

## **APPENDIX E**

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Quantification of Criteria Air Pollutant and  
Greenhouse Gas Emissions, and Energy Use

## Operational Emissions Summary

Maximum Daily Long-Term Operational Emissions of Criteria Air Pollutants and Ozone Precursors <sup>1</sup>						
Emissions Source	Daily Emissions (lbs/day)				Annual Emissions (Tons/Yr)	
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	240	0.7	0.3	0.3	0.04	0.04
Energy	5	46	3	3	0.64	0.64
Mobile	119	1170	658	185	92.56	26.03
<b>Total Maximum Daily Operational Emissions<sup>2</sup></b>	<b>363</b>	<b>1216</b>	<b>662</b>	<b>189</b>	<b>93</b>	<b>27</b>
<b>Total Annual Operational Emissions (tons/year)</b>	<b>59</b>	<b>174</b>	<b>93</b>	<b>27</b>	<b>93</b>	<b>27</b>
<b>SMAQMD Thresholds of Significance</b>	<b>65</b>	<b>65</b>	<b>80</b>	<b>82</b>	<b>14.6</b>	<b>15</b>
<b>Exceeds Thresholds?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>

Notes: lbs/day = pounds per day; ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = respirable particulate matter; PM<sub>2.5</sub> = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District

<sup>1</sup> Operational emissions were modeled for the year 2022, as the earliest possible year of operations.

<sup>2</sup> Total emissions may not add correctly due to rounding.

Source: AECOM 2020

AQMP Ozone Precursor Emissions Reduction Requirements		
	Annual Emissions (tons per year)	
	ROG	NO <sub>x</sub>
Unmitigated Mobile Emissions	14.87	165.54
15% Reduction	2.23	24.83

Maximum Daily Long-Term Operational Emissions of Criteria Air Pollutants and Ozone Precursors <sup>1</sup>						
Emissions Source	Daily Emissions (lbs/day)				Annual Emissions (Tons/Yr)	
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	240	0.7	0.3	0.3	0.04	0.04
Energy	5	46	3	3	0.64	0.64
Mobile	57.63	547.72	211.28	59.15	37.19	10.45
<b>Total Max Daily Operational Emissions<sup>2</sup></b>	<b>302</b>	<b>594</b>	<b>215</b>	<b>63</b>	<b>38</b>	<b>11</b>
<b>Total Annual Operational Emissions<sup>2</sup> (tons/year)</b>	<b>57</b>	<b>107</b>	<b>38</b>	<b>11</b>	<b>38</b>	<b>11</b>
<b>Total Reduction (tons/year)</b>	<b>2.84</b>	<b>67.26</b>	<b>55.33</b>	<b>15.55</b>	<b>55.33</b>	<b>15.55</b>
<b>Meet 15 Percent Reduction Target?</b>	<b>Yes</b>	<b>Yes</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Notes: lbs/day = pounds per day; ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = respirable particulate matter; PM<sub>2.5</sub> = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District

<sup>1</sup> Operational emissions were modeled for the year 2022, as the earliest possible year of operations.

<sup>2</sup> Total emissions may not add correctly due to rounding.

Source: AECOM 2020

## Construction-Related Emissions Summary

Maximum Construction-Related Emissions of Criteria Air Pollutants and Ozone Precursors						
Portion of Construction Phase	Maximum Daily Emissions (lb/day)				Maximum Annual Emissions (Tons/Yr)	
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum daily emissions / Total Annual Emissions <sup>a</sup>	123.1	302.8	78.8	40.0	7.58	3.68
SMAQMD Threshold of Significance	-	85	80	82	14.6	15
<b>Exceeds Threshold?</b>	-	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: lb/day = pounds per day; ROG = Reactive Organic Gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM<sub>2.5</sub> = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

<sup>a</sup> Maximum daily and annual emissions account for a maximum construction year scenario in which 25% of proposed land uses are constructed in a single year, and all off-site improvements are constructed in the same year.

Source: AECOM 2020

Mitigated <sup>a</sup> Maximum Construction-Related Emissions of Criteria Air Pollutants and Ozone Precursors						
Portion of Construction Phase	Maximum Daily Emissions (lb/day)				Maximum Annual Emissions (Tons/Yr)	
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum daily emissions / Total Annual Emissions <sup>b</sup>	105.0	77.9	42.9	16.8	4.4	1.6
SMAQMD Threshold of Significance	-	85	80	82	14.6	15
<b>Exceeds Threshold?</b>	-	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: lb/day = pounds per day; ROG = Reactive Organic Gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM<sub>2.5</sub> = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

<sup>a</sup> Mitigation includes use of cleaner engines, represented as equipment that meet Tier 4 Final engine emissions standards; watering exposed areas twice daily; reducing vehicle speed on unpaved roadways to a maximum of 15 miles per hour.

<sup>b</sup> Maximum daily and annual emissions account for a maximum construction year scenario in which 25% of proposed land uses are constructed in a single year, and all off-site improvements are constructed in the same year.

Source: AECOM 2020

## GHG Emissions Summary

### Greenhouse Gas Emissions Associated with Development of the Project Site

Project Phase	GHG Emissions (MTCO <sub>2</sub> e / year)
<b>Construction GHG Emissions</b>	
Maximum Annual Construction Emissions	5,499
Total Potential Construction Emissions <sup>1</sup>	18,494
Amortized Construction-Related Emissions <sup>2</sup>	740
<b>Operational GHG Emissions</b>	
Area	12
Energy	17,403
Mobile	64,757
Waste	4,016
Water	1,478
<b>Total Annual Operational Emissions</b>	<b>87,667</b>
<b>Total Emissions, including Amortized Construction Emissions + Operational Emissions<sup>2</sup></b>	<b>88,406</b>
<b>Total Population Associated with Development of Project Site</b>	<b>9,990</b>
<b>Emissions per Capita</b>	<b>38.74</b>
<b>Emissions per Service Population (MTCO<sub>2</sub>e/year/service population)<sup>4</sup></b>	<b>8.85</b>
Notes:	
<sup>1</sup> Total construction emissions are for the potential emissions from constructing all on-site land uses and off-site improvements.	
<sup>2</sup> Total Potential Construction emissions are amortized over 25 years, which the suggested operational lifetime for a new conventional commercial building, per the SMAQMD Guide to Air Quality Assessment in Sacramento County. The operational lifetime estimate is derived from the State of California Executive Order D-16-00 and US Green Building Council's October 2003 report on The Costs and Financial Benefits of Green Buildings (SMAQMD 2016).	
<sup>3</sup> Total project GHG emissions include annual operational emissions and amortized construction emissions. Totals do not add due to rounding.	
Source: Modeled by AECOM in 2020	

On-site Construction	GHG Emissions (MTCO <sub>2</sub> e / year)
<b>Construction GHG Emissions</b>	
Maximum Annual Construction Emissions	4,332
Total Potential Construction Emissions <sup>1</sup>	17,327

<sup>1</sup> Modeled emissions estimated by multiplying single year maximum construction scenario of 25% development by 4; modeled as occurring in 2021 as the earliest possible year of construction.

Off-site Drainage Construction	GHG Emissions (MTCO <sub>2</sub> e / year)
<b>Construction GHG Emissions</b>	
Maximum Annual Construction Emissions	116
Total Potential Construction Emissions <sup>1</sup>	116

<sup>1</sup> Modeled emissions assumed all improvements would occur in a single year; modeled as occurring in 2021 as the earliest possible year of construction.

Off-site Roadway Improvements Construction	GHG Emissions (MTCO <sub>2</sub> e / year)
<b>Construction GHG Emissions</b>	
Maximum Annual Construction Emissions	1,051
Total Potential Construction Emissions <sup>1</sup>	1,051

<sup>1</sup> Modeled emissions assumed all improvements would occur in a single year; modeled as occurring in 2021 as the earliest possible year of construction.

### Efficiency threshold:

	City's Efficiency Targets		Project Threshold
	Target Year		
Per Capita	2030	2050	2040
Per Service Population (Residents + Employment)	4.1	1.4	2.75
	2.79	0.83	1.81

### Greenhouse Gas Emissions Associated with Development of the Project Site - Operational VMT Reductions Incorporated

Project Phase	GHG Emissions (MTCO <sub>2</sub> e / year)
<b>Construction GHG Emissions</b>	
Maximum Annual Construction Emissions	5,499
Total Potential Construction Emissions <sup>1</sup>	18,494
Amortized Construction-Related Emissions <sup>2</sup>	740
<b>Operational GHG Emissions</b>	
Area	12.42
Energy	17,402.61
Mobile	27,615.93
Waste	4,016.49
Water	1,478.32
<b>Total Annual Operational Emissions</b>	<b>50,526</b>
<b>Total Emissions, including Amortized Construction Emissions + Operational Emissions<sup>2</sup></b>	<b>51,266</b>
<b>Total Service Population Associated with Development of Project Site</b>	<b>9,990</b>
<b>Emissions per Capita</b>	<b>22.47</b>
<b>Emissions per Service Population (MTCO<sub>2</sub>e/year/service population)<sup>4</sup></b>	<b>5.13</b>
Notes:	
<sup>1</sup> Total construction emissions are for the potential emissions from constructing all on-site land uses and off-site improvements.	
<sup>2</sup> Total Potential Construction emissions are amortized over 25 years, which the suggested operational lifetime for a new conventional commercial building, per the SMAQMD Guide to Air Quality Assessment in Sacramento County. The operational lifetime estimate is derived from the State of California Executive Order D-16-00 and US Green Building Council's October 2003 report on The Costs and Financial Benefits of Green Buildings (SMAQMD 2016).	
<sup>3</sup> Total project GHG emissions include annual operational emissions and amortized construction emissions. Totals do not add due to rounding.	
Source: Modeled by AECOM in 2020	

**CalEEMod Emissions Estimates Summary**

<b>On-site Land Use Development: Summary of Maximum Construction-Related Emissions of Criteria Air Pollutants and Ozone Precursors</b>						
Portion of Construction Phase	Maximum Daily Emissions (lb/day)				Maximum Annual Emissions (Tons/Yr)	
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum daily emissions / Total Annual Emissions <sup>a</sup>	112.8	191.3	45.8	23.6	5.90	3.05
SMAQMD Threshold of Significance	-	85	80	82	14.6	15
<b>Exceeds Threshold?</b>	-	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: lb/day = pounds per day; ROG = Reactive Organic Gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM<sub>2.5</sub> = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

<sup>a</sup> Maximum daily and annual emissions from on-site construction account for a maximum construction year scenario in which 25% of proposed land uses are constructed in a single year.

Source: AECOM 2020; See Appendix X for detailed modeling assumptions, outputs, and results.

<b>On-site Land Use Development: Summary of Mitigated<sup>a</sup> Maximum Construction-Related Emissions of Criteria Air Pollutants and Ozone Precursors</b>						
Portion of Construction Phase	Maximum Daily Emissions (lb/day)				Maximum Annual Emissions (Tons/Yr)	
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum daily emissions / Total Annual Emissions <sup>b</sup>	100.8	52.5	24.1	9.7	3.08	1.25
SMAQMD Threshold of Significance	-	85	80	82	14.6	15
<b>Exceeds Threshold?</b>	-	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: lb/day = pounds per day; ROG = Reactive Organic Gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM<sub>2.5</sub> = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

<sup>a</sup> Mitigation includes use of cleaner engines, represented as equipment that meet Tier 4 Final engine emissions standards; watering exposed areas twice daily; reducing vehicle speed on unpaved roadways to a maximum of 15 miles per hour.

<sup>b</sup> Maximum daily and annual emissions from on-site construction account for a maximum construction year scenario in which 25% of proposed land uses are constructed in a single year.

Source: AECOM 2020; See Appendix X for detailed modeling assumptions, outputs, and results.

<b>Off-site Drainage Improvements: Summary of Maximum Construction-Related Emissions of Criteria Air Pollutants and Ozone Precursors</b>						
Portion of Construction Phase	Maximum Daily Emissions (lb/day)				Maximum Annual Emissions (Tons/Yr)	
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum daily emissions / Total Annual Emissions <sup>a</sup>	4.3	46.5	20.2	11.8	0.29	0.15
SMAQMD Threshold of Significance	-	85	80	82	14.6	15
<b>Exceeds Threshold?</b>	-	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: lb/day = pounds per day; ROG = Reactive Organic Gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM<sub>2.5</sub> = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

<sup>a</sup> Maximum daily and annual emissions from off-site construction of drainage improvements assume all areas are constructed in the initial year of construction.

Source: AECOM 2020; See Appendix X for detailed modeling assumptions, outputs, and results.

<b>Off-site Drainage Improvements: Summary of Mitigated<sup>a</sup> Maximum Construction-Related Emissions of Criteria Air Pollutants and Ozone Precursors</b>						
Portion of Construction Phase	Maximum Daily Emissions (lb/day)				Maximum Annual Emissions (Tons/Yr)	
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum daily emissions / Total Annual Emissions <sup>b</sup>	0.8	3.4	8.3	4.6	0.11	0.05
SMAQMD Threshold of Significance	-	85	80	82	14.6	15
<b>Exceeds Threshold?</b>	-	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: lb/day = pounds per day; ROG = Reactive Organic Gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM<sub>2.5</sub> = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

<sup>a</sup> Mitigation includes use of cleaner engines, represented as equipment that meet Tier 4 Final engine emissions standards; watering exposed areas twice daily; reducing vehicle speed on unpaved roadways to a maximum of 15 miles per hour.

<sup>b</sup> Maximum daily and annual emissions from off-site construction of drainage improvements assume all areas are constructed in the initial year of construction.

**Off-site Roadway Improvements (modeled in SMAQMD Road Construction Emissions Model ver 9.0)**

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 Total (lbs/day)	PM10 Exhaust (lbs/day)	PM10 Fugitive Dust (lbs/day)	PM2.5 Total (lbs/day)	PM2.5 Exhaust (lbs/day)	PM2.5 Fugitive Dust (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	1.47	12.21	14.16	10.62	0.62	10.00	2.63	0.55	2.08	0.03	2,584.07	0.61	0.05	2,615.58
Grading/Excavation	6.05	49.08	65.02	12.81	2.81	10.00	4.61	2.53	2.08	0.10	10,074.75	2.90	0.13	10,186.21
Drainage/Utilities/Sub-Grade	3.66	32.02	35.56	11.67	1.67	10.00	3.61	1.53	2.08	0.06	6,067.49	1.23	0.09	6,124.36
Paving	2.99	22.77	34.60	1.52	1.52	0.00	1.23	1.23	0.00	0.08	8,268.23	0.83	0.85	8,543.55
Maximum (pounds/day)	6.05	49.08	65.02	12.81	2.81	10.00	4.61	2.53	2.08	0.10	10,074.75	2.90	0.85	10,186.21
Total (tons/construction project)	0.58	4.79	6.14	1.39	0.27	1.12	0.48	0.24	0.23	0.01	1,036.53	0.25	0.03	1,051.27

**Mitigated Off-site Roadway Improvements (modeled in SMAQMD Road Construction Emissions Model ver 9.0)**

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 Total (lbs/day)	PM10 Exhaust (lbs/day)	PM10 Fugitive Dust (lbs/day)	PM2.5 Total (lbs/day)	PM2.5 Exhaust (lbs/day)	PM2.5 Fugitive Dust (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	1.02	15.24	4.01	10.21	0.21	10.00	2.25	0.17	2.08	0.03	2,584.07	0.61	0.05	2,615.58
Grading/Excavation	3.36	60.69	8.62	10.49	0.49	10.00	2.48	0.40	2.08	0.10	10,074.75	2.90	0.13	10,186.21
Drainage/Utilities/Sub-Grade	2.05	36.11	6.20	10.34	0.34	10.00	2.36	0.28	2.08	0.06	6,067.49	1.23	0.09	6,124.36
Paving	2.34	24.45	22.04	0.81	0.81	0.00	0.58	0.58	0.00	0.08	8,268.23	0.83	0.85	8,543.55
Maximum (pounds/day)	3.36	60.69	22.04	10.49	0.81	10.00	2.48	0.58	2.08	0.10	10,074.75	2.90	0.85	10,186.21
Total (tons/construction project)	0.34	5.72	1.25	1.18	0.06	1.12	0.28	0.05	0.23	0.01	1,036.53	0.25	0.03	1,051.27

**Energy Calculations**

**Estimated Annual Operational Energy Demand**

	Energy Consumption	Unit	Annual Energy Consumption (MMBTU/year)
<b>Residential Infrastructure Operational Demand</b>			
Electrical	5,715,340	kWh/year	88,343
Natural Gas	9,591,450	kBTU/year	9,591
<b>Subtotal</b>			<b>97,935</b>
<b>Non-Residential Infrastructure Operational Demand</b>			
Electrical	81,449,150	kWh/year	1,258,979
Natural Gas	161,020,370	kBTU/year	161,020
<b>Subtotal</b>			<b>1,419,999</b>
			1,517,934
<b>Transportation Energy Demand</b>			
Gasoline	7,288,497	Gallons/year	911,117
Diesel Fuel	3,313,290	Gallons/year	457,550
<b>Subtotal</b>			<b>1,368,667</b>
<b>Total</b>			

Notes: kWh = kilowatt-hours, Mbtu = thousand British thermal unit  
Source: AECOM 2020

**Conversion Factors**

Category	Amount	Units	Source
City of Roseville Electricity	15.45723919	MMBTU per MWh (or kBTU/kWh)	Source: https://ww2.energy.ca.gov/almanac/electricity_data/web_qfer/Heat_Rates_cms.php
Diesel (heat content)	5.8	MMBtu/barrel	http://www.theclimateregistry.org/wp-content/uploads/2017/05/2017-Cliamte-Registry-Default-Emission-Factors.pdf
Motor Gasoline	5.25	MMBtu/barrel	http://www.theclimateregistry.org/wp-content/uploads/2017/05/2017-Cliamte-Registry-Default-Emission-Factors.pdf
Natural Gas	0.1	MMBtu/therm	https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references
Propane	0.0913	MMBtu/gallon	https://www.epa.gov/environment/emissions/co2_vol_mass.php
Kerosene	0.135	MMBtu/gallon	https://www.epa.gov/environment/emissions/co2_vol_mass.php
Wood	20	MMBtu/cord	https://www.epa.gov/energyexplained/index.cfm?page=about_btu
Gallons per Barrel	42	gallons/barrel	http://www.theclimateregistry.org/wp-content/uploads/2017/05/2017-Cliamte-Registry-Default-Emission-Factors.pdf

**Energy Demand by Land Use (CalEMod output data)**

Land Use	Electricity Demand (kWh)	Natural Gas Demand (kBTU/year)
Regional Commercial	2,728,550	1,067,870
Heavy Industrial	31,844,400	64,745,800
Light Industrial	46,826,200	95,206,700
Residential	5,715,340	9,591,450
<b>Total</b>	<b>87,164,490</b>	<b>170,613,820</b>

**Transportation Energy Consumption**

	Annual VMT <sup>a</sup>	Fuel Consumption <sup>b</sup> (gallons per year)
<b>Total</b>	237,696,996.00	-
Gasoline	192,060,704.28	7,288,936.57
Diesel	45,214,530.72	3,313,289.58

Fuel	% VMT by Fuel Type	Average Fuel Consumption per VMT
Gasoline	81%	0.037951212
Diesel	19%	0.073279309

Land Use	VMT	% VMT	% Fleet Mix		Weighted Average % VMT	
			Cars & Light-Duty	Heavy Trucks	Gasoline	Diesel
Industrial	205436438	0.864278647	79%	21%	68%	18%
Commercial	15121182	0.06365369	92%	8%	6%	0%
Residential	17139376	0.072105985	92%	8%	7%	1%
<b>Total</b>	237696996	1			81%	19%

**Construction Energy Consumption**

**Maximum Annual Construction Scenario**

Phase	Source	MT CO <sub>2</sub> e/yr <sup>a</sup>	Fuel Type	Emission Factor (MT CO <sub>2</sub> /gallon) <sup>b</sup>	Gallons/year
Demolition	Offroad Equip	445.12	Diesel	0.01016	43,811
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
Site Prep	Offroad Equip	408.18	Diesel	0.008887	1,380
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
Grading	Offroad Equip	714.16	Diesel	0.008887	1,656
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
Building Construction	Offroad Equip	302.94	Diesel	0.008887	1,840
	Hauling	0.00	Diesel	0.01016	-
	Vendor	1136.36	Diesel	0.01016	113,847
Paving	Offroad Equip	786.02	Gas	0.008887	88,513
	Hauling	262.41	Diesel	0.01016	25,828
	Vendor	0.00	Diesel	0.01016	-
Architectural Coating	Offroad Equip	12.27	Gas	0.008887	1,380
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
<b>Total</b>					
			Diesel		350,550
			Gasoline		96,150

**Full Build-Out Scenario**

Phase	Source	MT CO <sub>2</sub> e <sup>a</sup>	Fuel Type	Emission Factor (MT CO <sub>2</sub> /gallon) <sup>b</sup>	Gallons
Rough Grade	Offroad Equip	1780.48	Diesel	0.01016	175,244
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
Base for Paving	Offroad Equip	49.06	Gas	0.008887	5,521
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
Paving - Asphalt	Offroad Equip	1752.72	Diesel	0.01016	172,511
	Hauling	0.00	Diesel	0.01016	-
	Vendor	58.87	Gas	0.008887	6,625
Concrete Foundations / Slab on Grade	Offroad Equip	2856.65	Diesel	0.01016	281,166
	Hauling	0.00	Diesel	0.01016	-
	Vendor	65.42	Gas	0.008887	7,361
Building Erection	Offroad Equip	1211.78	Diesel	0.01016	119,270
	Hauling	0.00	Diesel	0.01016	-
	Vendor	4545.45	Diesel	0.01016	447,387
Architectural Coating	Offroad Equip	3146.67	Gas	0.008887	354,053
	Hauling	0.00	Diesel	0.01016	-
	Vendor	49.06	Gas	0.008887	5,521
Total Demand			Diesel		1,402,201
			Gasoline		384,600
	<b>Average Annual Demands (over 20 Year Construction Duration)</b>		Gasoline		70,110.03
					19,230.00

## EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Sacramento (SV)

Calendar Year: 2022

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
Sacramento (SV)	2022	LDA	Aggregated	Aggregatec	GAS	591545.3	21127372	2764928	673.1424
Sacramento (SV)	2022	LDA	Aggregated	Aggregatec	DSL	5535.81	200935.7	25811.78	3.954837
Sacramento (SV)	2022	LDA	Aggregated	Aggregatec	ELEC	9888.852	400963.4	49293.91	0
Sacramento (SV)	2022	LDT1	Aggregated	Aggregatec	GAS	64366.14	2129387	292380.9	79.27891
Sacramento (SV)	2022	LDT1	Aggregated	Aggregatec	DSL	189.8518	3346.866	698.5121	0.153492
Sacramento (SV)	2022	LDT1	Aggregated	Aggregatec	ELEC	398.5613	15899.45	1969.287	0
Sacramento (SV)	2022	LDT2	Aggregated	Aggregatec	GAS	206880.9	7073751	955128.8	285.8596
Sacramento (SV)	2022	LDT2	Aggregated	Aggregatec	DSL	1121.989	45564.46	5492.506	1.219562
Sacramento (SV)	2022	LDT2	Aggregated	Aggregatec	ELEC	1542.245	50193.83	7790.719	0
Sacramento (SV)	2022	LHD1	Aggregated	Aggregatec	GAS	17006.35	559718.8	253369.3	67.15586
Sacramento (SV)	2022	LHD1	Aggregated	Aggregatec	DSL	14345.1	490384.3	180443.3	27.30798
Sacramento (SV)	2022	LHD2	Aggregated	Aggregatec	GAS	2290.794	76429.17	34129.42	10.47535
Sacramento (SV)	2022	LHD2	Aggregated	Aggregatec	DSL	4751.478	167186.2	59767.62	10.4084
Sacramento (SV)	2022	MDV	Aggregated	Aggregatec	GAS	150419.6	4803696	682664.2	238.5024
Sacramento (SV)	2022	MDV	Aggregated	Aggregatec	DSL	2956.233	114587.2	14276.87	4.080027
Sacramento (SV)	2022	MDV	Aggregated	Aggregatec	ELEC	786.0528	26225.59	3999.546	0
Sacramento (SV)	2022	T6 instate heavy	Aggregated	Aggregatec	DSL	1371.815	184822.9	15830.56	18.14847
Sacramento (SV)	2022	T6 instate small	Aggregated	Aggregatec	DSL	5234.014	258844.3	60399.8	27.03856
Sacramento (SV)	2022	T7 Single	Aggregated	Aggregatec	DSL	1405.908	104492	16223.98	15.73975
Sacramento (SV)	2022	T7 tractor	Aggregated	Aggregatec	DSL	836.8315	113851.6	10627.76	15.34673
Sacramento (SV)	2022	T7IS	Aggregated	Aggregatec	GAS	4.67052	344.4156	93.44776	0.079263
Sacramento (SV)	2022	UBUS	Aggregated	Aggregatec	GAS	191.7159	14474.39	766.8634	3.596927
Sacramento (SV)	2022	UBUS	Aggregated	Aggregatec	DSL	2.11894	136.3698	8.47576	0.015681
Sacramento (SV)	2022	UBUS	Aggregated	Aggregatec	ELEC	0.002191	0.046908	0.008765	0
Sacramento (SV)	2022	UBUS	Aggregated	Aggregatec	NG	408.0964	39047.78	1632.386	10.12012
							38001654		1491.624

Fuel Type	VMT By Fuel Type	Fuel Consumption by Fuel Type	Average Fuel Consumption / VMT
Gas	35785172.42	1358.090678	0.037951212
DSL	1684151.918	123.4134891	0.073279309
Elec	493282.3322	0	0
NG	39047.78451	10.12012245	0.259172769
<b>Total</b>	<b>38001654.46</b>	<b>1491.624289</b>	



Maximum Construction Year - Elk Grove Mulit-Sport Complex and SOIA SEIR - Sacramento County, Annual

**Maximum Construction Year - Elk Grove Mulit-Sport Complex and SOIA SEIR  
Sacramento County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	562.23	1000sqft	35.85	562,225.00	0
General Light Industry	826.73	1000sqft	52.72	826,734.00	0
User Defined Recreational	700.34	User Defined Unit	16.08	700,336.00	0
Single Family Housing	177.00	Dwelling Unit	29.45	318,600.00	571
Regional Shopping Center	65.59	1000sqft	5.19	65,594.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2035
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MW hr)</b>	492	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.00617

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

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

Project Characteristics - CA average CO2 intensity factor.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household. Maximum estimate of 25% of land uses constructed in a single year.

