









LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**LVRAS Segment 1 Construction Activities - with APMs**

**Mojave Desert AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	61.85	Acre	61.85	2,694,186.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	10			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics -

Land Use - Based on acres disturbed during construction.

Construction Phase - Provided by SCE

Off-road Equipment - Provided by SCE - Off Hwy Truck used as proxy for splice lab with load factor for Other Const Equip lift due to model limits

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE - crane used as proxy for manlift/bucket truck with load factor for aerial lift due to model limits

Off-road Equipment - Provided by SCE - crane used as proxy for manlift/bucket truck with load factor for aerial lift due to model limits

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE

Trips and VMT - Provided by SCE - VMT based on original Segment 1 AQ/GHG modeling

On-road Fugitive Dust - Based on original Segment 1 AQ/GHG modeling









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tbITripsAndVMT	VendorTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	VendorTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	VendorTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripNumber	442.00	2.00
tbITripsAndVMT	VendorTripNumber	442.00	2.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripNumber	8.00	12.00
tbITripsAndVMT	WorkerTripNumber	5.00	8.00
tbITripsAndVMT	WorkerTripNumber	8.00	12.00
tbITripsAndVMT	WorkerTripNumber	5.00	10.00
tbITripsAndVMT	WorkerTripNumber	1,132.00	10.00
tbITripsAndVMT	WorkerTripNumber	1,132.00	6.00

**2.0 Emissions Summary**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2023	4-1-2023	0.9575	0.2218
2	4-2-2023	7-1-2023	0.0277	0.0134
		Highest	0.9575	0.2218

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.2679</b>	<b>1.0000e-005</b>	<b>5.7000e-004</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>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1800e-003</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.2679</b>	<b>1.0000e-005</b>	<b>5.7000e-004</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>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1800e-003</b>

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

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Wooden Pole Installation	Grading	1/2/2023	1/24/2023	6	20	
2	Manhole Installation	Grading	1/2/2023	1/21/2023	6	18	
3	Remove/Install New Poles	Grading	1/2/2023	2/16/2023	6	40	

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4	Install Conduit Trench	Trenching	1/2/2023	1/30/2023	6	25
5	Install Underground Fiber Cable	Trenching	1/2/2023	1/12/2023	6	10
6	Install Overhead Fiber Cable	Building Construction	1/2/2023	3/29/2023	6	75
7	Fiber Cable Splicing	Building Construction	3/30/2023	4/19/2023	6	18

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 61.85**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Wooden Pole Installation	Aerial Lifts	1	10.00	300	0.31
Wooden Pole Installation	Air Compressors	1	10.00	60	0.48
Wooden Pole Installation	Cranes	1	10.00	350	0.29
Wooden Pole Installation	Off-Highway Trucks	1	10.00	300	0.38
Manhole Installation	Air Compressors	1	10.00	60	0.48
Manhole Installation	Cranes	1	10.00	350	0.29
Manhole Installation	Tractors/Loaders/Backhoes	1	10.00	200	0.37
Remove/Install New Poles	Aerial Lifts	1	10.00	300	0.31
Remove/Install New Poles	Off-Highway Trucks	1	10.00	300	0.38
Install Conduit Trench	Air Compressors	1	10.00	60	0.48
Install Conduit Trench	Cranes	1	10.00	350	0.29
Install Conduit Trench	Tractors/Loaders/Backhoes	1	10.00	200	0.37
Install Underground Fiber Cable	Cranes	2	10.00	250	0.29
Install Overhead Fiber Cable	Cranes	2	10.00	250	0.29
Fiber Cable Splicing	Off-Highway Trucks	1	10.00	250	0.38

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**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
Wooden Pole Installation	4	10.00	2.00	0.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Manhole Installation	3	12.00	4.00	4.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Remove/Install New Poles	2	8.00	2.00	2.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Install Conduit Trench	3	12.00	4.00	4.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Install Underground Fiber Cable	2	10.00	2.00	4.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Install Overhead Fiber Cable	2	10.00	2.00	4.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Fiber Cable Splicing	1	6.00	2.00	2.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Wooden Pole Installation - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.1194	0.1186	3.7000e-004		4.5700e-003	4.5700e-003		4.2800e-003	4.2800e-003	0.0000	32.4723	32.4723	9.6400e-003	0.0000	32.7133
<b>Total</b>	<b>0.0141</b>	<b>0.1194</b>	<b>0.1186</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>4.5700e-003</b>	<b>4.5700e-003</b>	<b>0.0000</b>	<b>4.2800e-003</b>	<b>4.2800e-003</b>	<b>0.0000</b>	<b>32.4723</b>	<b>32.4723</b>	<b>9.6400e-003</b>	<b>0.0000</b>	<b>32.7133</b>

