	74.00
tblOffRoadEquipment	HorsePower	97.00	168.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	1.20	0.95
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00

Redtail- Wetlands Project - Merced County, Summer

tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripNumber	69.00	110.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblWater	OutdoorWaterUseRate	16,680,738.90	13,106,294.85

2.0 Emissions Summary

Redtail- Wetlands Project - Merced County, Summer

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					
2021	4.3090	48.3764	31.5982	0.0843	0.9032	1.8112	2.7144	0.1625	1.6665	1.8290	0.0000	8,208.0071	8,208.0071	2.4265	0.0000	8,268.6703
Maximum	4.3090	48.3764	31.5982	0.0843	0.9032	1.8112	2.7144	0.1625	1.6665	1.8290	0.0000	8,208.0071	8,208.0071	2.4265	0.0000	8,268.6703

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					
2021	4.3090	48.3764	31.5982	0.0843	0.9032	1.8112	2.7144	0.1625	1.6665	1.8290	0.0000	8,208.0071	8,208.0071	2.4265	0.0000	8,268.6703
Maximum	4.3090	48.3764	31.5982	0.0843	0.9032	1.8112	2.7144	0.1625	1.6665	1.8290	0.0000	8,208.0071	8,208.0071	2.4265	0.0000	8,268.6703

[illegible]

Redtail- Wetlands Project - Merced County, Summer

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	0.0316	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.0600e-003	3.0600e-003	1.0000e-005		3.2700e-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
Mobile	0.0000	0.0000	0.0000	0.0000	1.4265	0.0000	1.4265	0.3501	0.0000	0.3501		0.0000	0.0000	0.0000		0.0000
Total	0.0316	1.0000e-005	1.4300e-003	0.0000	1.4265	1.0000e-005	1.4265	0.3501	1.0000e-005	0.3502		3.0600e-003	3.0600e-003	1.0000e-005	0.0000	3.2700e-003

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	0.0316	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.0600e-003	3.0600e-003	1.0000e-005		3.2700e-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
Mobile	0.0000	0.0000	0.0000	0.0000	1.4265	0.0000	1.4265	0.3501	0.0000	0.3501		0.0000	0.0000	0.0000		0.0000
Total	0.0316	1.0000e-005	1.4300e-003	0.0000	1.4265	1.0000e-005	1.4265	0.3501	1.0000e-005	0.3502		3.0600e-003	3.0600e-003	1.0000e-005	0.0000	3.2700e-003

Redtail- Wetlands Project - Merced County, Summer

	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
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	Grading	Grading	9/1/2021	10/12/2021	5	30	
2	Civil Construction	Trenching	10/6/2021	11/16/2021	5	30	
3	Planting	Site Preparation	11/17/2021	11/30/2021	5	10	
4	Inoculum Collection	Site Preparation	12/1/2021	12/14/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14

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

Redtail- Wetlands Project - Merced County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Crawler Tractors	2	8.00	215	0.43
Grading	Excavators	1	8.00	201	0.38
Grading	Scrapers	2	8.00	367	0.48
Civil Construction	Excavators	2	8.00	201	0.38
Civil Construction	Tractors/Loaders/Backhoes	2	8.00	168	0.37
Planting	Skid Steer Loaders	2	8.00	74	0.37
Inoculum Collection	Off-Highway Tractors	1	8.00	155	0.44

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
Grading	5	13.00	0.00	110.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Civil Construction	4	10.00	0.00	0.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Planting	2	5.00	0.00	0.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT
Inoculum Collection	1	3.00	0.00	2.00	16.80	6.60	35.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Redtail- Wetlands Project - Merced County, Summer

3.2 Grading - 2021**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					0.4970	0.0000	0.4970	0.0538	0.0000	0.0538			0.0000			0.0000
Off-Road	3.1957	37.8367	20.4347	0.0528		1.4349	1.4349		1.3201	1.3201		5,113.625 2	5,113.625 2	1.6539		5,154.971 5
Total	3.1957	37.8367	20.4347	0.0528	0.4970	1.4349	1.9319	0.0538	1.3201	1.3739		5,113.625 2	5,113.625 2	1.6539		5,154.971 5

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	0.0431	1.3319	0.2215	4.7400e-003	0.1125	5.1700e-003	0.1176	0.0309	4.9400e-003	0.0358		497.2102	497.2102	0.0209		497.7336
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	0.0831	0.0512	0.6743	1.7100e-003	0.1661	1.1800e-003	0.1672	0.0440	1.0800e-003	0.0451		170.0953	170.0953	5.1400e-003		170.2238
Total	0.1262	1.3831	0.8957	6.4500e-003	0.2785	6.3500e-003	0.2849	0.0749	6.0200e-003	0.0809		667.3056	667.3056	0.0261		667.9575

Redtail- Wetlands Project - Merced County, Summer

3.2 Grading - 2021**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					0.4970	0.0000	0.4970	0.0538	0.0000	0.0538			0.0000			0.0000
Off-Road	3.1957	37.8367	20.4347	0.0528		1.4349	1.4349		1.3201	1.3201	0.0000	5,113.625 2	5,113.625 2	1.6539		5,154.971 5
Total	3.1957	37.8367	20.4347	0.0528	0.4970	1.4349	1.9319	0.0538	1.3201	1.3739	0.0000	5,113.625 2	5,113.625 2	1.6539		5,154.971 5

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	0.0431	1.3319	0.2215	4.7400e-003	0.1125	5.1700e-003	0.1176	0.0309	4.9400e-003	0.0358		497.2102	497.2102	0.0209		497.7336
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	0.0831	0.0512	0.6743	1.7100e-003	0.1661	1.1800e-003	0.1672	0.0440	1.0800e-003	0.0451		170.0953	170.0953	5.1400e-003		170.2238
Total	0.1262	1.3831	0.8957	6.4500e-003	0.2785	6.3500e-003	0.2849	0.0749	6.0200e-003	0.0809		667.3056	667.3056	0.0261		667.9575

Redtail- Wetlands Project - Merced County, Summer

3.3 Civil Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9232	9.1173	9.7491	0.0237		0.3691	0.3691		0.3395	0.3395		2,296.2337	2,296.2337	0.7427		2,314.7999
Total	0.9232	9.1173	9.7491	0.0237		0.3691	0.3691		0.3395	0.3395		2,296.2337	2,296.2337	0.7427		2,314.7999

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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414

Redtail- Wetlands Project - Merced County, Summer

3.3 Civil Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9232	9.1173	9.7491	0.0237		0.3691	0.3691		0.3395	0.3395	0.0000	2,296.2337	2,296.2337	0.7427		2,314.7999
Total	0.9232	9.1173	9.7491	0.0237		0.3691	0.3691		0.3395	0.3395	0.0000	2,296.2337	2,296.2337	0.7427		2,314.7999

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	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414
Total	0.0639	0.0394	0.5187	1.3100e-003	0.1277	9.1000e-004	0.1286	0.0339	8.3000e-004	0.0347		130.8426	130.8426	3.9500e-003		130.9414

Redtail- Wetlands Project - Merced County, Summer

3.4 Planting - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1719	2.2850	3.1648	4.7100e-003		0.0930	0.0930		0.0855	0.0855		455.8363	455.8363	0.1474		459.5220
Total	0.1719	2.2850	3.1648	4.7100e-003	0.0000	0.0930	0.0930	0.0000	0.0855	0.0855		455.8363	455.8363	0.1474		459.5220

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	0.0320	0.0197	0.2593	6.6000e-004	0.0639	4.5000e-004	0.0643	0.0169	4.2000e-004	0.0174		65.4213	65.4213	1.9800e-003		65.4707
Total	0.0320	0.0197	0.2593	6.6000e-004	0.0639	4.5000e-004	0.0643	0.0169	4.2000e-004	0.0174		65.4213	65.4213	1.9800e-003		65.4707

Redtail- Wetlands Project - Merced County, Summer

3.4 Planting - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1719	2.2850	3.1648	4.7100e-003		0.0930	0.0930		0.0855	0.0855	0.0000	455.8363	455.8363	0.1474		459.5220
Total	0.1719	2.2850	3.1648	4.7100e-003	0.0000	0.0930	0.0930	0.0000	0.0855	0.0855	0.0000	455.8363	455.8363	0.1474		459.5220

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	0.0320	0.0197	0.2593	6.6000e-004	0.0639	4.5000e-004	0.0643	0.0169	4.2000e-004	0.0174		65.4213	65.4213	1.9800e-003		65.4707
Total	0.0320	0.0197	0.2593	6.6000e-004	0.0639	4.5000e-004	0.0643	0.0169	4.2000e-004	0.0174		65.4213	65.4213	1.9800e-003		65.4707

Redtail- Wetlands Project - Merced County, Summer

3.5 Inoculum Collection - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3112	3.1991	3.8726	5.8800e-003		0.1547	0.1547		0.1423	0.1423		568.8524	568.8524	0.1840		573.4519
Total	0.3112	3.1991	3.8726	5.8800e-003	0.0000	0.1547	0.1547	0.0000	0.1423	0.1423		568.8524	568.8524	0.1840		573.4519

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	2.3500e-003	0.0727	0.0121	2.6000e-004	6.1300e-003	2.8000e-004	6.4200e-003	1.6800e-003	2.7000e-004	1.9500e-003		27.1206	27.1206	1.1400e-003		27.1491
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	0.0192	0.0118	0.1556	3.9000e-004	0.0383	2.7000e-004	0.0386	0.0102	2.5000e-004	0.0104		39.2528	39.2528	1.1900e-003		39.2824
Total	0.0215	0.0845	0.1677	6.5000e-004	0.0445	5.5000e-004	0.0450	0.0118	5.2000e-004	0.0124		66.3733	66.3733	2.3300e-003		66.4315

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3.5 Inoculum Collection - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3112	3.1991	3.8726	5.8800e-003		0.1547	0.1547		0.1423	0.1423	0.0000	568.8524	568.8524	0.1840		573.4519
Total	0.3112	3.1991	3.8726	5.8800e-003	0.0000	0.1547	0.1547	0.0000	0.1423	0.1423	0.0000	568.8524	568.8524	0.1840		573.4519

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	2.3500e-003	0.0727	0.0121	2.6000e-004	6.1300e-003	2.8000e-004	6.4200e-003	1.6800e-003	2.7000e-004	1.9500e-003		27.1206	27.1206	1.1400e-003		27.1491
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	0.0192	0.0118	0.1556	3.9000e-004	0.0383	2.7000e-004	0.0386	0.0102	2.5000e-004	0.0104		39.2528	39.2528	1.1900e-003		39.2824
Total	0.0215	0.0845	0.1677	6.5000e-004	0.0445	5.5000e-004	0.0450	0.0118	5.2000e-004	0.0124		66.3733	66.3733	2.3300e-003		66.4315

4.0 Operational Detail - Mobile

Redtail- Wetlands Project - Merced County, Summer

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	0.0000	0.0000	0.0000	0.0000	1.4265	0.0000	1.4265	0.3501	0.0000	0.3501		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	1.4265	0.0000	1.4265	0.3501	0.0000	0.3501		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	26.46	318.50	234.36	241,392	241,392
Total	26.46	318.50	234.36	241,392	241,392

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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

[illegible]

Redtail- Wetlands Project - Merced County, Summer

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

Redtail- Wetlands Project - Merced County, Summer

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					
City Park	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					
City Park	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**

Redtail- Wetlands Project - Merced County, Summer

	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	0.0316	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.0600e-003	3.0600e-003	1.0000e-005		3.2700e-003
Unmitigated	0.0316	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.0600e-003	3.0600e-003	1.0000e-005		3.2700e-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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.0600e-003	3.0600e-003	1.0000e-005		3.2700e-003
Total	0.0316	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.0600e-003	3.0600e-003	1.0000e-005		3.2700e-003

Redtail- Wetlands Project - Merced County, Summer

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	0.0314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.0600e-003	3.0600e-003	1.0000e-005		3.2700e-003
Total	0.0316	1.0000e-005	1.4300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.0600e-003	3.0600e-003	1.0000e-005		3.2700e-003

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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11.0 Vegetation

Redtail- NNP Revised - Merced County, Annual

Redtail- NNP Revised
Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	5.00	Acre	5.00	217,800.00	0
City Park	20.00	Acre	20.00	871,200.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use -

Construction Phase - Estimates

Off-road Equipment - Equipment Specs

Off-road Equipment - Equip Specs

Off-road Equipment - Actual specs

Off-road Equipment - Conservative Estimate

Off-road Equipment - Equipment Specs

Off-road Equipment - Specs

Trips and VMT - Estimate

Grading - Estimation

Water And Wastewater - Estimated water use does not affect emissions output. It is not reflective of actual water use and is generated by the model.

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	13068	0
tblConstructionPhase	NumDays	35.00	90.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	NumDays	10.00	120.00
tblConstructionPhase	NumDays	10.00	60.00
tblFleetMix	HHD	0.06	0.00
tblFleetMix	LDA	0.56	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00

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tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.6870e-003	0.00
tblFleetMix	MCY	5.0550e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.1800e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1900e-003	0.00
tblFleetMix	SBUS	6.1000e-004	0.00
tblFleetMix	UBUS	1.4530e-003	0.00
tblGrading	AcresOfGrading	180.00	25.00
tblGrading	MaterialImported	0.00	3,000.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	187.00	0.00
tblOffRoadEquipment	HorsePower	97.00	150.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	187.00	0.00
tblOffRoadEquipment	HorsePower	88.00	24.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	65.00	74.00
tblOffRoadEquipment	HorsePower	65.00	74.00
tblOffRoadEquipment	LoadFactor	0.41	0.00
tblOffRoadEquipment	LoadFactor	0.41	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	1.72	0.69
tblTripsAndVMT	HaulingTripLength	20.00	36.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripNumber	375.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	600.00
tblWater	OutdoorWaterUseRate	23,829,626.99	9,531,850.80

2.0 Emissions Summary

Redtail- NNP Revised - Merced County, Annual

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					
2021	0.2087	2.2758	2.0454	4.5800e-003	0.0366	0.0918	0.1283	7.6900e-003	0.0844	0.0921	0.0000	405.8261	405.8261	0.1174	0.0000	408.7601
2022	0.0310	0.2625	0.2860	7.7000e-004	4.3900e-003	9.8200e-003	0.0142	1.1700e-003	9.0300e-003	0.0102	0.0000	67.7993	67.7993	0.0208	0.0000	68.3199
Maximum	0.2087	2.2758	2.0454	4.5800e-003	0.0366	0.0918	0.1283	7.6900e-003	0.0844	0.0921	0.0000	405.8261	405.8261	0.1174	0.0000	408.7601

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					
2021	0.2087	2.2758	2.0454	4.5800e-003	0.0292	0.0918	0.1209	6.8900e-003	0.0844	0.0913	0.0000	405.8257	405.8257	0.1174	0.0000	408.7596
2022	0.0310	0.2625	0.2860	7.7000e-004	4.3900e-003	9.8200e-003	0.0142	1.1700e-003	9.0300e-003	0.0102	0.0000	67.7992	67.7992	0.0208	0.0000	68.3199
Maximum	0.2087	2.2758	2.0454	4.5800e-003	0.0292	0.0918	0.1209	6.8900e-003	0.0844	0.0913	0.0000	405.8257	405.8257	0.1174	0.0000	408.7596

	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
Percent Reduction	0.00	0.00	0.00	0.00	18.03	0.00	5.19	9.03	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	0.8205	0.8205
2	6-1-2021	8-31-2021	1.0527	1.0527
3	9-1-2021	11-30-2021	0.5134	0.5134
4	12-1-2021	2-28-2022	0.1916	0.1916
5	3-1-2022	5-31-2022	0.1713	0.1713
6	6-1-2022	8-31-2022	0.0025	0.0025
		Highest	1.0527	1.0527

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	0.0223	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
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	0.0390	0.2693	0.3898	1.5300e-003	0.1123	1.3000e-003	0.1136	0.0301	1.2200e-003	0.0313	0.0000	140.7853	140.7853	7.3700e-003	0.0000	140.9696
Waste						0.0000	0.0000		0.0000	0.0000	0.1401	0.0000	0.1401	8.2800e-003	0.0000	0.3470
Water						0.0000	0.0000		0.0000	0.0000	0.0000	9.7052	9.7052	4.4000e-004	9.0000e-005	9.7433
Total	0.0613	0.2693	0.3900	1.5300e-003	0.1123	1.3000e-003	0.1136	0.0301	1.2200e-003	0.0313	0.1401	150.4910	150.6311	0.0161	9.0000e-005	151.0604