Construction Phase - During maximum development scenario year, all phases of construction could overlap in time throughout the project site.

Off-road Equipment - Construction equipment from CalEEMod defaults.

Trips and VMT - Construction trips from CalEEMod defaults.

Grading -

Vehicle Trips - Construction-only emissions estimates. Operational values zeroed out.

Consumer Products - Construction-only emissions estimates. Operational values zeroed out.

Area Coating - Construction-only emissions estimates. Operational values zeroed out.

Landscape Equipment - Construction-only emissions estimates. Operational values zeroed out.

Energy Use - Construction-only emissions estimates. Operational values zeroed out.

Water And Wastewater - Construction-only emissions estimates. Operational values zeroed out.

Solid Waste - Construction-only emissions estimates. Operational values zeroed out.

Construction Off-road Equipment Mitigation - Representative construction emissions reduction with use of equipment >50hp that meet Tier 4 Final engine emissions standards. Implement BMP of watering twice daily and limit vehicle speed on unpaved roadways to 15 mph, per SMAQMD BMPs.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1077445	0
tblAreaCoating	Area_Nonresidential_Interior	3232334	0
tblAreaCoating	Area_Residential_Exterior	215055	0
tblAreaCoating	Area_Residential_Interior	645165	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	200.00	260.00
tblConstructionPhase	NumDays	120.00	260.00
tblConstructionPhase	NumDays	310.00	260.00
tblConstructionPhase	NumDays	3,100.00	260.00
tblConstructionPhase	NumDays	220.00	260.00
tblConstructionPhase	NumDays	220.00	260.00

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblEnergyUse	LightingElect	4.57	0.00
tblEnergyUse	LightingElect	4.57	0.00
tblEnergyUse	LightingElect	5.33	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	7.20	0.00
tblEnergyUse	NT24E	7.20	0.00
tblEnergyUse	NT24E	2.98	0.00
tblEnergyUse	NT24E	6,155.97	0.00
tblEnergyUse	NT24NG	12.42	0.00
tblEnergyUse	NT24NG	12.42	0.00
tblEnergyUse	NT24NG	0.93	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	T24E	3.41	0.00
tblEnergyUse	T24E	3.41	0.00
tblEnergyUse	T24E	3.26	0.00
tblEnergyUse	T24E	678.97	0.00
tblEnergyUse	T24NG	23.39	0.00
tblEnergyUse	T24NG	23.39	0.00
tblEnergyUse	T24NG	4.49	0.00
tblEnergyUse	T24NG	23,147.69	0.00
tblLandUse	LandUseSquareFeet	562,230.00	562,225.00
tblLandUse	LandUseSquareFeet	826,730.00	826,734.00
tblLandUse	LandUseSquareFeet	0.00	700,336.00
tblLandUse	LandUseSquareFeet	65,590.00	65,594.00
tblLandUse	LotAcreage	12.91	35.85
tblLandUse	LotAcreage	18.98	52.72
tblLandUse	LotAcreage	0.00	16.08

## Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblLandUse	LotAcreage	57.47	29.45
tblLandUse	LotAcreage	1.51	5.19
tblLandUse	Population	473.00	571.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblSolidWaste	SolidWasteGenerationRate	697.17	0.00
tblSolidWaste	SolidWasteGenerationRate	1,025.15	0.00
tblSolidWaste	SolidWasteGenerationRate	68.87	0.00
tblSolidWaste	SolidWasteGenerationRate	205.56	0.00
tblVehicleTrips	ST_TR	1.50	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	1.50	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	1.50	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWater	IndoorWaterUseRate	130,015,687.50	0.00
tblWater	IndoorWaterUseRate	191,181,312.50	0.00
tblWater	IndoorWaterUseRate	4,858,416.68	0.00
tblWater	IndoorWaterUseRate	11,532,262.53	0.00
tblWater	OutdoorWaterUseRate	2,977,739.26	0.00
tblWater	OutdoorWaterUseRate	7,270,339.42	0.00

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**2.0 Emissions Summary**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	14.5842	24.8346	19.2067	0.0478	4.9256	0.9723	5.8980	2.1506	0.9004	3.0509	0.0000	4,313.037 1	4,313.037 1	0.7443	0.0000	4,331.645 1
<b>Maximum</b>	<b>14.5842</b>	<b>24.8346</b>	<b>19.2067</b>	<b>0.0478</b>	<b>4.9256</b>	<b>0.9723</b>	<b>5.8980</b>	<b>2.1506</b>	<b>0.9004</b>	<b>3.0509</b>	<b>0.0000</b>	<b>4,313.037 1</b>	<b>4,313.037 1</b>	<b>0.7443</b>	<b>0.0000</b>	<b>4,331.645 1</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	13.0199	6.7891	20.1575	0.0478	3.0137	0.0710	3.0848	1.1834	0.0698	1.2532	0.0000	4,313.034 5	4,313.034 5	0.7443	0.0000	4,331.642 5
<b>Maximum</b>	<b>13.0199</b>	<b>6.7891</b>	<b>20.1575</b>	<b>0.0478</b>	<b>3.0137</b>	<b>0.0710</b>	<b>3.0848</b>	<b>1.1834</b>	<b>0.0698</b>	<b>1.2532</b>	<b>0.0000</b>	<b>4,313.034 5</b>	<b>4,313.034 5</b>	<b>0.7443</b>	<b>0.0000</b>	<b>4,331.642 5</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	10.73	72.66	-4.95	0.00	38.82	92.69	47.70	44.97	92.25	58.92	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	9.7651	4.9165
2	4-1-2021	6-30-2021	9.8449	4.9424
3	7-1-2021	9-30-2021	9.9530	4.9967
		Highest	9.9530	4.9967

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.7171	0.0212	1.8463	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0351	3.0351	2.9800e-003	0.0000	3.1095
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>9.7171</b>	<b>0.0212</b>	<b>1.8463</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0102</b>	<b>0.0102</b>	<b>0.0000</b>	<b>0.0102</b>	<b>0.0102</b>	<b>0.0000</b>	<b>3.0351</b>	<b>3.0351</b>	<b>2.9800e-003</b>	<b>0.0000</b>	<b>3.1095</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.7171	0.0212	1.8463	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0351	3.0351	2.9800e-003	0.0000	3.1095
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>9.7171</b>	<b>0.0212</b>	<b>1.8463</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0102</b>	<b>0.0102</b>	<b>0.0000</b>	<b>0.0102</b>	<b>0.0102</b>	<b>0.0000</b>	<b>3.0351</b>	<b>3.0351</b>	<b>2.9800e-003</b>	<b>0.0000</b>	<b>3.1095</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
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**



Maximum Construction Year - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	12/30/2021	5	260	
2	Site Preparation	Site Preparation	1/1/2021	12/30/2021	5	260	
3	Grading	Grading	1/1/2021	12/30/2021	5	260	
4	Building Construction	Building Construction	1/1/2021	12/30/2021	5	260	
5	Paving	Paving	1/1/2021	12/30/2021	5	260	
6	Architectural Coating	Architectural Coating	1/1/2021	12/30/2021	5	260	

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

**Acres of Grading (Grading Phase): 650**

**Acres of Paving: 0**

**Residential Indoor: 645,165; Residential Outdoor: 215,055; Non-Residential Indoor: 3,232,334; Non-Residential Outdoor: 1,077,445; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

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
Demolition	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	962.00	372.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	192.00	0.00	0.00	10.00	6.50	20.00	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 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4115	4.0873	2.8035	5.0500e-003		0.2017	0.2017		0.1873	0.1873	0.0000	442.0102	442.0102	0.1244	0.0000	445.1204
<b>Total</b>	<b>0.4115</b>	<b>4.0873</b>	<b>2.8035</b>	<b>5.0500e-003</b>		<b>0.2017</b>	<b>0.2017</b>		<b>0.1873</b>	<b>0.1873</b>	<b>0.0000</b>	<b>442.0102</b>	<b>442.0102</b>	<b>0.1244</b>	<b>0.0000</b>	<b>445.1204</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7500e-003	4.4100e-003	0.0494	1.4000e-004	0.0143	1.0000e-004	0.0144	3.8100e-003	9.0000e-005	3.9000e-003	0.0000	12.2573	12.2573	3.2000e-004	0.0000	12.2653
<b>Total</b>	<b>6.7500e-003</b>	<b>4.4100e-003</b>	<b>0.0494</b>	<b>1.4000e-004</b>	<b>0.0143</b>	<b>1.0000e-004</b>	<b>0.0144</b>	<b>3.8100e-003</b>	<b>9.0000e-005</b>	<b>3.9000e-003</b>	<b>0.0000</b>	<b>12.2573</b>	<b>12.2573</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>12.2653</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	0.0601	0.2604	3.0264	5.0500e-003		8.0100e-003	8.0100e-003		8.0100e-003	8.0100e-003	0.0000	442.0097	442.0097	0.1244	0.0000	445.1199
<b>Total</b>	<b>0.0601</b>	<b>0.2604</b>	<b>3.0264</b>	<b>5.0500e-003</b>		<b>8.0100e-003</b>	<b>8.0100e-003</b>		<b>8.0100e-003</b>	<b>8.0100e-003</b>	<b>0.0000</b>	<b>442.0097</b>	<b>442.0097</b>	<b>0.1244</b>	<b>0.0000</b>	<b>445.1199</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7500e-003	4.4100e-003	0.0494	1.4000e-004	0.0143	1.0000e-004	0.0144	3.8100e-003	9.0000e-005	3.9000e-003	0.0000	12.2573	12.2573	3.2000e-004	0.0000	12.2653
<b>Total</b>	<b>6.7500e-003</b>	<b>4.4100e-003</b>	<b>0.0494</b>	<b>1.4000e-004</b>	<b>0.0143</b>	<b>1.0000e-004</b>	<b>0.0144</b>	<b>3.8100e-003</b>	<b>9.0000e-005</b>	<b>3.9000e-003</b>	<b>0.0000</b>	<b>12.2573</b>	<b>12.2573</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>12.2653</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5055	5.2646	2.7501	4.9400e-003		0.2658	0.2658		0.2445	0.2445	0.0000	434.6643	434.6643	0.1406	0.0000	438.1788
<b>Total</b>	<b>0.5055</b>	<b>5.2646</b>	<b>2.7501</b>	<b>4.9400e-003</b>	<b>2.3486</b>	<b>0.2658</b>	<b>2.6144</b>	<b>1.2910</b>	<b>0.2445</b>	<b>1.5355</b>	<b>0.0000</b>	<b>434.6643</b>	<b>434.6643</b>	<b>0.1406</b>	<b>0.0000</b>	<b>438.1788</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-003	5.3000e-003	0.0592	1.6000e-004	0.0172	1.2000e-004	0.0173	4.5700e-003	1.1000e-004	4.6800e-003	0.0000	14.7088	14.7088	3.9000e-004	0.0000	14.7184
<b>Total</b>	<b>8.1000e-003</b>	<b>5.3000e-003</b>	<b>0.0592</b>	<b>1.6000e-004</b>	<b>0.0172</b>	<b>1.2000e-004</b>	<b>0.0173</b>	<b>4.5700e-003</b>	<b>1.1000e-004</b>	<b>4.6800e-003</b>	<b>0.0000</b>	<b>14.7088</b>	<b>14.7088</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>14.7184</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					1.0569	0.0000	1.0569	0.5809	0.0000	0.5809	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0605	0.2623	2.7130	4.9400e-003		8.0700e-003	8.0700e-003		8.0700e-003	8.0700e-003	0.0000	434.6638	434.6638	0.1406	0.0000	438.1783
<b>Total</b>	<b>0.0605</b>	<b>0.2623</b>	<b>2.7130</b>	<b>4.9400e-003</b>	<b>1.0569</b>	<b>8.0700e-003</b>	<b>1.0650</b>	<b>0.5809</b>	<b>8.0700e-003</b>	<b>0.5890</b>	<b>0.0000</b>	<b>434.6638</b>	<b>434.6638</b>	<b>0.1406</b>	<b>0.0000</b>	<b>438.1783</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-003	5.3000e-003	0.0592	1.6000e-004	0.0172	1.2000e-004	0.0173	4.5700e-003	1.1000e-004	4.6800e-003	0.0000	14.7088	14.7088	3.9000e-004	0.0000	14.7184
<b>Total</b>	<b>8.1000e-003</b>	<b>5.3000e-003</b>	<b>0.0592</b>	<b>1.6000e-004</b>	<b>0.0172</b>	<b>1.2000e-004</b>	<b>0.0173</b>	<b>4.5700e-003</b>	<b>1.1000e-004</b>	<b>4.6800e-003</b>	<b>0.0000</b>	<b>14.7088</b>	<b>14.7088</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>14.7184</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1275	0.0000	1.1275	0.4676	0.0000	0.4676	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5449	6.0320	4.0142	8.0600e-003		0.2581	0.2581		0.2375	0.2375	0.0000	708.4348	708.4348	0.2291	0.0000	714.1628
<b>Total</b>	<b>0.5449</b>	<b>6.0320</b>	<b>4.0142</b>	<b>8.0600e-003</b>	<b>1.1275</b>	<b>0.2581</b>	<b>1.3856</b>	<b>0.4676</b>	<b>0.2375</b>	<b>0.7050</b>	<b>0.0000</b>	<b>708.4348</b>	<b>708.4348</b>	<b>0.2291</b>	<b>0.0000</b>	<b>714.1628</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-003	5.8800e-003	0.0658	1.8000e-004	0.0191	1.3000e-004	0.0192	5.0800e-003	1.2000e-004	5.2000e-003	0.0000	16.3431	16.3431	4.3000e-004	0.0000	16.3538
<b>Total</b>	<b>9.0000e-003</b>	<b>5.8800e-003</b>	<b>0.0658</b>	<b>1.8000e-004</b>	<b>0.0191</b>	<b>1.3000e-004</b>	<b>0.0192</b>	<b>5.0800e-003</b>	<b>1.2000e-004</b>	<b>5.2000e-003</b>	<b>0.0000</b>	<b>16.3431</b>	<b>16.3431</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>16.3538</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					0.5074	0.0000	0.5074	0.2104	0.0000	0.2104	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0990	0.4290	4.2899	8.0600e-003		0.0132	0.0132		0.0132	0.0132	0.0000	708.4339	708.4339	0.2291	0.0000	714.1620
<b>Total</b>	<b>0.0990</b>	<b>0.4290</b>	<b>4.2899</b>	<b>8.0600e-003</b>	<b>0.5074</b>	<b>0.0132</b>	<b>0.5206</b>	<b>0.2104</b>	<b>0.0132</b>	<b>0.2236</b>	<b>0.0000</b>	<b>708.4339</b>	<b>708.4339</b>	<b>0.2291</b>	<b>0.0000</b>	<b>714.1620</b>



Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-003	5.8800e-003	0.0658	1.8000e-004	0.0191	1.3000e-004	0.0192	5.0800e-003	1.2000e-004	5.2000e-003	0.0000	16.3431	16.3431	4.3000e-004	0.0000	16.3538
<b>Total</b>	<b>9.0000e-003</b>	<b>5.8800e-003</b>	<b>0.0658</b>	<b>1.8000e-004</b>	<b>0.0191</b>	<b>1.3000e-004</b>	<b>0.0192</b>	<b>5.0800e-003</b>	<b>1.2000e-004</b>	<b>5.2000e-003</b>	<b>0.0000</b>	<b>16.3431</b>	<b>16.3431</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>16.3538</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2471	2.2662	2.1548	3.5000e-003		0.1246	0.1246		0.1172	0.1172	0.0000	301.1285	301.1285	0.0727	0.0000	302.9447
<b>Total</b>	<b>0.2471</b>	<b>2.2662</b>	<b>2.1548</b>	<b>3.5000e-003</b>		<b>0.1246</b>	<b>0.1246</b>		<b>0.1172</b>	<b>0.1172</b>	<b>0.0000</b>	<b>301.1285</b>	<b>301.1285</b>	<b>0.0727</b>	<b>0.0000</b>	<b>302.9447</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1521	4.9471	1.3222	0.0118	0.2827	0.0137	0.2964	0.0817	0.0131	0.0948	0.0000	1,134.741 2	1,134.741 2	0.0649	0.0000	1,136.363 3
Worker	0.4331	0.2830	3.1653	8.7000e-003	0.9185	6.4200e-003	0.9249	0.2443	5.9200e-003	0.2502	0.0000	786.1009	786.1009	0.0206	0.0000	786.6168
<b>Total</b>	<b>0.5851</b>	<b>5.2301</b>	<b>4.4875</b>	<b>0.0205</b>	<b>1.2012</b>	<b>0.0201</b>	<b>1.2213</b>	<b>0.3260</b>	<b>0.0190</b>	<b>0.3450</b>	<b>0.0000</b>	<b>1,920.842 1</b>	<b>1,920.842 1</b>	<b>0.0855</b>	<b>0.0000</b>	<b>1,922.980 0</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	0.0763	0.3562	2.2987	3.5000e-003		0.0146	0.0146		0.0146	0.0146	0.0000	301.1281	301.1281	0.0727	0.0000	302.9443
<b>Total</b>	<b>0.0763</b>	<b>0.3562</b>	<b>2.2987</b>	<b>3.5000e-003</b>		<b>0.0146</b>	<b>0.0146</b>		<b>0.0146</b>	<b>0.0146</b>	<b>0.0000</b>	<b>301.1281</b>	<b>301.1281</b>	<b>0.0727</b>	<b>0.0000</b>	<b>302.9443</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1521	4.9471	1.3222	0.0118	0.2827	0.0137	0.2964	0.0817	0.0131	0.0948	0.0000	1,134.741 2	1,134.741 2	0.0649	0.0000	1,136.363 3
Worker	0.4331	0.2830	3.1653	8.7000e-003	0.9185	6.4200e-003	0.9249	0.2443	5.9200e-003	0.2502	0.0000	786.1009	786.1009	0.0206	0.0000	786.6168
<b>Total</b>	<b>0.5851</b>	<b>5.2301</b>	<b>4.4875</b>	<b>0.0205</b>	<b>1.2012</b>	<b>0.0201</b>	<b>1.2213</b>	<b>0.3260</b>	<b>0.0190</b>	<b>0.3450</b>	<b>0.0000</b>	<b>1,920.842 1</b>	<b>1,920.842 1</b>	<b>0.0855</b>	<b>0.0000</b>	<b>1,922.980 0</b>

**3.6 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1632	1.6795	1.9049	2.9600e-003		0.0881	0.0881		0.0811	0.0811	0.0000	260.3052	260.3052	0.0842	0.0000	262.4099
Paving	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>0.1632</b>	<b>1.6795</b>	<b>1.9049</b>	<b>2.9600e-003</b>		<b>0.0881</b>	<b>0.0881</b>		<b>0.0811</b>	<b>0.0811</b>	<b>0.0000</b>	<b>260.3052</b>	<b>260.3052</b>	<b>0.0842</b>	<b>0.0000</b>	<b>262.4099</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.6 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7500e-003	4.4100e-003	0.0494	1.4000e-004	0.0143	1.0000e-004	0.0144	3.8100e-003	9.0000e-005	3.9000e-003	0.0000	12.2573	12.2573	3.2000e-004	0.0000	12.2653
<b>Total</b>	<b>6.7500e-003</b>	<b>4.4100e-003</b>	<b>0.0494</b>	<b>1.4000e-004</b>	<b>0.0143</b>	<b>1.0000e-004</b>	<b>0.0144</b>	<b>3.8100e-003</b>	<b>9.0000e-005</b>	<b>3.9000e-003</b>	<b>0.0000</b>	<b>12.2573</b>	<b>12.2573</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>12.2653</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	0.0365	0.1580	2.2484	2.9600e-003		4.8600e-003	4.8600e-003		4.8600e-003	4.8600e-003	0.0000	260.3049	260.3049	0.0842	0.0000	262.4096
Paving	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>0.0365</b>	<b>0.1580</b>	<b>2.2484</b>	<b>2.9600e-003</b>		<b>4.8600e-003</b>	<b>4.8600e-003</b>		<b>4.8600e-003</b>	<b>4.8600e-003</b>	<b>0.0000</b>	<b>260.3049</b>	<b>260.3049</b>	<b>0.0842</b>	<b>0.0000</b>	<b>262.4096</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.6 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7500e-003	4.4100e-003	0.0494	1.4000e-004	0.0143	1.0000e-004	0.0144	3.8100e-003	9.0000e-005	3.9000e-003	0.0000	12.2573	12.2573	3.2000e-004	0.0000	12.2653
<b>Total</b>	<b>6.7500e-003</b>	<b>4.4100e-003</b>	<b>0.0494</b>	<b>1.4000e-004</b>	<b>0.0143</b>	<b>1.0000e-004</b>	<b>0.0144</b>	<b>3.8100e-003</b>	<b>9.0000e-005</b>	<b>3.9000e-003</b>	<b>0.0000</b>	<b>12.2573</b>	<b>12.2573</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>12.2653</b>

**3.7 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	11.9815					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0285	0.1985	0.2363	3.9000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	33.1923	33.1923	2.2800e-003	0.0000	33.2492
<b>Total</b>	<b>12.0099</b>	<b>0.1985</b>	<b>0.2363</b>	<b>3.9000e-004</b>		<b>0.0122</b>	<b>0.0122</b>		<b>0.0122</b>	<b>0.0122</b>	<b>0.0000</b>	<b>33.1923</b>	<b>33.1923</b>	<b>2.2800e-003</b>	<b>0.0000</b>	<b>33.2492</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.7 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0864	0.0565	0.6317	1.7400e-003	0.1833	1.2800e-003	0.1846	0.0488	1.1800e-003	0.0499	0.0000	156.8933	156.8933	4.1200e-003	0.0000	156.9963
<b>Total</b>	<b>0.0864</b>	<b>0.0565</b>	<b>0.6317</b>	<b>1.7400e-003</b>	<b>0.1833</b>	<b>1.2800e-003</b>	<b>0.1846</b>	<b>0.0488</b>	<b>1.1800e-003</b>	<b>0.0499</b>	<b>0.0000</b>	<b>156.8933</b>	<b>156.8933</b>	<b>4.1200e-003</b>	<b>0.0000</b>	<b>156.9963</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					
Archit. Coating	11.9815					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8600e-003	0.0167	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	2.2800e-003	0.0000	33.2492
<b>Total</b>	<b>11.9853</b>	<b>0.0167</b>	<b>0.2382</b>	<b>3.9000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>33.1923</b>	<b>33.1923</b>	<b>2.2800e-003</b>	<b>0.0000</b>	<b>33.2492</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.7 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0864	0.0565	0.6317	1.7400e-003	0.1833	1.2800e-003	0.1846	0.0488	1.1800e-003	0.0499	0.0000	156.8933	156.8933	4.1200e-003	0.0000	156.9963
<b>Total</b>	<b>0.0864</b>	<b>0.0565</b>	<b>0.6317</b>	<b>1.7400e-003</b>	<b>0.1833</b>	<b>1.2800e-003</b>	<b>0.1846</b>	<b>0.0488</b>	<b>1.1800e-003</b>	<b>0.0499</b>	<b>0.0000</b>	<b>156.8933</b>	<b>156.8933</b>	<b>4.1200e-003</b>	<b>0.0000</b>	<b>156.9963</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	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
General Heavy Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
User Defined Recreational	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
General Heavy Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3
Regional Shopping Center	10.00	5.00	6.50	16.30	64.70	19.00	54	35	11
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0









## Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	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>

## Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	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**

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.7171	0.0212	1.8463	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0351	3.0351	2.9800e-003	0.0000	3.1095
Unmitigated	9.7171	0.0212	1.8463	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0351	3.0351	2.9800e-003	0.0000	3.1095

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.6602					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0569	0.0212	1.8463	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0351	3.0351	2.9800e-003	0.0000	3.1095
<b>Total</b>	<b>9.7171</b>	<b>0.0212</b>	<b>1.8463</b>	<b>1.0000e-004</b>		<b>0.0102</b>	<b>0.0102</b>		<b>0.0102</b>	<b>0.0102</b>	<b>0.0000</b>	<b>3.0351</b>	<b>3.0351</b>	<b>2.9800e-003</b>	<b>0.0000</b>	<b>3.1095</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.6602					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0569	0.0212	1.8463	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0351	3.0351	2.9800e-003	0.0000	3.1095
<b>Total</b>	<b>9.7171</b>	<b>0.0212</b>	<b>1.8463</b>	<b>1.0000e-004</b>		<b>0.0102</b>	<b>0.0102</b>		<b>0.0102</b>	<b>0.0102</b>	<b>0.0000</b>	<b>3.0351</b>	<b>3.0351</b>	<b>2.9800e-003</b>	<b>0.0000</b>	<b>3.1095</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	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>



Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	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**

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	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>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	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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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Annual

**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Maximum Construction Year - Elk Grove Mulit-Sport Complex and SOIA SEIR - Sacramento County, Summer

**Maximum Construction Year - Elk Grove Mulit-Sport Complex and SOIA SEIR  
Sacramento County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	562.23	1000sqft	35.85	562,225.00	0
General Light Industry	826.73	1000sqft	52.72	826,734.00	0
User Defined Recreational	700.34	User Defined Unit	16.08	700,336.00	0
Single Family Housing	177.00	Dwelling Unit	29.45	318,600.00	571
Regional Shopping Center	65.59	1000sqft	5.19	65,594.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2035
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MW hr)</b>	492	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.00617

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

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

Project Characteristics - CA average CO2 intensity factor.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household. Maximum estimate of 25% of land uses constructed in a single year.

