



July 24, 2019

Los Angeles County Public Works

Attn: Brittany Barker, George De La O, Veronica Mardis, Michael Simon, Sterling Klippel

900 S. Fremont Ave.

Alhambra, CA 91803

**Subject: Devil's Gate Localized Haul Truck Nitrogen Oxide Emissions Demonstration**

ECORP Consulting has been retained to articulate the contribution of nitrogen oxide (NO<sub>x</sub>) emissions associated with the proposal to haul material from the Devil's Gate Reservoir (Reservoir) as part of necessary maintenance activities. The following discussion includes a detailed account of the methodology and conclusions of a demonstration intended underscore the existing NO<sub>x</sub> emission levels routinely generated the vicinity of the Reservoir. The results of this demonstration are not intended to update or replace any of the previous analysis prepared for the whole of the *Devil's Gate Reservoir Sediment Removal and Management Project*.

The intent of this demonstration is to create an understanding of the current air quality-related environment in the Project vicinity in order to develop an appropriate baseline with which to compare the contribution of NO<sub>x</sub> emissions associated with haul trucks. This demonstration focuses a 5-mile segment of the Interstate 210 Foothill Freeway (I-210) between the La Canada – Flintridge, East Junction Route 2 interchange and the Pasadena, Junction Routes 134/710 interchange as its subject since this 5-mile segment of I-210 traverses adjacent to the Devil's Gate Reservoir and will be used by the material haul trucks. Additionally, various operational land uses in the vicinity of the Devil's Gate Reservoir have been selected for estimating the amount of daily NO<sub>x</sub> emissions generated from their operations.

**Existing Nitrogen Oxide Pollutant Emissions**

The Devil's Gate Reservoir is located in the City of Pasadena, in Los Angeles County. The City of La Cañada Flintridge lies west of the Reservoir, and the unincorporated community of Altadena lies to the east. Land uses directly adjacent to the Reservoir include the California Institute of Technology (Caltech)/National Aeronautics and Space Administration (NASA) – Jet Propulsion Laboratory (JPL) to the northwest and east; La Cañada High School and Hillside School and Learning Center to the west; single-family residential uses to the north, east, and south; and I-210 to the south.

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. The Devil's Gate region is contained within the South Coast Air Basin (SCAB). The SCAB includes the non-desert portions of Los Angeles, Riverside, and San

Bernardino counties and all of Orange County. The air basin is on a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean on the southwest, with high mountains forming the remainder of the perimeter.

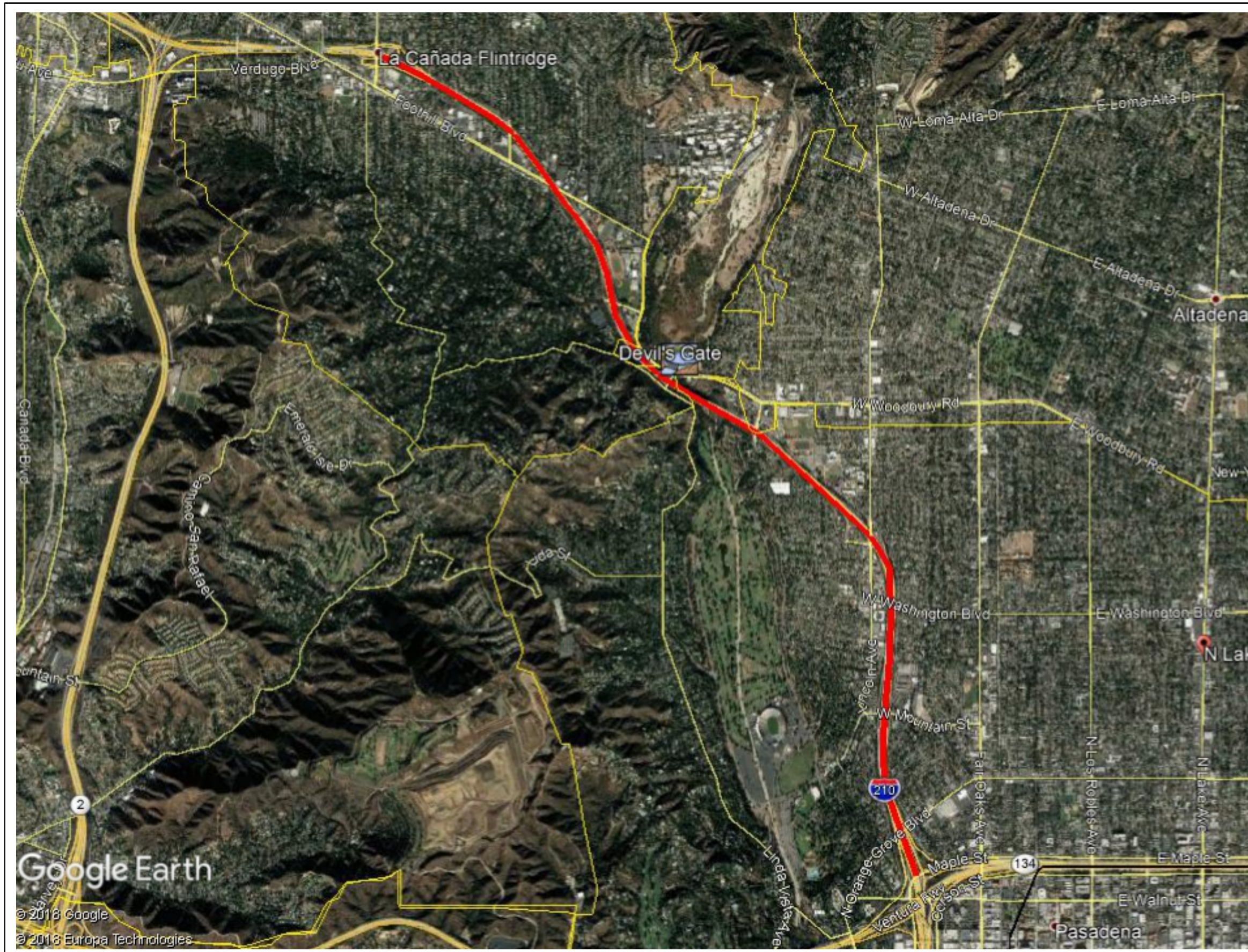
According to CARB’s Almanac Emission Projection Data (2013), 516.5 tons (1,033,000 pounds) of NO<sub>x</sub> emissions are released from activities in the SCAB daily. The Los Angeles County portion of the SCAB emits the majority of this daily NO<sub>x</sub> total at 316.2 tons (632,400 pounds) daily.

I-210 is the dominant source of air pollutant emissions, including NO<sub>x</sub> emissions, in the vicinity of the Reservoir. According to the California Department of Transportation’s (Caltrans’) *2016 Annual Average Daily Truck Traffic on the California State Highway System (2017)*<sup>1</sup>, an average of 126,000 automobiles traverse the 5-mile segment of I-210 between the La Canada – Flintridge, East Junction Route 2 interchange and the Pasadena, Junction Routes 134/710 interchange, daily. (This segment of I-210 is shown in Figure 1.) According to this same document, 10,900 of these automobiles are classified as heavy-duty diesel trucks. This averaged total of heavy-duty diesel trucks is further refined in *2016 Annual Average Daily Truck Traffic on the California State Highway System* to identify the specific classes of heavy-duty diesel trucks, as defined by the number of axles. The breakdown of automobile type estimated to traverse the 5-mile segment of I-210 between the La Canada – Flintridge, East Junction Route 2 interchange and the Pasadena, Junction Routes 134/710 interchange, daily, is shown in Table 1.

<b>Table 1. Automobiles Traversing I-210 Between East Junction Route 2 and Junction Route 134/710 by Type</b>	
<b>Vehicle Type</b>	<b>Number</b>
<b>Total Automobiles Daily</b>	<b>126,000</b>
--Non-Heavy-duty Diesel Trucks	--115,100
--Heavy-duty Diesel Trucks	-- 10,900
➤ 2-Axle	➤ 3,152
➤ 3-Axle	➤ 458
➤ 4-Axle	➤ 239
➤ 5-Axle	➤ 7,051

Source: California Department of Transportation. 2017. *2016 Annual Average Daily Truck Traffic on the California State Highway System*.

<sup>1</sup> Available at <http://www.dot.ca.gov/trafficops/census/>



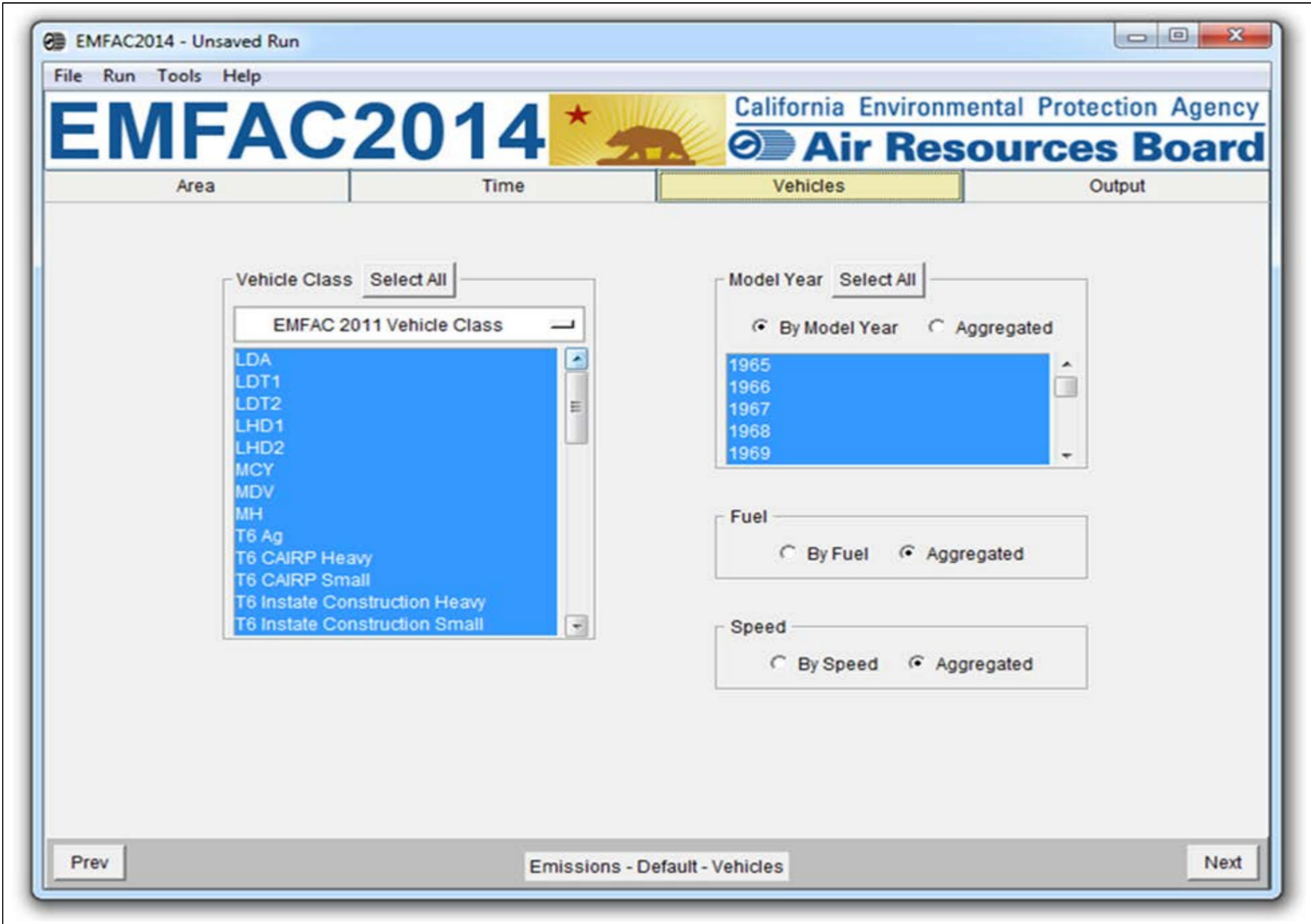
Map Date: 11/28/2018  
 Photo (or Base) Source: Google Earth 2018