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**3.2 Wooden Pole Installation - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	6.4000e-004	3.4000e-004	0.0000	0.0277	1.0000e-005	0.0277	2.7800e-003	1.0000e-005	2.7800e-003	0.0000	0.3172	0.3172	0.0000	4.0000e-005	0.3301
Worker	3.7000e-004	2.8000e-004	3.1600e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.8657	0.8657	2.0000e-005	2.0000e-005	0.8734
<b>Total</b>	<b>4.0000e-004</b>	<b>9.2000e-004</b>	<b>3.5000e-003</b>	<b>1.0000e-005</b>	<b>0.0288</b>	<b>2.0000e-005</b>	<b>0.0288</b>	<b>3.0800e-003</b>	<b>1.0000e-005</b>	<b>3.0800e-003</b>	<b>0.0000</b>	<b>1.1828</b>	<b>1.1828</b>	<b>2.0000e-005</b>	<b>6.0000e-005</b>	<b>1.2035</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9300e-003	0.0442	0.1648	3.7000e-004		9.4000e-004	9.4000e-004		9.0000e-004	9.0000e-004	0.0000	32.4723	32.4723	9.6400e-003	0.0000	32.7132
<b>Total</b>	<b>5.9300e-003</b>	<b>0.0442</b>	<b>0.1648</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>9.4000e-004</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>9.0000e-004</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>32.4723</b>	<b>32.4723</b>	<b>9.6400e-003</b>	<b>0.0000</b>	<b>32.7132</b>

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**3.2 Wooden Pole Installation - 2023**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	6.4000e-004	3.4000e-004	0.0000	0.0196	1.0000e-005	0.0196	1.9700e-003	1.0000e-005	1.9800e-003	0.0000	0.3172	0.3172	0.0000	4.0000e-005	0.3301
Worker	3.7000e-004	2.8000e-004	3.1600e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.8657	0.8657	2.0000e-005	2.0000e-005	0.8734
<b>Total</b>	<b>4.0000e-004</b>	<b>9.2000e-004</b>	<b>3.5000e-003</b>	<b>1.0000e-005</b>	<b>0.0207</b>	<b>2.0000e-005</b>	<b>0.0207</b>	<b>2.2700e-003</b>	<b>1.0000e-005</b>	<b>2.2800e-003</b>	<b>0.0000</b>	<b>1.1828</b>	<b>1.1828</b>	<b>2.0000e-005</b>	<b>6.0000e-005</b>	<b>1.2035</b>

**3.3 Manhole Installation - 2023**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4500e-003	0.0889	0.0782	2.0000e-004		3.7100e-003	3.7100e-003		3.4800e-003	3.4800e-003	0.0000	17.8320	17.8320	4.9900e-003	0.0000	17.9567
<b>Total</b>	<b>9.4500e-003</b>	<b>0.0889</b>	<b>0.0782</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>3.7100e-003</b>	<b>3.7100e-003</b>	<b>0.0000</b>	<b>3.4800e-003</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>17.8320</b>	<b>17.8320</b>	<b>4.9900e-003</b>	<b>0.0000</b>	<b>17.9567</b>