Construction Phase - During maximum development scenario year, all phases of construction could overlap in time throughout the project site.

Off-road Equipment - Construction equipment from CalEEMod defaults.

Trips and VMT - Construction trips from CalEEMod defaults.

Grading -

Vehicle Trips - Construction-only emissions estimates. Operational values zeroed out.

Consumer Products - Construction-only emissions estimates. Operational values zeroed out.

Area Coating - Construction-only emissions estimates. Operational values zeroed out.

Landscape Equipment - Construction-only emissions estimates. Operational values zeroed out.

Energy Use - Construction-only emissions estimates. Operational values zeroed out.

Water And Wastewater - Construction-only emissions estimates. Operational values zeroed out.

Solid Waste - Construction-only emissions estimates. Operational values zeroed out.

Construction Off-road Equipment Mitigation - Representative construction emissions reduction with use of equipment >50hp that meet Tier 4 Final engine emissions standards. Implement BMP of watering twice daily and limit vehicle speed on unpaved roadways to 15 mph, per SMAQMD BMPs.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1077445	0
tblAreaCoating	Area_Nonresidential_Interior	3232334	0
tblAreaCoating	Area_Residential_Exterior	215055	0
tblAreaCoating	Area_Residential_Interior	645165	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	200.00	260.00
tblConstructionPhase	NumDays	120.00	260.00
tblConstructionPhase	NumDays	310.00	260.00
tblConstructionPhase	NumDays	3,100.00	260.00
tblConstructionPhase	NumDays	220.00	260.00
tblConstructionPhase	NumDays	220.00	260.00

Maximum Construction Year - Elk Grove Mulit-Sport Complex and SOIA SEIR - Sacramento County, Summer

tblEnergyUse	LightingElect	4.57	0.00
tblEnergyUse	LightingElect	4.57	0.00
tblEnergyUse	LightingElect	5.33	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	7.20	0.00
tblEnergyUse	NT24E	7.20	0.00
tblEnergyUse	NT24E	2.98	0.00
tblEnergyUse	NT24E	6,155.97	0.00
tblEnergyUse	NT24NG	12.42	0.00
tblEnergyUse	NT24NG	12.42	0.00
tblEnergyUse	NT24NG	0.93	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	T24E	3.41	0.00
tblEnergyUse	T24E	3.41	0.00
tblEnergyUse	T24E	3.26	0.00
tblEnergyUse	T24E	678.97	0.00
tblEnergyUse	T24NG	23.39	0.00
tblEnergyUse	T24NG	23.39	0.00
tblEnergyUse	T24NG	4.49	0.00
tblEnergyUse	T24NG	23,147.69	0.00
tblLandUse	LandUseSquareFeet	562,230.00	562,225.00
tblLandUse	LandUseSquareFeet	826,730.00	826,734.00
tblLandUse	LandUseSquareFeet	0.00	700,336.00
tblLandUse	LandUseSquareFeet	65,590.00	65,594.00
tblLandUse	LotAcreage	12.91	35.85
tblLandUse	LotAcreage	18.98	52.72
tblLandUse	LotAcreage	0.00	16.08



## Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

tblLandUse	LotAcreage	57.47	29.45
tblLandUse	LotAcreage	1.51	5.19
tblLandUse	Population	473.00	571.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblSolidWaste	SolidWasteGenerationRate	697.17	0.00
tblSolidWaste	SolidWasteGenerationRate	1,025.15	0.00
tblSolidWaste	SolidWasteGenerationRate	68.87	0.00
tblSolidWaste	SolidWasteGenerationRate	205.56	0.00
tblVehicleTrips	ST_TR	1.50	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	1.50	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	1.50	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWater	IndoorWaterUseRate	130,015,687.50	0.00
tblWater	IndoorWaterUseRate	191,181,312.50	0.00
tblWater	IndoorWaterUseRate	4,858,416.68	0.00
tblWater	IndoorWaterUseRate	11,532,262.53	0.00
tblWater	OutdoorWaterUseRate	2,977,739.26	0.00
tblWater	OutdoorWaterUseRate	7,270,339.42	0.00

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	112.8323	190.0866	152.7412	0.3774	38.2738	7.4768	45.7506	16.6371	6.9232	23.5603	0.0000	37,576.0200	37,576.0200	6.3198	0.0000	37,734.0138
<b>Maximum</b>	<b>112.8323</b>	<b>190.0866</b>	<b>152.7412</b>	<b>0.3774</b>	<b>38.2738</b>	<b>7.4768</b>	<b>45.7506</b>	<b>16.6371</b>	<b>6.9232</b>	<b>23.5603</b>	<b>0.0000</b>	<b>37,576.0200</b>	<b>37,576.0200</b>	<b>6.3198</b>	<b>0.0000</b>	<b>37,734.0138</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	100.7987	51.2754	160.0558	0.3774	23.5670	0.5438	24.1108	9.1972	0.5344	9.7316	0.0000	37,576.0200	37,576.0200	6.3198	0.0000	37,734.0137
<b>Maximum</b>	<b>100.7987</b>	<b>51.2754</b>	<b>160.0558</b>	<b>0.3774</b>	<b>23.5670</b>	<b>0.5438</b>	<b>24.1108</b>	<b>9.1972</b>	<b>0.5344</b>	<b>9.7316</b>	<b>0.0000</b>	<b>37,576.0200</b>	<b>37,576.0200</b>	<b>6.3198</b>	<b>0.0000</b>	<b>37,734.0137</b>

## Maximum Construction Year - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	10.67	73.03	-4.79	0.00	38.43	92.73	47.30	44.72	92.28	58.70	0.00	0.00	0.00	0.00	0.00	0.00

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento 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	53.3878	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.7654	26.7654	0.0263	0.0000	27.4215
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>53.3878</b>	<b>0.1699</b>	<b>14.7702</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.7654</b>	<b>26.7654</b>	<b>0.0263</b>	<b>0.0000</b>	<b>27.4215</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	53.3878	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.7654	26.7654	0.0263	0.0000	27.4215
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>53.3878</b>	<b>0.1699</b>	<b>14.7702</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.7654</b>	<b>26.7654</b>	<b>0.0263</b>	<b>0.0000</b>	<b>27.4215</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento 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	Demolition	Demolition	1/1/2021	12/30/2021	5	260	
2	Site Preparation	Site Preparation	1/1/2021	12/30/2021	5	260	
3	Grading	Grading	1/1/2021	12/30/2021	5	260	
4	Building Construction	Building Construction	1/1/2021	12/30/2021	5	260	
5	Paving	Paving	1/1/2021	12/30/2021	5	260	
6	Architectural Coating	Architectural Coating	1/1/2021	12/30/2021	5	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 650

Acres of Paving: 0

Residential Indoor: 645,165; Residential Outdoor: 215,055; Non-Residential Indoor: 3,232,334; Non-Residential Outdoor: 1,077,445; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Maximum Construction Year - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Maximum Construction Year - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	962.00	372.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	192.00	0.00	0.00	10.00	6.50	20.00	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 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>		<b>1.5513</b>	<b>1.5513</b>		<b>1.4411</b>	<b>1.4411</b>		<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0308	0.4487	1.1500e-003	0.1141	7.7000e-004	0.1149	0.0303	7.1000e-004	0.0310		114.9719	114.9719	3.0600e-003		115.0483
<b>Total</b>	<b>0.0601</b>	<b>0.0308</b>	<b>0.4487</b>	<b>1.1500e-003</b>	<b>0.1141</b>	<b>7.7000e-004</b>	<b>0.1149</b>	<b>0.0303</b>	<b>7.1000e-004</b>	<b>0.0310</b>		<b>114.9719</b>	<b>114.9719</b>	<b>3.0600e-003</b>		<b>115.0483</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	lb/day										lb/day					
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>0.4623</b>	<b>2.0032</b>	<b>23.2798</b>	<b>0.0388</b>		<b>0.0616</b>	<b>0.0616</b>		<b>0.0616</b>	<b>0.0616</b>	<b>0.0000</b>	<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>



Maximum Construction Year - Elk Grove Multisport Complex and SOIA SEIR - Sacramento County, Summer

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0308	0.4487	1.1500e-003	0.1141	7.7000e-004	0.1149	0.0303	7.1000e-004	0.0310		114.9719	114.9719	3.0600e-003		115.0483
<b>Total</b>	<b>0.0601</b>	<b>0.0308</b>	<b>0.4487</b>	<b>1.1500e-003</b>	<b>0.1141</b>	<b>7.7000e-004</b>	<b>0.1149</b>	<b>0.0303</b>	<b>7.1000e-004</b>	<b>0.0310</b>		<b>114.9719</b>	<b>114.9719</b>	<b>3.0600e-003</b>		<b>115.0483</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Maximum Construction Year - Elk Grove Multisport Complex and SOIA SEIR - Sacramento County, Summer

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0369	0.5385	1.3900e-003	0.1369	9.2000e-004	0.1379	0.0363	8.5000e-004	0.0372		137.9662	137.9662	3.6700e-003		138.0580
<b>Total</b>	<b>0.0721</b>	<b>0.0369</b>	<b>0.5385</b>	<b>1.3900e-003</b>	<b>0.1369</b>	<b>9.2000e-004</b>	<b>0.1379</b>	<b>0.0363</b>	<b>8.5000e-004</b>	<b>0.0372</b>		<b>137.9662</b>	<b>137.9662</b>	<b>3.6700e-003</b>		<b>138.0580</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	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>0.4656</b>	<b>2.0175</b>	<b>20.8690</b>	<b>0.0380</b>	<b>8.1298</b>	<b>0.0621</b>	<b>8.1919</b>	<b>4.4688</b>	<b>0.0621</b>	<b>4.5309</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0369	0.5385	1.3900e-003	0.1369	9.2000e-004	0.1379	0.0363	8.5000e-004	0.0372		137.9662	137.9662	3.6700e-003		138.0580
<b>Total</b>	<b>0.0721</b>	<b>0.0369</b>	<b>0.5385</b>	<b>1.3900e-003</b>	<b>0.1369</b>	<b>9.2000e-004</b>	<b>0.1379</b>	<b>0.0363</b>	<b>8.5000e-004</b>	<b>0.0372</b>		<b>137.9662</b>	<b>137.9662</b>	<b>3.6700e-003</b>		<b>138.0580</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0410	0.5983	1.5400e-003	0.1521	1.0300e-003	0.1532	0.0404	9.5000e-004	0.0413		153.2958	153.2958	4.0800e-003		153.3978
<b>Total</b>	<b>0.0802</b>	<b>0.0410</b>	<b>0.5983</b>	<b>1.5400e-003</b>	<b>0.1521</b>	<b>1.0300e-003</b>	<b>0.1532</b>	<b>0.0404</b>	<b>9.5000e-004</b>	<b>0.0413</b>		<b>153.2958</b>	<b>153.2958</b>	<b>4.0800e-003</b>		<b>153.3978</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	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>3.9030</b>	<b>0.1015</b>	<b>4.0045</b>	<b>1.6184</b>	<b>0.1015</b>	<b>1.7200</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0410	0.5983	1.5400e-003	0.1521	1.0300e-003	0.1532	0.0404	9.5000e-004	0.0413		153.2958	153.2958	4.0800e-003		153.3978
<b>Total</b>	<b>0.0802</b>	<b>0.0410</b>	<b>0.5983</b>	<b>1.5400e-003</b>	<b>0.1521</b>	<b>1.0300e-003</b>	<b>0.1532</b>	<b>0.0404</b>	<b>9.5000e-004</b>	<b>0.0413</b>		<b>153.2958</b>	<b>153.2958</b>	<b>4.0800e-003</b>		<b>153.3978</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	1.1496	37.3638	9.5409	0.0918	2.2384	0.1025	2.3409	0.6441	0.0980	0.7421		9,726.978 1	9,726.978 1	0.5316		9,740.268 5
Worker	3.8556	1.9737	28.7786	0.0741	7.3179	0.0494	7.3673	1.9412	0.0455	1.9867		7,373.528 3	7,373.528 3	0.1962		7,378.433 5
<b>Total</b>	<b>5.0052</b>	<b>39.3375</b>	<b>38.3195</b>	<b>0.1659</b>	<b>9.5564</b>	<b>0.1519</b>	<b>9.7082</b>	<b>2.5853</b>	<b>0.1435</b>	<b>2.7288</b>		<b>17,100.50 64</b>	<b>17,100.50 64</b>	<b>0.7278</b>		<b>17,118.70 20</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	lb/day										lb/day					
Off-Road	0.5867	2.7396	17.6822	0.0269		0.1120	0.1120		0.1120	0.1120	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
<b>Total</b>	<b>0.5867</b>	<b>2.7396</b>	<b>17.6822</b>	<b>0.0269</b>		<b>0.1120</b>	<b>0.1120</b>		<b>0.1120</b>	<b>0.1120</b>	<b>0.0000</b>	<b>2,553.363 9</b>	<b>2,553.363 9</b>	<b>0.6160</b>		<b>2,568.764 3</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	1.1496	37.3638	9.5409	0.0918	2.2384	0.1025	2.3409	0.6441	0.0980	0.7421		9,726.978 1	9,726.978 1	0.5316		9,740.268 5
Worker	3.8556	1.9737	28.7786	0.0741	7.3179	0.0494	7.3673	1.9412	0.0455	1.9867		7,373.528 3	7,373.528 3	0.1962		7,378.433 5
<b>Total</b>	<b>5.0052</b>	<b>39.3375</b>	<b>38.3195</b>	<b>0.1659</b>	<b>9.5564</b>	<b>0.1519</b>	<b>9.7082</b>	<b>2.5853</b>	<b>0.1435</b>	<b>2.7288</b>		<b>17,100.50 64</b>	<b>17,100.50 64</b>	<b>0.7278</b>		<b>17,118.70 20</b>

**3.6 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.210 9	2,207.210 9	0.7139		2,225.057 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.210 9</b>	<b>2,207.210 9</b>	<b>0.7139</b>		<b>2,225.057 3</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.6 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0308	0.4487	1.1500e-003	0.1141	7.7000e-004	0.1149	0.0303	7.1000e-004	0.0310		114.9719	114.9719	3.0600e-003		115.0483
<b>Total</b>	<b>0.0601</b>	<b>0.0308</b>	<b>0.4487</b>	<b>1.1500e-003</b>	<b>0.1141</b>	<b>7.7000e-004</b>	<b>0.1149</b>	<b>0.0303</b>	<b>7.1000e-004</b>	<b>0.0310</b>		<b>114.9719</b>	<b>114.9719</b>	<b>3.0600e-003</b>		<b>115.0483</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	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2805</b>	<b>1.2154</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0374</b>	<b>0.0374</b>		<b>0.0374</b>	<b>0.0374</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>



Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.6 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0308	0.4487	1.1500e-003	0.1141	7.7000e-004	0.1149	0.0303	7.1000e-004	0.0310		114.9719	114.9719	3.0600e-003		115.0483
<b>Total</b>	<b>0.0601</b>	<b>0.0308</b>	<b>0.4487</b>	<b>1.1500e-003</b>	<b>0.1141</b>	<b>7.7000e-004</b>	<b>0.1149</b>	<b>0.0303</b>	<b>7.1000e-004</b>	<b>0.0310</b>		<b>114.9719</b>	<b>114.9719</b>	<b>3.0600e-003</b>		<b>115.0483</b>

**3.7 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	92.1652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>92.3841</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.7 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7695	0.3939	5.7438	0.0148	1.4605	9.8600e-003	1.4704	0.3874	9.0800e-003	0.3965		1,471.6398	1,471.6398	0.0392		1,472.6187
<b>Total</b>	<b>0.7695</b>	<b>0.3939</b>	<b>5.7438</b>	<b>0.0148</b>	<b>1.4605</b>	<b>9.8600e-003</b>	<b>1.4704</b>	<b>0.3874</b>	<b>9.0800e-003</b>	<b>0.3965</b>		<b>1,471.6398</b>	<b>1,471.6398</b>	<b>0.0392</b>		<b>1,472.6187</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	lb/day										lb/day					
Archit. Coating	92.1652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>92.1949</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

Maximum Construction Year - Elk Grove Multisport Complex and SOIA SEIR - Sacramento County, Summer

**3.7 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7695	0.3939	5.7438	0.0148	1.4605	9.8600e-003	1.4704	0.3874	9.0800e-003	0.3965		1,471.6398	1,471.6398	0.0392		1,472.6187
<b>Total</b>	<b>0.7695</b>	<b>0.3939</b>	<b>5.7438</b>	<b>0.0148</b>	<b>1.4605</b>	<b>9.8600e-003</b>	<b>1.4704</b>	<b>0.3874</b>	<b>9.0800e-003</b>	<b>0.3965</b>		<b>1,471.6398</b>	<b>1,471.6398</b>	<b>0.0392</b>		<b>1,472.6187</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
User Defined Recreational	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
General Heavy Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3
Regional Shopping Center	10.00	5.00	6.50	16.30	64.70	19.00	54	35	11
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
General Light Industry	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Regional Shopping Center	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Single Family Housing	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
User Defined Recreational	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento 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					
General Heavy Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<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>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento 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					
General Heavy Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<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>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento 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	53.3878	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.7654	26.7654	0.0263	0.0000	27.4215
Unmitigated	53.3878	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.7654	26.7654	0.0263	0.0000	27.4215

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	52.9327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4551	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818		26.7654	26.7654	0.0263		27.4215
<b>Total</b>	<b>53.3878</b>	<b>0.1699</b>	<b>14.7702</b>	<b>7.9000e-004</b>		<b>0.0818</b>	<b>0.0818</b>		<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.7654</b>	<b>26.7654</b>	<b>0.0263</b>	<b>0.0000</b>	<b>27.4215</b>



Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	52.9327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4551	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818		26.7654	26.7654	0.0263		27.4215
<b>Total</b>	<b>53.3878</b>	<b>0.1699</b>	<b>14.7702</b>	<b>7.9000e-004</b>		<b>0.0818</b>	<b>0.0818</b>		<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.7654</b>	<b>26.7654</b>	<b>0.0263</b>	<b>0.0000</b>	<b>27.4215</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**

Maximum Construction Year - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**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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Maximum Construction Year - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**Maximum Construction Year - Elk Grove Multi-Sport Complex and SOIA SEIR  
Sacramento County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	562.23	1000sqft	35.85	562,225.00	0
General Light Industry	826.73	1000sqft	52.72	826,734.00	0
User Defined Recreational	700.34	User Defined Unit	16.08	700,336.00	0
Single Family Housing	177.00	Dwelling Unit	29.45	318,600.00	571
Regional Shopping Center	65.59	1000sqft	5.19	65,594.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2035
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MWhr)</b>	492	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.00617

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

Maximum Construction Year - Elk Grove Mulit-Sport Complex and SOIA SEIR - Sacramento County, Winter

Project Characteristics - CA average CO2 intensity factor.

Land Use - Proposed land use types and acreages per project description. Population based on estiamted 3.23 persons per household. Maximum estimate of 25% of land uses constructed in a single year.

Construction Phase - During maximum development scenario year, all phases of construction could overlap in time throughout the project site.

Off-road Equipment - Construction equipment from CalEEMod defaults.

Trips and VMT - Construction trips from CalEEMod defaults.

Grading -

Vehicle Trips - Construction-only emissions estimates. Operational values zeroed out.

Consumer Products - Construction-only emissions estimates. Operational values zeroed out.

Area Coating - Construction-only emissions estimates. Operational values zeroed out.

Landscape Equipment - Construction-only emissions estimates. Operational values zeroed out.

Energy Use - Construction-only emissions estimates. Operational values zeroed out.

Water And Wastewater - Construction-only emissions estimates. Operational values zeroed out.

Solid Waste - Construction-only emissions estimates. Operational values zeroed out.

Construction Off-road Equipment Mitigation - Representative construction emissions reduction with use of equipment >50hp that meet Tier 4 Final engine emissions standards. Implement BMP of watering twice daily and limit vehicle speed on unpaved roadways to 15 mph, per SMAQMD BMPs.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1077445	0
tblAreaCoating	Area_Nonresidential_Interior	3232334	0
tblAreaCoating	Area_Residential_Exterior	215055	0
tblAreaCoating	Area_Residential_Interior	645165	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Maximum Construction Year - Elk Grove Mulit-Sport Complex and SOIA SEIR - Sacramento County, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	200.00	260.00
tblConstructionPhase	NumDays	120.00	260.00
tblConstructionPhase	NumDays	310.00	260.00
tblConstructionPhase	NumDays	3,100.00	260.00
tblConstructionPhase	NumDays	220.00	260.00
tblConstructionPhase	NumDays	220.00	260.00

Maximum Construction Year - Elk Grove Mulit-Sport Complex and SOIA SEIR - Sacramento County, Winter

tblEnergyUse	LightingElect	4.57	0.00
tblEnergyUse	LightingElect	4.57	0.00
tblEnergyUse	LightingElect	5.33	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	7.20	0.00
tblEnergyUse	NT24E	7.20	0.00
tblEnergyUse	NT24E	2.98	0.00
tblEnergyUse	NT24E	6,155.97	0.00
tblEnergyUse	NT24NG	12.42	0.00
tblEnergyUse	NT24NG	12.42	0.00
tblEnergyUse	NT24NG	0.93	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	T24E	3.41	0.00
tblEnergyUse	T24E	3.41	0.00
tblEnergyUse	T24E	3.26	0.00
tblEnergyUse	T24E	678.97	0.00
tblEnergyUse	T24NG	23.39	0.00
tblEnergyUse	T24NG	23.39	0.00
tblEnergyUse	T24NG	4.49	0.00
tblEnergyUse	T24NG	23,147.69	0.00
tblLandUse	LandUseSquareFeet	562,230.00	562,225.00
tblLandUse	LandUseSquareFeet	826,730.00	826,734.00
tblLandUse	LandUseSquareFeet	0.00	700,336.00
tblLandUse	LandUseSquareFeet	65,590.00	65,594.00
tblLandUse	LotAcreage	12.91	35.85
tblLandUse	LotAcreage	18.98	52.72
tblLandUse	LotAcreage	0.00	16.08

## Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

tblLandUse	LotAcreage	57.47	29.45
tblLandUse	LotAcreage	1.51	5.19
tblLandUse	Population	473.00	571.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblSolidWaste	SolidWasteGenerationRate	697.17	0.00
tblSolidWaste	SolidWasteGenerationRate	1,025.15	0.00
tblSolidWaste	SolidWasteGenerationRate	68.87	0.00
tblSolidWaste	SolidWasteGenerationRate	205.56	0.00
tblVehicleTrips	ST_TR	1.50	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	1.50	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	1.50	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWater	IndoorWaterUseRate	130,015,687.50	0.00
tblWater	IndoorWaterUseRate	191,181,312.50	0.00
tblWater	IndoorWaterUseRate	4,858,416.68	0.00
tblWater	IndoorWaterUseRate	11,532,262.53	0.00
tblWater	OutdoorWaterUseRate	2,977,739.26	0.00
tblWater	OutdoorWaterUseRate	7,270,339.42	0.00