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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	0.0223	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
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	0.0390	0.2693	0.3898	1.5300e-003	0.1123	1.3000e-003	0.1136	0.0301	1.2200e-003	0.0313	0.0000	140.7853	140.7853	7.3700e-003	0.0000	140.9696
Waste						0.0000	0.0000		0.0000	0.0000	0.1401	0.0000	0.1401	8.2800e-003	0.0000	0.3470
Water						0.0000	0.0000		0.0000	0.0000	0.0000	9.7052	9.7052	4.4000e-004	9.0000e-005	9.7433
Total	0.0613	0.2693	0.3900	1.5300e-003	0.1123	1.3000e-003	0.1136	0.0301	1.2200e-003	0.0313	0.1401	150.4910	150.6311	0.0161	9.0000e-005	151.0604

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2.3 Vegetation**Vegetation**

	CO2e
Category	MT
Vegetation Land Change	0.0000
Total	0.0000

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Clearing and Grubbing	Site Preparation	3/1/2021	4/30/2021	5	45	
2	Grading	Grading	4/10/2021	8/13/2021	5	90	
3	Access	Site Preparation	8/16/2021	11/5/2021	5	60	
4	Site Improvements	Site Preparation	11/8/2021	4/22/2022	5	120	
5	Planting	Site Preparation	3/14/2022	6/3/2022	5	60	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 25****Acres of Paving: 5**

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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
Clearing and Grubbing	Excavators	1	8.00	201	0.38
Clearing and Grubbing	Skid Steer Loaders	2	8.00	74	0.37
Clearing and Grubbing	Tractors/Loaders/Backhoes	1	8.00	150	0.37
Grading	Excavators	1	8.00	201	0.38
Grading	Graders	0	0.00	0	0.00
Grading	Rollers	4	8.00	157	0.38
Grading	Scrapers	2	8.00	367	0.48
Access	Excavators	1	8.00	201	0.38
Access	Graders	0	0.00	0	0.00
Access	Rollers	2	8.00	157	0.38
Access	Skid Steer Loaders	2	8.00	65	0.37
Access	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Access	Trenchers	1	8.00	78	0.50
Site Improvements	Excavators	2	8.00	201	0.38
Site Improvements	Other General Industrial Equipment	2	8.00	24	0.34
Planting	Skid Steer Loaders	2	8.00	74	0.37

Trips and VMT

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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
Clearing and Grubbing	4	10.00	0.00	0.00	10.80	7.30	36.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	0.00	10.80	7.30	35.00	LD_Mix	HDT_Mix	HHDT
Access	7	18.00	0.00	600.00	10.80	7.30	35.00	LD_Mix	HDT_Mix	HHDT
Site Improvements	4	10.00	0.00	0.00	10.80	7.30	35.00	LD_Mix	HDT_Mix	HHDT
Planting	2	5.00	0.00	0.00	10.80	7.30	35.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

3.2 Clearing and Grubbing - 2021**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	0.0137	0.1485	0.1727	3.6000e-004		5.9700e-003	5.9700e-003		5.4900e-003	5.4900e-003	0.0000	31.6184	31.6184	0.0102	0.0000	31.8741
Total	0.0137	0.1485	0.1727	3.6000e-004	0.0000	5.9700e-003	5.9700e-003	0.0000	5.4900e-003	5.4900e-003	0.0000	31.6184	31.6184	0.0102	0.0000	31.8741

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3.2 Clearing and Grubbing - 2021**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	9.4000e-004	6.5000e-004	6.8300e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5851	1.5851	5.0000e-005	0.0000	1.5863
Total	9.4000e-004	6.5000e-004	6.8300e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5851	1.5851	5.0000e-005	0.0000	1.5863

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	0.0137	0.1485	0.1727	3.6000e-004		5.9700e-003	5.9700e-003		5.4900e-003	5.4900e-003	0.0000	31.6184	31.6184	0.0102	0.0000	31.8740
Total	0.0137	0.1485	0.1727	3.6000e-004	0.0000	5.9700e-003	5.9700e-003	0.0000	5.4900e-003	5.4900e-003	0.0000	31.6184	31.6184	0.0102	0.0000	31.8740

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3.2 Clearing and Grubbing - 2021**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	9.4000e-004	6.5000e-004	6.8300e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5851	1.5851	5.0000e-005	0.0000	1.5863
Total	9.4000e-004	6.5000e-004	6.8300e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5851	1.5851	5.0000e-005	0.0000	1.5863

3.3 Grading - 2021**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					0.0134	0.0000	0.0134	1.4600e-003	0.0000	1.4600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1301	1.4676	1.2514	2.5800e-003		0.0591	0.0591		0.0543	0.0543	0.0000	226.8916	226.8916	0.0734	0.0000	228.7261
Total	0.1301	1.4676	1.2514	2.5800e-003	0.0134	0.0591	0.0725	1.4600e-003	0.0543	0.0558	0.0000	226.8916	226.8916	0.0734	0.0000	228.7261

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3.3 Grading - 2021**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	3.3900e-003	2.3200e-003	0.0246	6.0000e-005	6.4600e-003	5.0000e-005	6.5100e-003	1.7200e-003	5.0000e-005	1.7600e-003	0.0000	5.7064	5.7064	1.7000e-004	0.0000	5.7108
Total	3.3900e-003	2.3200e-003	0.0246	6.0000e-005	6.4600e-003	5.0000e-005	6.5100e-003	1.7200e-003	5.0000e-005	1.7600e-003	0.0000	5.7064	5.7064	1.7000e-004	0.0000	5.7108

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					6.0400e-003	0.0000	6.0400e-003	6.6000e-004	0.0000	6.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1301	1.4676	1.2514	2.5800e-003		0.0591	0.0591		0.0543	0.0543	0.0000	226.8913	226.8913	0.0734	0.0000	228.7258
Total	0.1301	1.4676	1.2514	2.5800e-003	6.0400e-003	0.0591	0.0651	6.6000e-004	0.0543	0.0550	0.0000	226.8913	226.8913	0.0734	0.0000	228.7258

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3.3 Grading - 2021**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	3.3900e-003	2.3200e-003	0.0246	6.0000e-005	6.4600e-003	5.0000e-005	6.5100e-003	1.7200e-003	5.0000e-005	1.7600e-003	0.0000	5.7064	5.7064	1.7000e-004	0.0000	5.7108
Total	3.3900e-003	2.3200e-003	0.0246	6.0000e-005	6.4600e-003	5.0000e-005	6.5100e-003	1.7200e-003	5.0000e-005	1.7600e-003	0.0000	5.7064	5.7064	1.7000e-004	0.0000	5.7108

3.4 Access - 2021**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	0.0404	0.4250	0.4587	8.2000e-004		0.0217	0.0217		0.0200	0.0200	0.0000	72.3126	72.3126	0.0234	0.0000	72.8973
Total	0.0404	0.4250	0.4587	8.2000e-004	0.0000	0.0217	0.0217	0.0000	0.0200	0.0200	0.0000	72.3126	72.3126	0.0234	0.0000	72.8973

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3.4 Access - 2021**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	3.5500e-003	0.1122	0.0187	3.9000e-004	8.9700e-003	4.2000e-004	9.3900e-003	2.4700e-003	4.1000e-004	2.8700e-003	0.0000	36.6881	36.6881	1.6300e-003	0.0000	36.7290
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	2.2600e-003	1.5500e-003	0.0164	4.0000e-005	4.3100e-003	3.0000e-005	4.3400e-003	1.1400e-003	3.0000e-005	1.1800e-003	0.0000	3.8043	3.8043	1.2000e-004	0.0000	3.8072
Total	5.8100e-003	0.1138	0.0351	4.3000e-004	0.0133	4.5000e-004	0.0137	3.6100e-003	4.4000e-004	4.0500e-003	0.0000	40.4924	40.4924	1.7500e-003	0.0000	40.5361

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	0.0404	0.4250	0.4587	8.2000e-004		0.0217	0.0217		0.0200	0.0200	0.0000	72.3125	72.3125	0.0234	0.0000	72.8972
Total	0.0404	0.4250	0.4587	8.2000e-004	0.0000	0.0217	0.0217	0.0000	0.0200	0.0200	0.0000	72.3125	72.3125	0.0234	0.0000	72.8972

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3.4 Access - 2021**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	3.5500e-003	0.1122	0.0187	3.9000e-004	8.9700e-003	4.2000e-004	9.3900e-003	2.4700e-003	4.1000e-004	2.8700e-003	0.0000	36.6881	36.6881	1.6300e-003	0.0000	36.7290
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	2.2600e-003	1.5500e-003	0.0164	4.0000e-005	4.3100e-003	3.0000e-005	4.3400e-003	1.1400e-003	3.0000e-005	1.1800e-003	0.0000	3.8043	3.8043	1.2000e-004	0.0000	3.8072
Total	5.8100e-003	0.1138	0.0351	4.3000e-004	0.0133	4.5000e-004	0.0137	3.6100e-003	4.4000e-004	4.0500e-003	0.0000	40.4924	40.4924	1.7500e-003	0.0000	40.5361

3.5 Site Improvements - 2021**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	0.0136	0.1174	0.0900	2.9000e-004		4.4800e-003	4.4800e-003		4.1200e-003	4.1200e-003	0.0000	25.8107	25.8107	8.3500e-003	0.0000	26.0194
Total	0.0136	0.1174	0.0900	2.9000e-004	0.0000	4.4800e-003	4.4800e-003	0.0000	4.1200e-003	4.1200e-003	0.0000	25.8107	25.8107	8.3500e-003	0.0000	26.0194

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3.5 Site Improvements - 2021**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	8.4000e-004	5.7000e-004	6.0700e-003	2.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.4000e-004	0.0000	1.4090	1.4090	4.0000e-005	0.0000	1.4101
Total	8.4000e-004	5.7000e-004	6.0700e-003	2.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.4000e-004	0.0000	1.4090	1.4090	4.0000e-005	0.0000	1.4101

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	0.0136	0.1174	0.0900	2.9000e-004		4.4800e-003	4.4800e-003		4.1200e-003	4.1200e-003	0.0000	25.8106	25.8106	8.3500e-003	0.0000	26.0193
Total	0.0136	0.1174	0.0900	2.9000e-004	0.0000	4.4800e-003	4.4800e-003	0.0000	4.1200e-003	4.1200e-003	0.0000	25.8106	25.8106	8.3500e-003	0.0000	26.0193

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3.5 Site Improvements - 2021**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	8.4000e-004	5.7000e-004	6.0700e-003	2.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.4000e-004	0.0000	1.4090	1.4090	4.0000e-005	0.0000	1.4101
Total	8.4000e-004	5.7000e-004	6.0700e-003	2.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.4000e-004	0.0000	1.4090	1.4090	4.0000e-005	0.0000	1.4101

3.5 Site Improvements - 2022**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	0.0241	0.1977	0.1761	5.9000e-004		7.4300e-003	7.4300e-003		6.8300e-003	6.8300e-003	0.0000	51.6456	51.6456	0.0167	0.0000	52.0632
Total	0.0241	0.1977	0.1761	5.9000e-004	0.0000	7.4300e-003	7.4300e-003	0.0000	6.8300e-003	6.8300e-003	0.0000	51.6456	51.6456	0.0167	0.0000	52.0632

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3.5 Site Improvements - 2022**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	1.5500e-003	1.0200e-003	0.0111	3.0000e-005	3.1900e-003	2.0000e-005	3.2100e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7171	2.7171	8.0000e-005	0.0000	2.7190
Total	1.5500e-003	1.0200e-003	0.0111	3.0000e-005	3.1900e-003	2.0000e-005	3.2100e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7171	2.7171	8.0000e-005	0.0000	2.7190

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	0.0241	0.1977	0.1761	5.9000e-004		7.4300e-003	7.4300e-003		6.8300e-003	6.8300e-003	0.0000	51.6455	51.6455	0.0167	0.0000	52.0631
Total	0.0241	0.1977	0.1761	5.9000e-004	0.0000	7.4300e-003	7.4300e-003	0.0000	6.8300e-003	6.8300e-003	0.0000	51.6455	51.6455	0.0167	0.0000	52.0631

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3.5 Site Improvements - 2022**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	1.5500e-003	1.0200e-003	0.0111	3.0000e-005	3.1900e-003	2.0000e-005	3.2100e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7171	2.7171	8.0000e-005	0.0000	2.7190
Total	1.5500e-003	1.0200e-003	0.0111	3.0000e-005	3.1900e-003	2.0000e-005	3.2100e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7171	2.7171	8.0000e-005	0.0000	2.7190

3.6 Planting - 2022**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	4.7600e-003	0.0634	0.0948	1.4000e-004		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	12.4178	12.4178	4.0200e-003	0.0000	12.5182
Total	4.7600e-003	0.0634	0.0948	1.4000e-004	0.0000	2.3600e-003	2.3600e-003	0.0000	2.1700e-003	2.1700e-003	0.0000	12.4178	12.4178	4.0200e-003	0.0000	12.5182

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3.6 Planting - 2022**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	5.8000e-004	3.8000e-004	4.1500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0189	1.0189	3.0000e-005	0.0000	1.0196
Total	5.8000e-004	3.8000e-004	4.1500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0189	1.0189	3.0000e-005	0.0000	1.0196

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	4.7600e-003	0.0634	0.0948	1.4000e-004		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	12.4178	12.4178	4.0200e-003	0.0000	12.5182
Total	4.7600e-003	0.0634	0.0948	1.4000e-004	0.0000	2.3600e-003	2.3600e-003	0.0000	2.1700e-003	2.1700e-003	0.0000	12.4178	12.4178	4.0200e-003	0.0000	12.5182

Redtail- NNP Revised - Merced County, Annual

3.6 Planting - 2022**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	5.8000e-004	3.8000e-004	4.1500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0189	1.0189	3.0000e-005	0.0000	1.0196
Total	5.8000e-004	3.8000e-004	4.1500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0189	1.0189	3.0000e-005	0.0000	1.0196

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Redtail- NNP Revised - Merced County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0390	0.2693	0.3898	1.5300e-003	0.1123	1.3000e-003	0.1136	0.0301	1.2200e-003	0.0313	0.0000	140.7853	140.7853	7.3700e-003	0.0000	140.9696
Unmitigated	0.0390	0.2693	0.3898	1.5300e-003	0.1123	1.3000e-003	0.1136	0.0301	1.2200e-003	0.0313	0.0000	140.7853	140.7853	7.3700e-003	0.0000	140.9696

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	37.80	455.00	334.80	298,513	298,513
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	37.80	455.00	334.80	298,513	298,513

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

[illegible]

Redtail- NNP Revised - Merced County, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

Redtail- NNP Revised - Merced County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Mitigated

[illegible]

Redtail- NNP Revised - Merced County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	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			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	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**

Redtail- NNP Revised - Merced County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0223	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
Unmitigated	0.0223	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004

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	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
Total	0.0223	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004

Redtail- NNP Revised - Merced County, Annual

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	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
Total	0.0223	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

Redtail- NNP Revised - Merced County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.7052	4.4000e-004	9.0000e-005	9.7433
Unmitigated	9.7052	4.4000e-004	9.0000e-005	9.7433

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 9.53185	9.7052	4.4000e-004	9.0000e-005	9.7433
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		9.7052	4.4000e-004	9.0000e-005	9.7433

Redtail- NNP Revised - Merced County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 9.53185	9.7052	4.4000e-004	9.0000e-005	9.7433
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		9.7052	4.4000e-004	9.0000e-005	9.7433

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1401	8.2800e-003	0.0000	0.3470
Unmitigated	0.1401	8.2800e-003	0.0000	0.3470

Redtail- NNP Revised - Merced County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.69	0.1401	8.2800e-003	0.0000	0.3470
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.1401	8.2800e-003	0.0000	0.3470

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.69	0.1401	8.2800e-003	0.0000	0.3470
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.1401	8.2800e-003	0.0000	0.3470

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Redtail- NNP Revised - Merced County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Redtail- NNP Revised - Merced County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	0.0000	0.0000	0.0000	0.0000

11.1 Vegetation Land Change**Vegetation Type**

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Wetlands	0 / 8	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Redtail- NNP Revised - Merced County, Summer

Redtail- NNP Revised

Merced County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	5.00	Acre	5.00	217,800.00	0
City Park	20.00	Acre	20.00	871,200.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Redtail- NNP Revised - Merced County, Summer

Project Characteristics -

Land Use -

Construction Phase - Estimates

Off-road Equipment - Equipment Specs

Off-road Equipment - Equip Specs

Off-road Equipment - Actual specs

Off-road Equipment - Conservative Estimate

Off-road Equipment - Equipment Specs

Off-road Equipment - Specs

Trips and VMT - Estimate

Grading - Estimation

Water And Wastewater - Estimated water use does not affect emissions output. It is not reflective of actual water use and is generated by the model.

