

March 27, 2020

CSD-06.09

Margaret Diss
Department of Parks and Recreation
County of San Diego
5500 Overland Avenue, Suite 410
San Diego, CA 92123

Subject: Air Quality and Greenhouse Gas Emission Technical Memorandum for the Sycuan-Sloane Trail Project

Dear Ms. Diss:

This letter summarizes the air quality and greenhouse gas (GHG) emissions for the proposed Sycuan-Sloane Trail Project (project). The County of San Diego Department of Parks and Recreation (DPR) is proposing the project, which is a multi-use, non-motorized trail that would provide a regional and community trail connection between two existing regional trails, the Sweetwater River Loop Trail and the California Riding and Hiking Trail. Constructing the project would involve grading and contouring to create stable pathways and trails along an approximately 5-mile alignment (see Figure 1, *Sycuan-Sloane Canyon Trail Segments*).

The project is divided into six trail segments, numbered Segments 1 through 6, and would be located generally along Dehesa Road and Sloane Canyon Road on lands within County right-of-way (ROW) or owned by the Sycuan Band of the Kumeyaay Nation and the Kumeyaay Diegueno Land Conservancy. Segment 2 is divided into three options, numbered as Segments 2a, 2b, and 2c. Segment 4 is also divided into three options, numbered as Segments 4a, 4b, and 4c. Segment 5 is divided into two options, numbered as Segments 5a and 5b. Segment 6 is divided into two options, numbered as Segments 6a and 6b. Segment 6b, if chosen, would replace Segment 6a and Segment 1. The preferred alignment for this project would include the following segments: Segment 6a, Segment 1, Segment 2a, Segment 3, Segment 4a, and Segment 5a.

The project would not construct every trail segment option. The following analysis addresses the entirety of the project. This report assumes approximately five miles of trail would be constructed, which would encompass any combination of chosen individual segments, including the preferred alignment.

An exact construction timeline is unknown at this point in project design. Trail segments may be constructed concurrently or sequentially. For the purposes of this analysis, the project trail segments are conservatively estimated to be constructed concurrently, with each segment using separate construction equipment. Construction is assumed to commence in 2020 and is assumed to take approximately 6 months to complete. Except for the import of some trail-related materials and periodic import of decomposed granite, no large-scale import or export of material is anticipated. This analysis assumes three truck trips per day during trail construction to account for import of decomposed granite material. Construction staging is anticipated to occur within an existing staging area adjacent to the trail alignment. Upon completion, the existing staging area would remain for use by trail users.

Methodology and Assumptions

Criteria air pollutant and GHG emissions resulting from construction of the proposed project were quantified using the Road Construction Emissions Model (Roadway Model) Version 8.1.0, developed by the Sacramento Metropolitan Air Quality Management District (SMAQMD). The Roadway Model contains OFFROAD2011 emission factors and EMFAC2014 emission factors from the California Air Resources Board's (CARB's) models for off-road equipment and on-road vehicles (SMAQMD 2016). Because the proposed project is a trail that would support pedestrians, bicyclists, and equestrians, it would not increase long-term air pollutant or GHG emissions in the project area, and therefore operational emissions were not modeled.

The analysis assumes that total construction duration would be approximately six months. For purposes of calculating air and GHG emissions during construction of the proposed project, the trail alignment is divided into the following types of construction activities: grubbing/land clearing and grading/excavation. As a conservative analysis, all trail alignments are assumed to be constructed concurrently. No paving would be required for any trail segments. Sources of construction air pollutant and GHG emissions include off-road diesel equipment exhaust, construction worker commuting, and fugitive dust from land clearing. Because of its function as a trail connecting two existing regional trails, the project is not expected to generate automobile trips (RICK Engineering 2020).

Table 1, *Construction Equipment Assumptions by Phase* presents the type and amount of construction equipment and vehicles that would be used during each type of construction activity for the east phase and west phase of project construction. A complete listing of the assumptions used in the analysis and the model outputs are provided in Attachment A. In addition to the equipment described, hand tools would also be used to construct the trail alignment, especially in areas inaccessible to larger equipment.