Maximum Construction Year - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	112.5130	191.2905	148.8899	0.3636	38.2738	7.4832	45.7570	16.6371	6.9293	23.5664	0.0000	36,185.51 21	36,185.51 21	6.3338	0.0000	36,343.85 79
<b>Maximum</b>	<b>112.5130</b>	<b>191.2905</b>	<b>148.8899</b>	<b>0.3636</b>	<b>38.2738</b>	<b>7.4832</b>	<b>45.7570</b>	<b>16.6371</b>	<b>6.9293</b>	<b>23.5664</b>	<b>0.0000</b>	<b>36,185.51 21</b>	<b>36,185.51 21</b>	<b>6.3338</b>	<b>0.0000</b>	<b>36,343.85 79</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	100.4794	52.4794	156.2044	0.3636	23.5670	0.5502	24.1172	9.1972	0.5405	9.7377	0.0000	36,185.51 21	36,185.51 21	6.3338	0.0000	36,343.85 78
<b>Maximum</b>	<b>100.4794</b>	<b>52.4794</b>	<b>156.2044</b>	<b>0.3636</b>	<b>23.5670</b>	<b>0.5502</b>	<b>24.1172</b>	<b>9.1972</b>	<b>0.5405</b>	<b>9.7377</b>	<b>0.0000</b>	<b>36,185.51 21</b>	<b>36,185.51 21</b>	<b>6.3338</b>	<b>0.0000</b>	<b>36,343.85 78</b>



## Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	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	10.70	72.57	-4.91	0.00	38.43	92.65	47.29	44.72	92.20	58.68	0.00	0.00	0.00	0.00	0.00	0.00

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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	53.3878	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.7654	26.7654	0.0263	0.0000	27.4215
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>53.3878</b>	<b>0.1699</b>	<b>14.7702</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.7654</b>	<b>26.7654</b>	<b>0.0263</b>	<b>0.0000</b>	<b>27.4215</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	53.3878	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.7654	26.7654	0.0263	0.0000	27.4215
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>53.3878</b>	<b>0.1699</b>	<b>14.7702</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.7654</b>	<b>26.7654</b>	<b>0.0263</b>	<b>0.0000</b>	<b>27.4215</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	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	Demolition	Demolition	1/1/2021	12/30/2021	5	260	
2	Site Preparation	Site Preparation	1/1/2021	12/30/2021	5	260	
3	Grading	Grading	1/1/2021	12/30/2021	5	260	
4	Building Construction	Building Construction	1/1/2021	12/30/2021	5	260	
5	Paving	Paving	1/1/2021	12/30/2021	5	260	
6	Architectural Coating	Architectural Coating	1/1/2021	12/30/2021	5	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 650

Acres of Paving: 0

Residential Indoor: 645,165; Residential Outdoor: 215,055; Non-Residential Indoor: 3,232,334; Non-Residential Outdoor: 1,077,445; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Maximum Construction Year - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

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
Demolition	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	962.00	372.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	192.00	0.00	0.00	10.00	6.50	20.00	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 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>		<b>1.5513</b>	<b>1.5513</b>		<b>1.4411</b>	<b>1.4411</b>		<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0380	0.3827	1.0100e-003	0.1141	7.7000e-004	0.1149	0.0303	7.1000e-004	0.0310		100.9746	100.9746	2.6900e-003		101.0419
<b>Total</b>	<b>0.0554</b>	<b>0.0380</b>	<b>0.3827</b>	<b>1.0100e-003</b>	<b>0.1141</b>	<b>7.7000e-004</b>	<b>0.1149</b>	<b>0.0303</b>	<b>7.1000e-004</b>	<b>0.0310</b>		<b>100.9746</b>	<b>100.9746</b>	<b>2.6900e-003</b>		<b>101.0419</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	lb/day										lb/day					
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>0.4623</b>	<b>2.0032</b>	<b>23.2798</b>	<b>0.0388</b>		<b>0.0616</b>	<b>0.0616</b>		<b>0.0616</b>	<b>0.0616</b>	<b>0.0000</b>	<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0380	0.3827	1.0100e-003	0.1141	7.7000e-004	0.1149	0.0303	7.1000e-004	0.0310		100.9746	100.9746	2.6900e-003		101.0419
<b>Total</b>	<b>0.0554</b>	<b>0.0380</b>	<b>0.3827</b>	<b>1.0100e-003</b>	<b>0.1141</b>	<b>7.7000e-004</b>	<b>0.1149</b>	<b>0.0303</b>	<b>7.1000e-004</b>	<b>0.0310</b>		<b>100.9746</b>	<b>100.9746</b>	<b>2.6900e-003</b>		<b>101.0419</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0664	0.0456	0.4593	1.2200e-003	0.1369	9.2000e-004	0.1379	0.0363	8.5000e-004	0.0372		121.1696	121.1696	3.2300e-003		121.2503
<b>Total</b>	<b>0.0664</b>	<b>0.0456</b>	<b>0.4593</b>	<b>1.2200e-003</b>	<b>0.1369</b>	<b>9.2000e-004</b>	<b>0.1379</b>	<b>0.0363</b>	<b>8.5000e-004</b>	<b>0.0372</b>		<b>121.1696</b>	<b>121.1696</b>	<b>3.2300e-003</b>		<b>121.2503</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	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>0.4656</b>	<b>2.0175</b>	<b>20.8690</b>	<b>0.0380</b>	<b>8.1298</b>	<b>0.0621</b>	<b>8.1919</b>	<b>4.4688</b>	<b>0.0621</b>	<b>4.5309</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>



Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0664	0.0456	0.4593	1.2200e-003	0.1369	9.2000e-004	0.1379	0.0363	8.5000e-004	0.0372		121.1696	121.1696	3.2300e-003		121.2503
<b>Total</b>	<b>0.0664</b>	<b>0.0456</b>	<b>0.4593</b>	<b>1.2200e-003</b>	<b>0.1369</b>	<b>9.2000e-004</b>	<b>0.1379</b>	<b>0.0363</b>	<b>8.5000e-004</b>	<b>0.0372</b>		<b>121.1696</b>	<b>121.1696</b>	<b>3.2300e-003</b>		<b>121.2503</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0738	0.0507	0.5103	1.3500e-003	0.1521	1.0300e-003	0.1532	0.0404	9.5000e-004	0.0413		134.6329	134.6329	3.5900e-003		134.7226
<b>Total</b>	<b>0.0738</b>	<b>0.0507</b>	<b>0.5103</b>	<b>1.3500e-003</b>	<b>0.1521</b>	<b>1.0300e-003</b>	<b>0.1532</b>	<b>0.0404</b>	<b>9.5000e-004</b>	<b>0.0413</b>		<b>134.6329</b>	<b>134.6329</b>	<b>3.5900e-003</b>		<b>134.7226</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	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>3.9030</b>	<b>0.1015</b>	<b>4.0045</b>	<b>1.6184</b>	<b>0.1015</b>	<b>1.7200</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0738	0.0507	0.5103	1.3500e-003	0.1521	1.0300e-003	0.1532	0.0404	9.5000e-004	0.0413		134.6329	134.6329	3.5900e-003		134.7226
<b>Total</b>	<b>0.0738</b>	<b>0.0507</b>	<b>0.5103</b>	<b>1.3500e-003</b>	<b>0.1521</b>	<b>1.0300e-003</b>	<b>0.1532</b>	<b>0.0404</b>	<b>9.5000e-004</b>	<b>0.0413</b>		<b>134.6329</b>	<b>134.6329</b>	<b>3.5900e-003</b>		<b>134.7226</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	1.2178	37.9784	11.0653	0.0895	2.2384	0.1088	2.3473	0.6441	0.1041	0.7482		9,476.7769	9,476.7769	0.5757		9,491.1698
Worker	3.5506	2.4376	24.5466	0.0650	7.3179	0.0494	7.3673	1.9412	0.0455	1.9867		6,475.8401	6,475.8401	0.1726		6,480.1544
<b>Total</b>	<b>4.7684</b>	<b>40.4160</b>	<b>35.6119</b>	<b>0.1545</b>	<b>9.5564</b>	<b>0.1582</b>	<b>9.7146</b>	<b>2.5853</b>	<b>0.1496</b>	<b>2.7349</b>		<b>15,952.6169</b>	<b>15,952.6169</b>	<b>0.7483</b>		<b>15,971.3242</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	lb/day										lb/day					
Off-Road	0.5867	2.7396	17.6822	0.0269		0.1120	0.1120		0.1120	0.1120	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>0.5867</b>	<b>2.7396</b>	<b>17.6822</b>	<b>0.0269</b>		<b>0.1120</b>	<b>0.1120</b>		<b>0.1120</b>	<b>0.1120</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	1.2178	37.9784	11.0653	0.0895	2.2384	0.1088	2.3473	0.6441	0.1041	0.7482		9,476.7769	9,476.7769	0.5757		9,491.1698
Worker	3.5506	2.4376	24.5466	0.0650	7.3179	0.0494	7.3673	1.9412	0.0455	1.9867		6,475.8401	6,475.8401	0.1726		6,480.1544
<b>Total</b>	<b>4.7684</b>	<b>40.4160</b>	<b>35.6119</b>	<b>0.1545</b>	<b>9.5564</b>	<b>0.1582</b>	<b>9.7146</b>	<b>2.5853</b>	<b>0.1496</b>	<b>2.7349</b>		<b>15,952.6169</b>	<b>15,952.6169</b>	<b>0.7483</b>		<b>15,971.3242</b>

**3.6 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.6 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0380	0.3827	1.0100e-003	0.1141	7.7000e-004	0.1149	0.0303	7.1000e-004	0.0310		100.9746	100.9746	2.6900e-003		101.0419
<b>Total</b>	<b>0.0554</b>	<b>0.0380</b>	<b>0.3827</b>	<b>1.0100e-003</b>	<b>0.1141</b>	<b>7.7000e-004</b>	<b>0.1149</b>	<b>0.0303</b>	<b>7.1000e-004</b>	<b>0.0310</b>		<b>100.9746</b>	<b>100.9746</b>	<b>2.6900e-003</b>		<b>101.0419</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	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2805</b>	<b>1.2154</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0374</b>	<b>0.0374</b>		<b>0.0374</b>	<b>0.0374</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.6 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0380	0.3827	1.0100e-003	0.1141	7.7000e-004	0.1149	0.0303	7.1000e-004	0.0310		100.9746	100.9746	2.6900e-003		101.0419
<b>Total</b>	<b>0.0554</b>	<b>0.0380</b>	<b>0.3827</b>	<b>1.0100e-003</b>	<b>0.1141</b>	<b>7.7000e-004</b>	<b>0.1149</b>	<b>0.0303</b>	<b>7.1000e-004</b>	<b>0.0310</b>		<b>100.9746</b>	<b>100.9746</b>	<b>2.6900e-003</b>		<b>101.0419</b>

**3.7 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	92.1652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>92.3841</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.7 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7086	0.4865	4.8991	0.0130	1.4605	9.8600e-003	1.4704	0.3874	9.0800e-003	0.3965		1,292.4754	1,292.4754	0.0344		1,293.3364
<b>Total</b>	<b>0.7086</b>	<b>0.4865</b>	<b>4.8991</b>	<b>0.0130</b>	<b>1.4605</b>	<b>9.8600e-003</b>	<b>1.4704</b>	<b>0.3874</b>	<b>9.0800e-003</b>	<b>0.3965</b>		<b>1,292.4754</b>	<b>1,292.4754</b>	<b>0.0344</b>		<b>1,293.3364</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	lb/day										lb/day					
Archit. Coating	92.1652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>92.1949</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>



Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.7 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7086	0.4865	4.8991	0.0130	1.4605	9.8600e-003	1.4704	0.3874	9.0800e-003	0.3965		1,292.4754	1,292.4754	0.0344		1,293.3364
<b>Total</b>	<b>0.7086</b>	<b>0.4865</b>	<b>4.8991</b>	<b>0.0130</b>	<b>1.4605</b>	<b>9.8600e-003</b>	<b>1.4704</b>	<b>0.3874</b>	<b>9.0800e-003</b>	<b>0.3965</b>		<b>1,292.4754</b>	<b>1,292.4754</b>	<b>0.0344</b>		<b>1,293.3364</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
User Defined Recreational	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
General Heavy Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3
Regional Shopping Center	10.00	5.00	6.50	16.30	64.70	19.00	54	35	11
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
General Light Industry	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Regional Shopping Center	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Single Family Housing	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
User Defined Recreational	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000



Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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					
General Heavy Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<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>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	53.3878	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.7654	26.7654	0.0263	0.0000	27.4215
Unmitigated	53.3878	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.7654	26.7654	0.0263	0.0000	27.4215

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	52.9327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4551	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818		26.7654	26.7654	0.0263		27.4215
<b>Total</b>	<b>53.3878</b>	<b>0.1699</b>	<b>14.7702</b>	<b>7.9000e-004</b>		<b>0.0818</b>	<b>0.0818</b>		<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.7654</b>	<b>26.7654</b>	<b>0.0263</b>	<b>0.0000</b>	<b>27.4215</b>

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	52.9327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4551	0.1699	14.7702	7.9000e-004		0.0818	0.0818		0.0818	0.0818		26.7654	26.7654	0.0263		27.4215
<b>Total</b>	<b>53.3878</b>	<b>0.1699</b>	<b>14.7702</b>	<b>7.9000e-004</b>		<b>0.0818</b>	<b>0.0818</b>		<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.7654</b>	<b>26.7654</b>	<b>0.0263</b>	<b>0.0000</b>	<b>27.4215</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**

Maximum Construction Year - Elk Grove Mult-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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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Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR  
Sacramento County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	24.32	User Defined Unit	24.32	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	492	<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 - CA average CO2 intensity factor.

Land Use - Off-site drainage improvement areas. Assume all improvements completed in the first year of construction.

Construction Phase - No demolition of building construction. CalEEMod default construction schedule.

Off-road Equipment -

Off-road Equipment - CalEEMod default construction equipment.

Trips and VMT - CalEEMod default construction trips.

Landscape Equipment - Construction only. Operational inputs zeroed out.

Energy Use -

Construction Off-road Equipment Mitigation - Representative construction emissions reduction with use of equipment that meet Tier 4 Final engine emissions standards. Implement BMP of trice daily watering andlimit vehicle speed on unpaved roadways to 15 mph, per SMAQMD BMPs.

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblLandUse	LotAcreage	0.00	24.32
tblProjectCharacteristics	CO2IntensityFactor	641.35	492

**2.0 Emissions Summary**

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Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	1.0919	0.0847
2	4-1-2021	6-30-2021	0.0181	0.0015
		Highest	1.0919	0.0847

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	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-004	6.0000e-004	0.0000	0.0000	6.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	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>3.0000e-005</b>	<b>0.0000</b>	<b>3.1000e-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>6.0000e-004</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.4000e-004</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-004	6.0000e-004	0.0000	0.0000	6.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	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>3.0000e-005</b>	<b>0.0000</b>	<b>3.1000e-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>6.0000e-004</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.4000e-004</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	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
2	Grading	Grading	2/12/2021	4/1/2021	5	35	

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

**Acres of Grading (Grading Phase): 87.5**

**Acres of Paving: 0**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	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

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
<b>Total</b>	<b>0.0194</b>	<b>0.2025</b>	<b>0.1058</b>	<b>1.9000e-004</b>	<b>0.0903</b>	<b>0.0102</b>	<b>0.1006</b>	<b>0.0497</b>	<b>9.4000e-003</b>	<b>0.0591</b>	<b>0.0000</b>	<b>16.7179</b>	<b>16.7179</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8530</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.0000e-004	2.2800e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5657	0.5657	1.0000e-005	0.0000	0.5661
<b>Total</b>	<b>3.1000e-004</b>	<b>2.0000e-004</b>	<b>2.2800e-003</b>	<b>1.0000e-005</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>6.7000e-004</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5657</b>	<b>0.5657</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5661</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Site Preparation - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
<b>Total</b>	<b>2.3300e-003</b>	<b>0.0101</b>	<b>0.1043</b>	<b>1.9000e-004</b>	<b>0.0407</b>	<b>3.1000e-004</b>	<b>0.0410</b>	<b>0.0223</b>	<b>3.1000e-004</b>	<b>0.0227</b>	<b>0.0000</b>	<b>16.7178</b>	<b>16.7178</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8530</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.0000e-004	2.2800e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5657	0.5657	1.0000e-005	0.0000	0.5661
<b>Total</b>	<b>3.1000e-004</b>	<b>2.0000e-004</b>	<b>2.2800e-003</b>	<b>1.0000e-005</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>6.7000e-004</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5657</b>	<b>0.5657</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5661</b>



Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.8120	0.5404	1.0900e-003		0.0347	0.0347		0.0320	0.0320	0.0000	95.3662	95.3662	0.0308	0.0000	96.1373
<b>Total</b>	<b>0.0734</b>	<b>0.8120</b>	<b>0.5404</b>	<b>1.0900e-003</b>	<b>0.1518</b>	<b>0.0347</b>	<b>0.1865</b>	<b>0.0629</b>	<b>0.0320</b>	<b>0.0949</b>	<b>0.0000</b>	<b>95.3662</b>	<b>95.3662</b>	<b>0.0308</b>	<b>0.0000</b>	<b>96.1373</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	7.9000e-004	8.8600e-003	2.0000e-005	2.5700e-003	2.0000e-005	2.5900e-003	6.8000e-004	2.0000e-005	7.0000e-004	0.0000	2.2000	2.2000	6.0000e-005	0.0000	2.2015
<b>Total</b>	<b>1.2100e-003</b>	<b>7.9000e-004</b>	<b>8.8600e-003</b>	<b>2.0000e-005</b>	<b>2.5700e-003</b>	<b>2.0000e-005</b>	<b>2.5900e-003</b>	<b>6.8000e-004</b>	<b>2.0000e-005</b>	<b>7.0000e-004</b>	<b>0.0000</b>	<b>2.2000</b>	<b>2.2000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.2015</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.3 Grading - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0683	0.0000	0.0683	0.0283	0.0000	0.0283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0578	0.5775	1.0900e-003		1.7800e-003	1.7800e-003		1.7800e-003	1.7800e-003	0.0000	95.3661	95.3661	0.0308	0.0000	96.1372
<b>Total</b>	<b>0.0133</b>	<b>0.0578</b>	<b>0.5775</b>	<b>1.0900e-003</b>	<b>0.0683</b>	<b>1.7800e-003</b>	<b>0.0701</b>	<b>0.0283</b>	<b>1.7800e-003</b>	<b>0.0301</b>	<b>0.0000</b>	<b>95.3661</b>	<b>95.3661</b>	<b>0.0308</b>	<b>0.0000</b>	<b>96.1372</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	7.9000e-004	8.8600e-003	2.0000e-005	2.5700e-003	2.0000e-005	2.5900e-003	6.8000e-004	2.0000e-005	7.0000e-004	0.0000	2.2000	2.2000	6.0000e-005	0.0000	2.2015
<b>Total</b>	<b>1.2100e-003</b>	<b>7.9000e-004</b>	<b>8.8600e-003</b>	<b>2.0000e-005</b>	<b>2.5700e-003</b>	<b>2.0000e-005</b>	<b>2.5900e-003</b>	<b>6.8000e-004</b>	<b>2.0000e-005</b>	<b>7.0000e-004</b>	<b>0.0000</b>	<b>2.2000</b>	<b>2.2000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.2015</b>

**4.0 Operational Detail - Mobile**

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**4.1 Mitigation Measures Mobile**

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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	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
User Defined Recreational	10.00	5.00	6.50	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
User Defined Recreational	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	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			
User Defined Recreational	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**

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-004	6.0000e-004	0.0000	0.0000	6.4000e-004
Unmitigated	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-004	6.0000e-004	0.0000	0.0000	6.4000e-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	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-004	6.0000e-004	0.0000	0.0000	6.4000e-004
<b>Total</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.1000e-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>6.0000e-004</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.4000e-004</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-004	6.0000e-004	0.0000	0.0000	6.4000e-004
<b>Total</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.1000e-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>6.0000e-004</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.4000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**



Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	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>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	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

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	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			
User Defined Recreational	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**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

## 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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Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	24.32	User Defined Unit	24.32	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	492	<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 - CA average CO2 intensity factor.

Land Use - Off-site drainage improvement areas. Assume all improvements completed in the first year of construction.

Construction Phase - No demolition of building construction. CalEEMod default construction schedule.

Off-road Equipment -

Off-road Equipment - CalEEMod default construction equipment.

Trips and VMT - CalEEMod default construction trips.

Landscape Equipment - Construction only. Operational inputs zeroed out.

Energy Use -

Construction Off-road Equipment Mitigation - Representative construction emissions reduction with use of equipment that meet Tier 4 Final engine emissions standards. Implement BMP of trice daily watering andlimit vehicle speed on unpaved roadways to 15 mph, per SMAQMD BMPs.

## Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblLandUse	LotAcreage	0.00	24.32
tblProjectCharacteristics	CO2IntensityFactor	641.35	492

## 2.0 Emissions Summary

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Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.3000e-004</b>	<b>2.0000e-005</b>	<b>2.4900e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>5.3200e-003</b>	<b>5.3200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.6700e-003</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	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.3000e-004</b>	<b>2.0000e-005</b>	<b>2.4900e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>5.3200e-003</b>	<b>5.3200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.6700e-003</b>



Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
2	Grading	Grading	2/12/2021	4/1/2021	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	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 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.2 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0369	0.5385	1.3900e-003	0.1369	9.2000e-004	0.1379	0.0363	8.5000e-004	0.0372		137.9662	137.9662	3.6700e-003		138.0580
<b>Total</b>	<b>0.0721</b>	<b>0.0369</b>	<b>0.5385</b>	<b>1.3900e-003</b>	<b>0.1369</b>	<b>9.2000e-004</b>	<b>0.1379</b>	<b>0.0363</b>	<b>8.5000e-004</b>	<b>0.0372</b>		<b>137.9662</b>	<b>137.9662</b>	<b>3.6700e-003</b>		<b>138.0580</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	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>0.4656</b>	<b>2.0175</b>	<b>20.8690</b>	<b>0.0380</b>	<b>8.1298</b>	<b>0.0621</b>	<b>8.1919</b>	<b>4.4688</b>	<b>0.0621</b>	<b>4.5309</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.2 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0369	0.5385	1.3900e-003	0.1369	9.2000e-004	0.1379	0.0363	8.5000e-004	0.0372		137.9662	137.9662	3.6700e-003		138.0580
<b>Total</b>	<b>0.0721</b>	<b>0.0369</b>	<b>0.5385</b>	<b>1.3900e-003</b>	<b>0.1369</b>	<b>9.2000e-004</b>	<b>0.1379</b>	<b>0.0363</b>	<b>8.5000e-004</b>	<b>0.0372</b>		<b>137.9662</b>	<b>137.9662</b>	<b>3.6700e-003</b>		<b>138.0580</b>

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.3 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0410	0.5983	1.5400e-003	0.1521	1.0300e-003	0.1532	0.0404	9.5000e-004	0.0413		153.2958	153.2958	4.0800e-003		153.3978
<b>Total</b>	<b>0.0802</b>	<b>0.0410</b>	<b>0.5983</b>	<b>1.5400e-003</b>	<b>0.1521</b>	<b>1.0300e-003</b>	<b>0.1532</b>	<b>0.0404</b>	<b>9.5000e-004</b>	<b>0.0413</b>		<b>153.2958</b>	<b>153.2958</b>	<b>4.0800e-003</b>		<b>153.3978</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	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>3.9030</b>	<b>0.1015</b>	<b>4.0045</b>	<b>1.6184</b>	<b>0.1015</b>	<b>1.7200</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.3 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0410	0.5983	1.5400e-003	0.1521	1.0300e-003	0.1532	0.0404	9.5000e-004	0.0413		153.2958	153.2958	4.0800e-003		153.3978
<b>Total</b>	<b>0.0802</b>	<b>0.0410</b>	<b>0.5983</b>	<b>1.5400e-003</b>	<b>0.1521</b>	<b>1.0300e-003</b>	<b>0.1532</b>	<b>0.0404</b>	<b>9.5000e-004</b>	<b>0.0413</b>		<b>153.2958</b>	<b>153.2958</b>	<b>4.0800e-003</b>		<b>153.3978</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	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
User Defined Recreational	10.00	5.00	6.50	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
User Defined Recreational	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865

5.0 Energy Detail

Historical Energy Use: N

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<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>



Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<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>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
Unmitigated	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
<b>Total</b>	<b>2.3000e-004</b>	<b>2.0000e-005</b>	<b>2.4900e-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>5.3200e-003</b>	<b>5.3200e-003</b>	<b>1.0000e-005</b>		<b>5.6700e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
<b>Total</b>	<b>2.3000e-004</b>	<b>2.0000e-005</b>	<b>2.4900e-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>5.3200e-003</b>	<b>5.3200e-003</b>	<b>1.0000e-005</b>		<b>5.6700e-003</b>

**7.0 Water Detail**

## Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	24.32	User Defined Unit	24.32	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	492	<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 - CA average CO2 intensity factor.

Land Use - Off-site drainage improvement areas. Assume all improvements completed in the first year of construction.

Construction Phase - No demolition of building construction. CalEEMod default construction schedule.

Off-road Equipment -

Off-road Equipment - CalEEMod default construction equipment.

Trips and VMT - CalEEMod default construction trips.

Landscape Equipment - Construction only. Operational inputs zeroed out.

Energy Use -

Construction Off-road Equipment Mitigation - Representative construction emissions reduction with use of equipment that meet Tier 4 Final engine emissions standards. Implement BMP of trice daily watering andlimit vehicle speed on unpaved roadways to 15 mph, per SMAQMD BMPs.