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	13068	0
tblConstructionPhase	NumDays	35.00	90.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	NumDays	10.00	120.00
tblConstructionPhase	NumDays	10.00	60.00
tblFleetMix	HHD	0.06	0.00
tblFleetMix	LDA	0.56	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00

Redtail- NNP Revised - Merced County, Summer

tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.6870e-003	0.00
tblFleetMix	MCY	5.0550e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.1800e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1900e-003	0.00
tblFleetMix	SBUS	6.1000e-004	0.00
tblFleetMix	UBUS	1.4530e-003	0.00
tblGrading	AcresOfGrading	180.00	25.00
tblGrading	MaterialImported	0.00	3,000.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	187.00	0.00
tblOffRoadEquipment	HorsePower	97.00	150.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	HorsePower	187.00	0.00
tblOffRoadEquipment	HorsePower	88.00	24.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	65.00	74.00
tblOffRoadEquipment	HorsePower	65.00	74.00
tblOffRoadEquipment	LoadFactor	0.41	0.00
tblOffRoadEquipment	LoadFactor	0.41	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	1.72	0.69
tblTripsAndVMT	HaulingTripLength	20.00	36.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripLength	20.00	35.00
tblTripsAndVMT	HaulingTripNumber	375.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	600.00
tblWater	OutdoorWaterUseRate	23,829,626.99	9,531,850.80

2.0 Emissions Summary

Redtail- NNP Revised - Merced County, Summer

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					
2021	3.6318	39.2890	36.4665	0.0758	0.5284	1.5796	2.1080	0.1234	1.4532	1.5466	0.0000	7,344.747 6	7,344.747 6	2.3059	0.0000	7,402.394 9
2022	0.8267	7.0926	8.0399	0.0206	0.1232	0.2651	0.3883	0.0327	0.2439	0.2766	0.0000	2,002.352 1	2,002.352 1	0.6114	0.0000	2,017.637 1
Maximum	3.6318	39.2890	36.4665	0.0758	0.5284	1.5796	2.1080	0.1234	1.4532	1.5466	0.0000	7,344.747 6	7,344.747 6	2.3059	0.0000	7,402.394 9

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					
2021	3.6318	39.2890	36.4665	0.0758	0.4546	1.5796	1.9439	0.1234	1.4532	1.5288	0.0000	7,344.747 6	7,344.747 6	2.3059	0.0000	7,402.394 9
2022	0.8267	7.0926	8.0399	0.0206	0.1232	0.2651	0.3883	0.0327	0.2439	0.2766	0.0000	2,002.352 1	2,002.352 1	0.6114	0.0000	2,017.637 1
Maximum	3.6318	39.2890	36.4665	0.0758	0.4546	1.5796	1.9439	0.1234	1.4532	1.5288	0.0000	7,344.747 6	7,344.747 6	2.3059	0.0000	7,402.394 9

	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
Percent Reduction	0.00	0.00	0.00	0.00	11.32	0.00	6.57	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00

Redtail- NNP Revised - Merced County, Summer

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	0.1223	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-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
Mobile	0.8393	4.7294	7.3938	0.0290	2.0674	0.0230	2.0904	0.5528	0.0216	0.5745		2,942.812 4	2,942.812 4	0.1435		2,946.398 6
Total	0.9616	4.7294	7.3964	0.0290	2.0674	0.0230	2.0904	0.5528	0.0216	0.5745		2,942.817 8	2,942.817 8	0.1435	0.0000	2,946.404 4

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	0.1223	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-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
Mobile	0.8393	4.7294	7.3938	0.0290	2.0674	0.0230	2.0904	0.5528	0.0216	0.5745		2,942.812 4	2,942.812 4	0.1435		2,946.398 6
Total	0.9616	4.7294	7.3964	0.0290	2.0674	0.0230	2.0904	0.5528	0.0216	0.5745		2,942.817 8	2,942.817 8	0.1435	0.0000	2,946.404 4

Redtail- NNP Revised - Merced County, Summer

	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
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	Clearing and Grubbing	Site Preparation	3/1/2021	4/30/2021	5	45	
2	Grading	Grading	4/10/2021	8/13/2021	5	90	
3	Access	Site Preparation	8/16/2021	11/5/2021	5	60	
4	Site Improvements	Site Preparation	11/8/2021	4/22/2022	5	120	
5	Planting	Site Preparation	3/14/2022	6/3/2022	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25

Acres of Paving: 5

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

OffRoad Equipment

Redtail- NNP Revised - Merced County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Clearing and Grubbing	Excavators	1	8.00	201	0.38
Clearing and Grubbing	Skid Steer Loaders	2	8.00	74	0.37
Clearing and Grubbing	Tractors/Loaders/Backhoes	1	8.00	150	0.37
Grading	Excavators	1	8.00	201	0.38
Grading	Graders	0	0.00	0	0.00
Grading	Rollers	4	8.00	157	0.38
Grading	Scrapers	2	8.00	367	0.48
Access	Excavators	1	8.00	201	0.38
Access	Graders	0	0.00	0	0.00
Access	Rollers	2	8.00	157	0.38
Access	Skid Steer Loaders	2	8.00	65	0.37
Access	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Access	Trenchers	1	8.00	78	0.50
Site Improvements	Excavators	2	8.00	201	0.38
Site Improvements	Other General Industrial Equipment	2	8.00	24	0.34
Planting	Skid Steer Loaders	2	8.00	74	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Clearing and Grubbing	4	10.00	0.00	0.00	10.80	7.30	36.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	0.00	10.80	7.30	35.00	LD_Mix	HDT_Mix	HHDT
Access	7	18.00	0.00	600.00	10.80	7.30	35.00	LD_Mix	HDT_Mix	HHDT
Site Improvements	4	10.00	0.00	0.00	10.80	7.30	35.00	LD_Mix	HDT_Mix	HHDT
Planting	2	5.00	0.00	0.00	10.80	7.30	35.00	LD_Mix	HDT_Mix	HHDT

Redtail- NNP Revised - Merced County, Summer

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

3.2 Clearing and Grubbing - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6075	6.6014	7.6763	0.0160		0.2653	0.2653		0.2441	0.2441		1,549.036 2	1,549.036 2	0.5010		1,561.560 9
Total	0.6075	6.6014	7.6763	0.0160	0.0000	0.2653	0.2653	0.0000	0.2441	0.2441		1,549.036 2	1,549.036 2	0.5010		1,561.560 9

Redtail- NNP Revised - Merced County, Summer

3.2 Clearing and Grubbing - 2021**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	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011
Total	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6075	6.6014	7.6763	0.0160		0.2653	0.2653		0.2441	0.2441	0.0000	1,549.0362	1,549.0362	0.5010		1,561.5609
Total	0.6075	6.6014	7.6763	0.0160	0.0000	0.2653	0.2653	0.0000	0.2441	0.2441	0.0000	1,549.0362	1,549.0362	0.5010		1,561.5609

Redtail- NNP Revised - Merced County, Summer

3.2 Clearing and Grubbing - 2021**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	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011
Total	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011

3.3 Grading - 2021**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					0.2984	0.0000	0.2984	0.0324	0.0000	0.0324			0.0000			0.0000
Off-Road	2.8901	32.6132	27.8091	0.0574		1.3126	1.3126		1.2076	1.2076		5,557.8924	5,557.8924	1.7975		5,602.8308
Total	2.8901	32.6132	27.8091	0.0574	0.2984	1.3126	1.6110	0.0324	1.2076	1.2400		5,557.8924	5,557.8924	1.7975		5,602.8308

Redtail- NNP Revised - Merced County, Summer

3.3 Grading - 2021**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	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020
Total	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020

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					0.1343	0.0000	0.1343	0.0146	0.0000	0.0146			0.0000			0.0000
Off-Road	2.8901	32.6132	27.8091	0.0574		1.3126	1.3126		1.2076	1.2076	0.0000	5,557.8924	5,557.8924	1.7975		5,602.8308
Total	2.8901	32.6132	27.8091	0.0574	0.1343	1.3126	1.4469	0.0146	1.2076	1.2222	0.0000	5,557.8924	5,557.8924	1.7975		5,602.8308

Redtail- NNP Revised - Merced County, Summer

3.3 Grading - 2021**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	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020
Total	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020

3.4 Access - 2021**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	1.3460	14.1677	15.2894	0.0274		0.7236	0.7236		0.6657	0.6657		2,657.0332	2,657.0332	0.8593		2,678.5167
Total	1.3460	14.1677	15.2894	0.0274	0.0000	0.7236	0.7236	0.0000	0.6657	0.6657		2,657.0332	2,657.0332	0.8593		2,678.5167

Redtail- NNP Revised - Merced County, Summer

3.4 Access - 2021**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	0.1174	3.6324	0.6040	0.0129	0.3067	0.0141	0.3208	0.0841	0.0135	0.0976		1,356.027 9	1,356.027 9	0.0571		1,357.455 4
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	0.0862	0.0478	0.6307	1.5400e- 003	0.1479	1.0900e- 003	0.1490	0.0392	1.0100e- 003	0.0402		152.8836	152.8836	4.7400e- 003		153.0020
Total	0.2036	3.6802	1.2347	0.0145	0.4546	0.0152	0.4698	0.1234	0.0145	0.1378		1,508.911 6	1,508.911 6	0.0618		1,510.457 4

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	1.3460	14.1677	15.2894	0.0274		0.7236	0.7236		0.6657	0.6657	0.0000	2,657.033 2	2,657.033 2	0.8593		2,678.516 7
Total	1.3460	14.1677	15.2894	0.0274	0.0000	0.7236	0.7236	0.0000	0.6657	0.6657	0.0000	2,657.033 2	2,657.033 2	0.8593		2,678.516 7

Redtail- NNP Revised - Merced County, Summer

3.4 Access - 2021**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	0.1174	3.6324	0.6040	0.0129	0.3067	0.0141	0.3208	0.0841	0.0135	0.0976		1,356.0279	1,356.0279	0.0571		1,357.4554
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	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020
Total	0.2036	3.6802	1.2347	0.0145	0.4546	0.0152	0.4698	0.1234	0.0145	0.1378		1,508.9116	1,508.9116	0.0618		1,510.4574

3.5 Site Improvements - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6779	5.8694	4.5018	0.0147		0.2240	0.2240		0.2061	0.2061		1,422.5690	1,422.5690	0.4601		1,434.0712
Total	0.6779	5.8694	4.5018	0.0147	0.0000	0.2240	0.2240	0.0000	0.2061	0.2061		1,422.5690	1,422.5690	0.4601		1,434.0712

Redtail- NNP Revised - Merced County, Summer

3.5 Site Improvements - 2021**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	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011
Total	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6779	5.8694	4.5018	0.0147		0.2240	0.2240		0.2061	0.2061	0.0000	1,422.5690	1,422.5690	0.4601		1,434.0712
Total	0.6779	5.8694	4.5018	0.0147	0.0000	0.2240	0.2240	0.0000	0.2061	0.2061	0.0000	1,422.5690	1,422.5690	0.4601		1,434.0712

Redtail- NNP Revised - Merced County, Summer

3.5 Site Improvements - 2021**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	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011
Total	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011

3.5 Site Improvements - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6018	4.9426	4.4020	0.0147		0.1857	0.1857		0.1708	0.1708		1,423.2376	1,423.2376	0.4603		1,434.7452
Total	0.6018	4.9426	4.4020	0.0147	0.0000	0.1857	0.1857	0.0000	0.1708	0.1708		1,423.2376	1,423.2376	0.4603		1,434.7452

Redtail- NNP Revised - Merced County, Summer

3.5 Site Improvements - 2022**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	0.0442	0.0237	0.3196	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.8927	81.8927	2.3500e-003		81.9515
Total	0.0442	0.0237	0.3196	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.8927	81.8927	2.3500e-003		81.9515

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6018	4.9426	4.4020	0.0147		0.1857	0.1857		0.1708	0.1708	0.0000	1,423.2376	1,423.2376	0.4603		1,434.7452
Total	0.6018	4.9426	4.4020	0.0147	0.0000	0.1857	0.1857	0.0000	0.1708	0.1708	0.0000	1,423.2376	1,423.2376	0.4603		1,434.7452

Redtail- NNP Revised - Merced County, Summer

3.5 Site Improvements - 2022**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	0.0442	0.0237	0.3196	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.8927	81.8927	2.3500e-003		81.9515
Total	0.0442	0.0237	0.3196	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.8927	81.8927	2.3500e-003		81.9515

3.6 Planting - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1585	2.1144	3.1585	4.7100e-003		0.0786	0.0786		0.0723	0.0723		456.2755	456.2755	0.1476		459.9647
Total	0.1585	2.1144	3.1585	4.7100e-003	0.0000	0.0786	0.0786	0.0000	0.0723	0.0723		456.2755	456.2755	0.1476		459.9647

Redtail- NNP Revised - Merced County, Summer

3.6 Planting - 2022**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	0.0221	0.0119	0.1598	4.1000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112		40.9464	40.9464	1.1800e-003		40.9758
Total	0.0221	0.0119	0.1598	4.1000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112		40.9464	40.9464	1.1800e-003		40.9758

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1585	2.1144	3.1585	4.7100e-003		0.0786	0.0786		0.0723	0.0723	0.0000	456.2755	456.2755	0.1476		459.9647
Total	0.1585	2.1144	3.1585	4.7100e-003	0.0000	0.0786	0.0786	0.0000	0.0723	0.0723	0.0000	456.2755	456.2755	0.1476		459.9647

Redtail- NNP Revised - Merced County, Summer

3.6 Planting - 2022**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	0.0221	0.0119	0.1598	4.1000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112		40.9464	40.9464	1.1800e-003		40.9758
Total	0.0221	0.0119	0.1598	4.1000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112		40.9464	40.9464	1.1800e-003		40.9758

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Redtail- NNP Revised - Merced County, Summer

	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	0.8393	4.7294	7.3938	0.0290	2.0674	0.0230	2.0904	0.5528	0.0216	0.5745		2,942.8124	2,942.8124	0.1435		2,946.3986
Unmitigated	0.8393	4.7294	7.3938	0.0290	2.0674	0.0230	2.0904	0.5528	0.0216	0.5745		2,942.8124	2,942.8124	0.1435		2,946.3986

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	37.80	455.00	334.80	298,513	298,513
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	37.80	455.00	334.80	298,513	298,513

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

[illegible]

Redtail- NNP Revised - Merced County, Summer

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

Redtail- NNP Revised - Merced County, Summer

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					
City Park	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
Other Non-Asphalt Surfaces	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					
City Park	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
Other Non-Asphalt Surfaces	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**

Redtail- NNP Revised - Merced County, Summer

	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	0.1223	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Unmitigated	0.1223	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1220					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Total	0.1223	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003

Redtail- NNP Revised - Merced County, Summer

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	0.1220					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Total	0.1223	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Redtail- NNP Revised - Merced County, Summer

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

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

Equipment Type	Number
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11.0 Vegetation

Redtail- Pipe Extension - Merced County, Annual

Redtail- Pipe Extension
Merced County, Annual**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.20		0.20	8,712.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2022
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

Redtail- Pipe Extension - Merced County, Annual

Project Characteristics -

Land Use -

Construction Phase - Estimates

Off-road Equipment - Equip Specs

Off-road Equipment - Specs

Off-road Equipment - Off Highway Trucks:

- 10 wheeler

- Cement truck

Trips and VMT - Estimating some amount of trips required to move concrete.