**Figure 1**

In order to quantify NO<sub>x</sub> currently generated daily within the subject 5-mile segment of I-210, the 2014 version of the Emission FACtor model (*EMFAC*) developed by CARB was employed. *EMFAC 2014* is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to project changes in future emissions from on-road mobile sources including cars, trucks, and buses in California. *EMFAC 2014* includes the latest data on California's car and truck fleets and travel activity. New forecasting methods have been incorporated for developing vehicle age distributions and estimating vehicle miles traveled (VMT). *EMFAC 2014* accounts for speed correction factors, tampering, mal-maintenance and deterioration rates, and other factors. EMFAC's deterioration rates for heavy-duty vehicles is sourced from a study prepared by the Radian Corporation (Heavy-Duty Diesel Inspection and Maintenance Study, prepared for California Air Resources Board, May 16, 1988). EMFAC considers the Gross Vehicle Weight (GVW) when calculating mobile source emissions. This is defined as the weight that equals the total unloaded weight of the vehicle *plus* the heaviest load that can be transported on the vehicle, as identified by the manufacturer. The model also reflects the emissions benefits of CARB's recent rulemakings, including on-road diesel fleet rules, Advanced Clean Car Standards, and the Smartway/Phase I Heavy Duty Vehicle Greenhouse Gas Regulation. The model also includes updates to heavy-duty diesel truck emission factors based on the latest test data.<sup>2</sup> (See Figure 2 for a view of the *EMFAC* software interface.)

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<sup>2</sup> *EMFAC 2014* is available to download free of cost at <https://www.arb.ca.gov/msei/categories.htm>



Map Date: 11/28/2018  
Photo (or Base) Source: EMFAC 2014 User's Guide

**Figure 2**

As noted in Table 1, 115,100 automobiles that are not considered heavy-duty diesel trucks traverse the subject 5-mile segment of I-210 every day. The *2016 Annual Average Daily Truck Traffic on the California State Highway System* document cited for this information does not further refine this data to identify the specific vehicle classes of these automobiles. Therefore, *EMFAC 2014* is relied upon to provide a vehicle mix of the 115,100 non-heavy-duty diesel trucks for the purposes of this demonstration. The breakdown of non-heavy-duty truck types estimated to traverse the subject 5-mile segment of I-210 every day is shown in Table 2.

<b>Table 2. Vehicle Type Mix for Non-Heavy-Duty Diesel Trucks</b>	
<b>Vehicle Type</b>	<b>Number</b>
<b>Non-Heavy-duty Diesel Trucks</b>	<b>115,100</b>
➤ Passenger Cars (LDA)	-- 63,669
➤ Light-Duty Trucks (LDT1) (GVWR < 6,000 lbs & ETW ≤ 3,750 lbs)	-- 5,907
➤ Light-Duty Trucks (LDT2) (GVWR < 6,000 lbs & ETW 3,751 – 5,750 lbs)	-- 23,541
➤ Light-Heavy-Duty Trucks (GVWR 8,501 – 10,000 lbs)	-- 2,635
➤ Motorcycles	-- 1,151
➤ Medium-Duty Trucks (GVWR 6,000 & 8,500 lbs)	-- 15,055
➤ Motor Homes	-- 706
➤ School Buses	-- 675
➤ Urban Buses	-- 895
➤ Other Buses	-- 866

Source: EMFAC 2014.

Notes: GVWR = gross vehicle weight rating. ETW = equivalent test weight.

As also noted in Table 1, the 10,900 heavy-duty diesel trucks traversing the subject 5-mile segment of I-210 consist of 2-axle, 3-axle, 4-axle, and 5-axle trucks, as cited from the Department of Transportation's *2016 Annual Average Daily Truck Traffic on the California State Highway System* document. Table 3 identifies the specific *EMFAC 2014* vehicle classes employed to represent 2-axle, 3-axle, 4-axle, and 5-axle trucks.

Vehicle Type		Number
<b>Heavy-duty Diesel Trucks by Axle</b>	<b>Equivalent EMFAC Vehicle Class</b>	<b>10,900</b>
2-Axle	Light-Heavy-Duty Trucks (GVWR 10,001 – 14,000 lbs)	3,152
3-Axle	Medium-Heavy-Duty Trucks	458
4-Axle	Heavy-Heavy-Duty Trucks	239
5-Axle	Heavy-Heavy-Duty Trucks	7,051

Notes: GVWR = gross vehicle weight rating.

EMFAC further breaks down the Medium-Heavy-Duty Trucks and Heavy-Heavy-Duty Trucks into 9 distinct sub-categories used in this demonstration (e.g., in-state trucks, out-of-state trucks, public fleet trucks, utility trucks, etc.).

With the appropriate vehicle mix parameters established, the *EMFAC 2014* model was run to quantify the amount of NO<sub>x</sub> generated daily from within the subject segment of I-210 (see Table 4). This includes emissions from every automobile predicted to traverse this segment daily, yet only during the time of travel within the 5-mile subject segment. The maximum speed limit posted on the subject segment of I-210 is 65 miles per hour (mph), and to account for potential fluctuations in vehicle speeds over the course of a day, an average speed of 50 mph was considered for the purposes of this demonstration.

	Nitrogen Oxide Emissions
<b>Existing Traffic - 5 Miles of Travel at 50 mph</b>	<b>766.21 pounds</b>

Source: EMFAC 2014. See Attachment A.

As shown, 766.21 pounds of NO<sub>x</sub> is emitted daily from automobiles traversing the subject 5-mile segment of I-210. (These totals do NOT include emissions from idling.)

As disclosed in the *Devil's Gate Reservoir Sediment Removal and Management Project Final EIR*, the hauling of sediment from the Devil's Gate Reservoir will generate 56.9 pounds of NO<sub>x</sub> emissions daily. This emission total accounts for 425 heavy-duty truck trips traveling to either the School Canyon dump site, Irwindale dump site, or Sun Valley dump site, and back to the Reservoir, for a total of 15,024 miles traveled daily.

The analysis of Project air pollutant emissions in the Final EIR employed the *EMFAC* model to calculate emissions, which identifies NO<sub>x</sub>-related emission rates associated with heavy-duty haul trucks as 1.6250 grams NO<sub>x</sub> per mile during highway travel and 2.1546 grams NO<sub>x</sub> per mile on

surface streets (see Appendix A of Appendix B, *Air Quality Report*, in the Final EIR). Using these emissions rates, the amount of NO<sub>x</sub> generated in the immediate vicinity of the Reservoir by the hauling of sediment has been calculated in order to identify the NO<sub>x</sub> pollutants emitted at the localized level (i.e., 3.1-mile radius of the Reservoir). 3.1 miles was selected since all heavy-duty truck trips will have to travel 0.6 mile on surface streets after exiting the Reservoir, regardless of what dump site is traveled to, before entering the I-210 facility and traveling either southbound or northbound, where a value of 2.5 miles of travel is applied. Thus, this analysis of localized NO<sub>x</sub> emission accounts of 0.6 mile of travel on surface streets and 2.5 miles on the I-210 freeway for each haul truck trip.

Based on this methodology, the hauling of sediment from the Devil's Gate Reservoir will generate 5.26 pounds of the overall 56.9 pounds of daily NO<sub>x</sub> emissions within 3.1 miles of the Reservoir.<sup>3</sup>

To put the overall value of 56.9 pound of NO<sub>x</sub> into perspective, various operational land uses in the vicinity of the Devil's Gate Reservoir have been selected and modeled for their daily contribution of NO<sub>x</sub> emissions. For instance, there are at least four fast-food restaurants with drive-thru features located in the area, one at the corner of Foothill Boulevard and Vineta Avenue (0.9 mile from Reservoir) and another accessed from N. Windsor Avenue near Weimar Avenue (0.9 mile from Reservoir). Additionally, there is a fast-food restaurant and drive-thru at the southwest corner of the Lincoln Avenue / Woodbury Road intersection (0.8 mile from Reservoir) and another at the northeast corner of the Fair Oaks Avenue / Montana Street intersection (1.3 miles from Reservoir). NO<sub>x</sub> emissions quantification was conducted using the CARB-approved California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod is maintained by the California Air Pollution Control Officers Association (CAPCOA) and is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. (CalEEMod is available as a free download at CalEEMod.com.) Operational NO<sub>x</sub> emissions attributable to these 4 land uses are identified in **Table 5**.

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<sup>3</sup> Per *EMFAC*, 1.6250 grams NO<sub>x</sub>/mile during highway travel and 2.1546 grams NO<sub>x</sub>/mile during surface street travel. Localized highway travel: 1.6250 x 2.5 miles = 4.0625 grams NO<sub>x</sub>/trip. Localized surface street travel: 2.1546 x 0.6 mile = 1,551 grams NO<sub>x</sub>/trip. 4.0625 grams (highway) + 1.551 grams (surface street) = 5.6135 grams per trip. 5.6135 grams x 425 trips = 2,385.74 grams NO<sub>x</sub> total. 2,385.74 grams/453.59 = 5.26 pounds.



<b>Table 5. Estimated Mobile Source NOx Emissions Generated by Vicinity Fast-Food Restaurants with Drive-Thru</b>
<b>Fast-Food Restaurant &amp; Drive-Thru at Foothill Boulevard and Vineta Avenue</b>
17.40 pounds NOx per day
<b>Fast-Food Restaurant &amp; Drive Thru at N. Windsor Avenue near Weimar Avenue</b>
13.15 pounds NOx per day
<b>Fast-Food Restaurant &amp; Drive Thru at Lincoln Avenue and Woodbury Road</b>
17.39 pounds NOx per day
<b>Fast-Food Restaurant &amp; Drive Thru at Fair Oaks Avenue and Montana Street</b>
9.76 pounds NOx per day
<b>All Restaurants Combined</b>
<b>57.70 pounds NOx per day</b>

Source: CalEEMod version 2016.3.2. Refer to Attachment B for Model Data Outputs.

Notes: The estimated square footage for each fast food restaurant is derived from 'typical square footage area' for each franchise. The typical size of a McDonald's restaurant is 4,100 square feet, the typical size of a Jack-in-the-Box is 3,100 square feet, and the typical size of a Taco Bell/KFC restaurant is 2,300 square feet (Statista.com; Jack in the Box Inc.; Net Lease Advisor). Accessed at:  
<https://www.statista.com/statistics/587130/average-floor-space-qrs-us/>  
[https://www.jackintheboxinc.com/assets/franchising\\_site\\_criteria.pdf](https://www.jackintheboxinc.com/assets/franchising_site_criteria.pdf)  
<https://www.netleaseadvisor.com/tenant/taco-bell/>

As shown in **Table 5**, daily operations at 4 fast-food restaurants in the vicinity of the Devil's Gate Reservoir currently emit approximately 57.70 pounds of NOx daily.