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblLandUse	LotAcreage	0.00	24.32
tblProjectCharacteristics	CO2IntensityFactor	641.35	492

**2.0 Emissions Summary**

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Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.3000e-004</b>	<b>2.0000e-005</b>	<b>2.4900e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>5.3200e-003</b>	<b>5.3200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.6700e-003</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	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.3000e-004</b>	<b>2.0000e-005</b>	<b>2.4900e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>5.3200e-003</b>	<b>5.3200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.6700e-003</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	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	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
2	Grading	Grading	2/12/2021	4/1/2021	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37



Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	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 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.2 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0664	0.0456	0.4593	1.2200e-003	0.1369	9.2000e-004	0.1379	0.0363	8.5000e-004	0.0372		121.1696	121.1696	3.2300e-003		121.2503
<b>Total</b>	<b>0.0664</b>	<b>0.0456</b>	<b>0.4593</b>	<b>1.2200e-003</b>	<b>0.1369</b>	<b>9.2000e-004</b>	<b>0.1379</b>	<b>0.0363</b>	<b>8.5000e-004</b>	<b>0.0372</b>		<b>121.1696</b>	<b>121.1696</b>	<b>3.2300e-003</b>		<b>121.2503</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	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>0.4656</b>	<b>2.0175</b>	<b>20.8690</b>	<b>0.0380</b>	<b>8.1298</b>	<b>0.0621</b>	<b>8.1919</b>	<b>4.4688</b>	<b>0.0621</b>	<b>4.5309</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.2 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0664	0.0456	0.4593	1.2200e-003	0.1369	9.2000e-004	0.1379	0.0363	8.5000e-004	0.0372		121.1696	121.1696	3.2300e-003		121.2503
<b>Total</b>	<b>0.0664</b>	<b>0.0456</b>	<b>0.4593</b>	<b>1.2200e-003</b>	<b>0.1369</b>	<b>9.2000e-004</b>	<b>0.1379</b>	<b>0.0363</b>	<b>8.5000e-004</b>	<b>0.0372</b>		<b>121.1696</b>	<b>121.1696</b>	<b>3.2300e-003</b>		<b>121.2503</b>

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.3 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0738	0.0507	0.5103	1.3500e-003	0.1521	1.0300e-003	0.1532	0.0404	9.5000e-004	0.0413		134.6329	134.6329	3.5900e-003		134.7226
<b>Total</b>	<b>0.0738</b>	<b>0.0507</b>	<b>0.5103</b>	<b>1.3500e-003</b>	<b>0.1521</b>	<b>1.0300e-003</b>	<b>0.1532</b>	<b>0.0404</b>	<b>9.5000e-004</b>	<b>0.0413</b>		<b>134.6329</b>	<b>134.6329</b>	<b>3.5900e-003</b>		<b>134.7226</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	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>3.9030</b>	<b>0.1015</b>	<b>4.0045</b>	<b>1.6184</b>	<b>0.1015</b>	<b>1.7200</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.3 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0738	0.0507	0.5103	1.3500e-003	0.1521	1.0300e-003	0.1532	0.0404	9.5000e-004	0.0413		134.6329	134.6329	3.5900e-003		134.7226
<b>Total</b>	<b>0.0738</b>	<b>0.0507</b>	<b>0.5103</b>	<b>1.3500e-003</b>	<b>0.1521</b>	<b>1.0300e-003</b>	<b>0.1532</b>	<b>0.0404</b>	<b>9.5000e-004</b>	<b>0.0413</b>		<b>134.6329</b>	<b>134.6329</b>	<b>3.5900e-003</b>		<b>134.7226</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	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
User Defined Recreational	10.00	5.00	6.50	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
User Defined Recreational	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865

5.0 Energy Detail

Historical Energy Use: N

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<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>	

Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<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>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
Unmitigated	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003



Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
<b>Total</b>	<b>2.3000e-004</b>	<b>2.0000e-005</b>	<b>2.4900e-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>5.3200e-003</b>	<b>5.3200e-003</b>	<b>1.0000e-005</b>		<b>5.6700e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e-004	2.0000e-005	2.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.3200e-003	5.3200e-003	1.0000e-005		5.6700e-003
<b>Total</b>	<b>2.3000e-004</b>	<b>2.0000e-005</b>	<b>2.4900e-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>5.3200e-003</b>	<b>5.3200e-003</b>	<b>1.0000e-005</b>		<b>5.6700e-003</b>

**7.0 Water Detail**

## Off-site Drainage Improvements - Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Elk Grove Multi-Sport Complex and SOIA SEIR														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	1.47	12.21	14.16	10.62	0.62	10.00	2.63	0.55	2.08	0.03	2,584.07	0.61	0.05	2,615.58
Grading/Excavation	6.05	49.08	65.02	12.81	2.81	10.00	4.61	2.53	2.08	0.10	10,074.75	2.90	0.13	10,186.21
Drainage/Utilities/Sub-Grade	3.66	32.02	35.56	11.67	1.67	10.00	3.61	1.53	2.08	0.06	6,067.49	1.23	0.09	6,124.36
Paving	2.99	22.77	34.60	1.52	1.52	0.00	1.23	1.23	0.00	0.08	8,268.23	0.83	0.85	8,543.55
Maximum (pounds/day)	6.05	49.08	65.02	12.81	2.81	10.00	4.61	2.53	2.08	0.10	10,074.75	2.90	0.85	10,186.21
Total (tons/construction project)	0.58	4.79	6.14	1.39	0.27	1.12	0.48	0.24	0.23	0.01	1,036.53	0.25	0.03	1,051.27

Notes:  
 Project Start Year -> 2021  
 Project Length (months) -> 12  
 Total Project Area (acres) -> 10  
 Maximum Area Disturbed/Day (acres) -> 1  
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd <sup>3</sup> /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	480	40
Grading/Excavation	0	0	0	0	1,080	40
Drainage/Utilities/Sub-Grade	0	0	0	0	800	40
Paving	0	806	0	1,230	680	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.  
 Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.  
 CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Elk Grove Multi-Sport Complex and SOIA SEIR														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.02	0.16	0.19	0.14	0.01	0.13	0.03	0.01	0.03	0.00	34.11	0.01	0.00	31.32
Grading/Excavation	0.36	2.92	3.86	0.76	0.17	0.59	0.27	0.15	0.12	0.01	598.44	0.17	0.01	548.91
Drainage/Utilities/Sub-Grade	0.14	1.27	1.41	0.46	0.07	0.40	0.14	0.06	0.08	0.00	240.27	0.05	0.00	220.02
Paving	0.06	0.45	0.68	0.03	0.03	0.00	0.02	0.02	0.00	0.00	163.71	0.02	0.02	153.46
Maximum (tons/phase)	0.36	2.92	3.86	0.76	0.17	0.59	0.27	0.15	0.12	0.01	598.44	0.17	0.02	548.91
Total (tons/construction project)	0.58	4.79	6.14	1.39	0.27	1.12	0.48	0.24	0.23	0.01	1036.53	0.25	0.03	953.71

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.  
 Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.  
 CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.  
 The CO2e emissions are reported as metric tons per phase.

**Road Construction Emissions Model**  
**Data Entry Worksheet**

Version 9.0.0

Note: Required data input sections have a yellow background.  
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.  
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.  
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

**Input Type**

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

Project Name	Elk Grove Multi-Sport Complex and SOIA SEIR	
Construction Start Year	2021	Enter a Year between 2014 and 2040 (inclusive)
Project Type	2	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction
Project Construction Time	12.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 <span style="font-size: x-small; color: red;">(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)</span>	2	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)
Project Length	2.73	miles
Total Project Area	9.70	acres
Maximum Area Disturbed/Day	1.00	acre
Water Trucks Used?	1	1. Yes 2. No

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

[http://www.conservation.ca.gov/cgs/information/geologic\\_mapping/Pages/googlemaps.aspx#regionalseries](http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries)

**Material Hauling Quantity Input**

Material Type	Phase	Haul Truck Capacity (yd <sup>3</sup> ) (assume 20 if unknown)	Import Volume (yd <sup>3</sup> /day)	Export Volume (yd <sup>3</sup> /day)
Soil	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	0.00	0.00
Asphalt	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	806.00	0.00

**Mitigation Options**

On-road Fleet Emissions Mitigation	No Mitigation	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer Select "20% NCx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAGMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure ( <a href="http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation">http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation</a> ). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard
Off-road Equipment Emissions Mitigation	No Mitigation	

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Elk Grove Multi-Sport Complex and SOIA SEIR														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	1.02	15.24	4.01	10.21	0.21	10.00	2.25	0.17	2.08	0.03	2,584.07	0.61	0.05	2,615.58
Grading/Excavation	3.36	60.69	8.62	10.49	0.49	10.00	2.48	0.40	2.08	0.10	10,074.75	2.90	0.13	10,186.21
Drainage/Utilities/Sub-Grade	2.05	36.11	6.20	10.34	0.34	10.00	2.36	0.28	2.08	0.06	6,067.49	1.23	0.09	6,124.36
Paving	2.34	24.45	22.04	0.81	0.81	0.00	0.58	0.58	0.00	0.08	8,268.23	0.83	0.85	8,543.55
Maximum (pounds/day)	3.36	60.69	22.04	10.49	0.81	10.00	2.48	0.58	2.08	0.10	10,074.75	2.90	0.85	10,186.21
Total (tons/construction project)	0.34	5.72	1.25	1.18	0.06	1.12	0.28	0.05	0.23	0.01	1,036.53	0.25	0.03	1,051.27

Notes:  
 Project Start Year -> 2021  
 Project Length (months) -> 12  
 Total Project Area (acres) -> 10  
 Maximum Area Disturbed/Day (acres) -> 1  
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd <sup>3</sup> /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	480	40
Grading/Excavation	0	0	0	0	1,080	40
Drainage/Utilities/Sub-Grade	0	0	0	0	800	40
Paving	0	806	0	1,230	680	40


PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.  
 Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.  
 CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Elk Grove Multi-Sport Complex and SOIA SEIR														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.20	0.05	0.13	0.00	0.13	0.03	0.00	0.03	0.00	34.11	0.01	0.00	31.32
Grading/Excavation	0.20	3.60	0.51	0.62	0.03	0.59	0.15	0.02	0.12	0.01	598.44	0.17	0.01	548.91
Drainage/Utilities/Sub-Grade	0.08	1.43	0.25	0.41	0.01	0.40	0.09	0.01	0.08	0.00	240.27	0.05	0.00	220.02
Paving	0.05	0.48	0.44	0.02	0.02	0.00	0.01	0.01	0.00	0.00	163.71	0.02	0.02	153.46
Maximum (tons/phase)	0.20	3.60	0.51	0.62	0.03	0.59	0.15	0.02	0.12	0.01	598.44	0.17	0.02	548.91
Total (tons/construction project)	0.34	5.72	1.25	1.18	0.06	1.12	0.28	0.05	0.23	0.01	1036.53	0.25	0.03	953.71

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.  
 Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.  
 CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.  
 The CO2e emissions are reported as metric tons per phase.

**Road Construction Emissions Model**  
**Data Entry Worksheet**

Version 9.0.0



Note: Required data input sections have a yellow background.  
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.  
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.  
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

**Input Type**

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

Project Name	Elk Grove Multi-Sport Complex and SOIA SEIR	
Construction Start Year	2021	Enter a Year between 2014 and 2040 (inclusive)
Project Type	2	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction
Project Construction Time	12.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	2	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)
Project Length	2.73	miles
Total Project Area	9.70	acres
Maximum Area Disturbed/Day	1.00	acre
Water Trucks Used?	1	1. Yes 2. No

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

[http://www.conservation.ca.gov/cgs/information/geologic\\_mapping/Pages/googlemaps.aspx#regionalseries](http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries)

**Material Hauling Quantity Input**

Material Type	Phase	Haul Truck Capacity (yd <sup>3</sup> ) (assume 20 if unknown)	Import Volume (yd <sup>3</sup> /day)	Export Volume (yd <sup>3</sup> /day)
Soil	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	0.00	0.00
Asphalt	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	806.00	0.00

**Mitigation Options**

On-road Fleet Emissions Mitigation	No Mitigation	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer Select "20% NCx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAGMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure ( <a href="http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation">http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation</a> ). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard
Off-road Equipment Emissions Mitigation	Tier 4 Equipment	
Will all off-road equipment be tier 4?	Tier 4 equipment for limited equipment types	

If "Tier 4 equipment for limited equipment types" is selected, please provide tier information for each equipment type in cells from E183 to E379 below.

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**Operational Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2,248.90	1000sqft	143.41	2,248,898.00	0
General Light Industry	3,306.94	1000sqft	210.88	3,306,936.00	0
User Defined Recreational	2,801.34	User Defined Unit	64.31	2,801,343.60	0
Single Family Housing	707.00	Dwelling Unit	117.80	1,272,600.00	2283
Regional Shopping Center	262.38	1000sqft	20.77	262,375.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2022
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MWhr)</b>	492	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Project Characteristics - CA average CO2 intensity factor used.

Full buildout of project site anticipated in 2040, but conservatively modeled 2022 for first possible year of operations.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household.

Construction Phase - Operational emissions modeled. Construction activities zeroed out.

Off-road Equipment - Operational emissions modeled. Construction activities zeroed out.

Trips and VMT - Operational emissions modeled. Construction activities zeroed out.

Vehicle Trips - Trip distance for industrial land use commercial-work adjusted to reflect potential travel to regional ports and distribution areas.

Woodstoves - No wood burning appliances.

Energy Use - Adjusted Title-24 Energy Intensity to 2019 Title-24 standards.

Mobile Land Use Mitigation -

Waste Mitigation -

Fleet Mix - Industrial land use fleet mix adjusted to reflect anticipated increased use of heavy trucks.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.26	2.28
tblEnergyUse	T24E	678.97	319.12
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	4.49	3.14
tblEnergyUse	T24NG	23,147.69	21,527.35
tblFireplaces	NumberNoFireplace	707.00	0.00
tblFleetMix	HHD	0.02	0.05
tblFleetMix	HHD	0.02	0.05
tblFleetMix	LDA	0.56	0.55
tblFleetMix	LDA	0.56	0.55



## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblFleetMix	MCY	5.8840e-003	0.00
tblFleetMix	MCY	5.8840e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.6500e-004	0.00
tblFleetMix	MH	8.6500e-004	0.00
tblFleetMix	MHD	0.02	0.14
tblFleetMix	MHD	0.02	0.14
tblFleetMix	OBUS	2.0310e-003	0.00
tblFleetMix	OBUS	2.0310e-003	0.00
tblFleetMix	SBUS	6.1900e-004	0.00
tblFleetMix	SBUS	6.1900e-004	0.00
tblLandUse	LandUseSquareFeet	2,248,900.00	2,248,898.00
tblLandUse	LandUseSquareFeet	3,306,940.00	3,306,936.00
tblLandUse	LandUseSquareFeet	0.00	2,801,343.60
tblLandUse	LandUseSquareFeet	262,380.00	262,375.00
tblLandUse	LotAcreage	51.63	143.41
tblLandUse	LotAcreage	75.92	210.88
tblLandUse	LotAcreage	0.00	64.31
tblLandUse	LotAcreage	229.55	117.80
tblLandUse	LotAcreage	6.02	20.77
tblLandUse	Population	1,888.00	2,283.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblTripsAndVMT	WorkerTripLength	10.00	1.00

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblTripsAndVMT	WorkerTripNumber	3.00	1.00
tblVehicleTrips	CNW_TL	6.50	38.50
tblVehicleTrips	CNW_TL	6.50	38.50
tblVehicleTrips	CW_TL	10.00	38.50
tblVehicleTrips	CW_TL	10.00	38.50

**2.0 Emissions Summary**

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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	0.0002	0.0002
		Highest	0.0002	0.0002

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	43.6560	0.0852	7.4091	3.9000e-004		0.0407	0.0407		0.0407	0.0407	0.0000	12.1237	12.1237	0.0121	0.0000	12.4251
Energy	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	28,958.5007	28,958.5007	1.3288	0.4115	29,114.3483
Mobile	14.8658	165.5405	231.8478	1.2342	91.3865	1.1720	92.5584	24.8964	1.1062	26.0026	0.0000	115,017.3365	115,017.3365	3.7192	0.0000	115,110.3157
Waste						0.0000	0.0000		0.0000	0.0000	1,621.2137	0.0000	1,621.2137	95.8110	0.0000	4,016.4884
Water						0.0000	0.0000		0.0000	0.0000	477.7337	1,533.4444	2,011.1781	1.7347	1.0576	2,369.7148
<b>Total</b>	<b>59.4824</b>	<b>174.3077</b>	<b>246.2228</b>	<b>1.2870</b>	<b>91.3865</b>	<b>1.8763</b>	<b>93.2628</b>	<b>24.8964</b>	<b>1.8105</b>	<b>26.7069</b>	<b>2,098.9474</b>	<b>145,521.4053</b>	<b>147,620.3526</b>	<b>102.6057</b>	<b>1.4691</b>	<b>150,623.2921</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	43.6560	0.0852	7.4091	3.9000e-004		0.0407	0.0407		0.0407	0.0407	0.0000	12.1237	12.1237	0.0121	0.0000	12.4251
Energy	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	28,958.5007	28,958.5007	1.3288	0.4115	29,114.3483
Mobile	14.8658	165.5405	231.8478	1.2342	91.3865	1.1720	92.5584	24.8964	1.1062	26.0026	0.0000	115,017.3365	115,017.3365	3.7192	0.0000	115,110.3157
Waste						0.0000	0.0000		0.0000	0.0000	1,621.2137	0.0000	1,621.2137	95.8110	0.0000	4,016.4884
Water						0.0000	0.0000		0.0000	0.0000	477.7337	1,533.4444	2,011.1781	1.7347	1.0576	2,369.7148
<b>Total</b>	<b>59.4824</b>	<b>174.3077</b>	<b>246.2228</b>	<b>1.2870</b>	<b>91.3865</b>	<b>1.8763</b>	<b>93.2628</b>	<b>24.8964</b>	<b>1.8105</b>	<b>26.7069</b>	<b>2,098.9474</b>	<b>145,521.4053</b>	<b>147,620.3526</b>	<b>102.6057</b>	<b>1.4691</b>	<b>150,623.2921</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
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	Demolition	Demolition	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

**Acres of Paving: 0**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

**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
Demolition	1	1.00	0.00	0.00	1.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-005	1.9000e-004	2.3000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0336	0.0336	0.0000	0.0000	0.0337
<b>Total</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>2.3000e-004</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>0.0000</b>	<b>0.0336</b>	<b>0.0336</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0337</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.0000e-004
<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>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-005	1.9000e-004	2.3000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0336	0.0336	0.0000	0.0000	0.0337
<b>Total</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>2.3000e-004</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>0.0000</b>	<b>0.0336</b>	<b>0.0336</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0337</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.0000e-004
<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>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>

**4.0 Operational Detail - Mobile**

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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	14.8658	165.5405	231.8478	1.2342	91.3865	1.1720	92.5584	24.8964	1.1062	26.0026	0.0000	115,017.3365	115,017.3365	3.7192	0.0000	115,110.3157
Unmitigated	14.8658	165.5405	231.8478	1.2342	91.3865	1.1720	92.5584	24.8964	1.1062	26.0026	0.0000	115,017.3365	115,017.3365	3.7192	0.0000	115,110.3157

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	3,373.35	3,373.35	3373.35	33,346,555	33,346,555
General Light Industry	23,049.37	4,365.16	2248.72	172,089,883	172,089,883
Regional Shopping Center	11,203.63	13,111.13	6622.47	15,121,182	15,121,182
Single Family Housing	6,730.64	7,006.37	6094.34	17,139,376	17,139,376
User Defined Recreational	0.00	0.00	0.00		
<b>Total</b>	<b>44,356.99</b>	<b>27,856.01</b>	<b>18,338.88</b>	<b>237,696,996</b>	<b>237,696,996</b>

**4.3 Trip Type Information**

## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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
General Heavy Industry	38.50	5.00	38.50	59.00	28.00	13.00	92	5	3
General Light Industry	38.50	5.00	38.50	59.00	28.00	13.00	92	5	3
Regional Shopping Center	10.00	5.00	6.50	16.30	64.70	19.00	54	35	11
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	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
General Heavy Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
General Light Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
Regional Shopping Center	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865
Single Family Housing	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865
User Defined Recreational	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865

## 5.0 Energy Detail

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Historical Energy Use: N

## 5.1 Mitigation Measures Energy

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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	19,452.2787	19,452.2787	1.1466	0.2372	19,551.6355
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	19,452.2787	19,452.2787	1.1466	0.2372	19,551.6355
NaturalGas Mitigated	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	9,506.2220	9,506.2220	0.1822	0.1743	9,562.7127
NaturalGas Unmitigated	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	9,506.2220	9,506.2220	0.1822	0.1743	9,562.7127

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	tons/yr										MT/yr					
General Heavy Industry	6.47458e+007	0.3491	3.1738	2.6660	0.0190		0.2412	0.2412		0.2412	0.2412	0.0000	3,455.0810	3,455.0810	0.0662	0.0633	3,475.6129
General Light Industry	9.52067e+007	0.5134	4.6670	3.9203	0.0280		0.3547	0.3547		0.3547	0.3547	0.0000	5,080.5914	5,080.5914	0.0974	0.0931	5,110.7828
Regional Shopping Center	1.06787e+006	5.7600e-003	0.0524	0.0440	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	56.9854	56.9854	1.0900e-003	1.0400e-003	57.3241
Single Family Housing	1.71195e+007	0.0923	0.7888	0.3357	5.0400e-003		0.0638	0.0638		0.0638	0.0638	0.0000	913.5641	913.5641	0.0175	0.0168	918.9930
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.9606</b>	<b>8.6820</b>	<b>6.9659</b>	<b>0.0524</b>		<b>0.6637</b>	<b>0.6637</b>		<b>0.6637</b>	<b>0.6637</b>	<b>0.0000</b>	<b>9,506.2220</b>	<b>9,506.2220</b>	<b>0.1822</b>	<b>0.1743</b>	<b>9,562.7127</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	6.47458e+007	0.3491	3.1738	2.6660	0.0190		0.2412	0.2412		0.2412	0.2412	0.0000	3,455.0810	3,455.0810	0.0662	0.0633	3,475.6129
General Light Industry	9.52067e+007	0.5134	4.6670	3.9203	0.0280		0.3547	0.3547		0.3547	0.3547	0.0000	5,080.5914	5,080.5914	0.0974	0.0931	5,110.7828
Regional Shopping Center	1.06787e+006	5.7600e-003	0.0524	0.0440	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	56.9854	56.9854	1.0900e-003	1.0400e-003	57.3241
Single Family Housing	1.71195e+007	0.0923	0.7888	0.3357	5.0400e-003		0.0638	0.0638		0.0638	0.0638	0.0000	913.5641	913.5641	0.0175	0.0168	918.9930
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.9606</b>	<b>8.6820</b>	<b>6.9659</b>	<b>0.0524</b>		<b>0.6637</b>	<b>0.6637</b>		<b>0.6637</b>	<b>0.6637</b>	<b>0.0000</b>	<b>9,506.2220</b>	<b>9,506.2220</b>	<b>0.1822</b>	<b>0.1743</b>	<b>9,562.7127</b>

## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	3.18444e+007	7,106.6325	0.4189	0.0867	7,142.9312
General Light Industry	4.68262e+007	10,450.0865	0.6160	0.1274	10,503.4627
Regional Shopping Center	2.77855e+006	620.0822	0.0366	7.5600e-003	623.2494
Single Family Housing	5.71534e+006	1,275.4775	0.0752	0.0156	1,281.9923
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>19,452.2787</b>	<b>1.1466</b>	<b>0.2372</b>	<b>19,551.6355</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	3.18444e+007	7,106.6325	0.4189	0.0867	7,142.9312
General Light Industry	4.68262e+007	10,450.0865	0.6160	0.1274	10,503.4627
Regional Shopping Center	2.77855e+006	620.0822	0.0366	7.5600e-003	623.2494
Single Family Housing	5.71534e+006	1,275.4775	0.0752	0.0156	1,281.9923
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>19,452.2787</b>	<b>1.1466</b>	<b>0.2372</b>	<b>19,551.6355</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	43.6560	0.0852	7.4091	3.9000e-004		0.0407	0.0407		0.0407	0.0407	0.0000	12.1237	12.1237	0.0121	0.0000	12.4251
Unmitigated	43.6560	0.0852	7.4091	3.9000e-004		0.0407	0.0407		0.0407	0.0407	0.0000	12.1237	12.1237	0.0121	0.0000	12.4251

**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	4.7915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	38.6338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2307	0.0852	7.4091	3.9000e-004		0.0407	0.0407		0.0407	0.0407	0.0000	12.1237	12.1237	0.0121	0.0000	12.4251
<b>Total</b>	<b>43.6560</b>	<b>0.0852</b>	<b>7.4091</b>	<b>3.9000e-004</b>		<b>0.0407</b>	<b>0.0407</b>		<b>0.0407</b>	<b>0.0407</b>	<b>0.0000</b>	<b>12.1237</b>	<b>12.1237</b>	<b>0.0121</b>	<b>0.0000</b>	<b>12.4251</b>



Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.7915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	38.6338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2307	0.0852	7.4091	3.9000e-004		0.0407	0.0407		0.0407	0.0407	0.0000	12.1237	12.1237	0.0121	0.0000	12.4251
<b>Total</b>	<b>43.6560</b>	<b>0.0852</b>	<b>7.4091</b>	<b>3.9000e-004</b>		<b>0.0407</b>	<b>0.0407</b>		<b>0.0407</b>	<b>0.0407</b>	<b>0.0000</b>	<b>12.1237</b>	<b>12.1237</b>	<b>0.0121</b>	<b>0.0000</b>	<b>12.4251</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,011.1781	1.7347	1.0576	2,369.7148
Unmitigated	2,011.1781	1.7347	1.0576	2,369.7148

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	520.058 / 0	762.2782	0.6674	0.4072	900.3043
General Light Industry	764.73 / 0	1,120.9072	0.9814	0.5988	1,323.8705
Regional Shopping Center	19.4351 / 11.9119	37.7914	0.0255	0.0153	42.9971
Single Family Housing	46.0639 / 29.0403	90.2014	0.0605	0.0363	102.5428
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2,011.1781</b>	<b>1.7347</b>	<b>1.0576</b>	<b>2,369.7148</b>

## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	520.058 / 0	762.2782	0.6674	0.4072	900.3043
General Light Industry	764.73 / 0	1,120.9072	0.9814	0.5988	1,323.8705
Regional Shopping Center	19.4351 / 11.9119	37.7914	0.0255	0.0153	42.9971
Single Family Housing	46.0639 / 29.0403	90.2014	0.0605	0.0363	102.5428
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2,011.1781</b>	<b>1.7347</b>	<b>1.0576</b>	<b>2,369.7148</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,621.213 7	95.8110	0.0000	4,016.488 4
Unmitigated	1,621.213 7	95.8110	0.0000	4,016.488 4

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2788.64	566.0687	33.4537	0.0000	1,402.4113
General Light Industry	4100.61	832.3868	49.1927	0.0000	2,062.203 0
Regional Shopping Center	275.5	55.9240	3.3050	0.0000	138.5494
Single Family Housing	821.88	166.8342	9.8596	0.0000	413.3247
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,621.213 7</b>	<b>95.8110</b>	<b>0.0000</b>	<b>4,016.488 4</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2788.64	566.0687	33.4537	0.0000	1,402.4113
General Light Industry	4100.61	832.3868	49.1927	0.0000	2,062.2030
Regional Shopping Center	275.5	55.9240	3.3050	0.0000	138.5494
Single Family Housing	821.88	166.8342	9.8596	0.0000	413.3247
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,621.2137</b>	<b>95.8110</b>	<b>0.0000</b>	<b>4,016.4884</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**Operational Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2,248.90	1000sqft	143.41	2,248,898.00	0
General Light Industry	3,306.94	1000sqft	210.88	3,306,936.00	0
User Defined Recreational	2,801.34	User Defined Unit	64.31	2,801,343.60	0
Single Family Housing	707.00	Dwelling Unit	117.80	1,272,600.00	2283
Regional Shopping Center	262.38	1000sqft	20.77	262,375.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2022
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MW hr)</b>	492	<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**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

Project Characteristics - CA average CO2 intensity factor used.