Table 1
CONSTRUCTION EQUIPMENT ASSUMPTIONS BY PHASE

Phase	Construction Activity and Equipment/Vehicle Type	Number of Pieces	Horsepower ¹
Grubbing/ Land Clearing	Rubber Tired Dozer	6	255
	Rubber Tired Loader	6	200
	Skid Steer Loader	6	65
	Loader/Backhoe	6	98
Grading/ Excavation/ Trail Construction	Rubber Tired Dozer	6	255
	Rubber Tired Loader	6	200
	Skid Steer Loader	6	65
	Loader/Backhoe	6	98
	Excavator	6	163
	Heavy truck	3	400

¹ Equipment horsepower assumption provided in Appendix A.

For the purposes of this analysis, construction of all 5 miles of trails is assumed to take place over approximately six months beginning in 2020. The quantity, duration, and the intensity of construction activity affects the amount of construction emissions and their related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in an intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than incorporated in the Roadway Model, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

Criteria Air Pollutant Emissions

Significance Criteria

To determine whether a project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation; or (b) result in a cumulatively considerable net increase of PM₁₀ or exceed quantitative thresholds for ozone precursors (i.e., NO_x and VOCs), project emissions may be evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs). In the absence of a SDAPCD adopted threshold for PM_{2.5}, the SCAQMD's screening threshold of 55 pounds per day or 10 tons per year is used. For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total

emissions would not result in a significant impact to air quality. The screening thresholds are included in Table 2, *Screening Level Thresholds for Air Quality Impact Analysis*.

Table 2
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Total Emissions
Construction Emissions (Pounds per Day)	
Respirable Particulate Matter (PM ₁₀)	100
Fine Particulate Matter (PM _{2.5})	55
Oxides of Nitrogen (NO _x)	250
Oxides of Sulfur (SO _x)	250
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75

Source: SDACPD Rule 20.2 and Rule 1210

Project Emissions

Construction of the proposed project would generate short-term criteria air pollutant emissions, including emissions of VOCs, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. An estimate of the maximum daily emissions of each criteria air pollutant during project construction is presented in Table 3, *Maximum Daily Construction Emissions*.

Table 3
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Construction Activity	Pollutant Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
Grubbing/Land Clearing	10	106	81	<0.5	10	5
Grading/Excavation/Trail Construction	14	140	115	<0.5	11	7
Maximum Daily Emissions	14	140	115	<0.5	11	7
<i>SDAPCD Thresholds</i>	137	250	550	250	100	55

Source: Roadway Model (output data is provided in Appendix A)

Note: Emissions are rounded to the nearest whole number.

As shown in Table 3, emissions of criteria pollutants related to project construction would be substantially below the daily thresholds. Therefore, impacts from criteria pollutants generated during construction would be less than significant.

Greenhouse Gas Emissions

Significance Criteria

Emissions of GHGs are presented in carbon dioxide equivalents (CO₂e), which is a metric used to compare the emissions from various GHGs based on their global warming potential. The CO₂e of a gas is determined by multiplying the tons of that gas by its global warming potential.

A screening level based on the California Air Pollution Control Officers Association's (CAPCOA) report CEQA & Climate Change has typically been used to determine whether further analysis would be needed to examine the GHG impacts of a proposed project (CAPCOA 2008). CAPCOA developed a 900 MT CO₂e per year screening threshold by analyzing the capture of 90 percent or more of future discretionary development for residential and commercial projects across the state. Direct and cumulative impacts would be potentially significant and require further analysis if the project results in emissions that exceed 900 MT CO₂e beyond current baseline emissions. Because the project would be completed during or after 2020, the 900 MT CO₂e screening threshold would no longer be applicable. Senate Bill (SB) 32 sets a GHG emission reduction target of 40 percent below 1990 levels by 2030, or 540 MT CO₂e. To achieve this target, a regression trajectory was projected reducing the operational year emissions target from the 900 MT CO₂e target in 2020 to the 540 MT CO₂e target in 2030. This trajectory is outlined in Table 6, *GHG Significance Thresholds Trajectory*.

Table 6
GHG Significance Thresholds Trajectory

Year	Emissions Threshold (MT CO ₂ e)
2020	900
2021	855
2022	813
2023	772
2024	734
2025	697
2026	662
2027	629
2028	598
2029	568
2030	540

Source: CAPCOA 2008; SB 32

MT = metric tons; CO₂e = carbon dioxide equivalents

Note: Emissions thresholds reduce by 4.98 percent each year to achieve SB 32's 2030 target.