John Muir High School, Cleveland Elementary School, La Canada High School, and Jackson Elementary School are all located within 1 mile of the Reservoir. Operational NOx emissions attributable to these schools are identified in **Table 6**.

<b>Table 6. Estimated Mobile Source NOx Emissions Generated by Vicinity Public Schools</b>
<b>John Muir High School</b>
19.01 pounds NOx per day
<b>Cleveland Elementary School</b>
2.67 pounds NOx per day
<b>La Canada High School</b>
44.20 pounds NOx per day
<b>Jackson Elementary School</b>
7.57 pounds NOx per day
<b>All Schools Combined</b>
<b>73.45 pounds NOx per day</b>

Source: CalEEMod version 2016.3.2. Refer to Attachment B for Model Data Outputs.

Notes: Emission modeling estimates are based on student population at each school.

As shown in **Table 6**, daily operations at these 4 public schools in the vicinity of the Devil’s Gate Reservoir currently emit approximately 73.45 pounds of NO<sub>x</sub> daily.

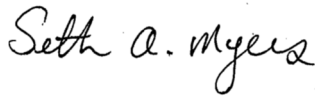
## Summary

**Table 7** provides a summation of all subject emission sources.

<b>Table 7. Nitrogen Oxide Emissions by Source</b>	
<b>Emission Source</b>	<b>Nitrogen Oxide Emissions – Pounds Per Day</b>
<b>Total Devil's Gate Sediment Removal</b> (425 Heavy-Duty Haul Truck Trips Daily Traveling 15,024 miles)	56.9 pounds
<b>Localized Devil's Gate Sediment Removal</b> (425 Heavy-Duty Haul Truck Trips Daily within 3.1-mile radius of the Reservoir).	5.26 pounds
<b>Existing Traffic on 5-mile segment of I-210</b> (Between the La Canada – Flintridge, East Junction Route 2 interchange and the Pasadena, Junction Routes 134/710 interchange)	766.21 pounds
<b>Existing Operations at 4 Fast-Food restaurants with Drive-thrus</b> (Operating within 2 miles of the Reservoir)	57.70 pounds
<b>Existing Operations at 4 Public Schools</b> (Operating within 1 mile of the Reservoir)	73.45 pounds

If you would like to discuss further, please contact me, Seth Myers, at (530) 965-5925 or via e-mail at [smyers@ecorpconsulting.com](mailto:smyers@ecorpconsulting.com).

Sincerely,



Seth Myers  
Air Quality Analyst

**EMFAC 2014 Output Files – Existing Conditions**

**Nitrogen Oxide Emissions Generated at 5-Mile Segment of I-210 Daily  
CURRENT CONDITIONS**

EMFAC2014 (v1.0.7) Emission Rates

Region Type: County

Region: Los Angeles

Calendar Year: 2018

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, g/mile for RUNEX

I-210 5-Mile Segment Between SR 2 & SR 134  
per Caltrans' 2016 Daily Traffic Volumes

Region	CalYr	VehClass NON - TRUCKS	MdlYr	Speed	Fuel	VMT	NOx_RUNEX Grams/Mile	NOx Total Pounds per Vehicle Class
Los Angeles	2018	LDA	Aggregated	50	GAS	7705537	0.07152	
Los Angeles	2018	LDA	Aggregated	50	DSL	67386.6	0.176962	LDA 87.20
					avg		0.124241	
Los Angeles	2018	LDT1	Aggregated	50	GAS	660646.4	0.210833	
Los Angeles	2018	LDT1	Aggregated	50	DSL	832.0177	1.216365	LDT1 46.46
					avg		0.713599	
Los Angeles	2018	LDT2	Aggregated	50	GAS	2852723	0.116978	
Los Angeles	2018	LDT2	Aggregated	50	DSL	4668.774	0.057065	LDT2 22.58
					avg		0.087022	
Los Angeles	2018	LHD1	Aggregated	50	GAS	191976.2	0.390097	
Los Angeles	2018	LHD1	Aggregated	50	DSL	126974.1	2.706895	LHD1 44.98
					avg		1.548496	
Los Angeles	2018	MCY	Aggregated	50	GAS	69550.49	1.094157	MCY 13.88
					avg		1.094157	
Los Angeles	2018	MDV	Aggregated	50	GAS	1776584	0.220287	
Los Angeles	2018	MDV	Aggregated	50	DSL	27427.4	0.055332	MDV 22.87
					avg		0.13781	
Los Angeles	2018	MH	Aggregated	50	GAS	16265.74	0.720107	
Los Angeles	2018	MH	Aggregated	50	DSL	3854.037	4.035575	
Los Angeles	2018	Motor Coach	Aggregated	50	DSL	8584.407	4.852084	MH 24.92
					avg		3.202588	
Los Angeles	2018	OBUS	Aggregated	50	GAS	22742.28	0.370851	OBUS 3.54
					avg		0.370851	
Los Angeles	2018	SBUS	Aggregated	50	GAS	1353.397	0.524926	
Los Angeles	2018	SBUS	Aggregated	50	DSL	3327.331	6.645191	SBUS 5.33
					avg		3.585059	
Los Angeles	2018	UBUS	Aggregated	50	GAS	1856.773	1.55418	
Los Angeles	2018	UBUS	Aggregated	50	DSL	5409.955	13.66244	UBUS 75.06
					avg		7.60831	
		<b>TRUCKS</b>						
		<b>2-AXLE</b>						
Los Angeles	2018	LHD2	Aggregated	50	GAS	44878.03	0.253278	
Los Angeles	2018	LHD2	Aggregated	50	DSL	60113	1.858036	LHD2 36.68

**Nitrogen Oxide Emissions Generated at 5-Mile Segment of I-210 Daily**

**CURRENT CONDITIONS**

					<b>avg</b>	<b>1.055657</b>		
	<b>3-AXLE</b>							
Los Angeles	2018 T6 CAIRP heavy	Aggregated	50 DSL	705.2041	1.410148			
Los Angeles	2018 T6 CAIRP small	Aggregated	50 DSL	2164.802	1.707611			
Los Angeles	2018 T6 instate construct	Aggregated	50 DSL	11259.36	3.229232			
Los Angeles	2018 T6 instate construct	Aggregated	50 DSL	30560.04	2.804554			
Los Angeles	2018 T6 instate heavy	Aggregated	50 DSL	80710.94	2.125586			
Los Angeles	2018 T6 instate small	Aggregated	50 DSL	206325.9	3.000328			
Los Angeles	2018 T6 OOS heavy	Aggregated	50 DSL	404.0554	1.497095	MHD	15.55	
Los Angeles	2018 T6 OOS small	Aggregated	50 DSL	1240.35	1.707611			
Los Angeles	2018 T6 Public	Aggregated	50 DSL	6047.073	4.746688			
Los Angeles	2018 T6 utility	Aggregated	50 DSL	1463.234	0.33062			
Los Angeles	2018 T6TS	Aggregated	50 GAS	57789.41	0.71201			
Los Angeles	2018 T7 Ag	Aggregated	50 DSL	160.7036	13.68203			
					<b>avg</b>	<b>3.079459</b>		
	<b>4- &amp; 5-AXLE</b>							
Los Angeles	2018 T7 CAIRP	Aggregated	50 DSL	80222.74	3.584976			
Los Angeles	2018 T7 CAIRP constructi	Aggregated	50 DSL	6871.081	4.361978			
Los Angeles	2018 T7 NNOOS	Aggregated	50 DSL	99476.3	1.603702			
Los Angeles	2018 T7 NOOS	Aggregated	50 DSL	31687.96	3.639163			
Los Angeles	2018 T7 POLA	Aggregated	50 DSL	75399.68	5.28994	HHD	367.15	
Los Angeles	2018 T7 Public	Aggregated	50 DSL	8516.903	9.425449			
Los Angeles	2018 T7 Single	Aggregated	50 DSL	37510.73	5.26905			
Los Angeles	2018 T7 single constructi	Aggregated	50 DSL	17774.58	4.691163			
Los Angeles	2018 T7 SWCV	Aggregated	50 DSL	7933.333	7.558207			
Los Angeles	2018 T7 tractor	Aggregated	50 DSL	107039.8	4.698072			
Los Angeles	2018 T7 tractor construct	Aggregated	50 DSL	13252.26	5.667774			
Los Angeles	2018 T7 utility	Aggregated	50 DSL	647.3289	0.570986			
Los Angeles	2018 T7IS	Aggregated	50 GAS	5995.831	3.035033			
					<b>avg</b>	<b>4.568884</b>		
						<b>Total Pounds Per Day Generated at 5-Mile Segment</b>		
							<b>766.21</b>	

**CalEMod Output Files – Devil’s Gate Neighboring Land Use Emissions**

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**Devil's Gate Reservoir Neighboring Uses - 4 Restaurants w/ Drive Thru**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	4.10	1000sqft	0.80	4,100.00	0
Fast Food Restaurant with Drive Thru	3.10	1000sqft	0.40	3,100.00	0
Fast Food Restaurant with Drive Thru	4.10	1000sqft	0.74	4,100.00	0
Fast Food Restaurant with Drive Thru	2.30	1000sqft	0.30	2,300.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Lot acreage per Google Earth

Construction Phase - No Construction



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	5/8/2019	4/24/2019
tblLandUse	LotAcreage	0.09	0.80
tblLandUse	LotAcreage	0.07	0.40
tblLandUse	LotAcreage	0.09	0.74
tblLandUse	LotAcreage	0.05	0.30

**2.0 Emissions Summary**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3040	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		2.9800e-003	2.9800e-003	1.0000e-005		3.1800e-003
Energy	0.0927	0.8430	0.7081	5.0600e-003		0.0641	0.0641		0.0641	0.0641		1,011.5507	1,011.5507	0.0194	0.0186	1,017.5618
Mobile	15.3656	57.7029	126.5556	0.3236	21.9767	0.3762	22.3529	5.8824	0.3531	6.2355		32,900.8755	32,900.8755	2.2181		32,956.3286
<b>Total</b>	<b>15.7623</b>	<b>58.5459</b>	<b>127.2651</b>	<b>0.3287</b>	<b>21.9767</b>	<b>0.4402</b>	<b>22.4169</b>	<b>5.8824</b>	<b>0.4171</b>	<b>6.2996</b>		<b>33,912.4292</b>	<b>33,912.4292</b>	<b>2.2375</b>	<b>0.0186</b>	<b>33,973.8936</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3040	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		2.9800e-003	2.9800e-003	1.0000e-005		3.1800e-003
Energy	0.0927	0.8430	0.7081	5.0600e-003		0.0641	0.0641		0.0641	0.0641		1,011.5507	1,011.5507	0.0194	0.0186	1,017.5618
Mobile	15.3656	57.7029	126.5556	0.3236	21.9767	0.3762	22.3529	5.8824	0.3531	6.2355		32,900.8755	32,900.8755	2.2181		32,956.3286
<b>Total</b>	<b>15.7623</b>	<b>58.5459</b>	<b>127.2651</b>	<b>0.3287</b>	<b>21.9767</b>	<b>0.4402</b>	<b>22.4169</b>	<b>5.8824</b>	<b>0.4171</b>	<b>6.2996</b>		<b>33,912.4292</b>	<b>33,912.4292</b>	<b>2.2375</b>	<b>0.0186</b>	<b>33,973.8936</b>

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/25/2019	4/24/2019	5	0	

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: 20,400; Non-Residential Outdoor: 6,800; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2019**