Full buildout of project site anticipated in 2040, but conservatively modeled 2022 for first possible year of operations.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household.

Construction Phase - Operational emissions modeled. Construction activities zeroed out.

Off-road Equipment - Operational emissions modeled. Construction activities zeroed out.

Trips and VMT - Operational emissions modeled. Construction activities zeroed out.

Vehicle Trips - Trip distance for industrial land use commercial-work adjusted to reflect potential travel to regional ports and distribution areas.

Woodstoves - No wood burning appliances.

Energy Use - Adjusted Title-24 Energy Intensity to 2019 Title-24 standards.

Mobile Land Use Mitigation -

Waste Mitigation -

Fleet Mix - Industrial land use fleet mix adjusted to reflect anticipated increased use of heavy trucks.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.26	2.28
tblEnergyUse	T24E	678.97	319.12
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	4.49	3.14
tblEnergyUse	T24NG	23,147.69	21,527.35
tblFireplaces	NumberNoFireplace	707.00	0.00
tblFleetMix	HHD	0.02	0.05
tblFleetMix	HHD	0.02	0.05
tblFleetMix	LDA	0.56	0.55
tblFleetMix	LDA	0.56	0.55



## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

tblFleetMix	MCY	5.8840e-003	0.00
tblFleetMix	MCY	5.8840e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.6500e-004	0.00
tblFleetMix	MH	8.6500e-004	0.00
tblFleetMix	MHD	0.02	0.14
tblFleetMix	MHD	0.02	0.14
tblFleetMix	OBUS	2.0310e-003	0.00
tblFleetMix	OBUS	2.0310e-003	0.00
tblFleetMix	SBUS	6.1900e-004	0.00
tblFleetMix	SBUS	6.1900e-004	0.00
tblLandUse	LandUseSquareFeet	2,248,900.00	2,248,898.00
tblLandUse	LandUseSquareFeet	3,306,940.00	3,306,936.00
tblLandUse	LandUseSquareFeet	0.00	2,801,343.60
tblLandUse	LandUseSquareFeet	262,380.00	262,375.00
tblLandUse	LotAcreage	51.63	143.41
tblLandUse	LotAcreage	75.92	210.88
tblLandUse	LotAcreage	0.00	64.31
tblLandUse	LotAcreage	229.55	117.80
tblLandUse	LotAcreage	6.02	20.77
tblLandUse	Population	1,888.00	2,283.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblTripsAndVMT	WorkerTripLength	10.00	1.00

## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

tblTripsAndVMT	WorkerTripNumber	3.00	1.00
tblVehicleTrips	CNW_TL	6.50	38.50
tblVehicleTrips	CNW_TL	6.50	38.50
tblVehicleTrips	CW_TL	10.00	38.50
tblVehicleTrips	CW_TL	10.00	38.50

**2.0 Emissions Summary**

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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	239.7923	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258	0.0000	106.9129	106.9129	0.1063	0.0000	109.5705
Energy	5.2633	47.5726	38.1695	0.2871		3.6365	3.6365		3.6365	3.6365		57,418.1700	57,418.1700	1.1005	1.0527	57,759.3775
Mobile	118.5329	1,086.2418	1,840.5426	8.9872	650.2082	8.0715	658.2797	176.5990	7.6189	184.2179		921,792.9640	921,792.9640	29.1261		922,521.1164
<b>Total</b>	<b>363.5885</b>	<b>1,134.4958</b>	<b>1,937.9847</b>	<b>9.2774</b>	<b>650.2082</b>	<b>12.0338</b>	<b>662.2420</b>	<b>176.5990</b>	<b>11.5812</b>	<b>188.1802</b>	<b>0.0000</b>	<b>979,318.0470</b>	<b>979,318.0470</b>	<b>30.3329</b>	<b>1.0527</b>	<b>980,390.0644</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	239.7923	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258	0.0000	106.9129	106.9129	0.1063	0.0000	109.5705
Energy	5.2633	47.5726	38.1695	0.2871		3.6365	3.6365		3.6365	3.6365		57,418.1700	57,418.1700	1.1005	1.0527	57,759.3775
Mobile	118.5329	1,086.2418	1,840.5426	8.9872	650.2082	8.0715	658.2797	176.5990	7.6189	184.2179		921,792.9640	921,792.9640	29.1261		922,521.1164
<b>Total</b>	<b>363.5885</b>	<b>1,134.4958</b>	<b>1,937.9847</b>	<b>9.2774</b>	<b>650.2082</b>	<b>12.0338</b>	<b>662.2420</b>	<b>176.5990</b>	<b>11.5812</b>	<b>188.1802</b>	<b>0.0000</b>	<b>979,318.0470</b>	<b>979,318.0470</b>	<b>30.3329</b>	<b>1.0527</b>	<b>980,390.0644</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	Demolition	Demolition	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

#### 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
Demolition	1	1.00	0.00	0.00	1.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0481	0.3797	0.4593	7.8000e-004		0.0216	0.0216		0.0216	0.0216		74.0831	74.0831	4.3000e-003		74.1906
<b>Total</b>	<b>0.0481</b>	<b>0.3797</b>	<b>0.4593</b>	<b>7.8000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0216</b>	<b>0.0216</b>		<b>74.0831</b>	<b>74.0831</b>	<b>4.3000e-003</b>		<b>74.1906</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	1.8000e-003	4.8000e-004	6.6600e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	1.0000e-005	2.2000e-004		0.9708	0.9708	4.0000e-005		0.9717
<b>Total</b>	<b>1.8000e-003</b>	<b>4.8000e-004</b>	<b>6.6600e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>2.1000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>		<b>0.9708</b>	<b>0.9708</b>	<b>4.0000e-005</b>		<b>0.9717</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.2 Demolition - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0481	0.3797	0.4593	7.8000e-004		0.0216	0.0216		0.0216	0.0216	0.0000	74.0831	74.0831	4.3000e-003		74.1906
<b>Total</b>	<b>0.0481</b>	<b>0.3797</b>	<b>0.4593</b>	<b>7.8000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0216</b>	<b>0.0216</b>	<b>0.0000</b>	<b>74.0831</b>	<b>74.0831</b>	<b>4.3000e-003</b>		<b>74.1906</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	1.8000e-003	4.8000e-004	6.6600e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	1.0000e-005	2.2000e-004		0.9708	0.9708	4.0000e-005		0.9717
<b>Total</b>	<b>1.8000e-003</b>	<b>4.8000e-004</b>	<b>6.6600e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>2.1000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>		<b>0.9708</b>	<b>0.9708</b>	<b>4.0000e-005</b>		<b>0.9717</b>

**4.0 Operational Detail - Mobile**

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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	118.5329	1,086.2418	1,840.5426	8.9872	650.2082	8.0715	658.2797	176.5990	7.6189	184.2179		921,792.9640	921,792.9640	29.1261		922,521.1164
Unmitigated	118.5329	1,086.2418	1,840.5426	8.9872	650.2082	8.0715	658.2797	176.5990	7.6189	184.2179		921,792.9640	921,792.9640	29.1261		922,521.1164

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	3,373.35	3,373.35	3373.35	33,346,555	33,346,555
General Light Industry	23,049.37	4,365.16	2248.72	172,089,883	172,089,883
Regional Shopping Center	11,203.63	13,111.13	6622.47	15,121,182	15,121,182
Single Family Housing	6,730.64	7,006.37	6094.34	17,139,376	17,139,376
User Defined Recreational	0.00	0.00	0.00		
<b>Total</b>	<b>44,356.99</b>	<b>27,856.01</b>	<b>18,338.88</b>	<b>237,696,996</b>	<b>237,696,996</b>

**4.3 Trip Type Information**



## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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
General Heavy Industry	38.50	5.00	38.50	59.00	28.00	13.00	92	5	3
General Light Industry	38.50	5.00	38.50	59.00	28.00	13.00	92	5	3
Regional Shopping Center	10.00	5.00	6.50	16.30	64.70	19.00	54	35	11
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	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
General Heavy Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
General Light Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
Regional Shopping Center	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865
Single Family Housing	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865
User Defined Recreational	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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					
Natural Gas Mitigated	5.2633	47.5726	38.1695	0.2871		3.6365	3.6365		3.6365	3.6365		57,418.1700	57,418.1700	1.1005	1.0527	57,759.3775
Natural Gas Unmitigated	5.2633	47.5726	38.1695	0.2871		3.6365	3.6365		3.6365	3.6365		57,418.1700	57,418.1700	1.1005	1.0527	57,759.3775

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	177386	1.9130	17.3908	14.6082	0.1043		1.3217	1.3217		1.3217	1.3217		20,868.9036	20,868.9036	0.4000	0.3826	20,992.9171
General Light Industry	260840	2.8130	25.5726	21.4810	0.1534		1.9435	1.9435		1.9435	1.9435		30,687.0870	30,687.0870	0.5882	0.5626	30,869.4450
Regional Shopping Center	2925.66	0.0316	0.2868	0.2409	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.1954	344.1954	6.6000e-003	6.3100e-003	346.2408
Single Family Housing	46902.9	0.5058	4.3224	1.8393	0.0276		0.3495	0.3495		0.3495	0.3495		5,517.9840	5,517.9840	0.1058	0.1012	5,550.7747
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.2633</b>	<b>47.5726</b>	<b>38.1695</b>	<b>0.2871</b>		<b>3.6365</b>	<b>3.6365</b>		<b>3.6365</b>	<b>3.6365</b>		<b>57,418.1701</b>	<b>57,418.1701</b>	<b>1.1005</b>	<b>1.0527</b>	<b>57,759.3775</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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					
General Heavy Industry	177.386	1.9130	17.3908	14.6082	0.1043		1.3217	1.3217		1.3217	1.3217		20,868.9036	20,868.9036	0.4000	0.3826	20,992.9171
General Light Industry	260.84	2.8130	25.5726	21.4810	0.1534		1.9435	1.9435		1.9435	1.9435		30,687.0870	30,687.0870	0.5882	0.5626	30,869.4450
Regional Shopping Center	2.92566	0.0316	0.2868	0.2409	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.1954	344.1954	6.6000e-003	6.3100e-003	346.2408
Single Family Housing	46.9029	0.5058	4.3224	1.8393	0.0276		0.3495	0.3495		0.3495	0.3495		5,517.9840	5,517.9840	0.1058	0.1012	5,550.7747
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.2633</b>	<b>47.5726</b>	<b>38.1695</b>	<b>0.2871</b>		<b>3.6365</b>	<b>3.6365</b>		<b>3.6365</b>	<b>3.6365</b>		<b>57,418.1701</b>	<b>57,418.1701</b>	<b>1.1005</b>	<b>1.0527</b>	<b>57,759.3775</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	239.7923	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258	0.0000	106.9129	106.9129	0.1063	0.0000	109.5705
Unmitigated	239.7923	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258	0.0000	106.9129	106.9129	0.1063	0.0000	109.5705

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	26.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	211.6921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8456	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258		106.9129	106.9129	0.1063		109.5705
<b>Total</b>	<b>239.7923</b>	<b>0.6815</b>	<b>59.2726</b>	<b>3.1500e-003</b>		<b>0.3258</b>	<b>0.3258</b>		<b>0.3258</b>	<b>0.3258</b>	<b>0.0000</b>	<b>106.9129</b>	<b>106.9129</b>	<b>0.1063</b>	<b>0.0000</b>	<b>109.5705</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	26.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	211.6921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8456	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258		106.9129	106.9129	0.1063		109.5705
<b>Total</b>	<b>239.7923</b>	<b>0.6815</b>	<b>59.2726</b>	<b>3.1500e-003</b>		<b>0.3258</b>	<b>0.3258</b>		<b>0.3258</b>	<b>0.3258</b>	<b>0.0000</b>	<b>106.9129</b>	<b>106.9129</b>	<b>0.1063</b>	<b>0.0000</b>	<b>109.5705</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**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**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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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**Operational Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2,248.90	1000sqft	143.41	2,248,898.00	0
General Light Industry	3,306.94	1000sqft	210.88	3,306,936.00	0
User Defined Recreational	2,801.34	User Defined Unit	64.31	2,801,343.60	0
Single Family Housing	707.00	Dwelling Unit	117.80	1,272,600.00	2283
Regional Shopping Center	262.38	1000sqft	20.77	262,375.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2022
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MW hr)</b>	492	<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**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

Project Characteristics - CA average CO2 intensity factor used.

Full buildout of project site anticipated in 2040, but conservatively modeled 2022 for first possible year of operations.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household.

Construction Phase - Operational emissions modeled. Construction activities zeroed out.

Off-road Equipment - Operational emissions modeled. Construction activities zeroed out.

Trips and VMT - Operational emissions modeled. Construction activities zeroed out.

Vehicle Trips - Trip distance for industrial land use commercial-work adjusted to reflect potential travel to regional ports and distribution areas.

Woodstoves - No wood burning appliances.

Energy Use - Adjusted Title-24 Energy Intensity to 2019 Title-24 standards.

Mobile Land Use Mitigation -

Waste Mitigation -

Fleet Mix - Industrial land use fleet mix adjusted to reflect anticipated increased use of heavy trucks.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.26	2.28
tblEnergyUse	T24E	678.97	319.12
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	4.49	3.14
tblEnergyUse	T24NG	23,147.69	21,527.35
tblFireplaces	NumberNoFireplace	707.00	0.00
tblFleetMix	HHD	0.02	0.05
tblFleetMix	HHD	0.02	0.05
tblFleetMix	LDA	0.56	0.55
tblFleetMix	LDA	0.56	0.55



## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

tblFleetMix	MCY	5.8840e-003	0.00
tblFleetMix	MCY	5.8840e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.6500e-004	0.00
tblFleetMix	MH	8.6500e-004	0.00
tblFleetMix	MHD	0.02	0.14
tblFleetMix	MHD	0.02	0.14
tblFleetMix	OBUS	2.0310e-003	0.00
tblFleetMix	OBUS	2.0310e-003	0.00
tblFleetMix	SBUS	6.1900e-004	0.00
tblFleetMix	SBUS	6.1900e-004	0.00
tblLandUse	LandUseSquareFeet	2,248,900.00	2,248,898.00
tblLandUse	LandUseSquareFeet	3,306,940.00	3,306,936.00
tblLandUse	LandUseSquareFeet	0.00	2,801,343.60
tblLandUse	LandUseSquareFeet	262,380.00	262,375.00
tblLandUse	LotAcreage	51.63	143.41
tblLandUse	LotAcreage	75.92	210.88
tblLandUse	LotAcreage	0.00	64.31
tblLandUse	LotAcreage	229.55	117.80
tblLandUse	LotAcreage	6.02	20.77
tblLandUse	Population	1,888.00	2,283.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblTripsAndVMT	WorkerTripLength	10.00	1.00

## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

tblTripsAndVMT	WorkerTripNumber	3.00	1.00
tblVehicleTrips	CNW_TL	6.50	38.50
tblVehicleTrips	CNW_TL	6.50	38.50
tblVehicleTrips	CW_TL	10.00	38.50
tblVehicleTrips	CW_TL	10.00	38.50

**2.0 Emissions Summary**

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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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	239.7923	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258	0.0000	106.9129	106.9129	0.1063	0.0000	109.5705
Energy	5.2633	47.5726	38.1695	0.2871		3.6365	3.6365		3.6365	3.6365		57,418.1700	57,418.1700	1.1005	1.0527	57,759.3775
Mobile	96.5171	1,170.0964	1,579.2091	8.3856	650.2082	8.1329	658.3411	176.5990	7.6776	184.2766		861,809.6421	861,809.6421	28.1032		862,512.2230
<b>Total</b>	<b>341.5727</b>	<b>1,218.3504</b>	<b>1,676.6511</b>	<b>8.6758</b>	<b>650.2082</b>	<b>12.0952</b>	<b>662.3034</b>	<b>176.5990</b>	<b>11.6399</b>	<b>188.2389</b>	<b>0.0000</b>	<b>919,334.7251</b>	<b>919,334.7251</b>	<b>29.3101</b>	<b>1.0527</b>	<b>920,381.1710</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	239.7923	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258	0.0000	106.9129	106.9129	0.1063	0.0000	109.5705
Energy	5.2633	47.5726	38.1695	0.2871		3.6365	3.6365		3.6365	3.6365		57,418.1700	57,418.1700	1.1005	1.0527	57,759.3775
Mobile	96.5171	1,170.0964	1,579.2091	8.3856	650.2082	8.1329	658.3411	176.5990	7.6776	184.2766		861,809.6421	861,809.6421	28.1032		862,512.2230
<b>Total</b>	<b>341.5727</b>	<b>1,218.3504</b>	<b>1,676.6511</b>	<b>8.6758</b>	<b>650.2082</b>	<b>12.0952</b>	<b>662.3034</b>	<b>176.5990</b>	<b>11.6399</b>	<b>188.2389</b>	<b>0.0000</b>	<b>919,334.7251</b>	<b>919,334.7251</b>	<b>29.3101</b>	<b>1.0527</b>	<b>920,381.1710</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	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	Demolition	Demolition	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

#### 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
Demolition	1	1.00	0.00	0.00	1.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0481	0.3797	0.4593	7.8000e-004		0.0216	0.0216		0.0216	0.0216		74.0831	74.0831	4.3000e-003		74.1906
<b>Total</b>	<b>0.0481</b>	<b>0.3797</b>	<b>0.4593</b>	<b>7.8000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0216</b>	<b>0.0216</b>		<b>74.0831</b>	<b>74.0831</b>	<b>4.3000e-003</b>		<b>74.1906</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	1.1600e-003	5.8000e-004	7.9900e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	1.0000e-005	2.2000e-004		0.8691	0.8691	4.0000e-005		0.8702
<b>Total</b>	<b>1.1600e-003</b>	<b>5.8000e-004</b>	<b>7.9900e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>2.1000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>		<b>0.8691</b>	<b>0.8691</b>	<b>4.0000e-005</b>		<b>0.8702</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.2 Demolition - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0481	0.3797	0.4593	7.8000e-004		0.0216	0.0216		0.0216	0.0216	0.0000	74.0831	74.0831	4.3000e-003		74.1906
<b>Total</b>	<b>0.0481</b>	<b>0.3797</b>	<b>0.4593</b>	<b>7.8000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0216</b>	<b>0.0216</b>	<b>0.0000</b>	<b>74.0831</b>	<b>74.0831</b>	<b>4.3000e-003</b>		<b>74.1906</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	1.1600e-003	5.8000e-004	7.9900e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	1.0000e-005	2.2000e-004		0.8691	0.8691	4.0000e-005		0.8702
<b>Total</b>	<b>1.1600e-003</b>	<b>5.8000e-004</b>	<b>7.9900e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>2.1000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>		<b>0.8691</b>	<b>0.8691</b>	<b>4.0000e-005</b>		<b>0.8702</b>

**4.0 Operational Detail - Mobile**

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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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	96.5171	1,170.0964	1,579.2091	8.3856	650.2082	8.1329	658.3411	176.5990	7.6776	184.2766		861,809.6421	861,809.6421	28.1032		862,512.2230
Unmitigated	96.5171	1,170.0964	1,579.2091	8.3856	650.2082	8.1329	658.3411	176.5990	7.6776	184.2766		861,809.6421	861,809.6421	28.1032		862,512.2230

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	3,373.35	3,373.35	3373.35	33,346,555	33,346,555
General Light Industry	23,049.37	4,365.16	2248.72	172,089,883	172,089,883
Regional Shopping Center	11,203.63	13,111.13	6622.47	15,121,182	15,121,182
Single Family Housing	6,730.64	7,006.37	6094.34	17,139,376	17,139,376
User Defined Recreational	0.00	0.00	0.00		
<b>Total</b>	<b>44,356.99</b>	<b>27,856.01</b>	<b>18,338.88</b>	<b>237,696,996</b>	<b>237,696,996</b>

**4.3 Trip Type Information**



## Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

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
General Heavy Industry	38.50	5.00	38.50	59.00	28.00	13.00	92	5	3
General Light Industry	38.50	5.00	38.50	59.00	28.00	13.00	92	5	3
Regional Shopping Center	10.00	5.00	6.50	16.30	64.70	19.00	54	35	11
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	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
General Heavy Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
General Light Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
Regional Shopping Center	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865
Single Family Housing	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865
User Defined Recreational	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865

## 5.0 Energy Detail

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Historical Energy Use: N

## 5.1 Mitigation Measures Energy

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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	5.2633	47.5726	38.1695	0.2871		3.6365	3.6365		3.6365	3.6365		57,418.1700	57,418.1700	1.1005	1.0527	57,759.3775
NaturalGas Unmitigated	5.2633	47.5726	38.1695	0.2871		3.6365	3.6365		3.6365	3.6365		57,418.1700	57,418.1700	1.1005	1.0527	57,759.3775

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					
General Heavy Industry	177386	1.9130	17.3908	14.6082	0.1043		1.3217	1.3217		1.3217	1.3217		20,868.9036	20,868.9036	0.4000	0.3826	20,992.9171
General Light Industry	260840	2.8130	25.5726	21.4810	0.1534		1.9435	1.9435		1.9435	1.9435		30,687.0870	30,687.0870	0.5882	0.5626	30,869.4450
Regional Shopping Center	2925.66	0.0316	0.2868	0.2409	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.1954	344.1954	6.6000e-003	6.3100e-003	346.2408
Single Family Housing	46902.9	0.5058	4.3224	1.8393	0.0276		0.3495	0.3495		0.3495	0.3495		5,517.9840	5,517.9840	0.1058	0.1012	5,550.7747
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.2633</b>	<b>47.5726</b>	<b>38.1695</b>	<b>0.2871</b>		<b>3.6365</b>	<b>3.6365</b>		<b>3.6365</b>	<b>3.6365</b>		<b>57,418.1701</b>	<b>57,418.1701</b>	<b>1.1005</b>	<b>1.0527</b>	<b>57,759.3775</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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					
General Heavy Industry	177.386	1.9130	17.3908	14.6082	0.1043		1.3217	1.3217		1.3217	1.3217		20,868.9036	20,868.9036	0.4000	0.3826	20,992.9171
General Light Industry	260.84	2.8130	25.5726	21.4810	0.1534		1.9435	1.9435		1.9435	1.9435		30,687.0870	30,687.0870	0.5882	0.5626	30,869.4450
Regional Shopping Center	2.92566	0.0316	0.2868	0.2409	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.1954	344.1954	6.6000e-003	6.3100e-003	346.2408
Single Family Housing	46.9029	0.5058	4.3224	1.8393	0.0276		0.3495	0.3495		0.3495	0.3495		5,517.9840	5,517.9840	0.1058	0.1012	5,550.7747
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.2633</b>	<b>47.5726</b>	<b>38.1695</b>	<b>0.2871</b>		<b>3.6365</b>	<b>3.6365</b>		<b>3.6365</b>	<b>3.6365</b>		<b>57,418.1701</b>	<b>57,418.1701</b>	<b>1.1005</b>	<b>1.0527</b>	<b>57,759.3775</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	239.7923	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258	0.0000	106.9129	106.9129	0.1063	0.0000	109.5705
Unmitigated	239.7923	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258	0.0000	106.9129	106.9129	0.1063	0.0000	109.5705

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	26.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	211.6921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8456	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258		106.9129	106.9129	0.1063		109.5705
<b>Total</b>	<b>239.7923</b>	<b>0.6815</b>	<b>59.2726</b>	<b>3.1500e-003</b>		<b>0.3258</b>	<b>0.3258</b>		<b>0.3258</b>	<b>0.3258</b>	<b>0.0000</b>	<b>106.9129</b>	<b>106.9129</b>	<b>0.1063</b>	<b>0.0000</b>	<b>109.5705</b>

Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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	26.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	211.6921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8456	0.6815	59.2726	3.1500e-003		0.3258	0.3258		0.3258	0.3258		106.9129	106.9129	0.1063		109.5705
<b>Total</b>	<b>239.7923</b>	<b>0.6815</b>	<b>59.2726</b>	<b>3.1500e-003</b>		<b>0.3258</b>	<b>0.3258</b>		<b>0.3258</b>	<b>0.3258</b>	<b>0.0000</b>	<b>106.9129</b>	<b>106.9129</b>	<b>0.1063</b>	<b>0.0000</b>	<b>109.5705</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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Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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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2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2,248.90	1000sqft	143.41	2,248,898.00	0
General Light Industry	3,306.94	1000sqft	210.88	3,306,936.00	0
User Defined Recreational	2,801.34	User Defined Unit	64.31	2,801,343.60	0
Single Family Housing	707.00	Dwelling Unit	117.80	1,272,600.00	2283
Regional Shopping Center	262.38	1000sqft	20.77	262,375.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2040
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MW hr)</b>	492	<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**

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Project Characteristics - CA Average CO2 intensity factor used.

