

Appendix D

Air Quality Worksheets



**Owens River Water Trail
Project Assumptions**

Owens River Water Trail Project Assumptions

CalEEMod Inputs (Non-Default information only)

Project Location
 County Inyo
 Air District Great Basin
 Climate Zone 9
 Operational Year 2022
 Utility Provider LA Water and Power

Notes:

Thresholds:

On 10/11/2018 I spoke with Ann Logan of the Great Basin Unified Air Pollution Control District. She stated that for the project area they recommend using the SCAQMD thresholds.

	CalEEMod	2017 ¹	2020 ²	2030 ¹
Fule CO intensity	702.4363	526.8273	411.6277	351.2182
% renewable	0%	25.00%	41.40%	50.00%

1 https://www.energy.ca.gov/portfolio/documents/rps_certification.html

2 CUPC 2017

Land Use	Building SQFT	Building KFS	room	Acres	CalEEMod Land Use Type
Recreational	N/A	N/A	N/A	6	City Park

Note: Acres should be area disturbed where dust can be generated. Dredging in the water will not result in fugitive dust emissions.

David

Owens River Water Trail Project Assumptions

Construction

Construction Schedule Project Approach -Based on Email from Barry Tanaka dated 9/7/18.

Phases / Activity	Project Schedule			Modeled Schedule		CalEEMod Phase
	Start (MM/DD/YY)	Finish (MM/DD/YY)	Days	Start (MM/DD/YY)	Finish (MM/DD/YY)	
Hand Clearing	12/1/2019	3/2/2020	66	12/1/2019	12/2/2019	Site Preparation
Hand Clearing	7/1/2020	9/30/2020	66	Assumes same emissions as 2019 Activities		
Channel Clearing	10/1/2020	3/31/2021	130	10/1/2020	10/2/2020	Trenching
Spoils Placement 1	10/1/2020	3/31/2021	130	10/1/2020	12/29/2020	Trenching
Spoils Placement 2	10/1/2020	3/31/2021	130	10/1/2020	12/29/2020	Trenching
Spoils Placement Alternative	10/1/2020	3/31/2021	130	10/1/2020	12/29/2020	Trenching
Hand Clearing	8/1/2021	10/31/2021	66	Assumes same emissions as 2019 Activities		
Channel Clearing	10/1/2021	3/31/2022	130	Assumes same emissions as 2020 Activities		
Construction of improvements	1/1/2022	4/30/2022	85	1/1/2022	4/30/2022	Grading
Hand Clearing	1/1/2022	4/30/2022	85	7/1/2019	10/30/2019	Site Preparation

Assumptions

1. Construction to occur Monday through Friday.
2. Assumes 4 workers per day.

30 one way Miles per day from Lone Pine, CA

4 commute vehicles per day

628 days -for the construction activities

150,720 Total commute Miles over Project from Lone Pine, CA

450 Miles to Benicia (one way) - 2 Trips per month

23 Months total for project

2 trips per month

4 Vehicles making the commute

165,600 Total Commute miles from Benicia for Project

316,320 Total Miles for workers' commute during the construction activities

504 Average Miles per day

126 Average Miles per trip (one way)

Note: conservative one way distance to account for potential to stay outside of Lone Pine area.

3. Where activities are the same, it is only modeled once. I.e. the 66 day hand clearing is only modeled once for 2019. Emissions for the 2020 and 2021 hand clearing activities are assumed to be the same as the 2019.

4. Emissions are only modeled for one day to make calculating GHG emissions easier for phases (such as hand clearing) that have different lengths during different years).

Owens River Water Trail

Project Assumptions

Construction Phases and Equipment Summary

The following provides the equipment-selected in CalEEMod to be used during each phase of site construction. The equipment selection is based on the size of the site and studies completed by SCAQMD. The following abbreviations are used in the following sections.

- # = number of each type of equipment that would operate on a max day.
- Hrs/day = estimated hours per day each piece of equipment would operate (This is not representative of the total length of a construction day)
- HP = horse power of the equipment.
- LF = Load factor for the equipment

Hand Clearing (occurs regardless of Scenario/Alternative chosen)

Phase Type Site Preparation Note: spoil material is assumed to be balanced onsite

<u>Equipment Type</u>	<u>#</u>	<u>Hrs/day</u>	<u>HP</u>	<u>LF</u>
No diesel equipment is anticipated				

Channel Clearing (occurs regardless of Scenario/Alternative chosen)

Phase Type Trenching Note: spoil material is assumed to be balanced onsite

<u>Equipment Type</u>	<u>#</u>	<u>Hrs/day</u>	<u>HP</u>	<u>LF</u>
Amphibious LR Excavator	1	8	148	Default
Tracked Excavator	1	8	117	Default
Amphibious Veg. Cutter	1	8	45	Default

Construction of improvements (occurs regardless of Scenario/Alternative chosen)

Phase Type Grading Note: Soil is assumed to be balanced onsite

Soil Import/Export 0 Cubic yards of soil import
0 cubic yards of soil export
0 trucks

Gravel Import/Export 270 Cubic/yards of import³
cubic/yards of export
27 truck trips (round trips)⁴

<u>Equipment Type</u>	<u>#</u>	<u>Hrs/day</u>	<u>HP</u>	<u>LF</u>
Excavator	1	8	default	default
Dozer	1	8	default	default
Loader	1	8	default	default
Skid steer loader	1	8	default	default
Roller	1	8	default	default

3. Estimated based on 0.02 yards of gravel per square foot of area at 6 inches deep.

4. Assumes 10 cubic yards per truck

Owens River Water Trail

Project Assumptions

Distributed Spoils Placement

Spoils Placement

Phase Type Trenching

Note: spoil material is assumed to be balanced onsite

Spoil Import/Export

0 Cubic/yards of soil import
5,200 Cubic yards spoil removed (and maintained onsite)
0 cubic/yards spoil export (offsite to landfill other destination)
531 Truck Trips (round trips)
188 total estimated miles traveled (one way)
0.35 Average miles per truck trip (one-way)
4.00 Conservative estimate of hours per day Morooka Operated

<u>Equipment Type</u>	<u>#</u>	<u>Hrs/day</u>	<u>HP</u>	<u>LF</u>
Morooka MST	1	2	255	Default
Skid Steer Loader	1	8	110	Default

Owens River Water Trail Operational

20 years - project lifetime
 4400 boat launches (trips) per year
 96 average launches per day during Summer
 135.84 average one way travel distance for access
 16 average trips per acre (CalEEMod Input)

Distance Assumptions:

1. 6% of total trips are from outside Inyo & Mono County
2. Average distance travel from outside the county is 290 miles
3. Average distance traveled within Inyo County 126 miles
4. Travel Distance noted above is one way.
5. Assumes each of the 4400 launches is an individual trip to the site.