**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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.3656	57.7029	126.5556	0.3236	21.9767	0.3762	22.3529	5.8824	0.3531	6.2355		32,900.8755	32,900.8755	2.2181		32,956.3286
Unmitigated	15.3656	57.7029	126.5556	0.3236	21.9767	0.3762	22.3529	5.8824	0.3531	6.2355		32,900.8755	32,900.8755	2.2181		32,956.3286

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	2,034.09	2,960.32	2225.15	2,308,628	2,308,628
Fast Food Restaurant with Drive Thru	1,537.97	2,238.29	1682.43	1,745,548	1,745,548
Fast Food Restaurant with Drive Thru	2,034.09	2,960.32	2225.15	2,308,628	2,308,628
Fast Food Restaurant with Drive Thru	1,141.08	1,660.67	1248.26	1,295,084	1,295,084
<b>Total</b>	<b>6,747.23</b>	<b>9,819.61</b>	<b>7,380.99</b>	<b>7,657,887</b>	<b>7,657,887</b>

**4.3 Trip Type Information**

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

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	0.0927	0.8430	0.7081	5.0600e-003		0.0641	0.0641		0.0641	0.0641		1,011.5507	1,011.5507	0.0194	0.0186	1,017.5618
NaturalGas Unmitigated	0.0927	0.8430	0.7081	5.0600e-003		0.0641	0.0641		0.0641	0.0641		1,011.5507	1,011.5507	0.0194	0.0186	1,017.5618



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	1454.1	0.0157	0.1426	0.1198	8.6000e-004		0.0108	0.0108		0.0108	0.0108		171.0711	171.0711	3.2800e-003	3.1400e-003	172.0877
Fast Food Restaurant with Drive Thru	1959.88	0.0211	0.1922	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5741	230.5741	4.4200e-003	4.2300e-003	231.9442
Fast Food Restaurant with Drive Thru	2592.1	0.0559	0.5083	0.4269	3.0500e-003		0.0386	0.0386		0.0386	0.0386		609.9056	609.9056	0.0117	0.0112	613.5299
<b>Total</b>		<b>0.0927</b>	<b>0.8430</b>	<b>0.7081</b>	<b>5.0600e-003</b>		<b>0.0641</b>	<b>0.0641</b>		<b>0.0641</b>	<b>0.0641</b>		<b>1,011.5507</b>	<b>1,011.5507</b>	<b>0.0194</b>	<b>0.0186</b>	<b>1,017.5618</b>

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.5921	0.0559	0.5083	0.4269	3.0500e-003		0.0386	0.0386		0.0386	0.0386		609.9056	609.9056	0.0117	0.0112	613.5299
Fast Food Restaurant with Drive Thru	1.4541	0.0157	0.1426	0.1198	8.6000e-004		0.0108	0.0108		0.0108	0.0108		171.0711	171.0711	3.2800e-003	3.1400e-003	172.0877
Fast Food Restaurant with Drive Thru	1.95988	0.0211	0.1922	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5741	230.5741	4.4200e-003	4.2300e-003	231.9442
<b>Total</b>		<b>0.0927</b>	<b>0.8430</b>	<b>0.7081</b>	<b>5.0600e-003</b>		<b>0.0641</b>	<b>0.0641</b>		<b>0.0641</b>	<b>0.0641</b>		<b>1,011.5507</b>	<b>1,011.5507</b>	<b>0.0194</b>	<b>0.0186</b>	<b>1,017.5618</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3040	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		2.9800e-003	2.9800e-003	1.0000e-005		3.1800e-003
Unmitigated	0.3040	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		2.9800e-003	2.9800e-003	1.0000e-005		3.1800e-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	0.0345					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		2.9800e-003	2.9800e-003	1.0000e-005		3.1800e-003
<b>Total</b>	<b>0.3040</b>	<b>1.0000e-005</b>	<b>1.4000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>2.9800e-003</b>	<b>2.9800e-003</b>	<b>1.0000e-005</b>		<b>3.1800e-003</b>

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0345					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		2.9800e-003	2.9800e-003	1.0000e-005		3.1800e-003
<b>Total</b>	<b>0.3040</b>	<b>1.0000e-005</b>	<b>1.4000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>2.9800e-003</b>	<b>2.9800e-003</b>	<b>1.0000e-005</b>		<b>3.1800e-003</b>

**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

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**Devil's Gate Reservoir Neighboring Uses - Foothill-Vineta Restaurant**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	4.10	1000sqft	0.80	4,100.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Lot acreage per Google Earth

Construction Phase - No Construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	5/8/2019	4/24/2019
tblLandUse	LotAcreage	0.09	0.80

**2.0 Emissions Summary**



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0916	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
Energy	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
Mobile	4.6323	17.3957	38.1528	0.0976	6.6253	0.1134	6.7387	1.7734	0.1064	1.8798		9,918.6463	9,918.6463	0.6687		9,935.3638
<b>Total</b>	<b>4.7519</b>	<b>17.6499</b>	<b>38.3667</b>	<b>0.0991</b>	<b>6.6253</b>	<b>0.1327</b>	<b>6.7580</b>	<b>1.7734</b>	<b>0.1258</b>	<b>1.8991</b>		<b>10,223.6000</b>	<b>10,223.6000</b>	<b>0.6745</b>	<b>5.5900e-003</b>	<b>10,242.1297</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0916	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
Energy	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
Mobile	4.6323	17.3957	38.1528	0.0976	6.6253	0.1134	6.7387	1.7734	0.1064	1.8798		9,918.6463	9,918.6463	0.6687		9,935.3638
<b>Total</b>	<b>4.7519</b>	<b>17.6499</b>	<b>38.3667</b>	<b>0.0991</b>	<b>6.6253</b>	<b>0.1327</b>	<b>6.7580</b>	<b>1.7734</b>	<b>0.1258</b>	<b>1.8991</b>		<b>10,223.6000</b>	<b>10,223.6000</b>	<b>0.6745</b>	<b>5.5900e-003</b>	<b>10,242.1297</b>



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/25/2019	4/24/2019	5	0	

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: 6,150; Non-Residential Outdoor: 2,050; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2019**

**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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.6323	17.3957	38.1528	0.0976	6.6253	0.1134	6.7387	1.7734	0.1064	1.8798		9,918.6463	9,918.6463	0.6687		9,935.3638
Unmitigated	4.6323	17.3957	38.1528	0.0976	6.6253	0.1134	6.7387	1.7734	0.1064	1.8798		9,918.6463	9,918.6463	0.6687		9,935.3638

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	2,034.09	2,960.32	2225.15	2,308,628	2,308,628
Total	2,034.09	2,960.32	2,225.15	2,308,628	2,308,628

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
NaturalGas Unmitigated	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2592.1	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
<b>Total</b>		<b>0.0280</b>	<b>0.2541</b>	<b>0.2135</b>	<b>1.5200e-003</b>		<b>0.0193</b>	<b>0.0193</b>		<b>0.0193</b>	<b>0.0193</b>		<b>304.9528</b>	<b>304.9528</b>	<b>5.8400e-003</b>	<b>5.5900e-003</b>	<b>306.7650</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.5921	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
<b>Total</b>		<b>0.0280</b>	<b>0.2541</b>	<b>0.2135</b>	<b>1.5200e-003</b>		<b>0.0193</b>	<b>0.0193</b>		<b>0.0193</b>	<b>0.0193</b>		<b>304.9528</b>	<b>304.9528</b>	<b>5.8400e-003</b>	<b>5.5900e-003</b>	<b>306.7650</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0916	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
Unmitigated	0.0916	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0104					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
<b>Total</b>	<b>0.0916</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>9.0000e-004</b>	<b>9.0000e-004</b>	<b>0.0000</b>		<b>9.6000e-004</b>

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0104					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
<b>Total</b>	<b>0.0916</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>9.0000e-004</b>	<b>9.0000e-004</b>	<b>0.0000</b>		<b>9.6000e-004</b>

**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



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**Devil's Gate Reservoir Neighboring Uses - Windsor-Weimar Restaurant**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	3.10	1000sqft	0.40	3,100.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Lot acreage per Google Earth

Construction Phase - No Construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblLandUse	LotAcreage	0.07	0.40

**2.0 Emissions Summary**



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0693	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.8000e-004	6.8000e-004	0.0000		7.2000e-004
Energy	0.0211	0.1922	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5741	230.5741	4.4200e-003	4.2300e-003	231.9442
Mobile	3.5025	13.1529	28.8472	0.0738	5.0094	0.0857	5.0951	1.3409	0.0805	1.4213		7,499.4643	7,499.4643	0.5056		7,512.1043
<b>Total</b>	<b>3.5929</b>	<b>13.3450</b>	<b>29.0090</b>	<b>0.0749</b>	<b>5.0094</b>	<b>0.1003</b>	<b>5.1097</b>	<b>1.3409</b>	<b>0.0951</b>	<b>1.4359</b>		<b>7,730.0390</b>	<b>7,730.0390</b>	<b>0.5100</b>	<b>4.2300e-003</b>	<b>7,744.0493</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0693	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.8000e-004	6.8000e-004	0.0000		7.2000e-004
Energy	0.0211	0.1922	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5741	230.5741	4.4200e-003	4.2300e-003	231.9442
Mobile	3.5025	13.1529	28.8472	0.0738	5.0094	0.0857	5.0951	1.3409	0.0805	1.4213		7,499.4643	7,499.4643	0.5056		7,512.1043
<b>Total</b>	<b>3.5929</b>	<b>13.3450</b>	<b>29.0090</b>	<b>0.0749</b>	<b>5.0094</b>	<b>0.1003</b>	<b>5.1097</b>	<b>1.3409</b>	<b>0.0951</b>	<b>1.4359</b>		<b>7,730.0390</b>	<b>7,730.0390</b>	<b>0.5100</b>	<b>4.2300e-003</b>	<b>7,744.0493</b>

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/25/2019	5/1/2019	5	0	

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: 4,650; Non-Residential Outdoor: 1,550; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2019**

**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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.5025	13.1529	28.8472	0.0738	5.0094	0.0857	5.0951	1.3409	0.0805	1.4213		7,499.4643	7,499.4643	0.5056		7,512.1043
Unmitigated	3.5025	13.1529	28.8472	0.0738	5.0094	0.0857	5.0951	1.3409	0.0805	1.4213		7,499.4643	7,499.4643	0.5056		7,512.1043

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,537.97	2,238.29	1682.43	1,745,548	1,745,548
Total	1,537.97	2,238.29	1,682.43	1,745,548	1,745,548

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0211	0.1922	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5741	230.5741	4.4200e-003	4.2300e-003	231.9442
NaturalGas Unmitigated	0.0211	0.1922	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5741	230.5741	4.4200e-003	4.2300e-003	231.9442

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	1959.88	0.0211	0.1922	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5741	230.5741	4.4200e-003	4.2300e-003	231.9442
<b>Total</b>		<b>0.0211</b>	<b>0.1922</b>	<b>0.1614</b>	<b>1.1500e-003</b>		<b>0.0146</b>	<b>0.0146</b>		<b>0.0146</b>	<b>0.0146</b>		<b>230.5741</b>	<b>230.5741</b>	<b>4.4200e-003</b>	<b>4.2300e-003</b>	<b>231.9442</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	1.95988	0.0211	0.1922	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5741	230.5741	4.4200e-003	4.2300e-003	231.9442
<b>Total</b>		<b>0.0211</b>	<b>0.1922</b>	<b>0.1614</b>	<b>1.1500e-003</b>		<b>0.0146</b>	<b>0.0146</b>		<b>0.0146</b>	<b>0.0146</b>		<b>230.5741</b>	<b>230.5741</b>	<b>4.4200e-003</b>	<b>4.2300e-003</b>	<b>231.9442</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0693	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.8000e-004	6.8000e-004	0.0000		7.2000e-004
Unmitigated	0.0693	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.8000e-004	6.8000e-004	0.0000		7.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.8700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.8000e-004	6.8000e-004	0.0000		7.2000e-004
<b>Total</b>	<b>0.0693</b>	<b>0.0000</b>	<b>3.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>6.8000e-004</b>	<b>6.8000e-004</b>	<b>0.0000</b>		<b>7.2000e-004</b>