Grading -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	523	0
tblConstructionPhase	NumDays	5.00	20.00
tblFleetMix	HHD	0.06	0.00
tblFleetMix	LDA	0.56	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.6870e-003	0.00
tblFleetMix	MCY	5.0550e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.1800e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1900e-003	0.00

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tblFleetMix	SBUS	6.1000e-004	0.00
tblFleetMix	UBUS	1.4530e-003	0.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSequestration	NumberOfNewTrees	0.00	110.00
tblTripsAndVMT	HaulingTripNumber	0.00	60.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	WorkerTripLength	16.80	10.80
tblTripsAndVMT	WorkerTripLength	16.80	10.80

2.0 Emissions Summary

Redtail- Pipe Extension - Merced County, Annual

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					
2021	0.0235	0.2061	0.2149	4.7000e-004	2.6700e-003	0.0100	0.0127	7.2000e-004	9.6000e-003	0.0103	0.0000	40.6700	40.6700	7.9400e-003	0.0000	40.8686
Maximum	0.0235	0.2061	0.2149	4.7000e-004	2.6700e-003	0.0100	0.0127	7.2000e-004	9.6000e-003	0.0103	0.0000	40.6700	40.6700	7.9400e-003	0.0000	40.8686

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					
2021	0.0235	0.2061	0.2149	4.7000e-004	2.6700e-003	0.0100	0.0127	7.2000e-004	9.6000e-003	0.0103	0.0000	40.6700	40.6700	7.9400e-003	0.0000	40.8685
Maximum	0.0235	0.2061	0.2149	4.7000e-004	2.6700e-003	0.0100	0.0127	7.2000e-004	9.6000e-003	0.0103	0.0000	40.6700	40.6700	7.9400e-003	0.0000	40.8685

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	0.0255	0.0255
2	6-1-2021	8-31-2021	0.2040	0.2040
		Highest	0.2040	0.2040

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2.2 Overall Operational

Unmitigated Operational

[illegible]

Mitigated Operational

[illegible]

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	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
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

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	77.8800
Vegetation Land Change	0.0000
Total	77.8800

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Paving	Paving	5/22/2021	6/18/2021	5	20	
2	Excavation, Pipe Laying, and Trench Backfill	Trenching	6/19/2021	7/16/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.2

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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
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Rollers	1	8.00	157	0.38
Excavation, Pipe Laying, and Trench Backfill	Air Compressors	1	8.00	78	0.48
Excavation, Pipe Laying, and Trench Backfill	Excavators	2	8.00	201	0.38
Excavation, Pipe Laying, and Trench Backfill	Generator Sets	1	8.00	84	0.74
Excavation, Pipe Laying, and Trench Backfill	Plate Compactors	1	8.00	8	0.43
Excavation, Pipe Laying, and Trench Backfill	Sweepers/Scrubbers	1	8.00	64	0.46
Excavation, Pipe Laying, and Trench Backfill	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Paving	3	8.00	0.00	60.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation, Pipe Laying, and Trench Backfill	7	18.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Redtail- Pipe Extension - Merced County, Annual

3.2 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4700e-003	0.0563	0.0706	1.2000e-004		2.9000e-003	2.9000e-003		2.8200e-003	2.8200e-003	0.0000	10.3402	10.3402	1.8200e-003	0.0000	10.3856
Paving	2.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7300e-003	0.0563	0.0706	1.2000e-004		2.9000e-003	2.9000e-003		2.8200e-003	2.8200e-003	0.0000	10.3402	10.3402	1.8200e-003	0.0000	10.3856

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	2.3000e-004	7.7100e-003	1.1900e-003	2.0000e-005	5.1000e-004	3.0000e-005	5.4000e-004	1.4000e-004	2.0000e-005	1.7000e-004	0.0000	2.2582	2.2582	1.5000e-004	0.0000	2.2621
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	3.3000e-004	2.3000e-004	2.4300e-003	1.0000e-005	6.4000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5636	0.5636	2.0000e-005	0.0000	0.5640
Total	5.6000e-004	7.9400e-003	3.6200e-003	3.0000e-005	1.1500e-003	3.0000e-005	1.1800e-003	3.1000e-004	2.0000e-005	3.4000e-004	0.0000	2.8218	2.8218	1.7000e-004	0.0000	2.8261

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3.2 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4700e-003	0.0563	0.0706	1.2000e-004		2.9000e-003	2.9000e-003		2.8200e-003	2.8200e-003	0.0000	10.3402	10.3402	1.8200e-003	0.0000	10.3856
Paving	2.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7300e-003	0.0563	0.0706	1.2000e-004		2.9000e-003	2.9000e-003		2.8200e-003	2.8200e-003	0.0000	10.3402	10.3402	1.8200e-003	0.0000	10.3856

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	2.3000e-004	7.7100e-003	1.1900e-003	2.0000e-005	5.1000e-004	3.0000e-005	5.4000e-004	1.4000e-004	2.0000e-005	1.7000e-004	0.0000	2.2582	2.2582	1.5000e-004	0.0000	2.2621
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	3.3000e-004	2.3000e-004	2.4300e-003	1.0000e-005	6.4000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5636	0.5636	2.0000e-005	0.0000	0.5640
Total	5.6000e-004	7.9400e-003	3.6200e-003	3.0000e-005	1.1500e-003	3.0000e-005	1.1800e-003	3.1000e-004	2.0000e-005	3.4000e-004	0.0000	2.8218	2.8218	1.7000e-004	0.0000	2.8261

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3.3 Excevation, Pipe Laying, and Trench Backfill - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0154	0.1400	0.1350	3.0000e-004		7.0700e-003	7.0700e-003		6.7500e-003	6.7500e-003	0.0000	25.8636	25.8636	5.8900e-003	0.0000	26.0108
Total	0.0154	0.1400	0.1350	3.0000e-004		7.0700e-003	7.0700e-003		6.7500e-003	6.7500e-003	0.0000	25.8636	25.8636	5.8900e-003	0.0000	26.0108

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	1.2800e-003	2.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3764	0.3764	3.0000e-005	0.0000	0.3770
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	7.5000e-004	5.2000e-004	5.4600e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2681	1.2681	4.0000e-005	0.0000	1.2691
Total	7.9000e-004	1.8000e-003	5.6600e-003	1.0000e-005	1.5300e-003	1.0000e-005	1.5400e-003	4.0000e-004	1.0000e-005	4.2000e-004	0.0000	1.6445	1.6445	7.0000e-005	0.0000	1.6461

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3.3 Excevation, Pipe Laying, and Trench Backfill - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0154	0.1400	0.1350	3.0000e-004		7.0700e-003	7.0700e-003		6.7500e-003	6.7500e-003	0.0000	25.8636	25.8636	5.8900e-003	0.0000	26.0108
Total	0.0154	0.1400	0.1350	3.0000e-004		7.0700e-003	7.0700e-003		6.7500e-003	6.7500e-003	0.0000	25.8636	25.8636	5.8900e-003	0.0000	26.0108

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	1.2800e-003	2.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3764	0.3764	3.0000e-005	0.0000	0.3770
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	7.5000e-004	5.2000e-004	5.4600e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2681	1.2681	4.0000e-005	0.0000	1.2691
Total	7.9000e-004	1.8000e-003	5.6600e-003	1.0000e-005	1.5300e-003	1.0000e-005	1.5400e-003	4.0000e-004	1.0000e-005	4.2000e-004	0.0000	1.6445	1.6445	7.0000e-005	0.0000	1.6461

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

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5.2 Energy by Land Use - NaturalGas**Mitigated**

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

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	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

[illegible]

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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	5.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	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	5.6000e-004	0.0000	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

	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	5.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	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	5.6000e-004	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

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7.1 Mitigation Measures Water**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

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
	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			
	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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
----------------	--------

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	77.8800	0.0000	0.0000	77.8800

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11.1 Vegetation Land Change**Vegetation Type**

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Wetlands	78 / 78	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

11.2 Net New Trees**Species Class**

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	110	77.8800	0.0000	0.0000	77.8800
Total		77.8800	0.0000	0.0000	77.8800

Redtail- Pipe Extension - Merced County, Summer

Redtail- Pipe Extension

Merced County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.20		0.20	8,712.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Redtail- Pipe Extension - Merced County, Summer

Project Characteristics -

Land Use -

Construction Phase - Estimates

Off-road Equipment - Equip Specs

Off-road Equipment - Specs

Off-road Equipment - Off Highway Trucks:

- 10 wheeler

- Cement truck

Trips and VMT - Estimating some amount of trips required to move concrete.

Grading -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	523	0
tblConstructionPhase	NumDays	5.00	20.00
tblFleetMix	HHD	0.06	0.00
tblFleetMix	LDA	0.56	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.6870e-003	0.00
tblFleetMix	MCY	5.0550e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.1800e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1900e-003	0.00

Redtail- Pipe Extension - Merced County, Summer

tblFleetMix	SBUS	6.1000e-004	0.00
tblFleetMix	UBUS	1.4530e-003	0.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	158.00	201.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSequestration	NumberOfNewTrees	0.00	110.00
tblTripsAndVMT	HaulingTripNumber	0.00	60.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	WorkerTripLength	16.80	10.80
tblTripsAndVMT	WorkerTripLength	16.80	10.80

2.0 Emissions Summary

Redtail- Pipe Extension - Merced County, Summer

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					
2021	1.6338	14.1754	14.1517	0.0318	0.1566	0.7084	0.8650	0.0416	0.6759	0.7176	0.0000	3,045.7415	3,045.7415	0.6566	0.0000	3,062.1562
Maximum	1.6338	14.1754	14.1517	0.0318	0.1566	0.7084	0.8650	0.0416	0.6759	0.7176	0.0000	3,045.7415	3,045.7415	0.6566	0.0000	3,062.1562

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					
2021	1.6338	14.1754	14.1517	0.0318	0.1566	0.7084	0.8650	0.0416	0.6759	0.7176	0.0000	3,045.7415	3,045.7415	0.6566	0.0000	3,062.1562
Maximum	1.6338	14.1754	14.1517	0.0318	0.1566	0.7084	0.8650	0.0416	0.6759	0.7176	0.0000	3,045.7415	3,045.7415	0.6566	0.0000	3,062.1562

[illegible]

Redtail- Pipe Extension - Merced County, Summer

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	3.0900e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000		5.0000e-005
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
Total	3.0900e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000	0.0000	5.0000e-005

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	3.0900e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000		5.0000e-005
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
Total	3.0900e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000	0.0000	5.0000e-005

[illegible]

Redtail- Pipe Extension - Merced County, Summer

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Paving	Paving	5/22/2021	6/18/2021	5	20	
2	Excavation, Pipe Laying, and Trench Backfill	Trenching	6/19/2021	7/16/2021	5	20	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 0.2****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
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Rollers	1	8.00	157	0.38
Excavation, Pipe Laying, and Trench Backfill	Air Compressors	1	8.00	78	0.48
Excavation, Pipe Laying, and Trench Backfill	Excavators	2	8.00	201	0.38
Excavation, Pipe Laying, and Trench Backfill	Generator Sets	1	8.00	84	0.74
Excavation, Pipe Laying, and Trench Backfill	Plate Compactors	1	8.00	8	0.43
Excavation, Pipe Laying, and Trench Backfill	Sweepers/Scrubbers	1	8.00	64	0.46
Excavation, Pipe Laying, and Trench Backfill	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Redtail- Pipe Extension - Merced County, Summer

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
Paving	3	8.00	0.00	60.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation, Pipe Laying, and Trench Backfill	7	18.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6466	5.6335	7.0608	0.0121		0.2898	0.2898		0.2816	0.2816		1,139.8087	1,139.8087	0.2003		1,144.8157
Paving	0.0262					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6728	5.6335	7.0608	0.0121		0.2898	0.2898		0.2816	0.2816		1,139.8087	1,139.8087	0.2003		1,144.8157

Redtail- Pipe Extension - Merced County, Summer

3.2 Paving - 2021**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	0.0226	0.7547	0.1130	2.4000e-003	0.0526	2.4800e-003	0.0551	0.0144	2.3800e-003	0.0168		251.3193	251.3193	0.0161		251.7221
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	0.0383	0.0213	0.2803	6.8000e-004	0.0657	4.9000e-004	0.0662	0.0174	4.5000e-004	0.0179		67.9483	67.9483	2.1100e-003		68.0009
Total	0.0609	0.7760	0.3933	3.0800e-003	0.1183	2.9700e-003	0.1213	0.0319	2.8300e-003	0.0347		319.2676	319.2676	0.0182		319.7230

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6466	5.6335	7.0608	0.0121		0.2898	0.2898		0.2816	0.2816	0.0000	1,139.8087	1,139.8087	0.2003		1,144.8157
Paving	0.0262					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6728	5.6335	7.0608	0.0121		0.2898	0.2898		0.2816	0.2816	0.0000	1,139.8087	1,139.8087	0.2003		1,144.8157

Redtail- Pipe Extension - Merced County, Summer

3.2 Paving - 2021**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	0.0226	0.7547	0.1130	2.4000e-003	0.0526	2.4800e-003	0.0551	0.0144	2.3800e-003	0.0168		251.3193	251.3193	0.0161		251.7221
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	0.0383	0.0213	0.2803	6.8000e-004	0.0657	4.9000e-004	0.0662	0.0174	4.5000e-004	0.0179		67.9483	67.9483	2.1100e-003		68.0009
Total	0.0609	0.7760	0.3933	3.0800e-003	0.1183	2.9700e-003	0.1213	0.0319	2.8300e-003	0.0347		319.2676	319.2676	0.0182		319.7230

3.3 Excevation, Pipe Laying, and Trench Backfill - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5438	14.0018	13.5022	0.0298		0.7068	0.7068		0.6745	0.6745		2,850.9713	2,850.9713	0.6492		2,867.2005
Total	1.5438	14.0018	13.5022	0.0298		0.7068	0.7068		0.6745	0.6745		2,850.9713	2,850.9713	0.6492		2,867.2005

Redtail- Pipe Extension - Merced County, Summer

3.3 Excevation, Pipe Laying, and Trench Backfill - 2021**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	3.7600e-003	0.1258	0.0188	4.0000e-004	8.7700e-003	4.1000e-004	9.1800e-003	2.4100e-003	4.0000e-004	2.8000e-003		41.8866	41.8866	2.6900e-003		41.9537
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	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020
Total	0.0900	0.1736	0.6495	1.9400e-003	0.1566	1.5000e-003	0.1581	0.0416	1.4100e-003	0.0430		194.7702	194.7702	7.4300e-003		194.9557

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5438	14.0018	13.5022	0.0298		0.7068	0.7068		0.6745	0.6745	0.0000	2,850.9713	2,850.9713	0.6492		2,867.2005
Total	1.5438	14.0018	13.5022	0.0298		0.7068	0.7068		0.6745	0.6745	0.0000	2,850.9713	2,850.9713	0.6492		2,867.2005

Redtail- Pipe Extension - Merced County, Summer

3.3 Excevation, Pipe Laying, and Trench Backfill - 2021**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	3.7600e-003	0.1258	0.0188	4.0000e-004	8.7700e-003	4.1000e-004	9.1800e-003	2.4100e-003	4.0000e-004	2.8000e-003		41.8866	41.8866	2.6900e-003		41.9537
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	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020
Total	0.0900	0.1736	0.6495	1.9400e-003	0.1566	1.5000e-003	0.1581	0.0416	1.4100e-003	0.0430		194.7702	194.7702	7.4300e-003		194.9557

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile****4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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

Redtail- Pipe Extension - Merced County, Summer

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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

Redtail- Pipe Extension - Merced County, Summer

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					
Other Asphalt Surfaces	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					
Other Asphalt Surfaces	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**

Redtail- Pipe Extension - Merced County, Summer

	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	3.0900e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000		5.0000e-005
Unmitigated	3.0900e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000		5.0000e-005