Project Emissions

Project construction would generate GHG emissions associated with construction equipment exhaust and from construction worker vehicle trips to and from the project site. The primary GHG emissions would be CO₂ from gasoline and diesel combustion, with more limited vehicle tailpipe emissions of N₂O and CH₄. Total GHG emissions during project construction are presented in Table 7, *Construction Greenhouse Gas Emissions*.

Table 7
CONSTRUCTION GREENHOUSE GAS EMISSIONS

Construction Activity	Emissions (MT CO ₂ e) ²
Site Preparation	74
Grading/Excavation/Trail Construction	485
TOTAL	529
Amortized Construction Emissions¹	26

Source: Roadway Model (output data is provided in Appendix A)

¹ Construction emissions are amortized over 20 years in accordance with County guidance.

² Numbers may not total due to rounding

The project would result in GHG emissions from construction of 529 MT CO₂e. Averaged over 20 years, the proposed construction activities would contribute approximately 26 MT CO₂e emissions per year. This would be well below the screening threshold for any year along the trajectory described in Table 6, including the 2030 threshold of 540 MT CO₂e; therefore, GHG impacts from the project would be less than significant.

Sincerely,



Joanne M. Dramko, AICP
County-approved Air Quality Consultant



Jason Runyan
Air Quality Specialist

Attachments

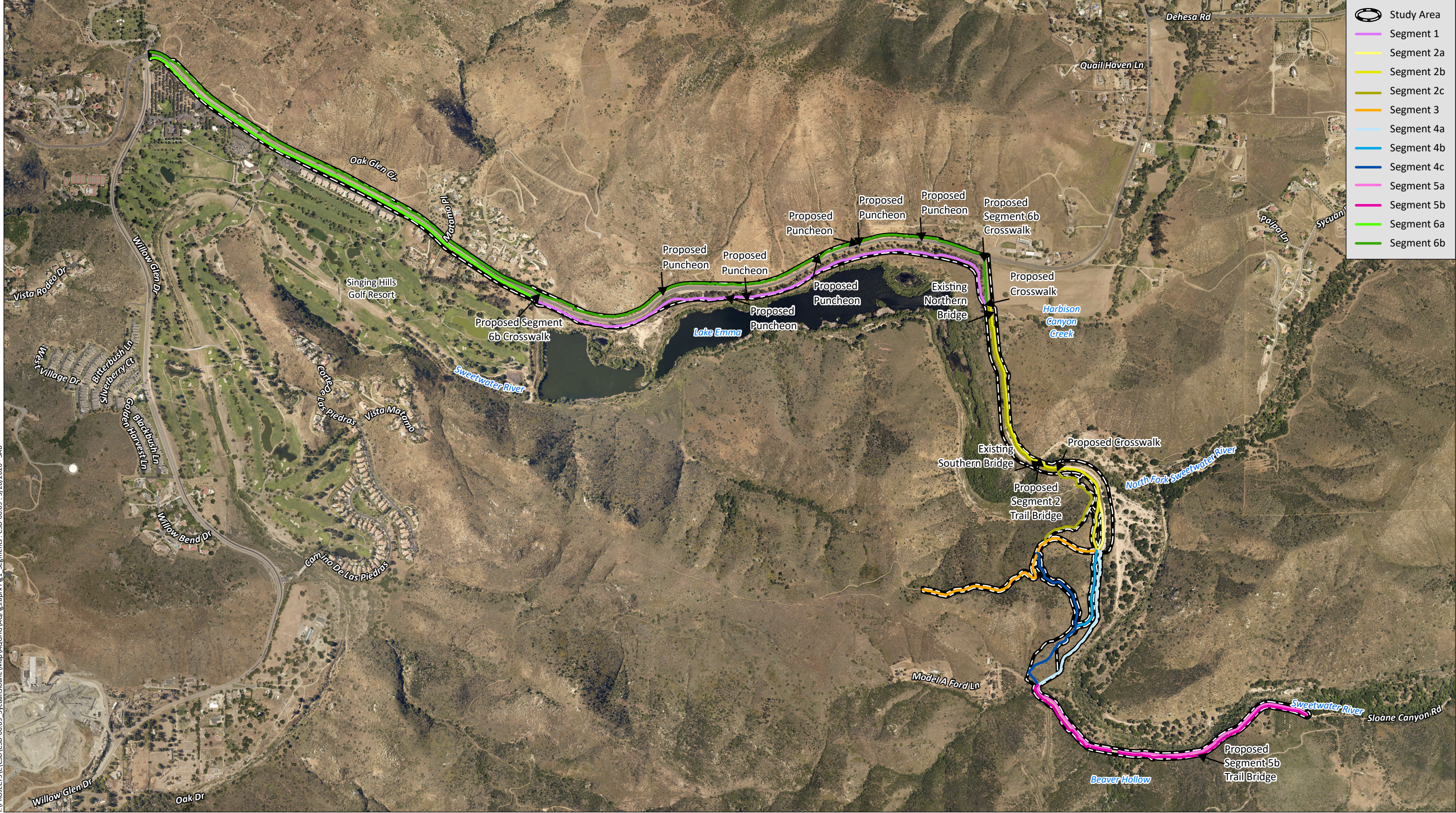
Figure 1: Trail Alignment
Appendix A: Roadway Model Outputs