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**3.3 Manhole Installation - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	2.7600e-003	0.0000	2.7700e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	5.0000e-005	1.1500e-003	6.1000e-004	1.0000e-005	0.0498	1.0000e-005	0.0498	5.0000e-003	1.0000e-005	5.0100e-003	0.0000	0.5709	0.5709	0.0000	8.0000e-005	0.5942
Worker	4.0000e-004	3.0000e-004	3.4200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9349	0.9349	2.0000e-005	3.0000e-005	0.9433
<b>Total</b>	<b>4.5000e-004</b>	<b>1.5500e-003</b>	<b>4.0800e-003</b>	<b>2.0000e-005</b>	<b>0.0537</b>	<b>2.0000e-005</b>	<b>0.0538</b>	<b>5.6000e-003</b>	<b>2.0000e-005</b>	<b>5.6200e-003</b>	<b>0.0000</b>	<b>1.5431</b>	<b>1.5431</b>	<b>2.0000e-005</b>	<b>1.2000e-004</b>	<b>1.5765</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7800e-003	0.0247	0.0978	2.0000e-004		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	17.8319	17.8319	4.9900e-003	0.0000	17.9567
<b>Total</b>	<b>2.7800e-003</b>	<b>0.0247</b>	<b>0.0978</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>3.2000e-004</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>3.2000e-004</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>17.8319</b>	<b>17.8319</b>	<b>4.9900e-003</b>	<b>0.0000</b>	<b>17.9567</b>

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**3.3 Manhole Installation - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	1.9600e-003	0.0000	1.9600e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	5.0000e-005	1.1500e-003	6.1000e-004	1.0000e-005	0.0352	1.0000e-005	0.0353	3.5500e-003	1.0000e-005	3.5600e-003	0.0000	0.5709	0.5709	0.0000	8.0000e-005	0.5942
Worker	4.0000e-004	3.0000e-004	3.4200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9349	0.9349	2.0000e-005	3.0000e-005	0.9433
<b>Total</b>	<b>4.5000e-004</b>	<b>1.5500e-003</b>	<b>4.0800e-003</b>	<b>2.0000e-005</b>	<b>0.0384</b>	<b>2.0000e-005</b>	<b>0.0384</b>	<b>4.0700e-003</b>	<b>2.0000e-005</b>	<b>4.0900e-003</b>	<b>0.0000</b>	<b>1.5431</b>	<b>1.5431</b>	<b>2.0000e-005</b>	<b>1.2000e-004</b>	<b>1.5765</b>

**3.4 Remove/Install New Poles - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0930	0.1008	4.5000e-004		2.7900e-003	2.7900e-003		2.5600e-003	2.5600e-003	0.0000	39.2227	39.2227	0.0127	0.0000	39.5398
<b>Total</b>	<b>0.0126</b>	<b>0.0930</b>	<b>0.1008</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>2.7900e-003</b>	<b>2.7900e-003</b>	<b>0.0000</b>	<b>2.5600e-003</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>39.2227</b>	<b>39.2227</b>	<b>0.0127</b>	<b>0.0000</b>	<b>39.5398</b>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Remove/Install New Poles - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	5.0000e-005	3.0000e-005	0.0000	1.3800e-003	0.0000	1.3800e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0186	0.0186	0.0000	0.0000	0.0195
Vendor	6.0000e-005	1.2800e-003	6.8000e-004	1.0000e-005	0.0553	1.0000e-005	0.0553	5.5600e-003	1.0000e-005	5.5700e-003	0.0000	0.6343	0.6343	0.0000	9.0000e-005	0.6603
Worker	5.9000e-004	4.4000e-004	5.0600e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	1.0000e-005	4.8000e-004	0.0000	1.3850	1.3850	4.0000e-005	4.0000e-005	1.3974
<b>Total</b>	<b>6.5000e-004</b>	<b>1.7700e-003</b>	<b>5.7700e-003</b>	<b>2.0000e-005</b>	<b>0.0585</b>	<b>2.0000e-005</b>	<b>0.0585</b>	<b>6.1800e-003</b>	<b>2.0000e-005</b>	<b>6.1900e-003</b>	<b>0.0000</b>	<b>2.0380</b>	<b>2.0380</b>	<b>4.0000e-005</b>	<b>1.3000e-004</b>	<b>2.0772</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6500e-003	0.0419	0.1841	4.5000e-004		1.4100e-003	1.4100e-003		1.3500e-003	1.3500e-003	0.0000	39.2226	39.2226	0.0127	0.0000	39.5397
<b>Total</b>	<b>7.6500e-003</b>	<b>0.0419</b>	<b>0.1841</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.4100e-003</b>	<b>1.4100e-003</b>	<b>0.0000</b>	<b>1.3500e-003</b>	<b>1.3500e-003</b>	<b>0.0000</b>	<b>39.2226</b>	<b>39.2226</b>	<b>0.0127</b>	<b>0.0000</b>	<b>39.5397</b>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Remove/Install New Poles - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	5.0000e-005	3.0000e-005	0.0000	9.8000e-004	0.0000	9.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0186	0.0186	0.0000	0.0000	0.0195
Vendor	6.0000e-005	1.2800e-003	6.8000e-004	1.0000e-005	0.0392	1.0000e-005	0.0392	3.9400e-003	1.0000e-005	3.9500e-003	0.0000	0.6343	0.6343	0.0000	9.0000e-005	0.6603
Worker	5.9000e-004	4.4000e-004	5.0600e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	1.0000e-005	4.8000e-004	0.0000	1.3850	1.3850	4.0000e-005	4.0000e-005	1.3974
<b>Total</b>	<b>6.5000e-004</b>	<b>1.7700e-003</b>	<b>5.7700e-003</b>	<b>2.0000e-005</b>	<b>0.0419</b>	<b>2.0000e-005</b>	<b>0.0420</b>	<b>4.5200e-003</b>	<b>2.0000e-005</b>	<b>4.5300e-003</b>	<b>0.0000</b>	<b>2.0380</b>	<b>2.0380</b>	<b>4.0000e-005</b>	<b>1.3000e-004</b>	<b>2.0772</b>