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.8700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.8000e-004	6.8000e-004	0.0000		7.2000e-004
<b>Total</b>	<b>0.0693</b>	<b>0.0000</b>	<b>3.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>6.8000e-004</b>	<b>6.8000e-004</b>	<b>0.0000</b>		<b>7.2000e-004</b>

**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**

## Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**Devil's Gate Reservoir Neighboring Uses - Lincoln-Woodbury Restaurant**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	4.10	1000sqft	0.74	4,100.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Lot acreage per Google Earth

Construction Phase - No Construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblLandUse	LotAcreage	0.09	0.74

**2.0 Emissions Summary**



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0916	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
Energy	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
Mobile	4.6323	17.3957	38.1528	0.0976	6.6253	0.1134	6.7387	1.7734	0.1064	1.8798		9,918.6463	9,918.6463	0.6687		9,935.3638
<b>Total</b>	<b>4.7519</b>	<b>17.6499</b>	<b>38.3667</b>	<b>0.0991</b>	<b>6.6253</b>	<b>0.1327</b>	<b>6.7580</b>	<b>1.7734</b>	<b>0.1258</b>	<b>1.8991</b>		<b>10,223.6000</b>	<b>10,223.6000</b>	<b>0.6745</b>	<b>5.5900e-003</b>	<b>10,242.1297</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0916	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
Energy	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
Mobile	4.6323	17.3957	38.1528	0.0976	6.6253	0.1134	6.7387	1.7734	0.1064	1.8798		9,918.6463	9,918.6463	0.6687		9,935.3638
<b>Total</b>	<b>4.7519</b>	<b>17.6499</b>	<b>38.3667</b>	<b>0.0991</b>	<b>6.6253</b>	<b>0.1327</b>	<b>6.7580</b>	<b>1.7734</b>	<b>0.1258</b>	<b>1.8991</b>		<b>10,223.6000</b>	<b>10,223.6000</b>	<b>0.6745</b>	<b>5.5900e-003</b>	<b>10,242.1297</b>



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/25/2019	5/1/2019	5	0	

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: 6,150; Non-Residential Outdoor: 2,050; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2019**

**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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.6323	17.3957	38.1528	0.0976	6.6253	0.1134	6.7387	1.7734	0.1064	1.8798		9,918.6463	9,918.6463	0.6687		9,935.3638
Unmitigated	4.6323	17.3957	38.1528	0.0976	6.6253	0.1134	6.7387	1.7734	0.1064	1.8798		9,918.6463	9,918.6463	0.6687		9,935.3638

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	2,034.09	2,960.32	2225.15	2,308,628	2,308,628
Total	2,034.09	2,960.32	2,225.15	2,308,628	2,308,628

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
NaturalGas Unmitigated	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2592.1	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
<b>Total</b>		<b>0.0280</b>	<b>0.2541</b>	<b>0.2135</b>	<b>1.5200e-003</b>		<b>0.0193</b>	<b>0.0193</b>		<b>0.0193</b>	<b>0.0193</b>		<b>304.9528</b>	<b>304.9528</b>	<b>5.8400e-003</b>	<b>5.5900e-003</b>	<b>306.7650</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.5921	0.0280	0.2541	0.2135	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.9528	304.9528	5.8400e-003	5.5900e-003	306.7650
<b>Total</b>		<b>0.0280</b>	<b>0.2541</b>	<b>0.2135</b>	<b>1.5200e-003</b>		<b>0.0193</b>	<b>0.0193</b>		<b>0.0193</b>	<b>0.0193</b>		<b>304.9528</b>	<b>304.9528</b>	<b>5.8400e-003</b>	<b>5.5900e-003</b>	<b>306.7650</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0916	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
Unmitigated	0.0916	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0104					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
<b>Total</b>	<b>0.0916</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>9.0000e-004</b>	<b>9.0000e-004</b>	<b>0.0000</b>		<b>9.6000e-004</b>

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0104					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.0000e-004	9.0000e-004	0.0000		9.6000e-004
<b>Total</b>	<b>0.0916</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>9.0000e-004</b>	<b>9.0000e-004</b>	<b>0.0000</b>		<b>9.6000e-004</b>

**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**



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**Devil's Gate Reservoir Neighboring Uses - Fair Oaks-Montana Restaurant**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	2.30	1000sqft	0.30	2,300.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Lot acreage per Google Earth

Construction Phase - No Construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	5/1/2019	4/24/2019
tblLandUse	LotAcreage	0.05	0.30

**2.0 Emissions Summary**



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0514	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.0000e-004	5.0000e-004	0.0000		5.4000e-004
Energy	0.0157	0.1426	0.1198	8.6000e-004		0.0108	0.0108		0.0108	0.0108		171.0711	171.0711	3.2800e-003	3.1400e-003	172.0877
Mobile	2.5986	9.7586	21.4028	0.0547	3.7167	0.0636	3.7803	0.9948	0.0597	1.0545		5,564.1187	5,564.1187	0.3751		5,573.4968
<b>Total</b>	<b>2.6657</b>	<b>9.9011</b>	<b>21.5228</b>	<b>0.0556</b>	<b>3.7167</b>	<b>0.0744</b>	<b>3.7911</b>	<b>0.9948</b>	<b>0.0705</b>	<b>1.0654</b>		<b>5,735.1902</b>	<b>5,735.1902</b>	<b>0.3784</b>	<b>3.1400e-003</b>	<b>5,745.5850</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0514	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.0000e-004	5.0000e-004	0.0000		5.4000e-004
Energy	0.0157	0.1426	0.1198	8.6000e-004		0.0108	0.0108		0.0108	0.0108		171.0711	171.0711	3.2800e-003	3.1400e-003	172.0877
Mobile	2.5986	9.7586	21.4028	0.0547	3.7167	0.0636	3.7803	0.9948	0.0597	1.0545		5,564.1187	5,564.1187	0.3751		5,573.4968
<b>Total</b>	<b>2.6657</b>	<b>9.9011</b>	<b>21.5228</b>	<b>0.0556</b>	<b>3.7167</b>	<b>0.0744</b>	<b>3.7911</b>	<b>0.9948</b>	<b>0.0705</b>	<b>1.0654</b>		<b>5,735.1902</b>	<b>5,735.1902</b>	<b>0.3784</b>	<b>3.1400e-003</b>	<b>5,745.5850</b>

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/25/2019	4/24/2019	5	0	

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: 3,450; Non-Residential Outdoor: 1,150; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2019**

**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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5986	9.7586	21.4028	0.0547	3.7167	0.0636	3.7803	0.9948	0.0597	1.0545		5,564.1187	5,564.1187	0.3751		5,573.4968
Unmitigated	2.5986	9.7586	21.4028	0.0547	3.7167	0.0636	3.7803	0.9948	0.0597	1.0545		5,564.1187	5,564.1187	0.3751		5,573.4968

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,141.08	1,660.67	1248.26	1,295,084	1,295,084
Total	1,141.08	1,660.67	1,248.26	1,295,084	1,295,084

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925



Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0157	0.1426	0.1198	8.6000e-004		0.0108	0.0108		0.0108	0.0108		171.0711	171.0711	3.2800e-003	3.1400e-003	172.0877
NaturalGas Unmitigated	0.0157	0.1426	0.1198	8.6000e-004		0.0108	0.0108		0.0108	0.0108		171.0711	171.0711	3.2800e-003	3.1400e-003	172.0877

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	1454.1	0.0157	0.1426	0.1198	8.6000e-004		0.0108	0.0108		0.0108	0.0108		171.0711	171.0711	3.2800e-003	3.1400e-003	172.0877
<b>Total</b>		<b>0.0157</b>	<b>0.1426</b>	<b>0.1198</b>	<b>8.6000e-004</b>		<b>0.0108</b>	<b>0.0108</b>		<b>0.0108</b>	<b>0.0108</b>		<b>171.0711</b>	<b>171.0711</b>	<b>3.2800e-003</b>	<b>3.1400e-003</b>	<b>172.0877</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	1.4541	0.0157	0.1426	0.1198	8.6000e-004		0.0108	0.0108		0.0108	0.0108		171.0711	171.0711	3.2800e-003	3.1400e-003	172.0877
<b>Total</b>		<b>0.0157</b>	<b>0.1426</b>	<b>0.1198</b>	<b>8.6000e-004</b>		<b>0.0108</b>	<b>0.0108</b>		<b>0.0108</b>	<b>0.0108</b>		<b>171.0711</b>	<b>171.0711</b>	<b>3.2800e-003</b>	<b>3.1400e-003</b>	<b>172.0877</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0514	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.0000e-004	5.0000e-004	0.0000		5.4000e-004
Unmitigated	0.0514	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.0000e-004	5.0000e-004	0.0000		5.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0455					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.0000e-004	5.0000e-004	0.0000		5.4000e-004
<b>Total</b>	<b>0.0514</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>5.0000e-004</b>	<b>5.0000e-004</b>	<b>0.0000</b>		<b>5.4000e-004</b>

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0455					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.0000e-004	5.0000e-004	0.0000		5.4000e-004
<b>Total</b>	<b>0.0514</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>5.0000e-004</b>	<b>5.0000e-004</b>	<b>0.0000</b>		<b>5.4000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

Devil's Gate Reservoir Neighboring Uses - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**Devil's Gate Neighboring Schools - All Schools Combined**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	897.00	Student	2.73	118,996.90	0
Elementary School	193.00	Student	0.37	16,135.45	0
High School	2,085.00	Student	6.35	276,598.14	0
Elementary School	547.00	Student	1.05	45,731.04	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Construction Phase - No Construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/4/2020	10/7/2020







Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.2559	3.5700e-003	0.3837	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8146	0.8146	2.2100e-003		0.8698
Energy	0.1406	1.2779	1.0734	7.6700e-003		0.0971	0.0971		0.0971	0.0971		1,533.4730	1,533.4730	0.0294	0.0281	1,542.5856
Mobile	15.2489	73.4542	226.0631	0.7019	53.3096	0.7868	54.0964	14.2692	0.7396	15.0088		71,214.7053	71,214.7053	4.0036		71,314.7941
<b>Total</b>	<b>25.6454</b>	<b>74.7356</b>	<b>227.5203</b>	<b>0.7096</b>	<b>53.3096</b>	<b>0.8853</b>	<b>54.1949</b>	<b>14.2692</b>	<b>0.8381</b>	<b>15.1073</b>		<b>72,748.9929</b>	<b>72,748.9929</b>	<b>4.0352</b>	<b>0.0281</b>	<b>72,858.2495</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.2559	3.5700e-003	0.3837	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8146	0.8146	2.2100e-003		0.8698
Energy	0.1406	1.2779	1.0734	7.6700e-003		0.0971	0.0971		0.0971	0.0971		1,533.4730	1,533.4730	0.0294	0.0281	1,542.5856
Mobile	15.2489	73.4542	226.0631	0.7019	53.3096	0.7868	54.0964	14.2692	0.7396	15.0088		71,214.7053	71,214.7053	4.0036		71,314.7941
<b>Total</b>	<b>25.6454</b>	<b>74.7356</b>	<b>227.5203</b>	<b>0.7096</b>	<b>53.3096</b>	<b>0.8853</b>	<b>54.1949</b>	<b>14.2692</b>	<b>0.8381</b>	<b>15.1073</b>		<b>72,748.9929</b>	<b>72,748.9929</b>	<b>4.0352</b>	<b>0.0281</b>	<b>72,858.2495</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	10/8/2020	10/7/2020	5	0	