4400 Trips
 264 Outside Eastern California
 4136 Inside Eastern California
 76,560 Annual VMT outside Eastern California
 521,136 Annual VMT Inside Eastern California
 597,696 Total Annual VMT
 135.84 Average VMT per trip (one way)

Source: Caltrans 2000. US 395 Origination & Destination Study.

Daily Launches - Conservatively assumes all launches occur between June 1st and August 31st and to provide for variance in daily activity.

Fleet Mix Determination:

	CalEEMod	% Default	% Rest	Revised
LDA	0.540681	0.695703	0.155022	0.695703
LDT1	0.039422	0.050725	0.011303	0.050725
LDT2	0.195794	0.251931	0.056137	0.251941
MH	0.001275	0.001641	0.000366	0.001641
Rest	0.222828			
	1			1.000

Fleet would only be from visitor commutes therefore truck and bus trip emission factors were removed from operating emissions

Owens River Water Trail Operational

Maintenance Schedule

Phases / Activity	Project Schedule			Modeled Schedule		CalEEMod Phase
	Start (MM/DD/YY)	Finish (MM/DD/YY)	Days per year	Start (MM/DD/YY)	Finish (MM/DD/YY)	
Years 1 & 2	July 1	October 31	20	7/1/2021	7/1/2021	Site Preparation
Years 3 to 20	October 1	March 31	5	10/1/2021	7/1/2023	Site Preparation

Emissions are only modeled for one day to make calculating GHG emissions easier for phases (such as hand clearing) that have different lengths during different years).

Maintenance Activities

Worker information assumptions to be the same as construction phase.

Year 1& 2 - Hand Clearing (occurs regardless of Scenario/Alternative chosen)

Phase Type Site Preparation Note: spoil material is assumed to be balanced onsite

Equipment Type # Hrs/day HP LF
No diesel equipment is anticipated

Year 3 to 20 - Channel Clearing (occurs regardless of Scenario/Alternative chosen)

Phase Type Trenching Note: spoil material is assumed to be balanced onsite

<u>Equipment Type</u>	<u>#</u>	<u>Hrs/day</u>	<u>HP</u>	<u>LF</u>
Truxor 5000	1	8	30	Default Tier 4 Interim
Excavator	1	8	95	Default

Distributed Spoils Placement

Soils Placement

Phase Type Trenching Note: spoil material is assumed to be balanced onsite

	Year 1 & 2	Year 3 - 20	
<u>Spoil Import/Export</u>	0.35	0.35	Average miles per truck

<u>Equipment Type</u>	<u>#</u>	<u>Hrs/day</u>	<u>HP</u>	<u>LF</u>
Morooka MST	1	4	255	Default
Skid Steer Loader	1	8	253	Default

**Owens River Water Trail
Maximum Daily Unmitigated Construction Emissions**

Owens River Water Trail

Maximum Daily Unmitigated Construction Emissions

CalEEMod 2016.3.2

Title: ORWT

Date 4/17/2019

Unmitigated Construction

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
		lbs/day					
Hand Clearing + Spoils placement	Onsite	1	4	17	0	0	0
	Offsite	1	0	4	0	1	0
	Total	1	4	21	0	1	0
Channel + Spoils placement	Onsite	1	10	12	0	1	1
	Offsite	1	0	3	0	1	0
	Total	2	11	15	0	1	1
Construction Improvements	Onsite	2	19	13	0	9	4
	Offsite	1	2	4	0	1	0
	Total	2	21	17	0	10	5
Max Day	Total	6	36	53	0	12	6
SCAQMD Thresholds		75	100	550	150	150	55
	Significant	No	No	No	No	No	No

Owens River Water Trail

Maximum Daily Unmitigated Construction Emissions

Unmitigated Construction

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Winter - lbs/day							
Hand Clearing + Spoils placement	Onsite	0.729524	3.995792	17.30258	0.00732	0.176168	0.163768
	Offsite	0.6445	0.3677	3.8276	0.00802	0.7652	0.2064
	Total	1.374024	4.363492	21.13018	0.01534	0.941368	0.370168
Channel + Spoils placement	Onsite	1.291	10.4991	11.7698	0.01812	0.5801	0.5337
	Offsite	0.6025	0.3254	3.4097	0.00777	0.765	0.2063
	Total	1.8935	10.8245	15.1795	0.02589	1.3451	0.74
Construction Improvements	Onsite	1.822	18.9935	12.9625	0.0215	9.1267	4.4442
	Offsite	0.6529	1.8568	3.7125	0.01217	0.8651	0.2375
	Total	2.4749	20.8503	16.675	0.03367	9.9918	4.6817

Project Construction Phases include:

- Hand Clearing
- Construction Improvements
- Channel Clearing
- Spoils

Owens River Water Trail

Maximum Daily Unmitigated Construction Emissions

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
		lbs/day - Winter						
Hand clearing	Fugitive					0	0	
	Onsite	0	0	0	0	0	0	0
	ATV	0.38	0.23	13.79	0.00	0.02	0.02	38.68
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0.6445	0.3677	3.8276	8.02E-03	0.7652	0.2064	798.0433
	Total	1.025524	0.593492	17.62208	0.00802	0.786368	0.227568	836.7208
Improvements	Fugitive					8.1431	3.5393	
	Onsite	1.822	18.9935	12.9625	0.0215	0.9836	0.9049	2099.302
	Hauling	0.0438	1.4133	0.2605	4.10E-03	0.0925	2.87E-02	429.9558
	Vendor	6.60E-03	0.1181	0.0423	3.00E-04	7.60E-03	2.50E-03	31.2777
	Worker	0.6025	0.3254	3.4097	7.77E-03	0.765	0.2063	773.3766
	Total	2.4749	20.8503	16.675	0.03367	9.9918	4.6817	3333.913
Channel Clearing	Fugitive							
	Onsite	0.9425	6.7291	8.2617	0.0108	0.4251	0.3911	1055.577
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0.6025	0.3254	3.4097	0.00777	0.765	0.2063	773.3766
	Total	1.545	7.0545	11.6714	0.01857	1.1901	0.5974	1828.954
Spoils Placement	Fugitive							
	Onsite	0.3485	3.77	3.5081	7.32E-03	0.155	0.1426	714.3718
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0	0	0	0	0	0	0
	Total	0.3485	3.77	3.5081	0.00732	0.155	0.1426	714.3718