References

California Air Pollution Control Officers Association (CAPCOA). 2008. CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. January. Available at: <http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf>

RICK Engineering. 2020. Review Draft: Sycuan/Sloane Trail Project Traffic Impact Study. March 6.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2016. Guide to Air Quality Assessment in Sacramento County. December.



I:\PROJECTS\CT\CTSD\CSD-06-09 SycuanSloane\Map\AQH\AQH_Fig1.aprx Fig 1 Segments : CSD-06-09 : 3/26/2020 - SAB

Source: Aerial (SanGIS, 2017)

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> Sycuan-Sloane Trails Project																																																								
Project Phases (Pounds)		ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)																																									
Grubbing/Land Clearing		9.98	81.19	106.26	9.80	4.80	5.00	5.43	4.39	1.04	0.13	12,207.95	3.82	0.11	12,337.17																																									
Grading/Excavation		11.49	101.42	121.19	10.52	5.52	5.00	6.09	5.05	1.04	0.16	15,303.62	4.82	0.14	15,466.22																																									
Drainage/Utilities/Sub-Grade		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																																									
Paving		2.22	13.12	19.04	0.74	0.74	0.00	0.66	0.66	0.00	0.04	4,244.78	1.25	0.04	4,288.28																																									
Maximum (pounds/day)		11.49	101.42	121.19	10.52	5.52	5.00	6.09	5.05	1.04	0.16	15,303.62	4.82	0.14	15,466.22																																									
Total (tons/construction project)		0.43	3.68	4.49	0.38	0.20	0.18	0.22	0.19	0.04	0.01	577.11	0.18	0.01	583.23																																									
Notes: Project Start Year -> 2020 Project Length (months) -> 6 Total Project Area (acres) -> 6 Maximum Area Disturbed/Day (acres) -> 1 Water Truck Used? -> Yes <table><tr><td></td><td colspan="2">Total Material Imported/Exported Volume (yd³/day)</td><td colspan="4">Daily VMT (miles/day)</td></tr><tr><td>Phase</td><td>Soil</td><td>Asphalt</td><td>Soil Hauling</td><td>Asphalt Hauling</td><td>Worker Commute</td><td>Water Truck</td></tr><tr><td>Grubbing/Land Clearing</td><td>0</td><td>0</td><td>0</td><td>0</td><td>500</td><td>0</td></tr><tr><td>Grading/Excavation</td><td>0</td><td>0</td><td>0</td><td>0</td><td>500</td><td>0</td></tr><tr><td>Drainage/Utilities/Sub-Grade</td><td>0</td><td>0</td><td>0</td><td>0</td><td>500</td><td>0</td></tr><tr><td>Paving</td><td>0</td><td>60</td><td>0</td><td>0</td><td>500</td><td>0</td></tr></table>																Total Material Imported/Exported Volume (yd³/day)		Daily VMT (miles/day)				Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck	Grubbing/Land Clearing	0	0	0	0	500	0	Grading/Excavation	0	0	0	0	500	0	Drainage/Utilities/Sub-Grade	0	0	0	0	500	0	Paving	0	60	0	0	500	0
																Total Material Imported/Exported Volume (yd³/day)		Daily VMT (miles/day)																																						
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															Drainage/Utilities/Sub-Grade	0	0	0	0	500	0																																			
															Paving	0	60	0	0	500	0																																			
															PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.																																									
Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.																																																								
CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.																																																								
Total Emission Estimates by Phase for -> Sycuan-Sloane Trails Project																																																								
Project Phases		ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)																																									
(Tons for all except CO2e. Metric tonnes for CO2e)																																																								
Grubbing/Land Clearing		0.07	0.54	0.70	0.06	0.03	0.03	0.04	0.03	0.01	0.00	80.57	0.03	0.00	73.87																																									
Grading/Excavation		0.34	3.01	3.60	0.31	0.16	0.15	0.18	0.15	0.03	0.00	454.52	0.14	0.00	416.72																																									
Drainage/Utilities/Sub-Grade		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																																									
Paving		0.02	0.13	0.19	0.01	0.01	0.00	0.01	0.01	0.00	0.00	42.02	0.01	0.00	38.51																																									
Maximum (tons/phase)		0.34	3.01	3.60	0.31	0.16	0.15	0.18	0.15	0.03	0.00	454.52	0.14	0.00	416.72																																									
Total (tons/construction project)		0.43	3.68	4.49	0.38	0.20	0.18	0.22	0.19	0.04	0.01	577.11	0.18	0.01	529.10																																									
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The CO2e emissions are reported as metric tons per phase.																																																								