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	3.0900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000		5.0000e-005
Total	3.0900e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000		5.0000e-005

Redtail- Pipe Extension - Merced County, Summer

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	3.0900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000		5.0000e-005
Total	3.0900e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-005	4.0000e-005	0.0000		5.0000e-005

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Redtail- Pipe Extension - Merced County, Summer

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

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

Equipment Type	Number
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11.0 Vegetation

Redtail- NNP Paving - Merced County, Annual

Redtail- NNP Paving Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	4.00	1000sqft	0.09	4,000.00	0
Parking Lot	7.50	1000sqft	0.17	7,500.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment - Based off listed equipment

Off-road Equipment - Based off listed equipment

Grading - Based on acres graded

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Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	0.00	0.26
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	247.00	276.00
tblOffRoadEquipment	HorsePower	97.00	155.00
tblOffRoadEquipment	HorsePower	97.00	155.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

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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					
2021	3.3200e-003	0.0254	0.0333	6.0000e-005	1.3300e-003	1.2300e-003	2.5600e-003	5.5000e-004	1.1500e-003	1.7000e-003	0.0000	4.8451	4.8451	1.2400e-003	0.0000	4.8760
Maximum	3.3200e-003	0.0254	0.0333	6.0000e-005	1.3300e-003	1.2300e-003	2.5600e-003	5.5000e-004	1.1500e-003	1.7000e-003	0.0000	4.8451	4.8451	1.2400e-003	0.0000	4.8760

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					
2021	3.3200e-003	0.0254	0.0333	6.0000e-005	1.3300e-003	1.2300e-003	2.5600e-003	5.5000e-004	1.1500e-003	1.7000e-003	0.0000	4.8451	4.8451	1.2400e-003	0.0000	4.8760
Maximum	3.3200e-003	0.0254	0.0333	6.0000e-005	1.3300e-003	1.2300e-003	2.5600e-003	5.5000e-004	1.1500e-003	1.7000e-003	0.0000	4.8451	4.8451	1.2400e-003	0.0000	4.8760

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-23-2021	5-22-2021	0.0264	0.0264
		Highest	0.0264	0.0264

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	9.9000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1709	1.1709	5.0000e-005	1.0000e-005	1.1755
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.9000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1711	1.1711	5.0000e-005	1.0000e-005	1.1757

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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	9.9000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1709	1.1709	5.0000e-005	1.0000e-005	1.1755
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.9000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1711	1.1711	5.0000e-005	1.0000e-005	1.1757

	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
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	Grading	Grading	3/10/2021	3/11/2021	5	2	
2	Paving	Paving	3/11/2021	3/17/2021	5	5	

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Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0.26****Acres of Paving: 0.26****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
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	276	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	155	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	157	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	155	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Grading - 2021**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					8.9000e-004	0.0000	8.9000e-004	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4000e-004	7.4000e-003	9.3500e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.7000e-004	3.7000e-004	0.0000	1.2869	1.2869	2.7000e-004	0.0000	1.2938
Total	8.4000e-004	7.4000e-003	9.3500e-003	1.0000e-005	8.9000e-004	3.9000e-004	1.2800e-003	4.3000e-004	3.7000e-004	8.0000e-004	0.0000	1.2869	1.2869	2.7000e-004	0.0000	1.2938

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	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0705	0.0705	0.0000	0.0000	0.0705
Total	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0705	0.0705	0.0000	0.0000	0.0705

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3.2 Grading - 2021**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					8.9000e-004	0.0000	8.9000e-004	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4000e-004	7.4000e-003	9.3500e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.7000e-004	3.7000e-004	0.0000	1.2869	1.2869	2.7000e-004	0.0000	1.2938
Total	8.4000e-004	7.4000e-003	9.3500e-003	1.0000e-005	8.9000e-004	3.9000e-004	1.2800e-003	4.3000e-004	3.7000e-004	8.0000e-004	0.0000	1.2869	1.2869	2.7000e-004	0.0000	1.2938

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	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0705	0.0705	0.0000	0.0000	0.0705
Total	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0705	0.0705	0.0000	0.0000	0.0705

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3.3 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9100e-003	0.0179	0.0222	4.0000e-005		8.4000e-004	8.4000e-004		7.8000e-004	7.8000e-004	0.0000	3.1708	3.1708	9.5000e-004	0.0000	3.1945
Paving	3.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.2500e-003	0.0179	0.0222	4.0000e-005		8.4000e-004	8.4000e-004		7.8000e-004	7.8000e-004	0.0000	3.1708	3.1708	9.5000e-004	0.0000	3.1945

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	1.9000e-004	1.3000e-004	1.3700e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3170	0.3170	1.0000e-005	0.0000	0.3173
Total	1.9000e-004	1.3000e-004	1.3700e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3170	0.3170	1.0000e-005	0.0000	0.3173

Redtail- NNP Paving - Merced County, Annual

3.3 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9100e-003	0.0179	0.0222	4.0000e-005		8.4000e-004	8.4000e-004		7.8000e-004	7.8000e-004	0.0000	3.1707	3.1707	9.5000e-004	0.0000	3.1945
Paving	3.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.2500e-003	0.0179	0.0222	4.0000e-005		8.4000e-004	8.4000e-004		7.8000e-004	7.8000e-004	0.0000	3.1707	3.1707	9.5000e-004	0.0000	3.1945

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	1.9000e-004	1.3000e-004	1.3700e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3170	0.3170	1.0000e-005	0.0000	0.3173
Total	1.9000e-004	1.3000e-004	1.3700e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3170	0.3170	1.0000e-005	0.0000	0.3173

4.0 Operational Detail - Mobile

Redtail- NNP Paving - Merced County, Annual

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.552050	0.036079	0.182449	0.124563	0.019215	0.004844	0.016098	0.055414	0.001187	0.001496	0.005121	0.000613	0.000871

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Mitigated

[illegible]

Redtail- NNP Paving - Merced County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	1400	0.4073	2.0000e-005	0.0000	0.4089
Parking Lot	2625	0.7636	3.0000e-005	1.0000e-005	0.7666
Total		1.1709	5.0000e-005	1.0000e-005	1.1755

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	1400	0.4073	2.0000e-005	0.0000	0.4089
Parking Lot	2625	0.7636	3.0000e-005	1.0000e-005	0.7666
Total		1.1709	5.0000e-005	1.0000e-005	1.1755

6.0 Area Detail**6.1 Mitigation Measures Area**

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	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	9.9000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Unmitigated	9.9000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004

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	2.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Total	9.9000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004

Redtail- NNP Paving - Merced County, Annual

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	2.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Total	9.9000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

Redtail- NNP Paving - Merced County, Annual

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

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Redtail- NNP Paving - Merced County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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

Redtail- NNP Paving - Merced County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	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			
Parking Lot	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
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Redtail- NNP Paving - Merced County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Redtail- NNP Paving - Merced County, Summer

Redtail- NNP Paving

Merced County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	4.00	1000sqft	0.09	4,000.00	0
Parking Lot	7.50	1000sqft	0.17	7,500.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	49
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment - Based off listed equipment

Off-road Equipment - Based off listed equipment

Grading - Based on acres graded

Redtail- NNP Paving - Merced County, Summer

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	0.00	0.26
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	247.00	276.00
tblOffRoadEquipment	HorsePower	97.00	155.00
tblOffRoadEquipment	HorsePower	97.00	155.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

Redtail- NNP Paving - Merced County, Summer

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					
2021	1.8752	14.6272	19.2237	0.0322	1.1207	0.7236	1.8443	0.4897	0.6830	1.1727	0.0000	3,054.4692	3,054.4692	0.7278	0.0000	3,072.6638
Maximum	1.8752	14.6272	19.2237	0.0322	1.1207	0.7236	1.8443	0.4897	0.6830	1.1727	0.0000	3,054.4692	3,054.4692	0.7278	0.0000	3,072.6638

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					
2021	1.8752	14.6272	19.2237	0.0322	1.1207	0.7236	1.8443	0.4897	0.6830	1.1727	0.0000	3,054.4692	3,054.4692	0.7278	0.0000	3,072.6638
Maximum	1.8752	14.6272	19.2237	0.0322	1.1207	0.7236	1.8443	0.4897	0.6830	1.1727	0.0000	3,054.4692	3,054.4692	0.7278	0.0000	3,072.6638

[illegible]

Redtail- NNP Paving - Merced County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5000e-003	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005		2.6800e-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
Mobile	0.0000	0.0000	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	5.5000e-003	1.0000e-005	1.1800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005	0.0000	2.6800e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5000e-003	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005		2.6800e-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
Mobile	0.0000	0.0000	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	5.5000e-003	1.0000e-005	1.1800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005	0.0000	2.6800e-003

Redtail- NNP Paving - Merced County, Summer

	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
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	Grading	Grading	3/10/2021	3/11/2021	5	2	
2	Paving	Paving	3/11/2021	3/17/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.26

Acres of Paving: 0.26

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
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	276	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	155	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	157	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	155	0.37

Redtail- NNP Paving - Merced County, Summer

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
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Grading - 2021****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					0.8906	0.0000	0.8906	0.4287	0.0000	0.4287			0.0000			0.0000
Off-Road	0.8400	7.4034	9.3469	0.0148		0.3875	0.3875		0.3704	0.3704		1,418.589 7	1,418.589 7	0.3015		1,426.128 1
Total	0.8400	7.4034	9.3469	0.0148	0.8906	0.3875	1.2782	0.4287	0.3704	0.7991		1,418.589 7	1,418.589 7	0.3015		1,426.128 1

Redtail- NNP Paving - Merced County, Summer

3.2 Grading - 2021**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	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011
Total	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011

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					0.8906	0.0000	0.8906	0.4287	0.0000	0.4287			0.0000			0.0000
Off-Road	0.8400	7.4034	9.3469	0.0148		0.3875	0.3875		0.3704	0.3704	0.0000	1,418.5897	1,418.5897	0.3015		1,426.1281
Total	0.8400	7.4034	9.3469	0.0148	0.8906	0.3875	1.2782	0.4287	0.3704	0.7991	0.0000	1,418.5897	1,418.5897	0.3015		1,426.1281

Redtail- NNP Paving - Merced County, Summer

3.2 Grading - 2021**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	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011
Total	0.0479	0.0266	0.3504	8.5000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.6000e-004	0.0224		84.9354	84.9354	2.6300e-003		85.0011

3.3 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7649	7.1494	8.8958	0.0150		0.3344	0.3344		0.3111	0.3111		1,398.0606	1,398.0606	0.4189		1,408.5326
Paving	0.1362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9012	7.1494	8.8958	0.0150		0.3344	0.3344		0.3111	0.3111		1,398.0606	1,398.0606	0.4189		1,408.5326

Redtail- NNP Paving - Merced County, Summer

3.3 Paving - 2021**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	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020
Total	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7649	7.1494	8.8958	0.0150		0.3344	0.3344		0.3111	0.3111	0.0000	1,398.0606	1,398.0606	0.4189		1,408.5326
Paving	0.1362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9012	7.1494	8.8958	0.0150		0.3344	0.3344		0.3111	0.3111	0.0000	1,398.0606	1,398.0606	0.4189		1,408.5326

Redtail- NNP Paving - Merced County, Summer

3.3 Paving - 2021**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	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020
Total	0.0862	0.0478	0.6307	1.5400e-003	0.1479	1.0900e-003	0.1490	0.0392	1.0100e-003	0.0402		152.8836	152.8836	4.7400e-003		153.0020

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Redtail- NNP Paving - Merced County, Summer

	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.552050	0.036079	0.182449	0.124563	0.019215	0.004844	0.016098	0.055414	0.001187	0.001496	0.005121	0.000613	0.000871

Redtail- NNP Paving - Merced County, Summer

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

Redtail- NNP Paving - Merced County, Summer

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					
Parking Lot	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					
Parking Lot	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**

Redtail- NNP Paving - Merced County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.5000e-003	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005		2.6800e-003
Unmitigated	5.5000e-003	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005		2.6800e-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	lb/day										lb/day					
Architectural Coating	1.3100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005		2.6800e-003
Total	5.4900e-003	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005		2.6800e-003

Redtail- NNP Paving - Merced County, Summer

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	1.3100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005		2.6800e-003
Total	5.4900e-003	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5200e-003	2.5200e-003	1.0000e-005		2.6800e-003

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Redtail- NNP Paving - Merced County, Summer

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

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

Equipment Type	Number
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11.0 Vegetation

		Daily emissions from offroad equipment exhaust (lb/day)						Annual emissions from offroad equipment exhaust (tons/yr)							
		ROG	CO	NOx	SO2	PM10	PM2.5	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Construction Phase	Work Days														
NEWS Clearing and grubbing	10	1.67	18.5	17.9	0.0467	0.68	0.62	0.0083	0.093	0.090	2.3E-04	0.0034	0.0031	22	0.0071
NEWS Grading - Berm construction	10	3.57	21.4	41.9	0.0607	1.61	1.48	0.0179	0.107	0.210	3.0E-04	0.0080	0.0074	29	0.0093
NEWS Grading - Pond and berm finishing	30	5.51	24.6	51.4	0.0889	1.90	1.79	0.0827	0.369	0.772	1.3E-03	0.0285	0.0269	137	0.0261
NEWS Access/trail finishing	10	5.09	24.8	32.4	0.0879	1.19	1.18	0.0255	0.124	0.162	4.4E-04	0.0060	0.0059	49	0.0037
NEWS Construction of concrete pad in forebay	60	0.06	0.3	0.4	0.0007	0.01	0.01	0.0018	0.009	0.011	2.1E-05	0.0004	0.0004	2	0.0002
NEWS Culvert installation	30	0.92	9.7	9.1	0.0244	0.37	0.34	0.0139	0.146	0.137	3.7E-04	0.0055	0.0051	34	0.0111
NEWS Finishing/stabilization	20	0.68	4.5	5.9	0.0149	0.22	0.21	0.0068	0.045	0.059	1.5E-04	0.0022	0.0021	14	0.0046
Wetland Grading	21	3.20	20.4	37.8	0.0541	1.43	1.32	0.0336	0.215	0.397	5.7E-04	0.0151	0.0138	54	0.0174
Wetland Civil Construction	22	0.92	9.7	9.1	0.0244	0.37	0.34	0.0102	0.107	0.100	2.7E-04	0.0040	0.0037	25	0.0082
Wetland Live Plant Material Collection	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wetland Planting	10	0.09	1.6	1.1	0.0024	0.05	0.04	0.0004	0.008	0.006	1.2E-05	0.0002	0.0002	1	0.0004
Wetland Inoculum Collection	3	0.22	3.1	2.1	0.0051	0.11	0.10	0.0003	0.005	0.003	7.6E-06	0.0002	0.0001	1	0.0002
Wetland Inoculum Spreading	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NNP Clearing and grubbing	30	0.62	7.8	6.7	0.0166	0.27	0.25	0.0138	0.175	0.150	3.7E-04	0.0060	0.0056	35	0.0114
NNP Grading	90	2.89	27.8	32.6	0.0588	1.31	1.21	0.01300	1.251	1.468	2.6E-03	0.0590	0.0543	250	0.0810
NNP Access/circulation and util.	60	1.37	15.7	14.4	0.0287	0.73	0.68	0.0410	0.470	0.433	8.6E-04	0.0220	0.0203	81	0.0264
NNP Site improvements and furn.	90	1.88	15.0	19.5	0.0292	0.99	0.92	0.01125	0.902	1.168	1.8E-03	0.0597	0.0549	166	0.0536
NNP Planting	45	0.41	4.7	3.6	0.0063	0.18	0.16	0.0123	0.141	0.107	1.9E-04	0.0053	0.0049	18	0.0059
Water Service Extension Excavation, pipe laying, backfill	39	1.63	12.2	14.9	0.0337	0.62	0.60	0.0318	0.238	0.290	6.6E-04	0.0121	0.0117	62	0.0145
Water Service Extension Paving	39	0.97	10.4	8.3	0.0178	0.45	0.44	0.0190	0.203	0.162	3.5E-04	0.0087	0.0086	33	0.0045
	Max	5.5	27.8	51.4	0.09	1.9	1.8	Total	0.72	5.5	7.2	0.01	0.30	1,299	0.35