**3.5 Install Conduit Trench - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0131	0.1235	0.1087	2.8000e-004		5.1500e-003	5.1500e-003		4.8300e-003	4.8300e-003	0.0000	24.7666	24.7666	6.9300e-003	0.0000	24.9399
<b>Total</b>	<b>0.0131</b>	<b>0.1235</b>	<b>0.1087</b>	<b>2.8000e-004</b>		<b>5.1500e-003</b>	<b>5.1500e-003</b>		<b>4.8300e-003</b>	<b>4.8300e-003</b>	<b>0.0000</b>	<b>24.7666</b>	<b>24.7666</b>	<b>6.9300e-003</b>	<b>0.0000</b>	<b>24.9399</b>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Install Conduit Trench - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	2.7600e-003	0.0000	2.7700e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	7.0000e-005	1.6000e-003	8.5000e-004	1.0000e-005	0.0691	1.0000e-005	0.0691	6.9500e-003	1.0000e-005	6.9600e-003	0.0000	0.7929	0.7929	0.0000	1.1000e-004	0.8253
Worker	5.6000e-004	4.1000e-004	4.7500e-003	1.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.5000e-004	0.0000	1.2985	1.2985	3.0000e-005	4.0000e-005	1.3101
<b>Total</b>	<b>6.3000e-004</b>	<b>2.1100e-003</b>	<b>5.6500e-003</b>	<b>2.0000e-005</b>	<b>0.0736</b>	<b>2.0000e-005</b>	<b>0.0736</b>	<b>7.6800e-003</b>	<b>2.0000e-005</b>	<b>7.6900e-003</b>	<b>0.0000</b>	<b>2.1286</b>	<b>2.1286</b>	<b>3.0000e-005</b>	<b>1.6000e-004</b>	<b>2.1744</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8500e-003	0.0343	0.1358	2.8000e-004		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	24.7666	24.7666	6.9300e-003	0.0000	24.9399
<b>Total</b>	<b>3.8500e-003</b>	<b>0.0343</b>	<b>0.1358</b>	<b>2.8000e-004</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>24.7666</b>	<b>24.7666</b>	<b>6.9300e-003</b>	<b>0.0000</b>	<b>24.9399</b>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Install Conduit Trench - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	1.9600e-003	0.0000	1.9600e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	7.0000e-005	1.6000e-003	8.5000e-004	1.0000e-005	0.0490	1.0000e-005	0.0490	4.9300e-003	1.0000e-005	4.9400e-003	0.0000	0.7929	0.7929	0.0000	1.1000e-004	0.8253
Worker	5.6000e-004	4.1000e-004	4.7500e-003	1.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.5000e-004	0.0000	1.2985	1.2985	3.0000e-005	4.0000e-005	1.3101
<b>Total</b>	<b>6.3000e-004</b>	<b>2.1100e-003</b>	<b>5.6500e-003</b>	<b>2.0000e-005</b>	<b>0.0526</b>	<b>2.0000e-005</b>	<b>0.0526</b>	<b>5.5800e-003</b>	<b>2.0000e-005</b>	<b>5.5900e-003</b>	<b>0.0000</b>	<b>2.1286</b>	<b>2.1286</b>	<b>3.0000e-005</b>	<b>1.6000e-004</b>	<b>2.1744</b>