Owens River Water Trail

Maximum Daily Unmitigated Construction Emissions

Unmitigated Construction

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer - lbs/day							
Hand Clearing + Spoils placement	Onsite	0.729524	3.995792	17.30258	0.00732	0.176168	0.163768
	Offsite	0.5029	0.3535	3.8337	0.00805	0.7652	0.2064
	Total	1.232424	4.349292	21.13628	0.01537	0.941368	0.370168
Channel + Spoils placement	Onsite	1.291	10.4991	11.7698	0.01812	0.5801	0.5337
	Offsite	0.468	0.3128	3.4159	0.0078	0.765	0.2063
	Total	1.759	10.8119	15.1857	0.02592	1.3451	0.74
Construction Improvements	Onsite	1.822	18.9935	12.9625	0.0215	9.1267	4.4442
	Offsite	0.51595	1.8585	3.6852	0.01233	0.864634	0.23729
	Total	2.33795	20.852	16.6477	0.03383	9.991334	4.68149

Owens River Water Trail

Maximum Daily Unmitigated Construction Emissions

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
		lbs/day - Summer Winter						
Hand clearing	Fugitive					0	0	
	Onsite	0	0	0	0	0	0	0
	ATV	0.381024	0.225792	13.79448	0	0.021168	0.021168	38.67746
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0.5029	0.3535	3.8337	8.05E-03	0.7652	2.06E-01	801.4135
	Total	0.883924	0.579292	17.62818	0.00805	0.786368	0.227568	840.091
Improvements	Fugitive					8.1431	3.5393	
	Onsite	1.822	18.9935	12.9625	0.0215	0.9836	0.9049	2099.302
	Hauling	0.0419	1.4258	0.2304	4.22E-03	0.0923	2.85E-02	442.254
	Vendor	6.05E-03	0.1199	0.0389	3.10E-04	7.33E-03	2.49E-03	32.5223
	Worker	0.468	0.3128	3.4159	7.80E-03	0.765	0.2063	776.6466
	Total	2.33795	20.852	16.6477	0.03383	9.991334	4.68149	3350.725
Channel Clearing	Fugitive					0	0	
	Onsite	0.9425	6.7291	8.2617	0.0108	0.4251	0.3911	1055.577
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0.468	0.3128	3.4159	0.0078	0.765	0.2063	776.6466
	Total	1.4105	7.0419	11.6776	0.0186	1.1901	0.5974	1832.224
Spoils Placement	Fugitive					0	0	
	Onsite	0.3485	3.77	3.5081	0.00732	0.155	0.1426	714.3718
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0	0	0	0	0	0	0
	Total	0.3485	3.77	3.5081	0.00732	0.155	0.1426	714.3718

**Owens River Water Trail
ATV Emission Calculations**

	ROG	NO_x	CO	SO_x	PM₁₀	PM_{2.5}	CO₂
Running - gr/mile							
<1997		0.64	39.1		0.06	0.06	109.63
1998+		0.49	19.8		0.06	0.06	109.63
Evaporative - gr/mile							
<2007	1.08						
2008+	0.82						

Source: California Air Resources Board. 2013. *Attachment C: Emissions Estimation Methodology for Off-Highway Recreational Vehicles*. May.

of ATV's 3
 Speed of ATV: 20 mph
 8 hrs per day
 160 miles per day per ATV
 0.002205 lbs/gram

	ROG	NO_x	CO	SO_x	PM₁₀	PM_{2.5}	CO₂
gr/day/ATV							
<1997	173	102	6,256	0	10	10	17,541
1998 - 2007	173	78	3,168	0	10	10	17,541
2008+	131	78	3,168	0	10	10	17,541
lbs/day/ATV							
<1997	0.38	0.23	13.79	0.00	0.02	0.02	38.68
1998 - 2007	0.38	0.17	6.99	0.00	0.02	0.02	38.68
2008+	0.29	0.17	6.99	0.00	0.02	0.02	38.68

Assumed worst case emissions for analysis

**Owens River Water Trail
Maximum Daily Unmitigated Operational Emissions**

Owens River Water Trail

Maximum Daily Unmitigated Operational Emissions

CalEEMod 2016.3.2

Title: ORWT

Date: 4/17/2019

Unmitigated Construction

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
		lbs/day					
Site Operations	Area	0	0	0	0	0	0
	Mobile	1	2	27	0	10	3
	Total	1	2	27	0	10	3
Maintenance Hand Clearing (Years 1 and 2) + Spoils placement	Onsite	1	4	17	0	0	0
	Offsite	1	0	3	0	1	0
	Total	1	4	20	0	1	0
Maintenance Channel Clearing years 3-20 + Spoils placement	Onsite	1	6	7	0	0	0
	Offsite	1	0	2	0	1	0
	Total	1	7	9	0	1	0
Max Day	Total	2	9	47	0	11	3
SCAQMD Thresholds		55	55	550	150	150	55
	Significant	No	No	No	No	No	No

Owens River Water Trail

Maximum Daily Unmitigated Operational Emissions

Unmitigated Construction

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
		Winter - lbs/day						
Site Operations	Area	0	0.00E+00	0.00E+00	0	0	0	0.00E+00
	Mobile	0.771	2.4452	26.4198	0.0903	9.9806	2.684	9014.633
	Total	0.771	2.4452	26.4198	0.0903	9.9806	2.684	9014.633
Maintenance Hand Clearing (Years 1 and 2) + Spoils placement	Onsite	0.729524	3.995792	17.30258	0.00732	0.176168	0.163768	753.0493
	Offsite	0.567	0.2888	3.0527	0.0075	0.7648	0.206	746.9119
	Total	1.296524	4.284592	20.35528	0.01482	0.940968	0.369768	1499.961
Maintenance Channel Clearing years 3-20 + Spoils placement	Onsite	0.7089	6.2772	6.9255	0.01153	0.301	0.2769	1125.949
	Offsite	0.5038	0.2286	2.4542	0.00695	0.7644	0.2057	693.2757
	Total	1.2127	6.5058	9.3797	0.01848	1.0654	0.4826	1819.225

Owens River Water Trail

Maximum Daily Unmitigated Operational Emissions

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
		lbs/day - Winter						
Spoils Placement	Fugitive							
	Onsite	0.3485	3.77	3.5081	0.00732	0.155	0.1426	714.3718
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0	0	0	0	0	0	0
	Total	0.3485	3.77	3.5081	0.00732	0.155	0.1426	714.3718
Maintenance - Hand Clearing	Fugitive							
	Onsite	0	0	0	0	0	0	0
	ATV Use	0.38	0.23	13.79	0.00	0.02	0.02	38.68
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0.567	0.2888	3.0527	7.50E-03	0.7648	0.206	746.9119
	Total	0.948024	0.514592	16.84718	0.0075	0.785968	0.227168	785.5894
Maintenance - Channel Clearing	Fugitive							
	Onsite	0.3604	2.5072	3.4174	4.21E-03	0.146	0.1343	411.5775
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0.5038	0.2286	2.4542	6.95E-03	0.7644	0.2057	693.2757
	Total	0.8642	2.7358	5.8716	0.01116	0.9104	0.34	1104.853