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name: NEWS Clearing and grubbing Workdays: 10

OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)							
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Excavators	158	201	4	8		0.38	0.163	1.10324	1.7057	0.005	0.052	0.048	471.7931	0.153
Skid Steer Loaders	65	74	4	8		0.37	0.178	3.27687	2.3659	0.005	0.096	0.089	471.9774	0.153
Tractors/Loaders/Backhoes	97	155	2	8		0.37	0.221	3.09070	2.0622	0.005	0.104	0.096	467.5285	0.151

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

			Construction Phase Name: NEWS Clearing and grubbing								Workdays: 10							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Excavators	158	201	0.88	5.9	9.19	0.03	0.28	0.26	2,542	0.82	0.0044	0.0297	0.0460	0.0001	0.0014	0.0013	13	0.0041
Skid Steer Loaders	65	74	0.34	6.3	4.57	0.01	0.19	0.17	912	0.30	0.0017	0.0316	0.0228	0.0000	0.0009	0.0009	5	0.0015
Tractors/Loaders/Backhoes	97	155	0.45	6.3	4.17	0.01	0.21	0.19	946	0.31	0.0022	0.0313	0.0209	0.0001	0.0011	0.0010	5	0.0015
			1.67	18.5	17.93	0.05	0.68	0.62	4,400	1.43	0.008	0.093	0.090	0.0002	0.003	0.003	22	0.007

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:

NEWS Grading - Berm construction

Workdays:

10

OFFROAD Equipment Type	CalEEMod® Default	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default	CalEEMod® EF (g/bhp-hr)							
	AvgHp					Load	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Rollers	80	157	2	8		0.38	0.193	2.9256	2.1169	0.005	0.097	0.090	471.9799	0.153
Crawler Tractors	212	215	4	8		0.43	0.343	1.51456	4.3339	0.005	0.163	0.150	472.9246	0.153
Rubber Tired Loaders	203	277	2	8		0.36	0.264	1.52922	2.6104	0.005	0.097	0.090	467.9277	0.151

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

Construction Phase Name:						NEWS Grading - Berm construction					Workdays:		10					
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Rollers	80	157	0.41	6.2	4.45	0.01	0.20	0.19	993	0.32	0.0020	0.0308	0.0223	0.0001	0.0010	0.0009	5	0.0016
Crawler Tractors	212	215	2.24	9.9	28.27	0.03	1.06	0.98	3,084	1.00	0.0112	0.0494	0.1413	0.0002	0.0053	0.0049	15	0.0050
Rubber Tired Loaders	203	277	0.93	5.4	9.18	0.02	0.34	0.32	1,646	0.53	0.0046	0.0269	0.0459	0.0001	0.0017	0.0016	8	0.0027
			3.57	21.4	41.90	0.06	1.61	1.48	5,724	1.85	0.018	0.107	0.210	0.0003	0.008	0.007	29	0.009

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i ,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						NEWS Grading - Pond and berm finishing							Workdays:	30
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)							
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Graders	187	535	2	8		0.41	0.303	1.20700	1.8080	0.005	0.064	0.064	568.2990	0.027
Crawler Tractors	212	215	4	8		0.43	0.343	1.51456	4.3339	0.005	0.163	0.150	472.9246	0.153
Rubber Tired Loaders	203	277	2	8		0.36	0.264	1.52922	2.6104	0.005	0.097	0.090	467.9277	0.151

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

		Construction Phase Name: NEWS Grading - Pond and berm finishing										Workdays: 30						
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Graders	187	535	2.34	9.3	13.99	0.04	0.50	0.50	4,397	0.21	0.0352	0.1401	0.2098	0.0006	0.0074	0.0074	66	0.0031
Crawler Tractors	212	215	2.24	9.9	28.27	0.03	1.06	0.98	3,084	1.00	0.0336	0.1482	0.4240	0.0005	0.0159	0.0147	46	0.0150
Rubber Tired Loaders	203	277	0.93	5.4	9.18	0.02	0.34	0.32	1,646	0.53	0.0139	0.0807	0.1377	0.0003	0.0051	0.0047	25	0.0080
			5.51	24.6	51.44	0.09	1.90	1.79	9,127	1.74	0.083	0.369	0.772	0.0013	0.028	0.027	137	0.026

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						NEWS Access/trail finishing								Workdays:	10
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)								
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	
Graders	187	535	4	8		0.41	0.303	1.20700	1.8080	0.005	0.064	0.064	568.2990	0.027	
Rollers	80	157	2	8		0.38	0.193	2.92560	2.1169	0.005	0.097	0.090	471.9799	0.153	

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

Construction Phase Name:						NEWS Access/trail finishing					Workdays:		10					
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
			Graders	187	535	4.69	18.7	27.98	0.08	0.99	0.99	8,794	0.42	0.0234	0.0934	0.1399	0.0004	0.0050
Rollers	80	157	0.41	6.2	4.45	0.01	0.20	0.19	993	0.32	0.0020	0.0308	0.0223	0.0001	0.0010	0.0009	5	0.0016
			5.09	24.8	32.43	0.09	1.19	1.18	9,787	0.74	0.025	0.124	0.162	0.0004	0.006	0.006	49	0.004

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:

NEWS Construction of concrete pad in forebay

Workdays:

60

OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)							
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Cement and Mortar Mixers	9	9	1	8		0.56	0.661	3.46900	4.1420	0.008	0.161	0.161	568.2990	0.059

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

			Construction Phase Name: NEWS Construction of concrete pad in forebay								Workdays: 60							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Cement and Mortar Mixers	9	9	0.06	0.3	0.37	0.00	0.01	0.01	51	0.01	0.0018	0.0093	0.0110	0.0000	0.0004	0.0004	2	0.0002
			0.06	0.3	0.37	0.00	0.01	0.01	51	0.01	0.002	0.009	0.011	0.0000	0.000	0.000	2	0.000

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						NEWS Culvert installation						Workdays:		30	
OFFROAD Equipment Type	CalEEMod® Default	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default	CalEEMod® EF (g/bhp-hr)								
	Load														
						ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4		
Tractors/Loaders/Backhoes	97	168	2	8		0.37	0.221	3.09070	2.0622	0.005	0.104	0.096	467.5285	0.151	
Excavators	158	201	2	8		0.38	0.163	1.10324	1.7057	0.005	0.052	0.048	471.7931	0.153	

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

		Construction Phase Name: NEWS Culvert installation									Workdays: 30							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Tractors/Loaders/Backhoes	97	168	0.48	6.8	4.52	0.01	0.23	0.21	1,025	0.33	0.0073	0.1016	0.0678	0.0002	0.0034	0.0032	15	0.0050
Excavators	158	201	0.44	3.0	4.60	0.01	0.14	0.13	1,271	0.41	0.0066	0.0446	0.0689	0.0002	0.0021	0.0019	19	0.0062
			0.92	9.7	9.12	0.02	0.37	0.34	2,296	0.74	0.014	0.146	0.137	0.0004	0.006	0.005	34	0.011

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:

NEWS Finishing/stabilization

Workdays:

20

	CalEEMod® Default				Tier	CalEEMod® Default								
OFFROAD Equipment Type	AvgHp	AvgHp	Pop	Hrs/Day	(if known)	Load	CalEEMod® EF (g/bhp-hr)							
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Other General Industrial Equipment	88	24	2	8		0.34	0.831	5.31354	4.4253	0.005	0.289	0.266	526.1761	0.17
Excavators	158	201	2	8		0.38	0.163	1.10324	1.7057	0.005	0.052	0.048	471.7931	0.153

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

			Construction Phase Name: NEWS Finishing/stabilization								Workdays: 20							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Other General Industrial Equipment	88	24	0.24	1.5	1.27	0.00	0.08	0.08	151	0.05	0.0024	0.0153	0.0127	0.0000	0.0008	0.0008	2	0.0005
Excavators	158	201	0.44	3.0	4.60	0.01	0.14	0.13	1,271	0.41	0.0044	0.0297	0.0460	0.0001	0.0014	0.0013	13	0.0041
			0.68	4.5	5.87	0.01	0.22	0.21	1,423	0.46	0.007	0.045	0.059	0.0001	0.002	0.002	14	0.005

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						Wetland Grading						Workdays:		21
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)							
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Scrapers	367	367	2	8		0.48	0.299	2.25454	3.4448	0.005	0.134	0.123	472.4636	0.153
Crawler Tractors	212	215	2	8		0.43	0.343	1.51456	4.3339	0.005	0.163	0.150	472.9246	0.153
Excavators	158	201	1	8		0.38	0.163	1.10324	1.7057	0.005	0.052	0.048	471.7931	0.153
Tractors/Loaders/Backhoes	97	150	0	8		0.37	0.221	3.09070	2.0622	0.005	0.104	0.096	467.5285	0.151

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

		Construction Phase Name: Wetland Grading									Workdays: 21							
OFFROAD Equipment Type	CalEEMod® Default	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
	AvgHp		ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Scrapers	367	367	1.86	14.0	21.41	0.03	0.83	0.76	2,936	0.95	0.0195	0.1471	0.2248	0.0003	0.0087	0.0080	31	0.0100
Crawler Tractors	212	215	1.12	4.9	14.13	0.02	0.53	0.49	1,542	0.50	0.0117	0.0519	0.1484	0.0002	0.0056	0.0051	16	0.0052
Excavators	158	201	0.22	1.5	2.30	0.01	0.07	0.06	636	0.21	0.0023	0.0156	0.0241	0.0001	0.0007	0.0007	7	0.0022
Tractors/Loaders/Backhoes	97	150	0.00	0.0	0.00	0.00	0.00	0.00	0	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0.0000
			3.20	20.4	37.84	0.05	1.43	1.32	5,114	1.66	0.034	0.215	0.397	0.0006	0.015	0.014	54	0.017

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						Wetland Civil Construction									Workdays:	22
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)									
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4		
Tractors/Loaders/Backhoes	97	168	2	8		0.37	0.221	3.09070	2.0622	0.005	0.104	0.096	467.5285	0.151		
Excavators	158	201	2	8		0.38	0.163	1.10324	1.7057	0.005	0.052	0.048	471.7931	0.153		

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

[illegible]

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						Workdays:								
Wetland Planting						10								
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)							
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Skid Steer Loaders	65	74	1	8		0.37	0.178	3.27687	2.3659	0.005	0.096	0.089	471.9774	0.153

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

			Construction Phase Name: Wetland Planting								Workdays: 10							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Skid Steer Loaders	65	74	0.09	1.6	1.14	0.00	0.05	0.04	228	0.07	0.0004	0.0079	0.0057	0.0000	0.0002	0.0002	1	0.0004
			0.09	1.6	1.14	0.00	0.05	0.04	228	0.07	0.000	0.008	0.006	0.0000	0.000	0.000	1	0.000

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,
EF = the emission factor
Pop = the number of pieces of equipment,
AvgHp = the size (or average size) of the equipment
Load = the load factor
Activity = hours of operation

Construction Phase Name:						Wetland Inoculum Collection								Workdays:		3
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)									
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4		
Tractors/Loaders/Backhoes	97	155	1	8		0.37	0.221	3.09070	2.0622	0.005	0.104	0.096	467.5285	0.151		

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

			Construction Phase Name: Wetland Inoculum Collection								Workdays: 3							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Tractors/Loaders/Backhoes	97	155	0.22	3.1	2.09	0.01	0.11	0.10	473	0.15	0.0003	0.0047	0.0031	0.0000	0.0002	0.0001	1	0.0002
			0.22	3.1	2.09	0.01	0.11	0.10	473	0.15	0.000	0.005	0.003	0.0000	0.000	0.000	1	0.000

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						NNP Clearing and grubbing								Workdays: 45	
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)								
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	
Tractors/Loaders/Backhoes	97	155	1	8		0.37	0.221	3.09070	2.0622	0.005	0.104	0.096	467.5285	0.151	
Excavators	158	201	1	8		0.38	0.163	1.10324	1.7057	0.005	0.052	0.048	471.7931	0.153	
Skid Steer Loaders	65	74	2	8		0.37	0.178	3.27687	2.3659	0.005	0.096	0.089	471.9774	0.153	

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

		Construction Phase Name: NNP Clearing and grubbing									Workdays: 45							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Tractors/Loaders/Backhoes	97	155	0.22	3.1	2.09	0.01	0.11	0.10	473	0.15	0.0050	0.0703	0.0469	0.0001	0.0024	0.0022	11	0.0034
Excavators	158	201	0.22	1.5	2.30	0.01	0.07	0.06	636	0.21	0.0049	0.0334	0.0517	0.0002	0.0016	0.0015	14	0.0046
Skid Steer Loaders	65	74	0.17	3.2	2.28	0.00	0.09	0.09	456	0.15	0.0039	0.0712	0.0514	0.0001	0.0021	0.0019	10	0.0033
			0.62	7.8	6.67	0.02	0.27	0.25	1,564	0.51	0.014	0.175	0.150	0.0004	0.006	0.006	35	0.011

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						NNP Grading						Workdays:		90
OFFROAD Equipment Type	CalEEMod® Default	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default	CalEEMod® EF (g/bhp-hr)							
	AvgHp					Load	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Excavators	158	201	1	8		0.38	0.163	1.10324	1.7057	0.005	0.052	0.048	471.7931	0.153
Scrapers	367	367	2	8		0.48	0.299	2.25454	3.4448	0.005	0.134	0.123	472.4636	0.153
Rollers	80	157	2	8		0.38	0.193	2.92560	2.1169	0.005	0.097	0.090	471.9799	0.153
Rollers	80	157	2	8		0.38	0.193	2.92560	2.1169	0.005	0.097	0.090	471.9799	0.153

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

Construction Phase Name: NNP GradingWorkdays: 90																		
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Excavators	158	201	0.22	1.5	2.30	0.01	0.07	0.06	636	0.21	0.0099	0.0669	0.1034	0.0003	0.0032	0.0029	29	0.0093
Scrapers	367	367	1.86	14.0	21.41	0.03	0.83	0.76	2,936	0.95	0.0836	0.6304	0.9632	0.0014	0.0375	0.0344	132	0.0428
Rollers	80	157	0.41	6.2	4.45	0.01	0.20	0.19	993	0.32	0.0183	0.2770	0.2005	0.0005	0.0092	0.0085	45	0.0145
Rollers	80	157	0.41	6.2	4.45	0.01	0.20	0.19	993	0.32	0.0183	0.2770	0.2005	0.0005	0.0092	0.0085	45	0.0145
			2.89	27.8	32.61	0.06	1.31	1.21	5,558	1.80	0.130	1.251	1.468	0.0026	0.059	0.054	250	0.081

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						NNP Access/circulation and util.							Workdays:		60
OFFROAD Equipment Type	CalEEMod® Default	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default	CalEEMod® EF (g/bhp-hr)								
	Load					ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4		
Excavators	158	201	1	8		0.38	0.163	1.10324	1.7057	0.005	0.052	0.048	471.7931	0.153	
Skid Steer Loaders	65	74	2	8		0.37	0.178	3.27687	2.3659	0.005	0.096	0.089	471.9774	0.153	
Rollers	80	157	1	8		0.38	0.193	2.92560	2.1169	0.005	0.097	0.090	471.9799	0.153	
Rollers	80	157	1	8		0.38	0.193	2.92560	2.1169	0.005	0.097	0.090	471.9799	0.153	
Tractors/Loaders/Backhoes	97	97	1	8		0.37	0.296	3.57072	2.9950	0.005	0.177	0.162	475.3621	0.154	
Trenchers	78	78	1	8		0.5	0.556	3.78912	5.1059	0.005	0.371	0.341	475.287	0.154	