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: 686,192; Non-Residential Outdoor: 228,731; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	38.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction



Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2020**

**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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.2489	73.4542	226.0631	0.7019	53.3096	0.7868	54.0964	14.2692	0.7396	15.0088		71,214.70 53	71,214.70 53	4.0036		71,314.79 41
Unmitigated	15.2489	73.4542	226.0631	0.7019	53.3096	0.7868	54.0964	14.2692	0.7396	15.0088		71,214.70 53	71,214.70 53	4.0036		71,314.79 41

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	248.97	0.00	0.00	612,890	612,890
Elementary School	705.63	0.00	0.00	1,737,051	1,737,051
High School	1,533.87	547.17	224.25	5,149,813	5,149,813
High School	3,565.35	1,271.85	521.25	11,970,301	11,970,301
Total	6,053.82	1,819.02	745.50	19,470,056	19,470,056

**4.3 Trip Type Information**

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925
High School	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

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
NaturalGas Mitigated	0.1406	1.2779	1.0734	7.6700e-003		0.0971	0.0971		0.0971	0.0971		1,533.4730	1,533.4730	0.0294	0.0281	1,542.5856
NaturalGas Unmitigated	0.1406	1.2779	1.0734	7.6700e-003		0.0971	0.0971		0.0971	0.0971		1,533.4730	1,533.4730	0.0294	0.0281	1,542.5856

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	1303.02	0.0141	0.1278	0.1073	7.7000e-004		9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003		153.2966	153.2966	2.9400e-003	2.8100e-003	154.2076
Elementary School	459.75	4.9600e-003	0.0451	0.0379	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003		54.0882	54.0882	1.0400e-003	9.9000e-004	54.4096
High School	3390.6	0.0366	0.3324	0.2792	1.9900e-003		0.0253	0.0253		0.0253	0.0253		398.8937	398.8937	7.6500e-003	7.3100e-003	401.2641
High School	7881.15	0.0850	0.7727	0.6490	4.6400e-003		0.0587	0.0587		0.0587	0.0587		927.1944	927.1944	0.0178	0.0170	932.7043
<b>Total</b>		<b>0.1406</b>	<b>1.2779</b>	<b>1.0734</b>	<b>7.6700e-003</b>		<b>0.0971</b>	<b>0.0971</b>		<b>0.0971</b>	<b>0.0971</b>		<b>1,533.4730</b>	<b>1,533.4730</b>	<b>0.0294</b>	<b>0.0281</b>	<b>1,542.5856</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0.45975	4.9600e-003	0.0451	0.0379	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003		54.0882	54.0882	1.0400e-003	9.9000e-004	54.4096
Elementary School	1.30302	0.0141	0.1278	0.1073	7.7000e-004		9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003		153.2966	153.2966	2.9400e-003	2.8100e-003	154.2076
High School	3.3906	0.0366	0.3324	0.2792	1.9900e-003		0.0253	0.0253		0.0253	0.0253		398.8937	398.8937	7.6500e-003	7.3100e-003	401.2641
High School	7.88115	0.0850	0.7727	0.6490	4.6400e-003		0.0587	0.0587		0.0587	0.0587		927.1944	927.1944	0.0178	0.0170	932.7043
<b>Total</b>		<b>0.1406</b>	<b>1.2779</b>	<b>1.0734</b>	<b>7.6700e-003</b>		<b>0.0971</b>	<b>0.0971</b>		<b>0.0971</b>	<b>0.0971</b>		<b>1,533.4730</b>	<b>1,533.4730</b>	<b>0.0294</b>	<b>0.0281</b>	<b>1,542.5856</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.2559	3.5700e-003	0.3837	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8146	0.8146	2.2100e-003		0.8698
Unmitigated	10.2559	3.5700e-003	0.3837	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8146	0.8146	2.2100e-003		0.8698

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1618					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0364	3.5700e-003	0.3837	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8146	0.8146	2.2100e-003		0.8698
<b>Total</b>	<b>10.2559</b>	<b>3.5700e-003</b>	<b>0.3837</b>	<b>3.0000e-005</b>		<b>1.3800e-003</b>	<b>1.3800e-003</b>		<b>1.3800e-003</b>	<b>1.3800e-003</b>		<b>0.8146</b>	<b>0.8146</b>	<b>2.2100e-003</b>		<b>0.8698</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1618					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0364	3.5700e-003	0.3837	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8146	0.8146	2.2100e-003		0.8698
<b>Total</b>	<b>10.2559</b>	<b>3.5700e-003</b>	<b>0.3837</b>	<b>3.0000e-005</b>		<b>1.3800e-003</b>	<b>1.3800e-003</b>		<b>1.3800e-003</b>	<b>1.3800e-003</b>		<b>0.8146</b>	<b>0.8146</b>	<b>2.2100e-003</b>		<b>0.8698</b>

**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

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**Devil's Gate Neighboring Schools - High School at Foothill & Oak Grove**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	2,085.00	Student	6.35	276,598.14	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Construction Phase - No Construction

Table Name	Column Name	Default Value	New Value
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**2.0 Emissions Summary**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.1995	2.0000e-003	0.2150	2.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		0.4563	0.4563	1.2400e-003		0.4872
Energy	0.0850	0.7727	0.6490	4.6400e-003		0.0587	0.0587		0.0587	0.0587		927.1944	927.1944	0.0178	0.0170	932.7043
Mobile	9.1239	44.1993	136.8080	0.4258	32.3819	0.4771	32.8591	8.6676	0.4485	9.1161		43,203.9054	43,203.9054	2.4232		43,264.4855
<b>Total</b>	<b>15.4084</b>	<b>44.9739</b>	<b>137.6720</b>	<b>0.4305</b>	<b>32.3819</b>	<b>0.5366</b>	<b>32.9186</b>	<b>8.6676</b>	<b>0.5080</b>	<b>9.1756</b>		<b>44,131.5561</b>	<b>44,131.5561</b>	<b>2.4422</b>	<b>0.0170</b>	<b>44,197.6770</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.1995	2.0000e-003	0.2150	2.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		0.4563	0.4563	1.2400e-003		0.4872
Energy	0.0850	0.7727	0.6490	4.6400e-003		0.0587	0.0587		0.0587	0.0587		927.1944	927.1944	0.0178	0.0170	932.7043
Mobile	9.1239	44.1993	136.8080	0.4258	32.3819	0.4771	32.8591	8.6676	0.4485	9.1161		43,203.9054	43,203.9054	2.4232		43,264.4855
<b>Total</b>	<b>15.4084</b>	<b>44.9739</b>	<b>137.6720</b>	<b>0.4305</b>	<b>32.3819</b>	<b>0.5366</b>	<b>32.9186</b>	<b>8.6676</b>	<b>0.5080</b>	<b>9.1756</b>		<b>44,131.5561</b>	<b>44,131.5561</b>	<b>2.4422</b>	<b>0.0170</b>	<b>44,197.6770</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/25/2019	5/22/2019	5	20	

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: 414,897; Non-Residential Outdoor: 138,299; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	23.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 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					
Archit. Coating	128.2032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
<b>Total</b>	<b>128.4696</b>	<b>1.8354</b>	<b>1.8413</b>	<b>2.9700e-003</b>		<b>0.1288</b>	<b>0.1288</b>		<b>0.1288</b>	<b>0.1288</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0238</b>		<b>282.0423</b>

**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	0.1149	0.0845	1.1090	2.8000e-003	0.2571	2.2200e-003	0.2593	0.0682	2.0400e-003	0.0702		278.9792	278.9792	9.5800e-003		279.2187
<b>Total</b>	<b>0.1149</b>	<b>0.0845</b>	<b>1.1090</b>	<b>2.8000e-003</b>	<b>0.2571</b>	<b>2.2200e-003</b>	<b>0.2593</b>	<b>0.0682</b>	<b>2.0400e-003</b>	<b>0.0702</b>		<b>278.9792</b>	<b>278.9792</b>	<b>9.5800e-003</b>		<b>279.2187</b>



Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2019**

**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					
Archit. Coating	128.2032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
<b>Total</b>	<b>128.4696</b>	<b>1.8354</b>	<b>1.8413</b>	<b>2.9700e-003</b>		<b>0.1288</b>	<b>0.1288</b>		<b>0.1288</b>	<b>0.1288</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0238</b>		<b>282.0423</b>

**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	0.1149	0.0845	1.1090	2.8000e-003	0.2571	2.2200e-003	0.2593	0.0682	2.0400e-003	0.0702		278.9792	278.9792	9.5800e-003		279.2187
<b>Total</b>	<b>0.1149</b>	<b>0.0845</b>	<b>1.1090</b>	<b>2.8000e-003</b>	<b>0.2571</b>	<b>2.2200e-003</b>	<b>0.2593</b>	<b>0.0682</b>	<b>2.0400e-003</b>	<b>0.0702</b>		<b>278.9792</b>	<b>278.9792</b>	<b>9.5800e-003</b>		<b>279.2187</b>

**4.0 Operational Detail - Mobile**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.1239	44.1993	136.8080	0.4258	32.3819	0.4771	32.8591	8.6676	0.4485	9.1161		43,203.9054	43,203.9054	2.4232		43,264.4855
Unmitigated	9.1239	44.1993	136.8080	0.4258	32.3819	0.4771	32.8591	8.6676	0.4485	9.1161		43,203.9054	43,203.9054	2.4232		43,264.4855

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	3,565.35	1,271.85	521.25	11,970,301	11,970,301
Total	3,565.35	1,271.85	521.25	11,970,301	11,970,301

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0850	0.7727	0.6490	4.6400e-003		0.0587	0.0587		0.0587	0.0587		927.1944	927.1944	0.0178	0.0170	932.7043
NaturalGas Unmitigated	0.0850	0.7727	0.6490	4.6400e-003		0.0587	0.0587		0.0587	0.0587		927.1944	927.1944	0.0178	0.0170	932.7043

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	7881.15	0.0850	0.7727	0.6490	4.6400e-003		0.0587	0.0587		0.0587	0.0587		927.1944	927.1944	0.0178	0.0170	932.7043
<b>Total</b>		<b>0.0850</b>	<b>0.7727</b>	<b>0.6490</b>	<b>4.6400e-003</b>		<b>0.0587</b>	<b>0.0587</b>		<b>0.0587</b>	<b>0.0587</b>		<b>927.1944</b>	<b>927.1944</b>	<b>0.0178</b>	<b>0.0170</b>	<b>932.7043</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	7.88115	0.0850	0.7727	0.6490	4.6400e-003		0.0587	0.0587		0.0587	0.0587		927.1944	927.1944	0.0178	0.0170	932.7043
<b>Total</b>		<b>0.0850</b>	<b>0.7727</b>	<b>0.6490</b>	<b>4.6400e-003</b>		<b>0.0587</b>	<b>0.0587</b>		<b>0.0587</b>	<b>0.0587</b>		<b>927.1944</b>	<b>927.1944</b>	<b>0.0178</b>	<b>0.0170</b>	<b>932.7043</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.1995	2.0000e-003	0.2150	2.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		0.4563	0.4563	1.2400e-003		0.4872
Unmitigated	6.1995	2.0000e-003	0.2150	2.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		0.4563	0.4563	1.2400e-003		0.4872