Owens River Water Trail

Maximum Daily Unmitigated Operational Emissions

Unmitigated Construction

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
		Summer - lbs/day						
Site Operations	Area	0	0.00E+00	0	0	0	0	0.00E+00
	Mobile	0.7203	2.3526	26.5006	0.0907	9.9806	2.684	9052.956
	Total	0.7203	2.3526	26.5006	0.0907	9.9806	2.684	9052.956
Maintenance Hand Clearing (Years 1 and 2) + Spoils placement	Onsite	0.3485	3.77	3.5081	0.00732	0.155	0.1426	714.3718
	Offsite	0.4389	0.2777	3.059	0.00753	0.7648	0.206	750.0717
	Total	0.7874	4.0477	6.5671	0.01485	0.9198	0.3486	1464.444
Maintenance Channel Clearing years 3-20 + Spoils placement	Onsite	0.7089	6.2772	6.9255	0.01153	0.301	0.2769	1125.949
	Offsite	0.387	0.2198	2.4607	0.00698	0.7644	0.2057	696.2101
	Total	1.0959	6.497	9.3862	0.01851	1.0654	0.4826	1822.159

Owens River Water Trail

Maximum Daily Unmitigated Operational Emissions

		ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
lbs/day - Summer								
Spoils Placement	Fugitive					0	0	
	Onsite	0.3485	3.77	3.5081	0.00732	0.155	0.1426	714.3718
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0	0	0	0	0	0	0
	Total	0.3485	3.77	3.5081	0.00732	0.155	0.1426	714.3718
Maintenance - Hand Clearing	Fugitive					0	0	
	Onsite	0	0	0	0	0	0	0
	ATV Use	0.381024	0.225792	13.79448	0	0.021168	0.021168	38.67746
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0.4389	0.2777	3.059	7.53E-03	0.7648	0.206	750.0717
	Total	0.819924	0.503492	16.85348	0.00753	0.785968	0.227168	788.7492
Maintenance - Channel Clearing	Fugitive					0	0	
	Onsite	0.3604	2.5072	3.4174	0.00421	0.146	0.1343	411.5775
	Hauling	0	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0	0
	Worker	0.387	0.2198	2.4607	6.98E-03	0.7644	0.2057	696.2101
	Total	0.7474	2.727	5.8781	0.01119	0.9104	0.34	1107.788

**Owens River Water Trail
CalEEMod Output**

ORWT - Inyo County, Winter

ORWT
Inyo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	6.00	Acre	6.00	261,360.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	34
Climate Zone	9			Operational Year	2022
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Trips and VMT - See Assumptions

Grading - Not all 6 acres are graded

Vehicle Trips - see assumptions

Landscape Equipment - no landscaping

Energy Use -

Water And Wastewater - see assumptions

Construction Off-road Equipment Mitigation - see assumptions

Fleet Mix - See Assumptions

Off-road Equipment - see assumptions

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	NumDays	10.00	1.00
tblFleetMix	HHD	0.05	0.00
tblFleetMix	LDA	0.54	0.70
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.20	0.25
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.5170e-003	0.00
tblFleetMix	MCY	5.7120e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.2750e-003	1.6400e-003
tblFleetMix	MHD	9.5500e-003	0.00
tblFleetMix	OBUS	2.7660e-003	0.00
tblFleetMix	SBUS	8.2800e-004	0.00
tblFleetMix	UBUS	2.4690e-003	0.00
tblGrading	AcresOfGrading	0.00	2.00
tblOffRoadEquipment	HorsePower	158.00	95.00

tblOffRoadEquipment	HorsePower	158.00	117.00
tblOffRoadEquipment	HorsePower	402.00	225.00
tblOffRoadEquipment	HorsePower	168.00	30.00
tblOffRoadEquipment	HorsePower	168.00	148.00
tblOffRoadEquipment	HorsePower	168.00	45.00
tblOffRoadEquipment	HorsePower	65.00	115.00
tblOffRoadEquipment	LoadFactor	0.40	0.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblTripsAndVMT	WorkerTripNumber	5.00	8.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00

tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	HO_TL	0.00	136.00
tblVehicleTrips	HO_TTP	0.00	100.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	ST_TR	22.75	16.00
tblVehicleTrips	SU_TR	16.74	16.00
tblVehicleTrips	WD_TR	1.89	16.00
tblWater	OutdoorWaterUseRate	7,148,888.10	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

- Summaries not used

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Hand Clearing	Site Preparation	12/1/2019	12/2/2019	5	1	
2	Improvement Construction	Grading	1/1/2020	1/1/2020	5	1	
3	Channel Clearing	Trenching	10/1/2020	10/1/2020	5	1	
4	Spoils Placement	Trenching	10/1/2020	10/1/2020	5	1	
5	Maintenance - Hand Clearing	Site Preparation	7/1/2021	7/1/2021	5	1	
6	Maintenance - Channel Clearing	Site Preparation	7/1/2023	7/3/2023	5	1	

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Clearing	Rubber Tired Dozers	0	8.00	247	0.40
Hand Clearing	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Improvement Construction	Excavators	1	8.00	158	0.38
Improvement Construction	Graders	0	8.00	187	0.41
Improvement Construction	Rollers	1	8.00	80	0.38
Improvement Construction	Rubber Tired Dozers	1	8.00	247	0.40
Improvement Construction	Skid Steer Loaders	1	8.00	65	0.37
Improvement Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Channel Clearing	Excavators	1	8.00	117	0.38
Channel Clearing	Other Material Handling Equipment	1	8.00	148	0.40
Channel Clearing	Other Material Handling Equipment	1	8.00	45	0.45
Spoils Placement	Off-Highway Trucks	1	4.00	225	0.38
Spoils Placement	Skid Steer Loaders	1	8.00	115	0.37
Maintenance - Hand Clearing	Off-Highway Trucks	0	8.00	402	0.38
Maintenance - Hand Clearing	Rubber Tired Dozers	0	8.00	247	0.40
Maintenance - Hand Clearing	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Maintenance - Channel Clearing	Excavators	1	8.00	95	0.38
Maintenance - Channel Clearing	Other Material Handling Equipment	1	8.00	30	0.40
Maintenance - Channel Clearing	Rubber Tired Dozers	0	8.00	247	0.40
Maintenance - Channel Clearing	Tractors/Loaders/Backhoes	0	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
Hand Clearing	0	8.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Improvement Construction	5	8.00	1.00	5.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Channel Clearing	3	8.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Spoils Placement	2	0.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Maintenance - Hand Clearing	0	8.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Maintenance - Channel Clearing	2	8.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Hand Clearing - 2019

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	0.0000	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