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

			Construction Phase Name: NNP Access/circulation and util.								Workdays: 60							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Excavators	158	201	0.22	1.5	2.30	0.01	0.07	0.06	636	0.21	0.0066	0.0446	0.0689	0.0002	0.0021	0.0019	19	0.0062
Skid Steer Loaders	65	74	0.17	3.2	2.28	0.00	0.09	0.09	456	0.15	0.0052	0.0949	0.0685	0.0001	0.0028	0.0026	14	0.0044
Rollers	80	157	0.20	3.1	2.23	0.01	0.10	0.09	497	0.16	0.0061	0.0923	0.0668	0.0002	0.0031	0.0028	15	0.0048
Rollers	80	157	0.20	3.1	2.23	0.01	0.10	0.09	497	0.16	0.0061	0.0923	0.0668	0.0002	0.0031	0.0028	15	0.0048
Tractors/Loaders/Backhoes	97	97	0.19	2.3	1.90	0.00	0.11	0.10	301	0.10	0.0056	0.0678	0.0569	0.0001	0.0034	0.0031	9	0.0029
Trenchers	78	78	0.38	2.6	3.51	0.00	0.26	0.23	327	0.11	0.0115	0.0782	0.1054	0.0001	0.0077	0.0070	10	0.0032
			1.37	15.7	14.45	0.03	0.73	0.68	2,712	0.88	0.041	0.470	0.433	0.0009	0.022	0.020	81	0.026

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						NNP Site improvements and furn.						Workdays:		120
OFFROAD Equipment Type	CalEEMod® Default	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default	CalEEMod® EF (g/bhp-hr)							
	Load					ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	
Cranes	231	231	1	8		0.29	0.349	1.67824	4.1044	0.005	0.167	0.153	472.9057	0.153
Forklifts	89	89	2	8		0.2	0.412	3.72	3.7559	0.005	0.267	0.245	471.5285	0.153
Tractors/Loaders/Backhoes	97	97	1	8		0.37	0.296	3.57072	2.9950	0.005	0.177	0.162	475.3621	0.154
Trenchers	78	78	1	8		0.5	0.556	3.78912	5.1059	0.005	0.371	0.341	475.287	0.154
Rubber Tired Loaders	203	276	1	8		0.36	0.264	1.52922	2.6104	0.005	0.097	0.090	467.9277	0.151
Skid Steer Loaders	65	74	2	8		0.37	0.178	3.27687	2.3659	0.005	0.096	0.089	471.9774	0.153

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

Construction Phase Name: NNP Site improvements and furn. Workdays: 120

OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Cranes	231	231	0.41	2.0	4.85	0.01	0.20	0.18	559	0.18	0.0247	0.1190	0.2910	0.0004	0.0118	0.0108	34	0.0108
Forklifts	89	89	0.26	2.3	2.36	0.00	0.17	0.15	296	0.10	0.0155	0.1401	0.1415	0.0002	0.0101	0.0092	18	0.0058
Tractors/Loaders/Backhoes	97	97	0.19	2.3	1.90	0.00	0.11	0.10	301	0.10	0.0112	0.1356	0.1137	0.0002	0.0067	0.0062	18	0.0058
Trenchers	78	78	0.38	2.6	3.51	0.00	0.26	0.23	327	0.11	0.0229	0.1564	0.2107	0.0002	0.0153	0.0141	20	0.0064
Rubber Tired Loaders	203	276	0.46	2.7	4.57	0.01	0.17	0.16	820	0.26	0.0278	0.1608	0.2745	0.0005	0.0102	0.0095	49	0.0159
Skid Steer Loaders	65	74	0.17	3.2	2.28	0.00	0.09	0.09	456	0.15	0.0103	0.1899	0.1371	0.0003	0.0056	0.0052	27	0.0089
			1.88	15.0	19.47	0.03	0.99	0.92	2,758	0.89	0.113	0.902	1.168	0.0018	0.060	0.055	166	0.054

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						NNP Planting						Workdays:		60	
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default Load	CalEEMod® EF (g/bhp-hr)								
							ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	
Skid Steer Loaders	65	74	2	8		0.37	0.178	3.27687	2.3659	0.005	0.096	0.089	471.9774	0.153	
Other General Industrial Equipment	88	24	2	8		0.34	0.831	5.31354	4.4253	0.005	0.289	0.266	526.1761	0.17	

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

		Construction Phase Name: NNP Planting									Workdays: 60							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Skid Steer Loaders	65	74	0.17	3.2	2.28	0.00	0.09	0.09	456	0.15	0.0052	0.0949	0.0685	0.0001	0.0028	0.0026	14	0.0044
Other General Industrial Equipment	88	24	0.24	1.5	1.27	0.00	0.08	0.08	151	0.05	0.0072	0.0459	0.0382	0.0000	0.0025	0.0023	5	0.0015
			0.41	4.7	3.56	0.01	0.18	0.16	607	0.20	0.012	0.141	0.107	0.0002	0.005	0.005	18	0.006

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:						Water Service Extension Excavation, pipe laying, backfill						Workdays:		39
OFFROAD Equipment Type	CalEEMod® Default	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default	CalEEMod® EF (g/bhp-hr)							
	Load					ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	
Excavators	158	201	2	8		0.38	0.163	1.10324	1.7057	0.005	0.052	0.048	471.7931	0.153
Plate Compactors	8	8	2	8		0.43	0.661	3.46900	4.1420	0.008	0.161	0.161	568.2990	0.059
Generator Sets	84	84	1	8		0.74	0.326	3.36100	2.8880	0.006	0.153	0.153	568.2990	0.029
Air Compressors	78	78	1	8		0.48	0.442	3.67	3.0830	0.006	0.19	0.19	568.299	0.039
Rubber Tired Loaders	203	276	1	8		0.36	0.264	1.52922	2.6104	0.005	0.097	0.090	467.9277	0.151
Skid Steer Loaders	65	74	0	8		0.37	0.178	3.27687	2.3659	0.005	0.096	0.089	471.9774	0.153

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

Construction Phase Name: Water Service Extension Excavation, pipe laying, backfill

Workdays: 39

OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Excavators	158	201	0.44	3.0	4.60	0.01	0.14	0.13	1,271	0.41	0.0086	0.0580	0.0896	0.0003	0.0027	0.0025	25	0.0080
Plate Compactors	8	8	0.08	0.4	0.50	0.00	0.02	0.02	69	0.01	0.0016	0.0082	0.0098	0.0000	0.0004	0.0004	1	0.0001
Generator Sets	84	84	0.36	3.7	3.17	0.01	0.17	0.17	623	0.03	0.0070	0.0719	0.0617	0.0001	0.0033	0.0033	12	0.0006
Air Compressors	78	78	0.29	2.4	2.04	0.00	0.13	0.13	375	0.03	0.0057	0.0473	0.0397	0.0001	0.0024	0.0024	7	0.0005
Rubber Tired Loaders	203	276	0.46	2.7	4.57	0.01	0.17	0.16	820	0.26	0.0090	0.0523	0.0892	0.0002	0.0033	0.0031	16	0.0052
Skid Steer Loaders	65	74	0.00	0.0	0.00	0.00	0.00	0.00	0	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0.0000
			1.63	12.2	14.87	0.03	0.62	0.60	3,158	0.74	0.032	0.238	0.290	0.0007	0.012	0.012	62	0.014

Off-road Equipment Emissions

Emissions calculated in accordance with the methodology used in CalEEMod® [1]:

$$\text{Emission}_{\text{DieselEx}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHp}_i \times \text{Load}_i \times \text{Activity}_i)$$

where for a given equipment type/size of i,

EF = the emission factor

Pop = the number of pieces of equipment,

AvgHp = the size (or average size) of the equipment

Load = the load factor

Activity = hours of operation

Construction Phase Name:

Water Service Extension Paving

Workdays:

39

OFFROAD Equipment Type	CalEEMod® Default	AvgHp	Pop	Hrs/Day	Tier (if known)	CalEEMod® Default	CalEEMod® EF (g/bhp-hr)							
	Load					ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	
Rollers	80	157	1	8		0.38	0.193	2.92560	2.1169	0.005	0.097	0.090	471.9799	0.153
Concrete/Industrial Saws	81	81	2	8		0.73	0.369	3.52300	2.9130	0.006	0.166	0.166	568.2990	0.033

[1] BREEZE Software, "Off-road Equipment", Section 4.2 of Appendix A: Calculation Details for CalEEMod", prepared for CAPCOA by BREEZE Software, October 2017, CalEEMod2016.3.2. Available from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Off-road Equipment Emissions

		Construction Phase Name: Water Service Extension Paving									Workdays: 39							
OFFROAD Equipment Type	CalEEMod® Default AvgHp	AvgHp	Emissions (lb/day)								Emissions (tons/yr)							
			ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
Rollers	80	157	0.20	3.1	2.23	0.01	0.10	0.09	497	0.16	0.0040	0.0600	0.0434	0.0001	0.0020	0.0018	10	0.0031
Concrete/Industrial Saws	81	81	0.77	7.3	6.08	0.01	0.35	0.35	1,185	0.07	0.0150	0.1433	0.1185	0.0002	0.0068	0.0068	23	0.0013
			0.97	10.4	8.30	0.02	0.45	0.44	1,682	0.23	0.019	0.203	0.162	0.0003	0.009	0.009	33	0.004

Emissions Summary

Annual CalEEMod® Results

2.1 Overall Construction

Mitigated Construction (total, including on-site and off-site, all years)

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Total CO2	CH4	N2O	CO2e
	tons/yr					MT/yr				
NEWS	0.22	3.39	1.24	9.18E-03	0.226	0.102	867	0.0897	0	869
Inyo Ave. parking	0.00	0.02	0.02	3.91E-05	0.002	0.001	3	0.000809	0	3
Wetland	0.07	0.75	0.51	1.32E-03	0.042	0.029	117	0.0345	0	117
NNP	0.24	2.54	2.33	5.35E-03	0.102	0.193	474	0.1382	0	477
Brazo Rd. parking	0.00	0.01	0.01	2.09E-05	0.001	0.001	2	4.31E-04	0	2
MDTW	0.17	2.54	0.93	0.006885	0.169	0.076	650	0.067275	0	652
Water Service Ext.	0.02	0.21	0.21	4.70E-04	0.013	0.010	41	7.94E-03	0	41

2.2 Overall Operational

Mitigated Operational (Total)

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Total CO2	CH4	N2O	CO2e
	tons/yr					MT/yr				
NEWS	0.0552	0.321	0.4976	1.87E-03	0.1379	0.0381	198	0.0317	2.40E-04	199
Wetland	5.75E-03	0.00E+00	1.30E-04	0.00E+00	0.0771	0.0189	13	1.20E-02	1.20E-04	14
NNP	0.0613	0.2693	0.39	1.53E-03	0.1136	0.0313	151	0.0161	9.00E-05	151
MDTW	0.0552	0.321	0.4976	0.00187	0.1379	0.0381	198	0.0317	0.00024	199
Water Service Ext.	5.60E-04	0	0	0.00E+00	0	0.00E+00	0	0	0.00E+00	0
All projects	0.18	0.91	1.39	0.01	0.47	0.13	560	0.09	0.00	563
Revised exhaust emis based on KDA/EMFAC	0.76	1.58	5.72	0.01	0.48	0.14	1,472	0.09		1474.71

Daily (Summer) CalEEMod® Results

Mitigated Construction On-Site (worst-case phase for each project)

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	lb/day					
NEWS grading-pond	5.5	51	25	0.09	2.4	1.8
NEWS Inyo Ave parking	0.5	5	6	0.01	0.8	0.5
Wetland-grading	3.2	38	20	0.05	1.4	1.4
NNP-grading	2.9	33	28	0.06	1.4	1.2
NNP Brazo Rd parking	0.3	3	3	0.01	0.4	0.3
MDTW	5.5	51	25	0.09	2.4	1.8
Water Service Ext.	1.5	14	14	0.03	0.71	0.67

Worst-case on-site

[1] Results shown are those for the worst-case phase, Grading-Pond and Berm Finishing (CalEEMod output page shows higher daily values due to inadvertent overlap of the Clearing and Grubbing and Berm Construction phases)

Emissions Summary - Overall Construction

Revised to reflect EMFAC results

2.1 Overall Construction

Mitigated Construction (total, including on-site and off-site, all years)

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Total CO2	CH4	CO2e
	tons/yr					MT/yr			
<u>Worst-Case Construction Scenario 1 (2021)</u>									
Wetland	0.07	0.76	0.51	1.33E-03	0.043	0.029	118	0.0345	119
NEWS	0.22	2.44	1.12	5.27E-03	0.233	0.109	524	0.0897	526
Inyo Ave. parking	0.00	0.02	0.02	3.91E-05	0.002	0.001	3	0.000809	3
Water Service Ext.	0.02	0.21	0.21	4.70E-04	0.013	0.010	41	7.94E-03	41
Total tons/yr, 2021:	0.3	3.4	1.9	0.01	0.3	0.1			

Worst-Case Construction Scenario 2 (2023)

NNP	0.24	2.44	2.32	5.00E-03	0.168	0.101	441	0.1382	444
Brazo Rd. parking	0.001	0.01	0.01	2.09E-05	0.001	0.001	2	0.000431	2
Water Service Ext.	0.02	0.21	0.21	4.70E-04	0.013	0.010	41	0.00794	41
MDTW	0.17	1.83	0.84	0.003951	0.175	0.081	393	0.067275	394
Total tons/yr, 2023:	0.4	4.5	3.4	0.01	0.4	0.2			

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Total CO2	CH4	CO2e
<u>Operational</u>	0.8	1.6	5.7	0.01	0.5	0.1	1,472	0.09	1,475

SJV Significance Thresholds	10	10	100	27	15	15			
General Conformity Thresholds	10	10	100	100	100	100			