**3.6 Install Underground Fiber Cable - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7500e-003	0.0516	0.0248	8.0000e-005		2.1600e-003	2.1600e-003		1.9800e-003	1.9800e-003	0.0000	6.8581	6.8581	2.2200e-003	0.0000	6.9136
<b>Total</b>	<b>4.7500e-003</b>	<b>0.0516</b>	<b>0.0248</b>	<b>8.0000e-005</b>		<b>2.1600e-003</b>	<b>2.1600e-003</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>	<b>0.0000</b>	<b>6.8581</b>	<b>6.8581</b>	<b>2.2200e-003</b>	<b>0.0000</b>	<b>6.9136</b>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Install Underground Fiber Cable - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	2.7600e-003	0.0000	2.7700e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	1.0000e-005	3.2000e-004	1.7000e-004	0.0000	0.0138	0.0000	0.0138	1.3900e-003	0.0000	1.3900e-003	0.0000	0.1586	0.1586	0.0000	2.0000e-005	0.1651
Worker	1.9000e-004	1.4000e-004	1.5800e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4328	0.4328	1.0000e-005	1.0000e-005	0.4367
<b>Total</b>	<b>2.0000e-004</b>	<b>5.6000e-004</b>	<b>1.8000e-003</b>	<b>0.0000</b>	<b>0.0172</b>	<b>0.0000</b>	<b>0.0172</b>	<b>1.8200e-003</b>	<b>0.0000</b>	<b>1.8200e-003</b>	<b>0.0000</b>	<b>0.6287</b>	<b>0.6287</b>	<b>1.0000e-005</b>	<b>4.0000e-005</b>	<b>0.6408</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.6000e-004	4.1600e-003	0.0352	8.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	6.8581	6.8581	2.2200e-003	0.0000	6.9136
<b>Total</b>	<b>9.6000e-004</b>	<b>4.1600e-003</b>	<b>0.0352</b>	<b>8.0000e-005</b>		<b>1.3000e-004</b>	<b>1.3000e-004</b>		<b>1.3000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>6.8581</b>	<b>6.8581</b>	<b>2.2200e-003</b>	<b>0.0000</b>	<b>6.9136</b>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Install Underground Fiber Cable - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	1.9600e-003	0.0000	1.9600e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	1.0000e-005	3.2000e-004	1.7000e-004	0.0000	9.7900e-003	0.0000	9.7900e-003	9.9000e-004	0.0000	9.9000e-004	0.0000	0.1586	0.1586	0.0000	2.0000e-005	0.1651
Worker	1.9000e-004	1.4000e-004	1.5800e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4328	0.4328	1.0000e-005	1.0000e-005	0.4367
<b>Total</b>	<b>2.0000e-004</b>	<b>5.6000e-004</b>	<b>1.8000e-003</b>	<b>0.0000</b>	<b>0.0123</b>	<b>0.0000</b>	<b>0.0123</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>0.6287</b>	<b>0.6287</b>	<b>1.0000e-005</b>	<b>4.0000e-005</b>	<b>0.6408</b>

**3.7 Install Overhead Fiber Cable - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0357	0.3871	0.1861	5.9000e-004		0.0162	0.0162		0.0149	0.0149	0.0000	51.4359	51.4359	0.0166	0.0000	51.8518
<b>Total</b>	<b>0.0357</b>	<b>0.3871</b>	<b>0.1861</b>	<b>5.9000e-004</b>		<b>0.0162</b>	<b>0.0162</b>		<b>0.0149</b>	<b>0.0149</b>	<b>0.0000</b>	<b>51.4359</b>	<b>51.4359</b>	<b>0.0166</b>	<b>0.0000</b>	<b>51.8518</b>



LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Install Overhead Fiber Cable - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	2.7600e-003	0.0000	2.7700e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	1.0000e-004	2.4000e-003	1.2800e-003	1.0000e-005	0.1037	2.0000e-005	0.1037	0.0104	2.0000e-005	0.0104	0.0000	1.1893	1.1893	1.0000e-005	1.6000e-004	1.2380
Worker	1.3900e-003	1.0300e-003	0.0119	3.0000e-005	4.2000e-003	2.0000e-005	4.2200e-003	1.1200e-003	2.0000e-005	1.1300e-003	0.0000	3.2462	3.2462	8.0000e-005	9.0000e-005	3.2752
<b>Total</b>	<b>1.4900e-003</b>	<b>3.5300e-003</b>	<b>0.0132</b>	<b>4.0000e-005</b>	<b>0.1107</b>	<b>4.0000e-005</b>	<b>0.1107</b>	<b>0.0118</b>	<b>4.0000e-005</b>	<b>0.0119</b>	<b>0.0000</b>	<b>4.4728</b>	<b>4.4728</b>	<b>9.0000e-005</b>	<b>2.6000e-004</b>	<b>4.5522</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.1900e-003	0.0312	0.2637	5.9000e-004		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	51.4358	51.4358	0.0166	0.0000	51.8517
<b>Total</b>	<b>7.1900e-003</b>	<b>0.0312</b>	<b>0.2637</b>	<b>5.9000e-004</b>		<b>9.6000e-004</b>	<b>9.6000e-004</b>		<b>9.6000e-004</b>	<b>9.6000e-004</b>	<b>0.0000</b>	<b>51.4358</b>	<b>51.4358</b>	<b>0.0166</b>	<b>0.0000</b>	<b>51.8517</b>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Install Overhead Fiber Cable - 2023**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	1.9600e-003	0.0000	1.9600e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	1.0000e-004	2.4000e-003	1.2800e-003	1.0000e-005	0.0734	2.0000e-005	0.0734	7.3900e-003	2.0000e-005	7.4100e-003	0.0000	1.1893	1.1893	1.0000e-005	1.6000e-004	1.2380
Worker	1.3900e-003	1.0300e-003	0.0119	3.0000e-005	4.2000e-003	2.0000e-005	4.2200e-003	1.1200e-003	2.0000e-005	1.1300e-003	0.0000	3.2462	3.2462	8.0000e-005	9.0000e-005	3.2752
<b>Total</b>	<b>1.4900e-003</b>	<b>3.5300e-003</b>	<b>0.0132</b>	<b>4.0000e-005</b>	<b>0.0796</b>	<b>4.0000e-005</b>	<b>0.0796</b>	<b>8.7100e-003</b>	<b>4.0000e-005</b>	<b>8.7400e-003</b>	<b>0.0000</b>	<b>4.4728</b>	<b>4.4728</b>	<b>9.0000e-005</b>	<b>2.6000e-004</b>	<b>4.5522</b>