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	0.6445	0.3677	3.8276	8.0200e-003	0.7598	5.4400e-003	0.7652	0.2014	5.0100e-003	0.2064		797.0931	797.0931	0.0380		798.0433
Total	0.6445	0.3677	3.8276	8.0200e-003	0.7598	5.4400e-003	0.7652	0.2014	5.0100e-003	0.2064		797.0931	797.0931	0.0380		798.0433

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	0.0000	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		0.0000

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	0.6445	0.3677	3.8276	8.0200e-003	0.7598	5.4400e-003	0.7652	0.2014	5.0100e-003	0.2064		797.0931	797.0931	0.0380		798.0433
Total	0.6445	0.3677	3.8276	8.0200e-003	0.7598	5.4400e-003	0.7652	0.2014	5.0100e-003	0.2064		797.0931	797.0931	0.0380		798.0433

3.3 Improvement Construction - 2020

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					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	1.8220	18.9935	12.9625	0.0215		0.9836	0.9836		0.9049	0.9049		2,082.4646	2,082.4646	0.6735		2,099.3024
Total	1.8220	18.9935	12.9625	0.0215	8.1431	0.9836	9.1267	3.5393	0.9049	4.4442		2,082.4646	2,082.4646	0.6735		2,099.3024

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	0.0438	1.4133	0.2605	4.1000e-003	0.0876	4.8500e-003	0.0925	0.0240	4.6400e-003	0.0287		429.5774	429.5774	0.0151		429.9558
Vendor	6.6000e-003	0.1181	0.0423	3.0000e-004	6.7800e-003	5.8000e-004	7.3600e-003	1.9500e-003	5.5000e-004	2.5000e-003		31.2345	31.2345	1.7300e-003		31.2777
Worker	0.6025	0.3254	3.4097	7.7700e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		772.5456	772.5456	0.0332		773.3766
Total	0.6529	1.8567	3.7124	0.0122	0.8542	0.0107	0.8648	0.2274	0.0100	0.2374		1,233.3575	1,233.3575	0.0501		1,234.6100

Mitigated Construction On-Site

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

Fugitive Dust					3.0170	0.0000	3.0170	1.3113	0.0000	1.3113			0.0000			0.0000
Off-Road	1.8220	18.9935	12.9625	0.0215		0.9836	0.9836		0.9049	0.9049	0.0000	2,082.4646	2,082.4646	0.6735		2,099.3024
Total	1.8220	18.9935	12.9625	0.0215	3.0170	0.9836	4.0006	1.3113	0.9049	2.2162	0.0000	2,082.4646	2,082.4646	0.6735		2,099.3024

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	0.0438	1.4133	0.2605	4.1000e-003	0.0876	4.8500e-003	0.0925	0.0240	4.6400e-003	0.0287		429.5774	429.5774	0.0151		429.9558
Vendor	6.6000e-003	0.1181	0.0423	3.0000e-004	6.7800e-003	5.8000e-004	7.3600e-003	1.9500e-003	5.5000e-004	2.5000e-003		31.2345	31.2345	1.7300e-003		31.2777
Worker	0.6025	0.3254	3.4097	7.7700e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		772.5456	772.5456	0.0332		773.3766
Total	0.6529	1.8567	3.7124	0.0122	0.8542	0.0107	0.8648	0.2274	0.0100	0.2374		1,233.3575	1,233.3575	0.0501		1,234.6100

3.4 Channel Clearing - 2020

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	0.9425	6.7291	8.2617	0.0108		0.4251	0.4251		0.3911	0.3911		1,047.1110	1,047.1110	0.3387		1,055.5774
Total	0.9425	6.7291	8.2617	0.0108		0.4251	0.4251		0.3911	0.3911		1,047.1110	1,047.1110	0.3387		1,055.5774

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	0.6025	0.3254	3.4097	7.7700e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		772.5456	772.5456	0.0332		773.3766
Total	0.6025	0.3254	3.4097	7.7700e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		772.5456	772.5456	0.0332		773.3766

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	0.9425	6.7291	8.2617	0.0108		0.4251	0.4251		0.3911	0.3911	0.0000	1,047.1110	1,047.1110	0.3387		1,055.5774
Total	0.9425	6.7291	8.2617	0.0108		0.4251	0.4251		0.3911	0.3911	0.0000	1,047.1110	1,047.1110	0.3387		1,055.5774

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
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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	
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	0.6025	0.3254	3.4097	7.7700e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		772.5456	772.5456	0.0332		773.3766
Total	0.6025	0.3254	3.4097	7.7700e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		772.5456	772.5456	0.0332		773.3766

3.5 Spoils Placement - 2020

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	0.3485	3.7700	3.5081	7.3200e-003		0.1550	0.1550		0.1426	0.1426		708.6420	708.6420	0.2292		714.3718
Total	0.3485	3.7700	3.5081	7.3200e-003		0.1550	0.1550		0.1426	0.1426		708.6420	708.6420	0.2292		714.3718

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	0.0000	0.0000	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	0.0000	0.0000
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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	0.3485	3.7700	3.5081	7.3200e-003		0.1550	0.1550		0.1426	0.1426	0.0000	708.6420	708.6420	0.2292		714.3718
Total	0.3485	3.7700	3.5081	7.3200e-003		0.1550	0.1550		0.1426	0.1426	0.0000	708.6420	708.6420	0.2292		714.3718

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	0.0000	0.0000	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

3.6 Maintenance - Hand Clearing - 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	0.0000	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

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	0.5670	0.2888	3.0527	7.5000e-003	0.7598	5.0000e-003	0.7648	0.2014	4.6100e-003	0.2060		746.1794	746.1794	0.0293		746.9119
Total	0.5670	0.2888	3.0527	7.5000e-003	0.7598	5.0000e-003	0.7648	0.2014	4.6100e-003	0.2060		746.1794	746.1794	0.0293		746.9119

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	0.0000	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	0.0000	0.0000

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	0.5670	0.2888	3.0527	7.5000e-003	0.7598	5.0000e-003	0.7648	0.2014	4.6100e-003	0.2060		746.1794	746.1794	0.0293		746.9119
Total	0.5670	0.2888	3.0527	7.5000e-003	0.7598	5.0000e-003	0.7648	0.2014	4.6100e-003	0.2060		746.1794	746.1794	0.0293		746.9119

3.7 Maintenance - Channel Clearing - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3604	2.5072	3.4174	4.2100e-003		0.1460	0.1460		0.1343	0.1343		408.2764	408.2764	0.1320		411.5775
Total	0.3604	2.5072	3.4174	4.2100e-003	0.0000	0.1460	0.1460	0.0000	0.1343	0.1343		408.2764	408.2764	0.1320		411.5775