Data Entry Worksheet

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing		0.60		1/1/2020
Grading/Excavation		2.70		1/20/2020
Drainage/Utilities/Sub-Grade	0.00	1.80		4/12/2020
Paving		0.90		4/12/2020
Totals (Months)	4			

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values	Calculated
User Input	Miles/Round Trip	Miles/Round Trip	Round Trips/Day	Round Trips/Day	Daily VMT
Miles/round trip: Grubbing/Land Clearing	0.00			0	0.00
Miles/round trip: Grading/Excavation	0.00			0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade	0.00			0	0.00
Miles/round trip: Paving	0.00			0	0.00

2010+ Model Year Mitigation Option Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Grading/Excavation (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Hauling Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Asphalt Hauling emission default values can be overridden in cells D87 through D90, and F87 through F90.

Asphalt Hauling Emissions		User Override of	Program Estimate of	User Override of Truck	Default Values	Calculated
User Input	Miles/Round Trip	Miles/Round Trip	Miles/Round Trip	Round Trips/Day	Round Trips/Day	Daily VMT
Miles/round trip: Grubbing/Land Clearing	0.00			0	0.00	
Miles/round trip: Grading/Excavation	0.00			0	0.00	
Miles/round trip: Drainage/Utilities/Sub-Grade	0.00			0	0.00	
Miles/round trip: Paving	0.00			3	0.00	

2010+ Model Year Mitigation Option Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Grading/Excavation (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Worker commute default values can be overridden in cells D113 through D118.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values							
User Input											
Miles/ one-way trip	5		Calculated	Calculated							
One-way trips/day	10		Daily Trips	Daily VMT							
No. of employees: Grubbing/Land Clearing	10		100	500.00							
No. of employees: Grading/Excavation	10		100	500.00							
No. of employees: Drainage/Utilities/Sub-Grade	10		100	500.00							
No. of employees: Paving	10		100	500.00							
Emission Rates		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e

Grubbing/Land Clearing (grams/mile)	0.02	1.08	0.11	0.05	0.02	0.00	371.46	0.01	0.00	373.08
Grading/Excavation (grams/mile)	0.02	1.08	0.11	0.05	0.02	0.00	371.46	0.01	0.00	373.08
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.02	1.08	0.11	0.05	0.02	0.00	371.46	0.01	0.00	373.08
Grubbing/Land Clearing (grams/trip)	1.00	2.55	0.20	0.00	0.00	0.00	84.03	0.01	0.01	86.84
Grading/Excavation (grams/trip)	1.00	2.55	0.20	0.00	0.00	0.00	84.03	0.01	0.01	86.84
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	1.00	2.55	0.20	0.00	0.00	0.00	84.03	0.01	0.01	86.84
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.24	1.75	0.17	0.05	0.02	0.00	428.00	0.01	0.01	430.39
Tons per const. Period - Grubbing/Land Clearing	0.00	0.01	0.00	0.00	0.00	0.00	2.82	0.00	0.00	2.84
Pounds per day - Grading/Excavation	0.24	1.75	0.17	0.05	0.02	0.00	428.00	0.01	0.01	430.39
Tons per const. Period - Grading/Excavation	0.01	0.05	0.01	0.00	0.00	0.00	12.71	0.00	0.00	12.78
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.24	1.75	0.17	0.05	0.02	0.00	428.00	0.01	0.01	430.39
Tons per const. Period - Paving	0.00	0.02	0.00	0.00	0.00	0.00	4.24	0.00	0.00	4.26
Total tons per construction project	0.01	0.08	0.01	0.00	0.00	0.00	19.77	0.00	0.00	19.88

Note: Water Truck default values can be overridden in cells D145 through D148, and F145 through F148.