Full buildout of project site anticipated in 2040.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household.

Construction Phase - Operational emissions modeled. Construction activities zeroed out.

Off-road Equipment - Operational emissions modeled. Construction activities zeroed out.

Trips and VMT - Operational emissions modeled. Construction activities zeroed out.

Vehicle Trips - Trip distance for industrial land use commercial-work adjusted to reflect potential travel to regional ports and distribution areas.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood burning appliances.

Energy Use - Adjusted Title-24 Energy Intensity to 2019 Title-24 standards.

Mobile Land Use Mitigation -

Waste Mitigation -

Fleet Mix - Industrial land use fleet mix adjusted to reflect anticipated increased use of heavy trucks.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.26	2.28
tblEnergyUse	T24E	678.97	319.12
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	4.49	3.14
tblEnergyUse	T24NG	23,147.69	21,527.35
tblFireplaces	NumberNoFireplace	707.00	0.00
tblFleetMix	HHD	0.03	0.05



## 2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblFleetMix	HHD	0.03	0.05
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MHD	0.02	0.14
tblFleetMix	MHD	0.02	0.14
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	UBUS	1.2750e-003	2.0540e-003
tblFleetMix	UBUS	1.2750e-003	2.0540e-003
tblLandUse	LandUseSquareFeet	2,248,900.00	2,248,898.00
tblLandUse	LandUseSquareFeet	3,306,940.00	3,306,936.00

## 2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblLandUse	LandUseSquareFeet	0.00	2,801,343.60
tblLandUse	LandUseSquareFeet	262,380.00	262,375.00
tblLandUse	LotAcreage	51.63	143.41
tblLandUse	LotAcreage	75.92	210.88
tblLandUse	LotAcreage	0.00	64.31
tblLandUse	LotAcreage	229.55	117.80
tblLandUse	LotAcreage	6.02	20.77
tblLandUse	Population	1,888.00	2,283.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblTripsAndVMT	WorkerTripLength	10.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	1.00
tblVehicleTrips	CNW_TL	6.50	38.50
tblVehicleTrips	CNW_TL	6.50	38.50
tblVehicleTrips	CW_TL	10.00	38.50
tblVehicleTrips	CW_TL	10.00	38.50

## 2.0 Emissions Summary

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2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	0.0002	0.0002
		Highest	0.0002	0.0002

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	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
Energy	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	28,958.5007	28,958.5007	1.3288	0.4115	29,114.3483
Mobile	6.3905	91.8019	104.1131	0.9836	91.3364	0.3677	91.7041	24.8746	0.3454	25.2200	0.0000	92,420.0315	92,420.0315	1.9651	0.0000	92,469.1577
Waste						0.0000	0.0000		0.0000	0.0000	1,621.2137	0.0000	1,621.2137	95.8110	0.0000	4,016.4884
Water						0.0000	0.0000		0.0000	0.0000	477.7337	1,533.4444	2,011.1781	1.7347	1.0576	2,369.7148
<b>Total</b>	<b>51.0034</b>	<b>100.5686</b>	<b>118.4473</b>	<b>1.0364</b>	<b>91.3364</b>	<b>1.0722</b>	<b>92.4086</b>	<b>24.8746</b>	<b>1.0499</b>	<b>25.9244</b>	<b>2,098.9474</b>	<b>122,924.1003</b>	<b>125,023.0477</b>	<b>100.8514</b>	<b>1.4691</b>	<b>127,982.1300</b>

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
Energy	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	28,958.5007	28,958.5007	1.3288	0.4115	29,114.3483
Mobile	6.3905	91.8019	104.1131	0.9836	91.3364	0.3677	91.7041	24.8746	0.3454	25.2200	0.0000	92,420.0315	92,420.0315	1.9651	0.0000	92,469.1577
Waste						0.0000	0.0000		0.0000	0.0000	1,621.2137	0.0000	1,621.2137	95.8110	0.0000	4,016.4884
Water						0.0000	0.0000		0.0000	0.0000	477.7337	1,533.4444	2,011.1781	1.7347	1.0576	2,369.7148
<b>Total</b>	<b>51.0034</b>	<b>100.5686</b>	<b>118.4473</b>	<b>1.0364</b>	<b>91.3364</b>	<b>1.0722</b>	<b>92.4086</b>	<b>24.8746</b>	<b>1.0499</b>	<b>25.9244</b>	<b>2,098.9474</b>	<b>122,924.1003</b>	<b>125,023.0477</b>	<b>100.8514</b>	<b>1.4691</b>	<b>127,982.1300</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
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	Demolition	Demolition	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

**Acres of Paving: 0**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

**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
Demolition	1	1.00	0.00	0.00	1.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-005	1.9000e-004	2.3000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0336	0.0336	0.0000	0.0000	0.0337
<b>Total</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>2.3000e-004</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>0.0000</b>	<b>0.0336</b>	<b>0.0336</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0337</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.0000e-004
<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>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-005	1.9000e-004	2.3000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0336	0.0336	0.0000	0.0000	0.0337
<b>Total</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>2.3000e-004</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>0.0000</b>	<b>0.0336</b>	<b>0.0336</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0337</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.0000e-004
<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>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>

**4.0 Operational Detail - Mobile**

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2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.3905	91.8019	104.1131	0.9836	91.3364	0.3677	91.7041	24.8746	0.3454	25.2200	0.0000	92,420.03 15	92,420.03 15	1.9651	0.0000	92,469.15 77
Unmitigated	6.3905	91.8019	104.1131	0.9836	91.3364	0.3677	91.7041	24.8746	0.3454	25.2200	0.0000	92,420.03 15	92,420.03 15	1.9651	0.0000	92,469.15 77

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	3,373.35	3,373.35	3373.35	33,346,555	33,346,555
General Light Industry	23,049.37	4,365.16	2248.72	172,089,883	172,089,883
Regional Shopping Center	11,203.63	13,111.13	6622.47	15,121,182	15,121,182
Single Family Housing	6,730.64	7,006.37	6094.34	17,139,376	17,139,376
User Defined Recreational	0.00	0.00	0.00		
<b>Total</b>	<b>44,356.99</b>	<b>27,856.01</b>	<b>18,338.88</b>	<b>237,696,996</b>	<b>237,696,996</b>

**4.3 Trip Type Information**

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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
General Heavy Industry	38.50	5.00	38.50	59.00	28.00	13.00	92	5	3
General Light Industry	38.50	5.00	38.50	59.00	28.00	13.00	92	5	3
Regional Shopping Center	10.00	5.00	6.50	16.30	64.70	19.00	54	35	11
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	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
General Heavy Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
General Light Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
Regional Shopping Center	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
Single Family Housing	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
User Defined Recreational	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547

5.0 Energy Detail

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Historical Energy Use: N

5.1 Mitigation Measures Energy

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2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	19,452.2787	19,452.2787	1.1466	0.2372	19,551.6355
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	19,452.2787	19,452.2787	1.1466	0.2372	19,551.6355
NaturalGas Mitigated	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	9,506.2220	9,506.2220	0.1822	0.1743	9,562.7127
NaturalGas Unmitigated	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	9,506.2220	9,506.2220	0.1822	0.1743	9,562.7127

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	tons/yr										MT/yr					
General Heavy Industry	6.47458e+007	0.3491	3.1738	2.6660	0.0190		0.2412	0.2412		0.2412	0.2412	0.0000	3,455.0810	3,455.0810	0.0662	0.0633	3,475.6129
General Light Industry	9.52067e+007	0.5134	4.6670	3.9203	0.0280		0.3547	0.3547		0.3547	0.3547	0.0000	5,080.5914	5,080.5914	0.0974	0.0931	5,110.7828
Regional Shopping Center	1.06787e+006	5.7600e-003	0.0524	0.0440	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	56.9854	56.9854	1.0900e-003	1.0400e-003	57.3241
Single Family Housing	1.71195e+007	0.0923	0.7888	0.3357	5.0400e-003		0.0638	0.0638		0.0638	0.0638	0.0000	913.5641	913.5641	0.0175	0.0168	918.9930
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.9606</b>	<b>8.6820</b>	<b>6.9659</b>	<b>0.0524</b>		<b>0.6637</b>	<b>0.6637</b>		<b>0.6637</b>	<b>0.6637</b>	<b>0.0000</b>	<b>9,506.2220</b>	<b>9,506.2220</b>	<b>0.1822</b>	<b>0.1743</b>	<b>9,562.7127</b>

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	6.47458e+007	0.3491	3.1738	2.6660	0.0190		0.2412	0.2412		0.2412	0.2412	0.0000	3,455.0810	3,455.0810	0.0662	0.0633	3,475.6129
General Light Industry	9.52067e+007	0.5134	4.6670	3.9203	0.0280		0.3547	0.3547		0.3547	0.3547	0.0000	5,080.5914	5,080.5914	0.0974	0.0931	5,110.7828
Regional Shopping Center	1.06787e+006	5.7600e-003	0.0524	0.0440	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	56.9854	56.9854	1.0900e-003	1.0400e-003	57.3241
Single Family Housing	1.71195e+007	0.0923	0.7888	0.3357	5.0400e-003		0.0638	0.0638		0.0638	0.0638	0.0000	913.5641	913.5641	0.0175	0.0168	918.9930
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.9606</b>	<b>8.6820</b>	<b>6.9659</b>	<b>0.0524</b>		<b>0.6637</b>	<b>0.6637</b>		<b>0.6637</b>	<b>0.6637</b>	<b>0.0000</b>	<b>9,506.2220</b>	<b>9,506.2220</b>	<b>0.1822</b>	<b>0.1743</b>	<b>9,562.7127</b>

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	3.18444e+007	7,106.6325	0.4189	0.0867	7,142.9312
General Light Industry	4.68262e+007	10,450.0865	0.6160	0.1274	10,503.4627
Regional Shopping Center	2.77855e+006	620.0822	0.0366	7.5600e-003	623.2494
Single Family Housing	5.71534e+006	1,275.4775	0.0752	0.0156	1,281.9923
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>19,452.2787</b>	<b>1.1466</b>	<b>0.2372</b>	<b>19,551.6355</b>

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	3.18444e+007	7,106.6325	0.4189	0.0867	7,142.9312
General Light Industry	4.68262e+007	10,450.0865	0.6160	0.1274	10,503.4627
Regional Shopping Center	2.77855e+006	620.0822	0.0366	7.5600e-003	623.2494
Single Family Housing	5.71534e+006	1,275.4775	0.0752	0.0156	1,281.9923
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>19,452.2787</b>	<b>1.1466</b>	<b>0.2372</b>	<b>19,551.6355</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
Unmitigated	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209

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	4.7915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	38.6338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2271	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
<b>Total</b>	<b>43.6524</b>	<b>0.0848</b>	<b>7.3683</b>	<b>3.9000e-004</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>12.1237</b>	<b>12.1237</b>	<b>0.0119</b>	<b>0.0000</b>	<b>12.4209</b>



2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.7915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	38.6338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2271	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
<b>Total</b>	<b>43.6524</b>	<b>0.0848</b>	<b>7.3683</b>	<b>3.9000e-004</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>12.1237</b>	<b>12.1237</b>	<b>0.0119</b>	<b>0.0000</b>	<b>12.4209</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,011.1781	1.7347	1.0576	2,369.7148
Unmitigated	2,011.1781	1.7347	1.0576	2,369.7148

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	520.058 / 0	762.2782	0.6674	0.4072	900.3043
General Light Industry	764.73 / 0	1,120.9072	0.9814	0.5988	1,323.8705
Regional Shopping Center	19.4351 / 11.9119	37.7914	0.0255	0.0153	42.9971
Single Family Housing	46.0639 / 29.0403	90.2014	0.0605	0.0363	102.5428
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2,011.1781</b>	<b>1.7347</b>	<b>1.0576</b>	<b>2,369.7148</b>

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	520.058 / 0	762.2782	0.6674	0.4072	900.3043
General Light Industry	764.73 / 0	1,120.9072	0.9814	0.5988	1,323.8705
Regional Shopping Center	19.4351 / 11.9119	37.7914	0.0255	0.0153	42.9971
Single Family Housing	46.0639 / 29.0403	90.2014	0.0605	0.0363	102.5428
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2,011.1781</b>	<b>1.7347</b>	<b>1.0576</b>	<b>2,369.7148</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,621.213 7	95.8110	0.0000	4,016.488 4
Unmitigated	1,621.213 7	95.8110	0.0000	4,016.488 4

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2788.64	566.0687	33.4537	0.0000	1,402.4113
General Light Industry	4100.61	832.3868	49.1927	0.0000	2,062.203 0
Regional Shopping Center	275.5	55.9240	3.3050	0.0000	138.5494
Single Family Housing	821.88	166.8342	9.8596	0.0000	413.3247
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,621.213 7</b>	<b>95.8110</b>	<b>0.0000</b>	<b>4,016.488 4</b>

2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2788.64	566.0687	33.4537	0.0000	1,402.4113
General Light Industry	4100.61	832.3868	49.1927	0.0000	2,062.2030
Regional Shopping Center	275.5	55.9240	3.3050	0.0000	138.5494
Single Family Housing	821.88	166.8342	9.8596	0.0000	413.3247
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,621.2137</b>	<b>95.8110</b>	<b>0.0000</b>	<b>4,016.4884</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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2040 Operational Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2,248.90	1000sqft	143.41	2,248,898.00	0
General Light Industry	3,306.94	1000sqft	210.88	3,306,936.00	0
User Defined Recreational	2,801.34	User Defined Unit	64.31	2,801,343.60	0
Single Family Housing	707.00	Dwelling Unit	117.80	1,272,600.00	2283
Regional Shopping Center	262.38	1000sqft	20.77	262,375.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2040
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MWhr)</b>	492	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Project Characteristics - CA average CO2 intensity factor.

Full buildout of project site anticipated in 2040, but conservatively modeled 2022 for first possible year of operations.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household.

Construction Phase - Operational emissions modeled. Construction activities zeroed out.

Off-road Equipment - Operational emissions modeled. Construction activities zeroed out.

Trips and VMT - Operational emissions modeled. Construction activities zeroed out.

Vehicle Trips - Trip rates and distances adjusted to reflect Transportation VMT Analysis with implementation of VMT reduction measures to achieve General Plan VMT limits by land use.

Woodstoves - No wood burning appliances.

Energy Use - Adjusted Title-24 Energy Intensity to 2019 Title-24 standards.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Waste Mitigation -

Fleet Mix - Industrial land use fleet mix adjusted to reflect anticipated increased use of heavy trucks.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.26	2.28
tblEnergyUse	T24E	678.97	319.12
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	4.49	3.14



## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblEnergyUse	T24NG	23,147.69	10,879.41
tblFireplaces	NumberNoFireplace	707.00	0.00
tblFleetMix	HHD	0.03	0.05
tblFleetMix	HHD	0.03	0.05
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MHD	0.02	0.14
tblFleetMix	MHD	0.02	0.14
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	UBUS	1.2750e-003	2.0540e-003

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblFleetMix	UBUS	1.2750e-003	2.0540e-003
tblLandUse	LandUseSquareFeet	2,248,900.00	2,248,898.00
tblLandUse	LandUseSquareFeet	3,306,940.00	3,306,936.00
tblLandUse	LandUseSquareFeet	0.00	2,801,343.60
tblLandUse	LandUseSquareFeet	262,380.00	262,375.00
tblLandUse	LotAcreage	51.63	143.41
tblLandUse	LotAcreage	75.92	210.88
tblLandUse	LotAcreage	0.00	64.31
tblLandUse	LotAcreage	229.55	117.80
tblLandUse	LotAcreage	6.02	20.77
tblLandUse	Population	1,888.00	2,283.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblTripsAndVMT	WorkerTripLength	10.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	1.00
tblVehicleTrips	CC_TL	5.00	10.20
tblVehicleTrips	CC_TL	5.00	6.30
tblVehicleTrips	CC_TL	5.00	2.80
tblVehicleTrips	CNW_TL	6.50	10.20
tblVehicleTrips	CNW_TL	6.50	6.30
tblVehicleTrips	CNW_TL	6.50	2.80
tblVehicleTrips	CW_TL	10.00	10.20
tblVehicleTrips	CW_TL	10.00	6.30
tblVehicleTrips	CW_TL	10.00	2.80
tblVehicleTrips	HO_TL	6.50	7.25

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblVehicleTrips	HS_TL	5.00	7.25
tblVehicleTrips	HW_TL	10.00	7.25
tblVehicleTrips	ST_TR	1.50	4.96
tblVehicleTrips	ST_TR	1.32	4.96
tblVehicleTrips	ST_TR	49.97	37.75
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	1.50	4.96
tblVehicleTrips	SU_TR	0.68	4.96
tblVehicleTrips	SU_TR	25.24	37.75
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	1.50	4.96
tblVehicleTrips	WD_TR	6.97	4.96
tblVehicleTrips	WD_TR	42.70	37.75
tblVehicleTrips	WD_TR	9.52	9.44

**2.0 Emissions Summary**

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	0.0002	0.0002
		Highest	0.0002	0.0002

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	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
Energy	0.9200	8.3351	6.8183	0.0502		0.6356	0.6356		0.6356	0.6356	0.0000	28,556.7729	28,556.7729	1.3211	0.4041	28,710.2333
Mobile	4.3838	66.1338	52.3186	0.4067	36.6606	0.1571	36.8177	9.9662	0.1473	10.1135	0.0000	38,201.2108	38,201.2108	1.0739	0.0000	38,228.0572
Waste						0.0000	0.0000		0.0000	0.0000	1,621.2137	0.0000	1,621.2137	95.8110	0.0000	4,016.4884
Water						0.0000	0.0000		0.0000	0.0000	477.7337	1,533.4444	2,011.1781	1.7347	1.0576	2,369.7148
<b>Total</b>	<b>48.9561</b>	<b>74.5537</b>	<b>66.5053</b>	<b>0.4573</b>	<b>36.6606</b>	<b>0.8336</b>	<b>37.4941</b>	<b>9.9662</b>	<b>0.8237</b>	<b>10.7899</b>	<b>2,098.9474</b>	<b>68,303.5518</b>	<b>70,402.4992</b>	<b>99.9525</b>	<b>1.4618</b>	<b>73,336.9145</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
Energy	0.9200	8.3351	6.8183	0.0502		0.6356	0.6356		0.6356	0.6356	0.0000	28,556.7729	28,556.7729	1.3211	0.4041	28,710.2333
Mobile	4.3838	66.1338	52.3186	0.4067	36.6606	0.1571	36.8177	9.9662	0.1473	10.1135	0.0000	38,201.2108	38,201.2108	1.0739	0.0000	38,228.0572
Waste						0.0000	0.0000		0.0000	0.0000	1,621.2137	0.0000	1,621.2137	95.8110	0.0000	4,016.4884
Water						0.0000	0.0000		0.0000	0.0000	477.7337	1,533.4444	2,011.1781	1.7347	1.0576	2,369.7148
<b>Total</b>	<b>48.9561</b>	<b>74.5537</b>	<b>66.5053</b>	<b>0.4573</b>	<b>36.6606</b>	<b>0.8336</b>	<b>37.4941</b>	<b>9.9662</b>	<b>0.8237</b>	<b>10.7899</b>	<b>2,098.9474</b>	<b>68,303.5518</b>	<b>70,402.4992</b>	<b>99.9525</b>	<b>1.4618</b>	<b>73,336.9145</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
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	Demolition	Demolition	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

**Acres of Paving: 0**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

**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
Demolition	1	1.00	0.00	0.00	1.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-005	1.9000e-004	2.3000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0336	0.0336	0.0000	0.0000	0.0337
<b>Total</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>2.3000e-004</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>0.0000</b>	<b>0.0336</b>	<b>0.0336</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0337</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.0000e-004
<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>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>



Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-005	1.9000e-004	2.3000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0336	0.0336	0.0000	0.0000	0.0337
<b>Total</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>2.3000e-004</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>0.0000</b>	<b>0.0336</b>	<b>0.0336</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0337</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.0000e-004
<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>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>

**4.0 Operational Detail - Mobile**

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3838	66.1338	52.3186	0.4067	36.6606	0.1571	36.8177	9.9662	0.1473	10.1135	0.0000	38,201.2108	38,201.2108	1.0739	0.0000	38,228.0572
Unmitigated	4.3838	66.1338	52.3186	0.4067	36.6606	0.1571	36.8177	9.9662	0.1473	10.1135	0.0000	38,201.2108	38,201.2108	1.0739	0.0000	38,228.0572

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	11,154.54	11,154.54	11154.54	38,631,287	38,631,287
General Light Industry	16,402.42	16,402.42	16402.42	35,092,999	35,092,999
Regional Shopping Center	9,904.85	9,904.85	9904.85	6,374,283	6,374,283
Single Family Housing	6,674.08	6,674.08	6674.08	15,638,734	15,638,734
User Defined Recreational	0.00	0.00	0.00		
<b>Total</b>	<b>44,135.89</b>	<b>44,135.89</b>	<b>44,135.89</b>	<b>95,737,303</b>	<b>95,737,303</b>

**4.3 Trip Type Information**

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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
General Heavy Industry	10.20	10.20	10.20	59.00	28.00	13.00	92	5	3
General Light Industry	6.30	6.30	6.30	59.00	28.00	13.00	92	5	3
Regional Shopping Center	2.80	2.80	2.80	16.30	64.70	19.00	54	35	11
Single Family Housing	7.25	7.25	7.25	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	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
General Heavy Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
General Light Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
Regional Shopping Center	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
Single Family Housing	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
User Defined Recreational	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	19,452.2787	19,452.2787	1.1466	0.2372	19,551.6355
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	19,452.2787	19,452.2787	1.1466	0.2372	19,551.6355
NaturalGas Mitigated	0.9200	8.3351	6.8183	0.0502		0.6356	0.6356		0.6356	0.6356	0.0000	9,104.4943	9,104.4943	0.1745	0.1669	9,158.5977
NaturalGas Unmitigated	0.9200	8.3351	6.8183	0.0502		0.6356	0.6356		0.6356	0.6356	0.0000	9,104.4943	9,104.4943	0.1745	0.1669	9,158.5977