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	0.5038	0.2286	2.4542	6.9500e-003	0.7598	4.6300e-003	0.7644	0.2014	4.2600e-003	0.2057		692.7077	692.7077	0.0227		693.2757
Total	0.5038	0.2286	2.4542	6.9500e-003	0.7598	4.6300e-003	0.7644	0.2014	4.2600e-003	0.2057		692.7077	692.7077	0.0227		693.2757

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	0.3604	2.5072	3.4174	4.2100e-003		0.1460	0.1460		0.1343	0.1343	0.0000	408.2764	408.2764	0.1320		411.5775
Total	0.3604	2.5072	3.4174	4.2100e-003	0.0000	0.1460	0.1460	0.0000	0.1343	0.1343	0.0000	408.2764	408.2764	0.1320		411.5775

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	
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	0.5038	0.2286	2.4542	6.9500e-003	0.7598	4.6300e-003	0.7644	0.2014	4.2600e-003	0.2057		692.7077	692.7077	0.0227		693.2757
Total	0.5038	0.2286	2.4542	6.9500e-003	0.7598	4.6300e-003	0.7644	0.2014	4.2600e-003	0.2057		692.7077	692.7077	0.0227		693.2757

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7711	2.4452	26.4198	0.0903	9.9235	0.0571	9.9806	2.6313	0.0527	2.6840		9,008.7610	9,008.7610	0.2349		9,014.6326
Unmitigated	0.7711	2.4452	26.4198	0.0903	9.9235	0.0571	9.9806	2.6313	0.0527	2.6840		9,008.7610	9,008.7610	0.2349		9,014.6326

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	96.00	96.00	96.00	4,752,384	4,752,384
Total	96.00	96.00	96.00	4,752,384	4,752,384

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.695700	0.050720	0.251940	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.001640

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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

Land Use	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
	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

	Natural Gas 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	0.0135	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-003
Unmitigated	0.0135	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-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	0.0135					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-003
Total	0.0135	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-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	0.0135					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-003
Total	0.0135	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-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

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

ORWT - Inyo County, Summer

ORWT
Inyo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	6.00	Acre	6.00	261,360.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	34
Climate Zone	9			Operational Year	2022
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Trips and VMT - See Assumptions

Grading - Not all 6 acres are graded

Vehicle Trips - see assumptions

Landscape Equipment - no landscaping

Energy Use -

Water And Wastewater - see assumptions

Construction Off-road Equipment Mitigation - see assumptions

Fleet Mix - See Assumptions

Off-road Equipment - see assumptions

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	NumDays	10.00	1.00
tblFleetMix	HHD	0.05	0.00
tblFleetMix	LDA	0.54	0.70
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.20	0.25
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.5170e-003	0.00
tblFleetMix	MCY	5.7120e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.2750e-003	1.6400e-003
tblFleetMix	MHD	9.5500e-003	0.00
tblFleetMix	OBUS	2.7660e-003	0.00
tblFleetMix	SBUS	8.2800e-004	0.00
tblFleetMix	UBUS	2.4690e-003	0.00
tblGrading	AcresOfGrading	0.00	2.00
tblOffRoadEquipment	HorsePower	158.00	95.00

tblOffRoadEquipment	HorsePower	158.00	117.00
tblOffRoadEquipment	HorsePower	402.00	225.00
tblOffRoadEquipment	HorsePower	168.00	30.00
tblOffRoadEquipment	HorsePower	168.00	148.00
tblOffRoadEquipment	HorsePower	168.00	45.00
tblOffRoadEquipment	HorsePower	65.00	115.00
tblOffRoadEquipment	LoadFactor	0.40	0.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripLength	10.80	125.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblTripsAndVMT	WorkerTripNumber	5.00	8.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00

tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	HO_TL	0.00	136.00
tblVehicleTrips	HO_TTP	0.00	100.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	ST_TR	22.75	16.00
tblVehicleTrips	SU_TR	16.74	16.00
tblVehicleTrips	WD_TR	1.89	16.00
tblWater	OutdoorWaterUseRate	7,148,888.10	0.00

2.0 Emissions Summary

-Summary not used

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Hand Clearing	Site Preparation	12/1/2019	12/2/2019	5	1	
2	Improvement Construction	Grading	1/1/2020	1/1/2020	5	1	
3	Channel Clearing	Trenching	10/1/2020	10/1/2020	5	1	
4	Spoils Placement	Trenching	10/1/2020	10/1/2020	5	1	
5	Maintenance - Hand Clearing	Site Preparation	7/1/2021	7/1/2021	5	1	
6	Maintenance - Channel Clearing	Site Preparation	7/1/2023	7/3/2023	5	1	

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Clearing	Rubber Tired Dozers	0	8.00	247	0.40
Hand Clearing	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Improvement Construction	Excavators	1	8.00	158	0.38
Improvement Construction	Graders	0	8.00	187	0.41
Improvement Construction	Rollers	1	8.00	80	0.38
Improvement Construction	Rubber Tired Dozers	1	8.00	247	0.40
Improvement Construction	Skid Steer Loaders	1	8.00	65	0.37
Improvement Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Channel Clearing	Excavators	1	8.00	117	0.38
Channel Clearing	Other Material Handling Equipment	1	8.00	148	0.40
Channel Clearing	Other Material Handling Equipment	1	8.00	45	0.45
Spoils Placement	Off-Highway Trucks	1	4.00	225	0.38
Spoils Placement	Skid Steer Loaders	1	8.00	115	0.37
Maintenance - Hand Clearing	Off-Highway Trucks	0	8.00	402	0.38
Maintenance - Hand Clearing	Rubber Tired Dozers	0	8.00	247	0.40
Maintenance - Hand Clearing	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Maintenance - Channel Clearing	Excavators	1	8.00	95	0.38
Maintenance - Channel Clearing	Other Material Handling Equipment	1	8.00	30	0.40
Maintenance - Channel Clearing	Rubber Tired Dozers	0	8.00	247	0.40
Maintenance - Channel Clearing	Tractors/Loaders/Backhoes	0	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
Hand Clearing	0	8.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Improvement Construction	5	8.00	1.00	5.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Channel Clearing	3	8.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Spoils Placement	2	0.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Maintenance - Hand Clearing	0	8.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Maintenance - Channel Clearing	2	8.00	0.00	0.00	125.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Hand Clearing - 2019

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	0.0000	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

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	0.5029	0.3535	3.8337	8.0500e-003	0.7598	5.4400e-003	0.7652	0.2014	5.0100e-003	0.2064		800.4641	800.4641	0.0380		801.4135
Total	0.5029	0.3535	3.8337	8.0500e-003	0.7598	5.4400e-003	0.7652	0.2014	5.0100e-003	0.2064		800.4641	800.4641	0.0380		801.4135

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	0.0000	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		0.0000