Water Truck Emissions										
User Input	User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Vehicle/Day	Default Values Miles Traveled/Vehicle/Day	Calculated Daily VMT					
Grubbing/Land Clearing - Exhaust	1				0.00					
Grading/Excavation - Exhaust	1				0.00					
Drainage/Utilities/Subgrade	0				0.00					
Paving	0				0.00					
2010+ Model Year Mitigation Option Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Grading/Excavation (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Fugitive dust default values can be overridden in cells D171 through D173.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing			5.00	0.03	1.04	0.01
Fugitive Dust - Grading/Excavation			5.00	0.15	1.04	0.03
Fugitive Dust - Drainage/Utilities/Subgrade			0.00	0.00	0.00	0.00

Off-Road Equipment Emissions														
Grubbing/Land Clearing	Default	Mitigation Option			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Default											
		Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type										
Override of Default Number of Vehicles	Program-estimate				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00			Model Default Tier	Rubber Tired Dozers	5.77	47.62	60.89	2.80	2.57	0.05	5,178.42	1.68	0.05	5,234.05
6.00			Model Default Tier	Rubber Tired Loaders	2.21	9.67	26.07	0.87	0.80	0.04	3,577.30	1.16	0.03	3,615.92
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00			Model Default Tier	Skid Steer Loaders	0.48	8.34	6.37	0.28	0.25	0.01	1,201.01	0.39	0.01	1,213.96
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.0									

[illegible]

			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00			Model Default Tier	Rubber Tired Dozers	5.77	47.62	60.89	2.80	2.57	0.05	5,178.42	1.68	0.05	5,234.05
6.00			Model Default Tier	Rubber Tired Loaders	2.21	9.67	26.07	0.87	0.80	0.04	3,577.30	1.16	0.03	3,615.92
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00			Model Default Tier	Skid Steer Loaders	0.48	8.34	6.37	0.28	0.25	0.01	1,201.01	0.39	0.01	1,213.96
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00			Model Default Tier	Tractors/Loaders/Backhoes	1.27	13.82	12.76	0.81	0.74	0.02	1,823.22	0.59	0.02	1,842.85
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment				If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab										
Number of Vehicles		Equipment Tier		Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Grading/Excavation		pounds per day	11.25	99.67	121.02	5.47	5.03	0.15	14,875.62	4.81	0.13	15,035.82
		Grading/Excavation		tons per phase	0.33	2.96	3.59	0.16	0.15	0.00	441.81	0.14	0.00	446.56

Drainage/Utilities/Subgrade	Mitigation Option													
	Default	Override of	Default	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
	Number of Vehicles	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	
Override of Default Number of Vehicles	Program-estimate			Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment				If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab										
Number of Vehicles		Equipment Tier		Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Drainage/Utilities/Sub-Grade		pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Drainage/Utilities/Sub-Grade		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Default											
		Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)												
Override of Default Number of Vehicles	Program-estimate		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.00			Model Default Tier	Off-Highway Trucks	1.98	11.37	18.87	0.69	0.63	0.04	3,816.78	1.23	0.03	3,857.89
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment					If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab									
Number of Vehicles		Equipment Tier		Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving		pounds per day	1.98	11.37	18.87	0.69	0.63	0.04	3,816.78	1.23	0.03	3,857.89
		Paving		tons per phase	0.02	0.11	0.19	0.01	0.01	0.00	37.79	0.01	0.00	38.19
Total Emissions all Phases (tons per construction period) =>					0.42	3.60	4.48	0.20	0.18	0.01	557.34	0.18	0.01	563.34

Equipment default values for horsepower and hours/day can be overridden in cells D391 through D424 and F391 through F424.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws		81		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		85		8
Excavators		163		8
Forklifts		89		8
Generator Sets		84		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		46		8

END OF DATA ENTRY SHEET