**3.8 Fiber Cable Splicing - 2023**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9000e-003	0.0274	0.0240	9.0000e-005		1.1100e-003	1.1100e-003		1.0200e-003	1.0200e-003	0.0000	8.0275	8.0275	2.6000e-003	0.0000	8.0924
<b>Total</b>	<b>3.9000e-003</b>	<b>0.0274</b>	<b>0.0240</b>	<b>9.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.0200e-003</b>	<b>1.0200e-003</b>	<b>0.0000</b>	<b>8.0275</b>	<b>8.0275</b>	<b>2.6000e-003</b>	<b>0.0000</b>	<b>8.0924</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.8 Fiber Cable Splicing - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	5.0000e-005	3.0000e-005	0.0000	1.3800e-003	0.0000	1.3800e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0186	0.0186	0.0000	0.0000	0.0195
Vendor	2.0000e-005	5.8000e-004	3.1000e-004	0.0000	0.0249	1.0000e-005	0.0249	2.5000e-003	0.0000	2.5100e-003	0.0000	0.2854	0.2854	0.0000	4.0000e-005	0.2971
Worker	2.0000e-004	1.5000e-004	1.7100e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4675	0.4675	1.0000e-005	1.0000e-005	0.4716
<b>Total</b>	<b>2.2000e-004</b>	<b>7.8000e-004</b>	<b>2.0500e-003</b>	<b>1.0000e-005</b>	<b>0.0269</b>	<b>1.0000e-005</b>	<b>0.0269</b>	<b>2.8000e-003</b>	<b>0.0000</b>	<b>2.8100e-003</b>	<b>0.0000</b>	<b>0.7715</b>	<b>0.7715</b>	<b>1.0000e-005</b>	<b>5.0000e-005</b>	<b>0.7882</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0700e-003	0.0126	0.0355	9.0000e-005		4.8000e-004	4.8000e-004		4.5000e-004	4.5000e-004	0.0000	8.0275	8.0275	2.6000e-003	0.0000	8.0924
<b>Total</b>	<b>2.0700e-003</b>	<b>0.0126</b>	<b>0.0355</b>	<b>9.0000e-005</b>		<b>4.8000e-004</b>	<b>4.8000e-004</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>8.0275</b>	<b>8.0275</b>	<b>2.6000e-003</b>	<b>0.0000</b>	<b>8.0924</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.8 Fiber Cable Splicing - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	5.0000e-005	3.0000e-005	0.0000	9.8000e-004	0.0000	9.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0186	0.0186	0.0000	0.0000	0.0195
Vendor	2.0000e-005	5.8000e-004	3.1000e-004	0.0000	0.0176	1.0000e-005	0.0176	1.7700e-003	0.0000	1.7800e-003	0.0000	0.2854	0.2854	0.0000	4.0000e-005	0.2971
Worker	2.0000e-004	1.5000e-004	1.7100e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4675	0.4675	1.0000e-005	1.0000e-005	0.4716
<b>Total</b>	<b>2.2000e-004</b>	<b>7.8000e-004</b>	<b>2.0500e-003</b>	<b>1.0000e-005</b>	<b>0.0192</b>	<b>1.0000e-005</b>	<b>0.0192</b>	<b>2.0300e-003</b>	<b>0.0000</b>	<b>2.0400e-003</b>	<b>0.0000</b>	<b>0.7715</b>	<b>0.7715</b>	<b>1.0000e-005</b>	<b>5.0000e-005</b>	<b>0.7882</b>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.526992	0.056742	0.174739	0.140288	0.030240	0.007815	0.006009	0.021774	0.000488	0.000160	0.028107	0.000925	0.005722





LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	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>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	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>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
Unmitigated	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-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	tons/yr										MT/yr					
Architectural Coating	0.0937					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1742					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
<b>Total</b>	<b>0.2679</b>	<b>1.0000e-005</b>	<b>5.7000e-004</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>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1800e-003</b>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0937					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1742					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
<b>Total</b>	<b>0.2679</b>	<b>1.0000e-005</b>	<b>5.7000e-004</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>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1800e-003</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

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

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	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>

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	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>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

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

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	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>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	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>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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<b>LVRAS Segment 2 Unmitigated Daily Emissions for Helicopter - 2 Helicopters, 10 Hours per Day (lbs)</b>							
	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub> Total</b>	<b>PM<sub>2.5</sub> Total</b>	<b>CO<sub>2</sub>e</b>
<b>Daily (lbs)</b>	28.00	255.88	199.88	19.14	31.14	30.86	56620.00
<b>Annual (tons)</b>	1.82	16.63	12.99	1.24	2.02	2.01	3680.30

**Helicopter Exhaust Emission Rates**

**HELICOPTER EMISSIONS**

<b>Helicopter (T58-GE-5)</b>							
<b>Emission Rates (pounds/hour)</b>							
HC	CO	NO <sub>x</sub>	SO <sub>2</sub>	Total PM	PM10	PM2.5	CO <sub>2</sub>
1.400	9.994	12.794	0.957	1.595	1.557	1.543	2831.000

  

<b>Emission Rates (grams/hour)</b>							
HC	CO	NO <sub>x</sub>	SO <sub>2</sub>	Total PM	PM10	PM2.5	CO <sub>2</sub>
635.026	4533.178	5803.230	434.086	723.476	706.113	699.758	1284113.290

Notes:

Two GE T58-S engines.

50% average power use resulting in 14.77 pounds per minute of fuel flow.

Criteria Pollutant Source - Procedures for Emission Inventory Preparation, Volume IV: Mobile Sources, EPA420-R-92-009, December 1992 (Table 5-7).

CO<sub>2</sub> Source - Energy Information Administration, Documentation for Emissions of Greenhouse Gases in the United States 2005, DOE/EIA-0638 (2005), October 2007, Tables 6-1, 6-2, 6-4, and 6-5.