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	0.5029	0.3535	3.8337	8.0500e-003	0.7598	5.4400e-003	0.7652	0.2014	5.0100e-003	0.2064		800.4641	800.4641	0.0380		801.4135
Total	0.5029	0.3535	3.8337	8.0500e-003	0.7598	5.4400e-003	0.7652	0.2014	5.0100e-003	0.2064		800.4641	800.4641	0.0380		801.4135

3.3 Improvement Construction - 2020

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					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	1.8220	18.9935	12.9625	0.0215		0.9836	0.9836		0.9049	0.9049		2,082.4646	2,082.4646	0.6735		2,099.3024
Total	1.8220	18.9935	12.9625	0.0215	8.1431	0.9836	9.1267	3.5393	0.9049	4.4442		2,082.4646	2,082.4646	0.6735		2,099.3024

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	0.0419	1.4258	0.2304	4.2200e-003	0.0876	4.6900e-003	0.0923	0.0240	4.4900e-003	0.0285		441.9104	441.9104	0.0138		442.2540
Vendor	6.0500e-003	0.1199	0.0389	3.1000e-004	6.7800e-003	5.6000e-004	7.3400e-003	1.9500e-003	5.4000e-004	2.4900e-003		32.4826	32.4826	1.5900e-003		32.5223
Worker	0.4680	0.3128	3.4159	7.8000e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		775.8161	775.8161	0.0332		776.6466
Total	0.5160	1.8585	3.6852	0.0123	0.8542	0.0105	0.8647	0.2274	9.8500e-003	0.2373		1,250.2091	1,250.2091	0.0486		1,251.4229

Mitigated Construction On-Site

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

Fugitive Dust					3.0170	0.0000	3.0170	1.3113	0.0000	1.3113			0.0000			0.0000
Off-Road	1.8220	18.9935	12.9625	0.0215		0.9836	0.9836		0.9049	0.9049	0.0000	2,082.4646	2,082.4646	0.6735		2,099.3024
Total	1.8220	18.9935	12.9625	0.0215	3.0170	0.9836	4.0006	1.3113	0.9049	2.2162	0.0000	2,082.4646	2,082.4646	0.6735		2,099.3024

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	0.0419	1.4258	0.2304	4.2200e-003	0.0876	4.6900e-003	0.0923	0.0240	4.4900e-003	0.0285		441.9104	441.9104	0.0138		442.2540
Vendor	6.0500e-003	0.1199	0.0389	3.1000e-004	6.7800e-003	5.6000e-004	7.3400e-003	1.9500e-003	5.4000e-004	2.4900e-003		32.4826	32.4826	1.5900e-003		32.5223
Worker	0.4680	0.3128	3.4159	7.8000e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		775.8161	775.8161	0.0332		776.6466
Total	0.5160	1.8585	3.6852	0.0123	0.8542	0.0105	0.8647	0.2274	9.8500e-003	0.2373		1,250.2091	1,250.2091	0.0486		1,251.4229

3.4 Channel Clearing - 2020

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	0.9425	6.7291	8.2617	0.0108		0.4251	0.4251		0.3911	0.3911		1,047.1110	1,047.1110	0.3387		1,055.5774
Total	0.9425	6.7291	8.2617	0.0108		0.4251	0.4251		0.3911	0.3911		1,047.1110	1,047.1110	0.3387		1,055.5774

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	0.4680	0.3128	3.4159	7.8000e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		775.8161	775.8161	0.0332			776.6466
Total	0.4680	0.3128	3.4159	7.8000e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		775.8161	775.8161	0.0332			776.6466

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	0.9425	6.7291	8.2617	0.0108		0.4251	0.4251		0.3911	0.3911	0.0000	1,047.1110	1,047.1110	0.3387			1,055.5774
Total	0.9425	6.7291	8.2617	0.0108		0.4251	0.4251		0.3911	0.3911	0.0000	1,047.1110	1,047.1110	0.3387			1,055.5774

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
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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	
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	0.4680	0.3128	3.4159	7.8000e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		775.8161	775.8161	0.0332		776.6466
Total	0.4680	0.3128	3.4159	7.8000e-003	0.7598	5.2400e-003	0.7650	0.2014	4.8200e-003	0.2063		775.8161	775.8161	0.0332		776.6466

3.5 Spoils Placement - 2020

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	0.3485	3.7700	3.5081	7.3200e-003		0.1550	0.1550		0.1426	0.1426		708.6420	708.6420	0.2292		714.3718
Total	0.3485	3.7700	3.5081	7.3200e-003		0.1550	0.1550		0.1426	0.1426		708.6420	708.6420	0.2292		714.3718

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	0.0000	0.0000	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	0.0000	0.0000
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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	0.3485	3.7700	3.5081	7.3200e-003		0.1550	0.1550		0.1426	0.1426	0.0000	708.6420	708.6420	0.2292		714.3718
Total	0.3485	3.7700	3.5081	7.3200e-003		0.1550	0.1550		0.1426	0.1426	0.0000	708.6420	708.6420	0.2292		714.3718

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	0.0000	0.0000	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

3.6 Maintenance - Hand Clearing - 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	0.0000	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

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	0.4389	0.2777	3.0590	7.5300e-003	0.7598	5.0000e-003	0.7648	0.2014	4.6100e-003	0.2060		749.3395	749.3395	0.0293		750.0717
Total	0.4389	0.2777	3.0590	7.5300e-003	0.7598	5.0000e-003	0.7648	0.2014	4.6100e-003	0.2060		749.3395	749.3395	0.0293		750.0717

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	0.0000	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	0.0000	0.0000

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	0.4389	0.2777	3.0590	7.5300e-003	0.7598	5.0000e-003	0.7648	0.2014	4.6100e-003	0.2060		749.3395	749.3395	0.0293		750.0717
Total	0.4389	0.2777	3.0590	7.5300e-003	0.7598	5.0000e-003	0.7648	0.2014	4.6100e-003	0.2060		749.3395	749.3395	0.0293		750.0717

3.7 Maintenance - Channel Clearing - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3604	2.5072	3.4174	4.2100e-003		0.1460	0.1460		0.1343	0.1343		408.2764	408.2764	0.1320		411.5775
Total	0.3604	2.5072	3.4174	4.2100e-003	0.0000	0.1460	0.1460	0.0000	0.1343	0.1343		408.2764	408.2764	0.1320		411.5775

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	0.3870	0.2198	2.4607	6.9800e-003	0.7598	4.6300e-003	0.7644	0.2014	4.2600e-003	0.2057		695.6418	695.6418	0.0227		696.2101
Total	0.3870	0.2198	2.4607	6.9800e-003	0.7598	4.6300e-003	0.7644	0.2014	4.2600e-003	0.2057		695.6418	695.6418	0.0227		696.2101