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	0.7025					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0204	2.0000e-003	0.2150	2.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		0.4563	0.4563	1.2400e-003		0.4872
<b>Total</b>	<b>6.1995</b>	<b>2.0000e-003</b>	<b>0.2150</b>	<b>2.0000e-005</b>		<b>7.7000e-004</b>	<b>7.7000e-004</b>		<b>7.7000e-004</b>	<b>7.7000e-004</b>		<b>0.4563</b>	<b>0.4563</b>	<b>1.2400e-003</b>		<b>0.4872</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7025					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0204	2.0000e-003	0.2150	2.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		0.4563	0.4563	1.2400e-003		0.4872
<b>Total</b>	<b>6.1995</b>	<b>2.0000e-003</b>	<b>0.2150</b>	<b>2.0000e-005</b>		<b>7.7000e-004</b>	<b>7.7000e-004</b>		<b>7.7000e-004</b>	<b>7.7000e-004</b>		<b>0.4563</b>	<b>0.4563</b>	<b>1.2400e-003</b>		<b>0.4872</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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Fire Pumps and Emergency Generators

## Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**Devil's Gate Neighboring Schools - High School at Lincoln Avenue**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	897.00	Student	2.73	118,996.90	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Construction Phase - No Construction

Table Name	Column Name	Default Value	New Value
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**2.0 Emissions Summary**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6671	8.6000e-004	0.0925	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1963	0.1963	5.3000e-004		0.2096
Energy	0.0366	0.3324	0.2792	1.9900e-003		0.0253	0.0253		0.0253	0.0253		398.8937	398.8937	7.6500e-003	7.3100e-003	401.2641
Mobile	3.9253	19.0152	58.8570	0.1832	13.9312	0.2053	14.1365	3.7289	0.1930	3.9219		18,587.0039	18,587.0039	1.0425		18,613.0664
<b>Total</b>	<b>6.6290</b>	<b>19.3485</b>	<b>59.2287</b>	<b>0.1852</b>	<b>13.9312</b>	<b>0.2309</b>	<b>14.1621</b>	<b>3.7289</b>	<b>0.2186</b>	<b>3.9475</b>		<b>18,986.0939</b>	<b>18,986.0939</b>	<b>1.0507</b>	<b>7.3100e-003</b>	<b>19,014.5402</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6671	8.6000e-004	0.0925	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1963	0.1963	5.3000e-004		0.2096
Energy	0.0366	0.3324	0.2792	1.9900e-003		0.0253	0.0253		0.0253	0.0253		398.8937	398.8937	7.6500e-003	7.3100e-003	401.2641
Mobile	3.9253	19.0152	58.8570	0.1832	13.9312	0.2053	14.1365	3.7289	0.1930	3.9219		18,587.0039	18,587.0039	1.0425		18,613.0664
<b>Total</b>	<b>6.6290</b>	<b>19.3485</b>	<b>59.2287</b>	<b>0.1852</b>	<b>13.9312</b>	<b>0.2309</b>	<b>14.1621</b>	<b>3.7289</b>	<b>0.2186</b>	<b>3.9475</b>		<b>18,986.0939</b>	<b>18,986.0939</b>	<b>1.0507</b>	<b>7.3100e-003</b>	<b>19,014.5402</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/25/2019	5/8/2019	5	10	

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: 178,495; Non-Residential Outdoor: 59,498; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

## Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 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					
Archit. Coating	110.3098					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
<b>Total</b>	<b>110.5762</b>	<b>1.8354</b>	<b>1.8413</b>	<b>2.9700e-003</b>		<b>0.1288</b>	<b>0.1288</b>		<b>0.1288</b>	<b>0.1288</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0238</b>		<b>282.0423</b>

**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	0.0500	0.0367	0.4822	1.2200e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		121.2953	121.2953	4.1700e-003		121.3995
<b>Total</b>	<b>0.0500</b>	<b>0.0367</b>	<b>0.4822</b>	<b>1.2200e-003</b>	<b>0.1118</b>	<b>9.6000e-004</b>	<b>0.1127</b>	<b>0.0296</b>	<b>8.9000e-004</b>	<b>0.0305</b>		<b>121.2953</b>	<b>121.2953</b>	<b>4.1700e-003</b>		<b>121.3995</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2019**

**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					
Archit. Coating	110.3098					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
<b>Total</b>	<b>110.5762</b>	<b>1.8354</b>	<b>1.8413</b>	<b>2.9700e-003</b>		<b>0.1288</b>	<b>0.1288</b>		<b>0.1288</b>	<b>0.1288</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0238</b>		<b>282.0423</b>

**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	0.0500	0.0367	0.4822	1.2200e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		121.2953	121.2953	4.1700e-003		121.3995
<b>Total</b>	<b>0.0500</b>	<b>0.0367</b>	<b>0.4822</b>	<b>1.2200e-003</b>	<b>0.1118</b>	<b>9.6000e-004</b>	<b>0.1127</b>	<b>0.0296</b>	<b>8.9000e-004</b>	<b>0.0305</b>		<b>121.2953</b>	<b>121.2953</b>	<b>4.1700e-003</b>		<b>121.3995</b>

**4.0 Operational Detail - Mobile**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.9253	19.0152	58.8570	0.1832	13.9312	0.2053	14.1365	3.7289	0.1930	3.9219		18,587.00 39	18,587.00 39	1.0425		18,613.06 64
Unmitigated	3.9253	19.0152	58.8570	0.1832	13.9312	0.2053	14.1365	3.7289	0.1930	3.9219		18,587.00 39	18,587.00 39	1.0425		18,613.06 64

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	1,533.87	547.17	224.25	5,149,813	5,149,813
Total	1,533.87	547.17	224.25	5,149,813	5,149,813

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0366	0.3324	0.2792	1.9900e-003		0.0253	0.0253		0.0253	0.0253		398.8937	398.8937	7.6500e-003	7.3100e-003	401.2641
NaturalGas Unmitigated	0.0366	0.3324	0.2792	1.9900e-003		0.0253	0.0253		0.0253	0.0253		398.8937	398.8937	7.6500e-003	7.3100e-003	401.2641

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	3390.6	0.0366	0.3324	0.2792	1.9900e-003		0.0253	0.0253		0.0253	0.0253		398.8937	398.8937	7.6500e-003	7.3100e-003	401.2641
<b>Total</b>		<b>0.0366</b>	<b>0.3324</b>	<b>0.2792</b>	<b>1.9900e-003</b>		<b>0.0253</b>	<b>0.0253</b>		<b>0.0253</b>	<b>0.0253</b>		<b>398.8937</b>	<b>398.8937</b>	<b>7.6500e-003</b>	<b>7.3100e-003</b>	<b>401.2641</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	3.3906	0.0366	0.3324	0.2792	1.9900e-003		0.0253	0.0253		0.0253	0.0253		398.8937	398.8937	7.6500e-003	7.3100e-003	401.2641
<b>Total</b>		<b>0.0366</b>	<b>0.3324</b>	<b>0.2792</b>	<b>1.9900e-003</b>		<b>0.0253</b>	<b>0.0253</b>		<b>0.0253</b>	<b>0.0253</b>		<b>398.8937</b>	<b>398.8937</b>	<b>7.6500e-003</b>	<b>7.3100e-003</b>	<b>401.2641</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6671	8.6000e-004	0.0925	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1963	0.1963	5.3000e-004		0.2096
Unmitigated	2.6671	8.6000e-004	0.0925	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1963	0.1963	5.3000e-004		0.2096

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	0.3022					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.7600e-003	8.6000e-004	0.0925	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1963	0.1963	5.3000e-004		0.2096
<b>Total</b>	<b>2.6671</b>	<b>8.6000e-004</b>	<b>0.0925</b>	<b>1.0000e-005</b>		<b>3.3000e-004</b>	<b>3.3000e-004</b>		<b>3.3000e-004</b>	<b>3.3000e-004</b>		<b>0.1963</b>	<b>0.1963</b>	<b>5.3000e-004</b>		<b>0.2096</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3022					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.7600e-003	8.6000e-004	0.0925	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1963	0.1963	5.3000e-004		0.2096
<b>Total</b>	<b>2.6671</b>	<b>8.6000e-004</b>	<b>0.0925</b>	<b>1.0000e-005</b>		<b>3.3000e-004</b>	<b>3.3000e-004</b>		<b>3.3000e-004</b>	<b>3.3000e-004</b>		<b>0.1963</b>	<b>0.1963</b>	<b>5.3000e-004</b>		<b>0.2096</b>

**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

## Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**Devil's Gate Neighboring Schools - Elementary School on Washington Blvd**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	193.00	Student	0.37	16,135.45	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Construction Phase - No Construction

Table Name	Column Name	Default Value	New Value
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**2.0 Emissions Summary**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3624	1.8000e-004	0.0199	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0422	0.0422	1.1000e-004		0.0451
Energy	4.9600e-003	0.0451	0.0379	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003		54.0882	54.0882	1.0400e-003	9.9000e-004	54.4096
Mobile	0.5737	2.6706	7.9282	0.0242	1.8248	0.0272	1.8520	0.4884	0.0256	0.5140		2,457.8279	2,457.8279	0.1403		2,461.3348
<b>Total</b>	<b>0.9410</b>	<b>2.7159</b>	<b>7.9859</b>	<b>0.0245</b>	<b>1.8248</b>	<b>0.0307</b>	<b>1.8555</b>	<b>0.4884</b>	<b>0.0291</b>	<b>0.5175</b>		<b>2,511.9584</b>	<b>2,511.9584</b>	<b>0.1414</b>	<b>9.9000e-004</b>	<b>2,515.7895</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3624	1.8000e-004	0.0199	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0422	0.0422	1.1000e-004		0.0451
Energy	4.9600e-003	0.0451	0.0379	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003		54.0882	54.0882	1.0400e-003	9.9000e-004	54.4096
Mobile	0.5737	2.6706	7.9282	0.0242	1.8248	0.0272	1.8520	0.4884	0.0256	0.5140		2,457.8279	2,457.8279	0.1403		2,461.3348
<b>Total</b>	<b>0.9410</b>	<b>2.7159</b>	<b>7.9859</b>	<b>0.0245</b>	<b>1.8248</b>	<b>0.0307</b>	<b>1.8555</b>	<b>0.4884</b>	<b>0.0291</b>	<b>0.5175</b>		<b>2,511.9584</b>	<b>2,511.9584</b>	<b>0.1414</b>	<b>9.9000e-004</b>	<b>2,515.7895</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/25/2019	5/1/2019	5	5	

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: 24,203; Non-Residential Outdoor: 8,068; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 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					
Archit. Coating	29.9152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
<b>Total</b>	<b>30.1817</b>	<b>1.8354</b>	<b>1.8413</b>	<b>2.9700e-003</b>		<b>0.1288</b>	<b>0.1288</b>		<b>0.1288</b>	<b>0.1288</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0238</b>		<b>282.0423</b>