Off-site construction emissions
Annual CalEEMod® Results

Mitigated Construction Off-Site
NEWS

		ROG	NOx	CO	SO2	fug PM10	exh PM10	PM10 Total	Fug PM2.5	Exh PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
		tons/yr										MT/yr					
3.2 Clearing/Grubbing																	
	Hauling	0.0144	0.4586	0.0785	1.590E-03	0.0368	1.750E-03	0.0385	0.0101	1.670E-03	0.0118	0.000E+00	151.0085	151.0085	4.450E-03	0.000E+00	151.1199
	Total	0.0151	0.4591	0.0831	1.600E-03	0.0383	1.76E-03	0.0401	0.0105	1.680E-03	0.0122	0.000E+00	152.3164	152.3164	4.480E-03	0.000E+00	152.4286
3.3 Grading-Berm Construction																	
	Hauling	5.24E-03	0.2167	0.0282	4.60E-04	6.94E-03	4.10E-04	7.34E-03	1.91E-03	3.90E-04	2.30E-03	0.00E+00	43.9572	43.9572	4.39E-03	0.00E+00	44.0669
	Total	5.91E-03	0.2172	0.0331	4.80E-04	8.55E-03	4.20E-04	8.96E-03	2.34E-03	4.00E-04	2.74E-03	0.00E+00	45.3174	45.3174	4.42E-03	0.00E+00	45.4279
3.4 Grading-Pond and Berm Finishing																	
	Hauling	0.0423	1.3475	0.2299	4.64E-03	0.1073	5.10E-03	0.1124	0.0295	4.88E-03	0.0344	0.00E+00	441.6104	441.6104	0.0133	0.00E+00	441.9418
	Total	0.0439	1.3486	0.2411	4.67E-03	0.1110	5.12E-03	0.1162	0.0305	4.90E-03	0.0354	0.00E+00	444.7493	444.7493	0.0133	0.00E+00	445.0827
3.5 Access/Trail Finishing																	
	Hauling	1.86E-03	0.0591	0.0101	2.00E-04	4.71E-03	2.20E-04	4.93E-03	1.29E-03	2.10E-04	1.51E-03	0.00E+00	19.3818	19.3818	5.80E-04	0.00E+00	19.3963
	Total	2.24E-03	0.0594	0.0129	2.10E-04	5.64E-03	2.30E-04	5.86E-03	1.54E-03	2.20E-04	1.76E-03	0.00E+00	20.1665	20.1665	6.00E-04	0.00E+00	20.1816
3.6 Construction of Concrete Pad																	
	Hauling	1.41E-03	0.0449	7.66E-03	1.50E-04	3.58E-03	1.70E-04	3.75E-03	9.80E-04	1.60E-04	1.15E-03	0.00E+00	14.7204	14.7204	4.40E-04	0.00E+00	14.7314
	Total	1.87E-03	0.0453	0.0110	1.60E-04	4.59E-03	1.80E-04	4.87E-03	1.28E-03	1.70E-04	1.45E-03	0.00E+00	15.6620	15.6620	4.60E-04	0.00E+00	15.6737
3.7 Culvert Installation																	
	Hauling	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Total	5.10E-04	3.80E-04	3.72E-03	1.00E-05	1.24E-03	1.00E-05	1.25E-03	3.30E-04	1.00E-05	3.40E-04	0.00E+00	1.0463	1.0463	3.00E-05	0.00E+00	1.0470
3.8 Finishing/Stabilization																	
	Hauling	1.30E-04	4.12E-03	7.00E-04	1.00E-05	3.30E-04	2.00E-05	3.40E-04	9.00E-05	1.00E-05	1.10E-04	0.00E+00	1.3494	1.3494	4.00E-05	0.00E+00	1.3504
	Total	9.00E-04	4.69E-03	6.29E-03	3.00E-05	2.19E-03	3.00E-05	2.21E-03	5.80E-04	2.00E-05	6.10E-04	0.00E+00	2.9188	2.9188	8.00E-05	0.00E+00	2.9208
Total, CalEEMod results for all NEWS Phases																	
	Hauling	0.0653	2.1309	0.3551	7.05E-03	0.1597	7.67E-03	0.1673	0.0439	7.32E-03	0.0513	0.00E+00	672.0277	672.0277	0.0232	0.00E+00	672.6067
	Total	0.0704	2.1347	0.3912	7.16E-03	0.1715	7.75E-03	0.1795	0.0471	7.40E-03	0.0545	0.00E+00	682.1767	682.1767	0.0234	0.00E+00	682.7623
Wetlands																	
3.2 Grading																	
	Hauling	6.50E-04	0.0206	3.51E-03	7.00E-05	1.64E-03	8.00E-05	1.72E-03	4.50E-04	7.00E-05	5.30E-04	0.00E+00	6.7468	6.7468	2.00E-04	0.00E+00	6.7519
	Total	0.0151	0.4591	0.0831	1.60E-03	0.0383	1.76E-03	0.0401	0.0105	1.68E-03	0.0122	0.00E+00	152.3164	152.3164	4.48E-03	0.00E+00	152.4286
3.3 Civil Construction																	
	Hauling	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Total	7.70E-04	5.70E-04	5.59E-03	2.00E-05	1.86E-03	1.00E-05	1.87E-03	4.90E-04	1.00E-05	5.00E-04	0.00E+00	1.5695	1.5695	4.00E-05	0.00E+00	1.5704
3.4 Planting																	
	Hauling	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Total	1.30E-04	9.00E-05	9.30E-04	0.00E+00	3.10E-04	0.00E+00	3.10E-04	8.00E-05	0.00E+00	8.00E-05	0.00E+00	0.2616	0.2616	1.00E-05	0.00E+00	0.2617
3.5 Inoculum Collection																	
	Hauling	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Total	8.00E-05	6.00E-05	5.60E-04	0.00E+00	1.90E-04	0.00E+00	1.90E-04	5.00E-05	0.00E+00	5.00E-05	0.00E+00	0.1570	0.1570	0.00E+00	0.00E+00	0.1570
Total, CalEEMod results for all Wetlands Phases																	
	Hauling	6.50E-04	0.0206	3.51E-03	7.00E-05	1.64E-03	8.00E-05	1.72E-03	4.50E-04	7.00E-05	5.30E-04	0.00E+00	6.7468	6.7468	2.00E-04	0.00E+00	6.7519
	Total	0.0161	0.4598	0.0902	1.62E-03	0.0407	1.77E-03	0.0425	0.0111	1.69E-03	0.0128	0.00E+00	154.3045	154.3045	4.53E-03	0.00E+00	154.4177
NNP (Hauling only)																	
3.2 Clearing/Grub 2021		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.3 Grading 2021		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.4 Access 2021		3.53E-03	0.1123	0.0192	3.90E-04	8.94E-03	4.20E-04	9.37E-03	2.46E-03	4.10E-04	2.86E-03	0.00E+00	36.8009	36.8009	1.10E-03	0.00E+00	36.8285
3.5 Site Improv 2021		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.5 Site Improve 2022		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.6 Planting 2021		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.6 Planting 2022		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total, CalEEMod results for all Access & Education Phases																	
	Hauling	0.0035	0.1123	0.0192	0.0004	0.0089	0.0004	0.0094	0.0025	0.0004	0.0029	0.0000	36.8009	36.8009	0.0011	0.0000	36.8285
Pipe Extension (Hauling only)																	
3.2 Paving		2.30E-04	7.67E-03	1.22E-03	2.00E-05	5.10E-04	3.00E-05	5.40E-04	1.40E-04	2.00E-05	1.60E-04	0.00E+00	2.2532	2.2532	1.00E-04	0.00E+00	2.2556
3.3 Excav, Pipe Lay,		4.00E-05	1.28E-03	2.00E-04	0.00E+00	9.00E-05	0.00E+00	9.00E-05	2.00E-05	0.00E+00	3.00E-05	0.00E+00	3.76E-01	0.3755	2.00E-05	0.00E+00	3.76E-01
Total, CalEEMod results for all Access & Education Phases																	
	Hauling	0.0003	0.0090	0.0014	0.0000	0.0006	0.0000	0.0006	0.0002	0.0000	0.0002	0.0000	2.6287	2.6287	0.0001	0.0000	2.6315

EMFAC Results for Haul Trucks

NEWS project (and MDTW project - each)

				VMT
Clearing and grubbing	120 truckloads offhauled greenwaste/day ×	72 -mi roundtrip ×	10 days =	86,400
Grading	120 truckloads offhauled greenwaste/day ×	10.4 -mi roundtrip ×	43 days =	53,664
Access/Trail finishing	158 truckloads inhaul of aggregate (total) ×	70 -mi roundtrip =		11,060
Concrete pad construction	120 truckloads inhaul of concrete (total) ×	70 -mi roundtrip =		8,400
Finishing/pad stabilization	11 truckloads inhaul of plants (total) ×	40 -mi roundtrip =		440
				<u>159,964</u>

Wetlands project

Grading	55 truckloads offhaul (total) ×	72 -mi roundtrip =	3,960
Inoculum	1 truck ×	40 -mi roundtrip =	40
			<u>4,000</u>

NNP project

Fill for main plaza/parking area	3000 cy /	16 cy/truck =	187.5 trucks ×	10.4 -mi roundtrip =	1,950
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EMFAC run for 4800 VMT/day for T7 construction trucks

	ROG	NOx	CO	SO2	fug PM10	exh PM10*	PM10 Total	Fug PM2.5	Exh PM2.5*	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day	3.8	70.9	14.2	0.19	NA*	0.89	NA*	NA*	0.85	NA*			19,737			
lb/1000 VMT	0.8	14.8	3.0	0.04		0.18			0.18				4,112			

*EMFAC can calculate brake and tire wear emissions, but not total road dust

	tons/yr										MT/yr					
NEWS	0.06	1.18	0.24	0.00		0.01			0.01				329			
Wetland	0.002	0.030	0.006	7.8E-05		3.7E-04			3.5E-04				8			
NNP	0.001	0.014	0.003	3.8E-05		1.8E-04			1.7E-04				4			

Comparison to CalEEMod results

NEWS	0.07	2.13	0.36	0.01	0.15966	0.01	0.16726	0.04387	0.01	0.05127	0	672.0277	672	0.0232	0	672.6067
Wetland	0.001	0.021	0.004	7.0E-05	1.6E-03	8.0E-05	1.7E-03	4.5E-04	7.0E-05	0.001	0	6.7468	7	0.0002	0	6.7519
NNP	0.004	0.112	0.019	3.9E-04	8.9E-03	4.2E-04	9.4E-03	2.5E-03	4.1E-04	0.003	0	36.8009	37	0.0011	0	36.8285

Haz waste haul	0.319159076	5.90591492	1.18095936	0.01569188	#VALUE!	0.073849	#VALUE!	#VALUE!	0.070655	#VALUE!	0	0	1644.77	0	0	0
	0.00015958	0.00295296	0.00059048	7.8459E-06	#VALUE!	3.69E-05	#VALUE!	#VALUE!	3.53E-05				0.745928			

EMFAC Model Output for Haul Trucks

EMFAC Output for Haul Trucks

Area	Cal. Year	Season	Veh. Tech	EMFAC2007 Category	VMT (per day)	ROG TOTAL	CO TOTEX	NOx TOTEX	CO2 TOTEX	PM10 RUNEX	PM2.5 RUNEX	SOx TOTEX	
Stanislaus	2021	Annual	T7 CAIRP CONSTRUCTION - DSL	HHDT - DSL	4,800.0	0.0007	0.0042	0.0263	9.272237196	0.0002	0.0002	0.0001	tons/day
Stanislaus	2021	Annual	T7 SINGLE CONSTRUCTION - DSL	HHDT - DSL	4,800.0	0.0024	0.0075	0.0374	10.0	0.0006	0.0006	0.0001	tons/day
weighted average for CAIRP and non-CAIRP T7 construction trucks:						0.0019	0.0071	0.0354	9.87	0.0004	0.0004	0.0001	tons/day
						3.8	14.2	70.9	19,737	0.89	0.85	0.19	lb/day

EMFAC Input for Operational Emissions (EMFAC County VMT and KDA Project VMT Transposition)

County	GAI	Sub-Area	Cal_Year	Veh_Tech	New Total VMT	(Input VMT for Run)	
Stanislaus	54	Stanislaus (SVJ)	2021	All Other Buses - Dsl	12,108.2		0
Stanislaus	54	Stanislaus (SVJ)	2021	LDA - Dsl	73,755.3	Total cars 9,059	44
Stanislaus	54	Stanislaus (SVJ)	2021	LDA - Gas	8,489,566.8		5,062
Stanislaus	54	Stanislaus (SVJ)	2021	LDT1 - Dsl	357.0		0
Stanislaus	54	Stanislaus (SVJ)	2021	LDT1 - Gas	769,317.7		459
Stanislaus	54	Stanislaus (SVJ)	2021	LDT2 - Dsl	13,376.8		8
Stanislaus	54	Stanislaus (SVJ)	2021	LDT2 - Gas	2,591,472.9		1,545
Stanislaus	54	Stanislaus (SVJ)	2021	LHD1 - Dsl	305,938.7		182
Stanislaus	54	Stanislaus (SVJ)	2021	LHD1 - Gas	239,707.3		143
Stanislaus	54	Stanislaus (SVJ)	2021	LHD2 - Dsl	95,507.3		57
Stanislaus	54	Stanislaus (SVJ)	2021	LHD2 - Gas	38,372.5		23
Stanislaus	54	Stanislaus (SVJ)	2021	MCY - Gas	75,803.5		45
Stanislaus	54	Stanislaus (SVJ)	2021	MDV - Dsl	54,138.4		32
Stanislaus	54	Stanislaus (SVJ)	2021	MDV - Gas	2,444,668.7	9,059	1,458
Stanislaus	54	Stanislaus (SVJ)	2021	MH - Dsl	4,836.5		0
Stanislaus	54	Stanislaus (SVJ)	2021	MH - Gas	11,714.6		0
Stanislaus	54	Stanislaus (SVJ)	2021	Motor Coach - Dsl	3,650.6		0
Stanislaus	54	Stanislaus (SVJ)	2021	OBUS - Gas	7,805.5		103
Stanislaus	54	Stanislaus (SVJ)	2021	PTO - Dsl	10,652.2		0
Stanislaus	54	Stanislaus (SVJ)	2021	SBUS - Dsl	15,757.6	Total bus 398	208
Stanislaus	54	Stanislaus (SVJ)	2021	SBUS - Gas	6,585.1	398	87
Stanislaus	54	Stanislaus (SVJ)	2021	T6 Ag - Dsl	946.9		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 CAIRP Heavy - Dsl	15,414.3		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 CAIRP Small - Dsl	2,140.8		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 Instate Construction Heavy - Dsl	14,005.7		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 Instate Construction Small - Dsl	58,560.2		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 Instate Heavy - Dsl	141,218.8		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 Instate Small - Dsl	112,231.1		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 OOS Heavy - Dsl	8,631.3		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 OOS Small - Dsl	1,224.6		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 Public - Dsl	6,580.3		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6 Utility - Dsl	954.1		0
Stanislaus	54	Stanislaus (SVJ)	2021	T6TS - Gas	25,682.5		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 Ag - Dsl	1,179.2		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 CAIRP - Dsl	187,495.4		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 CAIRP Construction - Dsl	10,060.4		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 NNOOS - Dsl	228,578.8		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 NOOS - Dsl	73,666.7		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 Other Port - Dsl	3,382.4		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 POAK - Dsl	13,009.1		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 POLA - Dsl	12,888.3		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 Public - Dsl	7,483.2		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 Single - Dsl	53,646.6		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 Single Construction - Dsl	24,958.0		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 SWCV - Dsl	6,372.2		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 Tractor - Dsl	265,890.7		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 Tractor Construction - Dsl	20,588.2		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7 Utility - Dsl	285.3		0
Stanislaus	54	Stanislaus (SVJ)	2021	T7IS - Gas	90.2		0
Stanislaus	54	Stanislaus (SVJ)	2021	UBUS - Dsl	8,937.5		0
Stanislaus	54	Stanislaus (SVJ)	2021	UBUS - Gas	2,077.8		0

Group	Cal. Year	Season	Title	Veh_Tech	EMFAC2007 Category	VMT	ROG_TOTAL	CO_TOTEX	NOx_TOTEX	CO2_TOTEX	PM10_TOTEX	PM2_5_TOTEX	SOx_TOTEX	tons/day
1	2021	Annual	Areas-2021	All Vehicles	All Vehicles	9,457.0	0.0021	0.0157	0.0043	4.034046881	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	ALL OTHER BUSES - DSL	OBUS - DSL	0	0	0	0	0	0	0	0	0
1	2021	Annual	Areas-2021	LDA - DSL	LDA - DSL	44.0	0.0000	0.0000	0.0000	0.0102	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	LDA - GAS	LDA - GAS	5,062.3	0.0006	0.0057	0.0004	1.55136069	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	LDT1 - DSL	LDT1 - DSL	0.2129	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	LDT1 - GAS	LDT1 - GAS	458.7	0.0002	0.0011	0.0001	0.1674	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	LDT2 - DSL	LDT2 - DSL	7.976618532	0.0000	0.0000	0.0000	0.0025	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	LDT2 - GAS	LDT2 - GAS	1,545.3	0.0003	0.0026	0.0003	0.6158	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	LHD1 - DSL	LHDT1 - DSL	182.4	0.0000	0.0002	0.0007	0.1159	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	LHD1 - GAS	LHDT1 - GAS	142.9	0.0001	0.0004	0.0001	0.1622	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	LHD2 - DSL	LHDT2 - DSL	57.0	0.0000	0.0001	0.0002	0.0405	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	LHD2 - GAS	LHDT2 - GAS	22.9	0.0000	0.0000	0.0000	0.0297	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	MCY - GAS	MCY - GAS	45.2	0.0002	0.0012	0.0001	0.0091	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	MDV - DSL	MDV - DSL	32.3	0.0000	0.0000	0.0000	0.0139	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	MDV - GAS	MDV - GAS	1,457.8	0.0004	0.0030	0.0003	0.7218	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	MH - DSL	MH - DSL	0	0	0	0	0	0	0	0	0
1	2021	Annual	Areas-2021	MH - GAS	MH - GAS	0	0	0	0	0	0	0	0	0
1	2021	Annual	Areas-2021	MOTOR COACH - DSL	OBUS - DSL	0	0	0	0	0	0	0	0	0
1	2021	Annual	Areas-2021	OBUS - GAS	OBUS - GAS	103.0	0.0000	0.0005	0.0001	0.2071	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	PTO - DSL	HHDT - DSL	0	0	0	0	0	0	0	0	0
1	2021	Annual	Areas-2021	SBUS - DSL	SBUS - DSL	208.0	0.0000	0.0001	0.0020	0.2956	0.0000	0.0000	0.0000	0.0000
1	2021	Annual	Areas-2021	SBUS - GAS	SBUS - GAS	86.9	0.0001	0.0008	0.0001	0.0908	0.0000	0.0000	0.0000	0.0000
						Tons/yr	0.76	5.72	1.58	1472.43	0.015	0.014	0.015	