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	0.3604	2.5072	3.4174	4.2100e-003		0.1460	0.1460		0.1343	0.1343	0.0000	408.2764	408.2764	0.1320		411.5775
Total	0.3604	2.5072	3.4174	4.2100e-003	0.0000	0.1460	0.1460	0.0000	0.1343	0.1343	0.0000	408.2764	408.2764	0.1320		411.5775

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
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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	
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	0.3870	0.2198	2.4607	6.9800e-003	0.7598	4.6300e-003	0.7644	0.2014	4.2600e-003	0.2057		695.6418	695.6418	0.0227		696.2101
Total	0.3870	0.2198	2.4607	6.9800e-003	0.7598	4.6300e-003	0.7644	0.2014	4.2600e-003	0.2057		695.6418	695.6418	0.0227		696.2101

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7203	2.3526	26.5000	0.0907	9.9235	0.0571	9.9806	2.6313	0.0527	2.6840		9,047.0775	9,047.0775	0.2351		9,052.9543
Unmitigated	0.7203	2.3526	26.5000	0.0907	9.9235	0.0571	9.9806	2.6313	0.0527	2.6840		9,047.0775	9,047.0775	0.2351		9,052.9543

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	96.00	96.00	96.00	4,752,384	4,752,384
Total	96.00	96.00	96.00	4,752,384	4,752,384

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.695700	0.050720	0.251940	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.001640

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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

Land Use	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
	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

	Natural Gas 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	0.0135	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-003
Unmitigated	0.0135	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-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	0.0135					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-003
Total	0.0135	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-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	0.0135					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-003
Total	0.0135	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3100e-003	1.3100e-003	0.0000		1.4000e-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

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

**Owens River Water Trail
Alternative 4**

Owens River Water Trail Alternative 4

Alternative 4 consists of the same elements of the project, plus the added element of transport of spoils to the local landfill to be used as temporary cover. All emissions associated with the project would occur and the following assumptions are being used to estimate the emissions increase that would be associated with the implementation of Alternative 4.

Transfer to the landfill will occur based on the location of the spoils pile on the east or west side of the river.

West Side:

For spoil piles on the west side, once the vegetation dewaterers approximately 50 percent of the original volume will remain. The spoils will then be loaded into Mooroka MSTs (10 cubic yard transports) and will be driven directly to the landfill in the Moorokas. The following assumptions are being made.

Assumptions:	6,165 cy yards of material will be located on the west side spoil piles.
	3,082 dewatered cubic yards to be transported to the landfill.
	10 cubic yards per Mooroka trip
	313 one-way trips (this takes into account that all spoil piles will have one partial load)
	1.1 miles per trip
	335 one-way miles driven to the landfill.
	6 to 25 Trips per day to landfill based on material available, speed of loading and needs of landfill. Minimum trips per day based on smallest spoil pile and maximum based on running hours of Mooroka.
Equipment needed:	(Equipment and employees in addition to those accounted for in the project)
	1 Skid Steer Loader
	1 Mooroka
Notes:	Emissions for Mooroka based on hours of operation.
	4 hours of mooroka operation per day assumes down time for loading and unloading
	2 additional employees per day

East Side:

For spoil piles on the west side, once the vegetation dewaterers approximately 50 percent of the original volume will remain. The spoils will then be loaded into Mooroka MSTs (10 cubic yard transports) and will be driven to one of 3 staging areas. 2 on the north (spoil locations 1 and 2 on the west side are closer to the road and therefore are assumed to be taken overroad rather than add to the potential biological disturbance of transporting directly to the landfill) and one on the south. Staging areas will be located near the Lone Pine Narrow Gauge Road or highway 136. Spoils stored temporarily at the stockpile locations will be tarped or otherwise managed to prevent windblown debris from leaving the site. These stockpiles will then be loaded into 18 cubic yard dump trucks and transported to the landfill. The following assumptions are being made.

Owens River Water Trail Alternative 4

- Assumptions:
- 6,592 cy yards of material will be located in the east side spoil piles (and spoil piles #1 and #2 from the west side).
 - 3,296 dewatered cubic yards to be transported to the landfill.
 - 10 cubic yards per Mooroka trip
 - 336 one-way trips to the stockpile areas (this takes into account that all spoil piles will have one partial load)
 - 0.94 miles per trip
 - 315 one-way miles driven to the staging areas.
 - 18 cubic yard on-road dump trucks
 - 183 one-way trips to the landfill
 - 6.4 average distance to landfill
(Although the Lone Pine Narrow Gauge Road is only 4.5 miles from the Project site, as a worst case scenario the 6.5 miles from highway 136 is used for the analysis)
 - 1,033 one-way miles to the landfill
 - 6 to 25 Trips per day to landfill based on material available, speed of loading and needs of landfill. Minimum trips per day based on smallest spoil pile and maximum based on running hours of Mooroka.
- Equipment needed: (Equipment and employees in addition to those accounted for in the project)
- 2 Skid Steer Loader
 - 2 Mooroka
- Notes:
- Emissions for Mooroka based on hours of operation.
 - 4 hours of mooroka operation per day assumes down time for loading and unloading
 - 4 additional employees per day

Owens River Water Trail Alternative 4

Emissions estimates based on existing project emissions.

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO ₂ e
	lbs/day						MT/year
West Side (Min)	-	-	-	-	-	-	6
West Side (Max)	1	4	5	0	1	0	31
East Side Onsite (Min)	-	-	-	-	-	-	13
East Side Onsite (Max)	1	8	10	0	1	0	63

Haul Trucks Based on the number of trucks, emissions would be minimal, less than 2 lbs per day of criteria pollutants and less than 2 metric tons per year of CO₂e.

Construction Emissions

Max Project	6	36	53	0	12	6	629
Amortized	-	-	-	-	-	-	21
Alt 4 Min	6	40	58	0	13	6	635
Amortized	-	-	-	-	-	-	21
Alt 4 Max	10	50	71	2	16	9	725
Amortized	-	-	-	-	-	-	24
Threshold	75	100	550	150	150	55	
% increase Min	10%	10%	9%	13%	4%	4%	1%
%increase Max	41%	28%	25%	96%	23%	32%	13%

West Side Emissions are equal to the project emissions from the spoil pile plus 1/2 of the worker emissions. Minimum CO₂e emissions assume 25 trips per day over 13 Days and Maximum assumes 5 trips per day over 63 Days.

East Emissions are equal to the project emissions from 2 times the spoil pile plus the worker emissions. Minimum CO₂e emissions from stockpiling assumes 25 trips per day over 13 Days and Maximum assumes 5 trips per day over 63 Days. Minimum CO₂e emissions from haul trucks to landfill assumes 20 trips per day over 9 Days and Maximum assumes 3 trips per day over 61 Days.