**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	5.0000e-003	3.6700e-003	0.0482	1.2000e-004	0.0112	1.0000e-004	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		12.1295	12.1295	4.2000e-004		12.1399
<b>Total</b>	<b>5.0000e-003</b>	<b>3.6700e-003</b>	<b>0.0482</b>	<b>1.2000e-004</b>	<b>0.0112</b>	<b>1.0000e-004</b>	<b>0.0113</b>	<b>2.9600e-003</b>	<b>9.0000e-005</b>	<b>3.0500e-003</b>		<b>12.1295</b>	<b>12.1295</b>	<b>4.2000e-004</b>		<b>12.1399</b>



Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2019**

**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					
Archit. Coating	29.9152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
<b>Total</b>	<b>30.1817</b>	<b>1.8354</b>	<b>1.8413</b>	<b>2.9700e-003</b>		<b>0.1288</b>	<b>0.1288</b>		<b>0.1288</b>	<b>0.1288</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0238</b>		<b>282.0423</b>

**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	5.0000e-003	3.6700e-003	0.0482	1.2000e-004	0.0112	1.0000e-004	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		12.1295	12.1295	4.2000e-004		12.1399
<b>Total</b>	<b>5.0000e-003</b>	<b>3.6700e-003</b>	<b>0.0482</b>	<b>1.2000e-004</b>	<b>0.0112</b>	<b>1.0000e-004</b>	<b>0.0113</b>	<b>2.9600e-003</b>	<b>9.0000e-005</b>	<b>3.0500e-003</b>		<b>12.1295</b>	<b>12.1295</b>	<b>4.2000e-004</b>		<b>12.1399</b>

**4.0 Operational Detail - Mobile**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5737	2.6706	7.9282	0.0242	1.8248	0.0272	1.8520	0.4884	0.0256	0.5140		2,457.8279	2,457.8279	0.1403		2,461.3348
Unmitigated	0.5737	2.6706	7.9282	0.0242	1.8248	0.0272	1.8520	0.4884	0.0256	0.5140		2,457.8279	2,457.8279	0.1403		2,461.3348

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	248.97	0.00	0.00	612,890	612,890
Total	248.97	0.00	0.00	612,890	612,890

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.9600e-003	0.0451	0.0379	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003		54.0882	54.0882	1.0400e-003	9.9000e-004	54.4096
NaturalGas Unmitigated	4.9600e-003	0.0451	0.0379	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003		54.0882	54.0882	1.0400e-003	9.9000e-004	54.4096

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	459.75	4.9600e-003	0.0451	0.0379	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003		54.0882	54.0882	1.0400e-003	9.9000e-004	54.4096
<b>Total</b>		<b>4.9600e-003</b>	<b>0.0451</b>	<b>0.0379</b>	<b>2.7000e-004</b>		<b>3.4300e-003</b>	<b>3.4300e-003</b>		<b>3.4300e-003</b>	<b>3.4300e-003</b>		<b>54.0882</b>	<b>54.0882</b>	<b>1.0400e-003</b>	<b>9.9000e-004</b>	<b>54.4096</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0.45975	4.9600e-003	0.0451	0.0379	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003		54.0882	54.0882	1.0400e-003	9.9000e-004	54.4096
<b>Total</b>		<b>4.9600e-003</b>	<b>0.0451</b>	<b>0.0379</b>	<b>2.7000e-004</b>		<b>3.4300e-003</b>	<b>3.4300e-003</b>		<b>3.4300e-003</b>	<b>3.4300e-003</b>		<b>54.0882</b>	<b>54.0882</b>	<b>1.0400e-003</b>	<b>9.9000e-004</b>	<b>54.4096</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3624	1.8000e-004	0.0199	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0422	0.0422	1.1000e-004		0.0451
Unmitigated	0.3624	1.8000e-004	0.0199	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0422	0.0422	1.1000e-004		0.0451

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	0.0410					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8900e-003	1.8000e-004	0.0199	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0422	0.0422	1.1000e-004		0.0451
<b>Total</b>	<b>0.3624</b>	<b>1.8000e-004</b>	<b>0.0199</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0422</b>	<b>0.0422</b>	<b>1.1000e-004</b>		<b>0.0451</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0410					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8900e-003	1.8000e-004	0.0199	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0422	0.0422	1.1000e-004		0.0451
<b>Total</b>	<b>0.3624</b>	<b>1.8000e-004</b>	<b>0.0199</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0422</b>	<b>0.0422</b>	<b>1.1000e-004</b>		<b>0.0451</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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Fire Pumps and Emergency Generators

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**Devil's Gate Neighboring Schools - Elementary School on Woodbury Rd**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	547.00	Student	1.05	45,731.04	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	12			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pasadena Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1664.14	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Construction Phase - No Construction

Table Name	Column Name	Default Value	New Value
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**2.0 Emissions Summary**

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Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0270	5.2000e-004	0.0564	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1197	0.1197	3.2000e-004		0.1278
Energy	0.0141	0.1278	0.1073	7.7000e-004		9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003		153.2966	153.2966	2.9400e-003	2.8100e-003	154.2076
Mobile	1.6260	7.5690	22.4700	0.0686	5.1717	0.0772	5.2489	1.3843	0.0725	1.4568		6,965.9682	6,965.9682	0.3976		6,975.9074
<b>Total</b>	<b>2.6670</b>	<b>7.6973</b>	<b>22.6337</b>	<b>0.0694</b>	<b>5.1717</b>	<b>0.0871</b>	<b>5.2588</b>	<b>1.3843</b>	<b>0.0824</b>	<b>1.4667</b>		<b>7,119.3845</b>	<b>7,119.3845</b>	<b>0.4008</b>	<b>2.8100e-003</b>	<b>7,130.2428</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0270	5.2000e-004	0.0564	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1197	0.1197	3.2000e-004		0.1278
Energy	0.0141	0.1278	0.1073	7.7000e-004		9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003		153.2966	153.2966	2.9400e-003	2.8100e-003	154.2076
Mobile	1.6260	7.5690	22.4700	0.0686	5.1717	0.0772	5.2489	1.3843	0.0725	1.4568		6,965.9682	6,965.9682	0.3976		6,975.9074
<b>Total</b>	<b>2.6670</b>	<b>7.6973</b>	<b>22.6337</b>	<b>0.0694</b>	<b>5.1717</b>	<b>0.0871</b>	<b>5.2588</b>	<b>1.3843</b>	<b>0.0824</b>	<b>1.4667</b>		<b>7,119.3845</b>	<b>7,119.3845</b>	<b>0.4008</b>	<b>2.8100e-003</b>	<b>7,130.2428</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/25/2019	5/8/2019	5	10	

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: 68,597; Non-Residential Outdoor: 22,866; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### 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
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 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					
Archit. Coating	42.3931					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
<b>Total</b>	<b>42.6595</b>	<b>1.8354</b>	<b>1.8413</b>	<b>2.9700e-003</b>		<b>0.1288</b>	<b>0.1288</b>		<b>0.1288</b>	<b>0.1288</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0238</b>		<b>282.0423</b>

**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	0.0200	0.0147	0.1929	4.9000e-004	0.0447	3.9000e-004	0.0451	0.0119	3.6000e-004	0.0122		48.5181	48.5181	1.6700e-003		48.5598
<b>Total</b>	<b>0.0200</b>	<b>0.0147</b>	<b>0.1929</b>	<b>4.9000e-004</b>	<b>0.0447</b>	<b>3.9000e-004</b>	<b>0.0451</b>	<b>0.0119</b>	<b>3.6000e-004</b>	<b>0.0122</b>		<b>48.5181</b>	<b>48.5181</b>	<b>1.6700e-003</b>		<b>48.5598</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**3.2 Architectural Coating - 2019**

**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					
Archit. Coating	42.3931					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
<b>Total</b>	<b>42.6595</b>	<b>1.8354</b>	<b>1.8413</b>	<b>2.9700e-003</b>		<b>0.1288</b>	<b>0.1288</b>		<b>0.1288</b>	<b>0.1288</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0238</b>		<b>282.0423</b>

**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	0.0200	0.0147	0.1929	4.9000e-004	0.0447	3.9000e-004	0.0451	0.0119	3.6000e-004	0.0122		48.5181	48.5181	1.6700e-003		48.5598
<b>Total</b>	<b>0.0200</b>	<b>0.0147</b>	<b>0.1929</b>	<b>4.9000e-004</b>	<b>0.0447</b>	<b>3.9000e-004</b>	<b>0.0451</b>	<b>0.0119</b>	<b>3.6000e-004</b>	<b>0.0122</b>		<b>48.5181</b>	<b>48.5181</b>	<b>1.6700e-003</b>		<b>48.5598</b>

**4.0 Operational Detail - Mobile**

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6260	7.5690	22.4700	0.0686	5.1717	0.0772	5.2489	1.3843	0.0725	1.4568		6,965.9682	6,965.9682	0.3976		6,975.9074
Unmitigated	1.6260	7.5690	22.4700	0.0686	5.1717	0.0772	5.2489	1.3843	0.0725	1.4568		6,965.9682	6,965.9682	0.3976		6,975.9074

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	705.63	0.00	0.00	1,737,051	1,737,051
Total	705.63	0.00	0.00	1,737,051	1,737,051

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0141	0.1278	0.1073	7.7000e-004	9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003			153.2966	153.2966	2.9400e-003	2.8100e-003	154.2076
NaturalGas Unmitigated	0.0141	0.1278	0.1073	7.7000e-004	9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003			153.2966	153.2966	2.9400e-003	2.8100e-003	154.2076

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	1303.02	0.0141	0.1278	0.1073	7.7000e-004		9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003		153.2966	153.2966	2.9400e-003	2.8100e-003	154.2076
<b>Total</b>		<b>0.0141</b>	<b>0.1278</b>	<b>0.1073</b>	<b>7.7000e-004</b>		<b>9.7100e-003</b>	<b>9.7100e-003</b>		<b>9.7100e-003</b>	<b>9.7100e-003</b>		<b>153.2966</b>	<b>153.2966</b>	<b>2.9400e-003</b>	<b>2.8100e-003</b>	<b>154.2076</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	1.30302	0.0141	0.1278	0.1073	7.7000e-004		9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003		153.2966	153.2966	2.9400e-003	2.8100e-003	154.2076
<b>Total</b>		<b>0.0141</b>	<b>0.1278</b>	<b>0.1073</b>	<b>7.7000e-004</b>		<b>9.7100e-003</b>	<b>9.7100e-003</b>		<b>9.7100e-003</b>	<b>9.7100e-003</b>		<b>153.2966</b>	<b>153.2966</b>	<b>2.9400e-003</b>	<b>2.8100e-003</b>	<b>154.2076</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	1.0270	5.2000e-004	0.0564	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1197	0.1197	3.2000e-004			0.1278
Unmitigated	1.0270	5.2000e-004	0.0564	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1197	0.1197	3.2000e-004			0.1278

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	0.1162					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Consumer Products	0.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Landscaping	5.3400e-003	5.2000e-004	0.0564	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1197	0.1197	3.2000e-004			0.1278
<b>Total</b>	<b>1.0270</b>	<b>5.2000e-004</b>	<b>0.0564</b>	<b>0.0000</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>0.1197</b>	<b>0.1197</b>	<b>3.2000e-004</b>			<b>0.1278</b>

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1162					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.3400e-003	5.2000e-004	0.0564	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1197	0.1197	3.2000e-004		0.1278
<b>Total</b>	<b>1.0270</b>	<b>5.2000e-004</b>	<b>0.0564</b>	<b>0.0000</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>0.1197</b>	<b>0.1197</b>	<b>3.2000e-004</b>		<b>0.1278</b>

**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

Devil's Gate Neighboring Schools - Los Angeles-South Coast County, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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