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	tons/yr										MT/yr					
General Heavy Industry	6.47458e+007	0.3491	3.1738	2.6660	0.0190		0.2412	0.2412		0.2412	0.2412	0.0000	3,455.0810	3,455.0810	0.0662	0.0633	3,475.6129
General Light Industry	9.52067e+007	0.5134	4.6670	3.9203	0.0280		0.3547	0.3547		0.3547	0.3547	0.0000	5,080.5914	5,080.5914	0.0974	0.0931	5,110.7828
Regional Shopping Center	1.06787e+006	5.7600e-003	0.0524	0.0440	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	56.9854	56.9854	1.0900e-003	1.0400e-003	57.3241
Single Family Housing	9.59145e+006	0.0517	0.4420	0.1881	2.8200e-003		0.0357	0.0357		0.0357	0.0357	0.0000	511.8364	511.8364	9.8100e-003	9.3800e-003	514.8780
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.9200</b>	<b>8.3351</b>	<b>6.8183</b>	<b>0.0502</b>		<b>0.6356</b>	<b>0.6356</b>		<b>0.6356</b>	<b>0.6356</b>	<b>0.0000</b>	<b>9,104.4943</b>	<b>9,104.4943</b>	<b>0.1745</b>	<b>0.1669</b>	<b>9,158.5977</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	6.47458e+007	0.3491	3.1738	2.6660	0.0190		0.2412	0.2412		0.2412	0.2412	0.0000	3,455.0810	3,455.0810	0.0662	0.0633	3,475.6129
General Light Industry	9.52067e+007	0.5134	4.6670	3.9203	0.0280		0.3547	0.3547		0.3547	0.3547	0.0000	5,080.5914	5,080.5914	0.0974	0.0931	5,110.7828
Regional Shopping Center	1.06787e+006	5.7600e-003	0.0524	0.0440	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	56.9854	56.9854	1.0900e-003	1.0400e-003	57.3241
Single Family Housing	9.59145e+006	0.0517	0.4420	0.1881	2.8200e-003		0.0357	0.0357		0.0357	0.0357	0.0000	511.8364	511.8364	9.8100e-003	9.3800e-003	514.8780
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.9200</b>	<b>8.3351</b>	<b>6.8183</b>	<b>0.0502</b>		<b>0.6356</b>	<b>0.6356</b>		<b>0.6356</b>	<b>0.6356</b>	<b>0.0000</b>	<b>9,104.4943</b>	<b>9,104.4943</b>	<b>0.1745</b>	<b>0.1669</b>	<b>9,158.5977</b>

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	3.18444e+007	7,106.6325	0.4189	0.0867	7,142.9312
General Light Industry	4.68262e+007	10,450.0865	0.6160	0.1274	10,503.4627
Regional Shopping Center	2.77855e+006	620.0822	0.0366	7.5600e-003	623.2494
Single Family Housing	5.71534e+006	1,275.4775	0.0752	0.0156	1,281.9923
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>19,452.2787</b>	<b>1.1466</b>	<b>0.2372</b>	<b>19,551.6355</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	3.18444e+007	7,106.6325	0.4189	0.0867	7,142.9312
General Light Industry	4.68262e+007	10,450.0865	0.6160	0.1274	10,503.4627
Regional Shopping Center	2.77855e+006	620.0822	0.0366	7.5600e-003	623.2494
Single Family Housing	5.71534e+006	1,275.4775	0.0752	0.0156	1,281.9923
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>19,452.2787</b>	<b>1.1466</b>	<b>0.2372</b>	<b>19,551.6355</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
Unmitigated	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209

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	4.7915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	38.6338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2271	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
<b>Total</b>	<b>43.6524</b>	<b>0.0848</b>	<b>7.3683</b>	<b>3.9000e-004</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>12.1237</b>	<b>12.1237</b>	<b>0.0119</b>	<b>0.0000</b>	<b>12.4209</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.7915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	38.6338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2271	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
<b>Total</b>	<b>43.6524</b>	<b>0.0848</b>	<b>7.3683</b>	<b>3.9000e-004</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>12.1237</b>	<b>12.1237</b>	<b>0.0119</b>	<b>0.0000</b>	<b>12.4209</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,011.1781	1.7347	1.0576	2,369.7148
Unmitigated	2,011.1781	1.7347	1.0576	2,369.7148

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	520.058 / 0	762.2782	0.6674	0.4072	900.3043
General Light Industry	764.73 / 0	1,120.9072	0.9814	0.5988	1,323.8705
Regional Shopping Center	19.4351 / 11.9119	37.7914	0.0255	0.0153	42.9971
Single Family Housing	46.0639 / 29.0403	90.2014	0.0605	0.0363	102.5428
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2,011.1781</b>	<b>1.7347</b>	<b>1.0576</b>	<b>2,369.7148</b>

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	520.058 / 0	762.2782	0.6674	0.4072	900.3043
General Light Industry	764.73 / 0	1,120.9072	0.9814	0.5988	1,323.8705
Regional Shopping Center	19.4351 / 11.9119	37.7914	0.0255	0.0153	42.9971
Single Family Housing	46.0639 / 29.0403	90.2014	0.0605	0.0363	102.5428
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2,011.1781</b>	<b>1.7347</b>	<b>1.0576</b>	<b>2,369.7148</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,621.213 7	95.8110	0.0000	4,016.488 4
Unmitigated	1,621.213 7	95.8110	0.0000	4,016.488 4

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2788.64	566.0687	33.4537	0.0000	1,402.4113
General Light Industry	4100.61	832.3868	49.1927	0.0000	2,062.203 0
Regional Shopping Center	275.5	55.9240	3.3050	0.0000	138.5494
Single Family Housing	821.88	166.8342	9.8596	0.0000	413.3247
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,621.213 7</b>	<b>95.8110</b>	<b>0.0000</b>	<b>4,016.488 4</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2788.64	566.0687	33.4537	0.0000	1,402.4113
General Light Industry	4100.61	832.3868	49.1927	0.0000	2,062.2030
Regional Shopping Center	275.5	55.9240	3.3050	0.0000	138.5494
Single Family Housing	821.88	166.8342	9.8596	0.0000	413.3247
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,621.2137</b>	<b>95.8110</b>	<b>0.0000</b>	<b>4,016.4884</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2,248.90	1000sqft	143.41	2,248,898.00	0
General Light Industry	3,306.94	1000sqft	210.88	3,306,936.00	0
User Defined Recreational	2,801.34	User Defined Unit	64.31	2,801,343.60	0
Single Family Housing	707.00	Dwelling Unit	117.80	1,272,600.00	2283
Regional Shopping Center	262.38	1000sqft	20.77	262,375.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2040
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MW hr)</b>	492	<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**



Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

Project Characteristics - CA average CO2 intensity factor.

Full buildout of project site anticipated in 2040, but conservatively modeled 2022 for first possible year of operations.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household.

Construction Phase - Operational emissions modeled. Construction activities zeroed out.

Off-road Equipment - Operational emissions modeled. Construction activities zeroed out.

Trips and VMT - Operational emissions modeled. Construction activities zeroed out.

Vehicle Trips - Trip rates and distances adjusted to reflect Transportation VMT Analysis with implementation of VMT reduction measures to achieve General Plan VMT limits by land use.

Woodstoves - No wood burning appliances.

Energy Use - Adjusted Title-24 Energy Intensity to 2019 Title-24 standards.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Waste Mitigation -

Fleet Mix - Industrial land use fleet mix adjusted to reflect anticipated increased use of heavy trucks.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.26	2.28
tblEnergyUse	T24E	678.97	319.12
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	4.49	3.14

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

tblEnergyUse	T24NG	23,147.69	10,879.41
tblFireplaces	NumberNoFireplace	707.00	0.00
tblFleetMix	HHD	0.03	0.05
tblFleetMix	HHD	0.03	0.05
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MHD	0.02	0.14
tblFleetMix	MHD	0.02	0.14
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	UBUS	1.2750e-003	2.0540e-003

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

tblFleetMix	UBUS	1.2750e-003	2.0540e-003
tblLandUse	LandUseSquareFeet	2,248,900.00	2,248,898.00
tblLandUse	LandUseSquareFeet	3,306,940.00	3,306,936.00
tblLandUse	LandUseSquareFeet	0.00	2,801,343.60
tblLandUse	LandUseSquareFeet	262,380.00	262,375.00
tblLandUse	LotAcreage	51.63	143.41
tblLandUse	LotAcreage	75.92	210.88
tblLandUse	LotAcreage	0.00	64.31
tblLandUse	LotAcreage	229.55	117.80
tblLandUse	LotAcreage	6.02	20.77
tblLandUse	Population	1,888.00	2,283.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblTripsAndVMT	WorkerTripLength	10.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	1.00
tblVehicleTrips	CC_TL	5.00	10.20
tblVehicleTrips	CC_TL	5.00	6.30
tblVehicleTrips	CC_TL	5.00	2.80
tblVehicleTrips	CNW_TL	6.50	10.20
tblVehicleTrips	CNW_TL	6.50	6.30
tblVehicleTrips	CNW_TL	6.50	2.80
tblVehicleTrips	CW_TL	10.00	10.20
tblVehicleTrips	CW_TL	10.00	6.30
tblVehicleTrips	CW_TL	10.00	2.80
tblVehicleTrips	HO_TL	6.50	7.25

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

tblVehicleTrips	HS_TL	5.00	7.25
tblVehicleTrips	HW_TL	10.00	7.25
tblVehicleTrips	ST_TR	1.50	4.96
tblVehicleTrips	ST_TR	1.32	4.96
tblVehicleTrips	ST_TR	49.97	37.75
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	1.50	4.96
tblVehicleTrips	SU_TR	0.68	4.96
tblVehicleTrips	SU_TR	25.24	37.75
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	1.50	4.96
tblVehicleTrips	WD_TR	6.97	4.96
tblVehicleTrips	WD_TR	42.70	37.75
tblVehicleTrips	WD_TR	9.52	9.44

## 2.0 Emissions Summary

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	239.7636	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266	0.0000	106.9129	106.9129	0.1048	0.0000	109.5336
Energy	5.0409	45.6719	37.3606	0.2750		3.4828	3.4828		3.4828	3.4828		54,991.7096	54,991.7096	1.0540	1.0082	55,318.4978
Mobile	29.5618	357.2394	319.5346	2.3451	208.3388	0.8626	209.2014	56.4544	0.8086	57.2631		242,447.8237	242,447.8237	6.4737		242,609.6660
<b>Total</b>	<b>274.3663</b>	<b>403.5894</b>	<b>415.8418</b>	<b>2.6232</b>	<b>208.3388</b>	<b>4.6720</b>	<b>213.0108</b>	<b>56.4544</b>	<b>4.6180</b>	<b>61.0724</b>	<b>0.0000</b>	<b>297,546.4462</b>	<b>297,546.4462</b>	<b>7.6325</b>	<b>1.0082</b>	<b>298,037.6974</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	239.7636	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266	0.0000	106.9129	106.9129	0.1048	0.0000	109.5336
Energy	5.0409	45.6719	37.3606	0.2750		3.4828	3.4828		3.4828	3.4828		54,991.7096	54,991.7096	1.0540	1.0082	55,318.4978
Mobile	29.5618	357.2394	319.5346	2.3451	208.3388	0.8626	209.2014	56.4544	0.8086	57.2631		242,447.8237	242,447.8237	6.4737		242,609.6660
<b>Total</b>	<b>274.3663</b>	<b>403.5894</b>	<b>415.8418</b>	<b>2.6232</b>	<b>208.3388</b>	<b>4.6720</b>	<b>213.0108</b>	<b>56.4544</b>	<b>4.6180</b>	<b>61.0724</b>	<b>0.0000</b>	<b>297,546.4462</b>	<b>297,546.4462</b>	<b>7.6325</b>	<b>1.0082</b>	<b>298,037.6974</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	Demolition	Demolition	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

#### 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
Demolition	1	1.00	0.00	0.00	1.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0481	0.3797	0.4593	7.8000e-004		0.0216	0.0216		0.0216	0.0216		74.0831	74.0831	4.3000e-003		74.1906
<b>Total</b>	<b>0.0481</b>	<b>0.3797</b>	<b>0.4593</b>	<b>7.8000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0216</b>	<b>0.0216</b>		<b>74.0831</b>	<b>74.0831</b>	<b>4.3000e-003</b>		<b>74.1906</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	1.8000e-003	4.8000e-004	6.6600e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	1.0000e-005	2.2000e-004		0.9708	0.9708	4.0000e-005		0.9717
<b>Total</b>	<b>1.8000e-003</b>	<b>4.8000e-004</b>	<b>6.6600e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>2.1000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>		<b>0.9708</b>	<b>0.9708</b>	<b>4.0000e-005</b>		<b>0.9717</b>



Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**3.2 Demolition - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0481	0.3797	0.4593	7.8000e-004		0.0216	0.0216		0.0216	0.0216	0.0000	74.0831	74.0831	4.3000e-003		74.1906
<b>Total</b>	<b>0.0481</b>	<b>0.3797</b>	<b>0.4593</b>	<b>7.8000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0216</b>	<b>0.0216</b>	<b>0.0000</b>	<b>74.0831</b>	<b>74.0831</b>	<b>4.3000e-003</b>		<b>74.1906</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	1.8000e-003	4.8000e-004	6.6600e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	1.0000e-005	2.2000e-004		0.9708	0.9708	4.0000e-005		0.9717
<b>Total</b>	<b>1.8000e-003</b>	<b>4.8000e-004</b>	<b>6.6600e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>2.1000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>		<b>0.9708</b>	<b>0.9708</b>	<b>4.0000e-005</b>		<b>0.9717</b>

**4.0 Operational Detail - Mobile**

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	29.5618	357.2394	319.5346	2.3451	208.3388	0.8626	209.2014	56.4544	0.8086	57.2631		242,447.8237	242,447.8237	6.4737		242,609.6660
Unmitigated	29.5618	357.2394	319.5346	2.3451	208.3388	0.8626	209.2014	56.4544	0.8086	57.2631		242,447.8237	242,447.8237	6.4737		242,609.6660

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	11,154.54	11,154.54	11154.54	38,631,287	38,631,287
General Light Industry	16,402.42	16,402.42	16402.42	35,092,999	35,092,999
Regional Shopping Center	9,904.85	9,904.85	9904.85	6,374,283	6,374,283
Single Family Housing	6,674.08	6,674.08	6674.08	15,638,734	15,638,734
User Defined Recreational	0.00	0.00	0.00		
<b>Total</b>	<b>44,135.89</b>	<b>44,135.89</b>	<b>44,135.89</b>	<b>95,737,303</b>	<b>95,737,303</b>

**4.3 Trip Type Information**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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
General Heavy Industry	10.20	10.20	10.20	59.00	28.00	13.00	92	5	3
General Light Industry	6.30	6.30	6.30	59.00	28.00	13.00	92	5	3
Regional Shopping Center	2.80	2.80	2.80	16.30	64.70	19.00	54	35	11
Single Family Housing	7.25	7.25	7.25	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	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
General Heavy Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
General Light Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
Regional Shopping Center	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
Single Family Housing	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
User Defined Recreational	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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					
NaturalGas Mitigated	5.0409	45.6719	37.3606	0.2750		3.4828	3.4828		3.4828	3.4828		54,991.7096	54,991.7096	1.0540	1.0082	55,318.4978
NaturalGas Unmitigated	5.0409	45.6719	37.3606	0.2750		3.4828	3.4828		3.4828	3.4828		54,991.7096	54,991.7096	1.0540	1.0082	55,318.4978

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					
General Heavy Industry	177386	1.9130	17.3908	14.6082	0.1043		1.3217	1.3217		1.3217	1.3217		20,868.9036	20,868.9036	0.4000	0.3826	20,992.9171
General Light Industry	260840	2.8130	25.5726	21.4810	0.1534		1.9435	1.9435		1.9435	1.9435		30,687.0870	30,687.0870	0.5882	0.5626	30,869.4450
Regional Shopping Center	2925.66	0.0316	0.2868	0.2409	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.1954	344.1954	6.6000e-003	6.3100e-003	346.2408
Single Family Housing	26278	0.2834	2.4217	1.0305	0.0155		0.1958	0.1958		0.1958	0.1958		3,091.5236	3,091.5236	0.0593	0.0567	3,109.8950
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.0409</b>	<b>45.6718</b>	<b>37.3606</b>	<b>0.2750</b>		<b>3.4828</b>	<b>3.4828</b>		<b>3.4828</b>	<b>3.4828</b>		<b>54,991.7096</b>	<b>54,991.7096</b>	<b>1.0540</b>	<b>1.0082</b>	<b>55,318.4978</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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					
General Heavy Industry	177.386	1.9130	17.3908	14.6082	0.1043		1.3217	1.3217		1.3217	1.3217		20,868.9036	20,868.9036	0.4000	0.3826	20,992.9171
General Light Industry	260.84	2.8130	25.5726	21.4810	0.1534		1.9435	1.9435		1.9435	1.9435		30,687.0870	30,687.0870	0.5882	0.5626	30,869.4450
Regional Shopping Center	2.92566	0.0316	0.2868	0.2409	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.1954	344.1954	6.6000e-003	6.3100e-003	346.2408
Single Family Housing	26.278	0.2834	2.4217	1.0305	0.0155		0.1958	0.1958		0.1958	0.1958		3,091.5236	3,091.5236	0.0593	0.0567	3,109.8950
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.0409</b>	<b>45.6718</b>	<b>37.3606</b>	<b>0.2750</b>		<b>3.4828</b>	<b>3.4828</b>		<b>3.4828</b>	<b>3.4828</b>		<b>54,991.7096</b>	<b>54,991.7096</b>	<b>1.0540</b>	<b>1.0082</b>	<b>55,318.4978</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	239.7636	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266	0.0000	106.9129	106.9129	0.1048	0.0000	109.5336
Unmitigated	239.7636	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266	0.0000	106.9129	106.9129	0.1048	0.0000	109.5336

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	26.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	211.6921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8169	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266		106.9129	106.9129	0.1048		109.5336
<b>Total</b>	<b>239.7636</b>	<b>0.6782</b>	<b>58.9466</b>	<b>3.1500e-003</b>		<b>0.3266</b>	<b>0.3266</b>		<b>0.3266</b>	<b>0.3266</b>	<b>0.0000</b>	<b>106.9129</b>	<b>106.9129</b>	<b>0.1048</b>	<b>0.0000</b>	<b>109.5336</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento 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	26.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	211.6921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8169	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266		106.9129	106.9129	0.1048		109.5336
<b>Total</b>	<b>239.7636</b>	<b>0.6782</b>	<b>58.9466</b>	<b>3.1500e-003</b>		<b>0.3266</b>	<b>0.3266</b>		<b>0.3266</b>	<b>0.3266</b>	<b>0.0000</b>	<b>106.9129</b>	<b>106.9129</b>	<b>0.1048</b>	<b>0.0000</b>	<b>109.5336</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**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Summer

**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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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2,248.90	1000sqft	143.41	2,248,898.00	0
General Light Industry	3,306.94	1000sqft	210.88	3,306,936.00	0
User Defined Recreational	2,801.34	User Defined Unit	64.31	2,801,343.60	0
Single Family Housing	707.00	Dwelling Unit	117.80	1,272,600.00	2283
Regional Shopping Center	262.38	1000sqft	20.77	262,375.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2040
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MWhr)</b>	492	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

Project Characteristics - CA average CO2 intensity factor.

Full buildout of project site anticipated in 2040, but conservatively modeled 2022 for first possible year of operations.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household.

Construction Phase - Operational emissions modeled. Construction activities zeroed out.

Off-road Equipment - Operational emissions modeled. Construction activities zeroed out.

Trips and VMT - Operational emissions modeled. Construction activities zeroed out.

Vehicle Trips - Trip rates and distances adjusted to reflect Transportation VMT Analysis with implementation of VMT reduction measures to achieve General Plan VMT limits by land use.

Woodstoves - No wood burning appliances.

Energy Use - Adjusted Title-24 Energy Intensity to 2019 Title-24 standards.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Waste Mitigation -

Fleet Mix - Industrial land use fleet mix adjusted to reflect anticipated increased use of heavy trucks.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.26	2.28
tblEnergyUse	T24E	678.97	319.12
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	4.49	3.14

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

tblEnergyUse	T24NG	23,147.69	10,879.41
tblFireplaces	NumberNoFireplace	707.00	0.00
tblFleetMix	HHD	0.03	0.05
tblFleetMix	HHD	0.03	0.05
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MHD	0.02	0.14
tblFleetMix	MHD	0.02	0.14
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	UBUS	1.2750e-003	2.0540e-003

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

tblFleetMix	UBUS	1.2750e-003	2.0540e-003
tblLandUse	LandUseSquareFeet	2,248,900.00	2,248,898.00
tblLandUse	LandUseSquareFeet	3,306,940.00	3,306,936.00
tblLandUse	LandUseSquareFeet	0.00	2,801,343.60
tblLandUse	LandUseSquareFeet	262,380.00	262,375.00
tblLandUse	LotAcreage	51.63	143.41
tblLandUse	LotAcreage	75.92	210.88
tblLandUse	LotAcreage	0.00	64.31
tblLandUse	LotAcreage	229.55	117.80
tblLandUse	LotAcreage	6.02	20.77
tblLandUse	Population	1,888.00	2,283.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	590.31	492
tblTripsAndVMT	WorkerTripLength	10.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	1.00
tblVehicleTrips	CC_TL	5.00	10.20
tblVehicleTrips	CC_TL	5.00	6.30
tblVehicleTrips	CC_TL	5.00	2.80
tblVehicleTrips	CNW_TL	6.50	10.20
tblVehicleTrips	CNW_TL	6.50	6.30
tblVehicleTrips	CNW_TL	6.50	2.80
tblVehicleTrips	CW_TL	10.00	10.20
tblVehicleTrips	CW_TL	10.00	6.30
tblVehicleTrips	CW_TL	10.00	2.80
tblVehicleTrips	HO_TL	6.50	7.25

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

tblVehicleTrips	HS_TL	5.00	7.25
tblVehicleTrips	HW_TL	10.00	7.25
tblVehicleTrips	ST_TR	1.50	4.96
tblVehicleTrips	ST_TR	1.32	4.96
tblVehicleTrips	ST_TR	49.97	37.75
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	1.50	4.96
tblVehicleTrips	SU_TR	0.68	4.96
tblVehicleTrips	SU_TR	25.24	37.75
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	1.50	4.96
tblVehicleTrips	WD_TR	6.97	4.96
tblVehicleTrips	WD_TR	42.70	37.75
tblVehicleTrips	WD_TR	9.52	9.44

**2.0 Emissions Summary**

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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	239.7636	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266	0.0000	106.9129	106.9129	0.1048	0.0000	109.5336
Energy	5.0409	45.6719	37.3606	0.2750		3.4828	3.4828		3.4828	3.4828		54,991.7096	54,991.7096	1.0540	1.0082	55,318.4978
Mobile	22.7502	365.6061	295.1425	2.1992	208.3388	0.8669	209.2057	56.4544	0.8127	57.2671		227,707.5830	227,707.5830	6.6912		227,874.8624
<b>Total</b>	<b>267.5547</b>	<b>411.9561</b>	<b>391.4497</b>	<b>2.4773</b>	<b>208.3388</b>	<b>4.6762</b>	<b>213.0151</b>	<b>56.4544</b>	<b>4.6221</b>	<b>61.0765</b>	<b>0.0000</b>	<b>282,806.2054</b>	<b>282,806.2054</b>	<b>7.8500</b>	<b>1.0082</b>	<b>283,302.8939</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	239.7636	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266	0.0000	106.9129	106.9129	0.1048	0.0000	109.5336
Energy	5.0409	45.6719	37.3606	0.2750		3.4828	3.4828		3.4828	3.4828		54,991.7096	54,991.7096	1.0540	1.0082	55,318.4978
Mobile	22.7502	365.6061	295.1425	2.1992	208.3388	0.8669	209.2057	56.4544	0.8127	57.2671		227,707.5830	227,707.5830	6.6912		227,874.8624
<b>Total</b>	<b>267.5547</b>	<b>411.9561</b>	<b>391.4497</b>	<b>2.4773</b>	<b>208.3388</b>	<b>4.6762</b>	<b>213.0151</b>	<b>56.4544</b>	<b>4.6221</b>	<b>61.0765</b>	<b>0.0000</b>	<b>282,806.2054</b>	<b>282,806.2054</b>	<b>7.8500</b>	<b>1.0082</b>	<b>283,302.8939</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	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	Demolition	Demolition	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

#### 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
Demolition	1	1.00	0.00	0.00	1.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT



Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0481	0.3797	0.4593	7.8000e-004		0.0216	0.0216		0.0216	0.0216		74.0831	74.0831	4.3000e-003		74.1906
<b>Total</b>	<b>0.0481</b>	<b>0.3797</b>	<b>0.4593</b>	<b>7.8000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0216</b>	<b>0.0216</b>		<b>74.0831</b>	<b>74.0831</b>	<b>4.3000e-003</b>		<b>74.1906</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	1.1600e-003	5.8000e-004	7.9900e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	1.0000e-005	2.2000e-004		0.8691	0.8691	4.0000e-005		0.8702
<b>Total</b>	<b>1.1600e-003</b>	<b>5.8000e-004</b>	<b>7.9900e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>2.1000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>		<b>0.8691</b>	<b>0.8691</b>	<b>4.0000e-005</b>		<b>0.8702</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**3.2 Demolition - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0481	0.3797	0.4593	7.8000e-004		0.0216	0.0216		0.0216	0.0216	0.0000	74.0831	74.0831	4.3000e-003		74.1906
<b>Total</b>	<b>0.0481</b>	<b>0.3797</b>	<b>0.4593</b>	<b>7.8000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0216</b>	<b>0.0216</b>	<b>0.0000</b>	<b>74.0831</b>	<b>74.0831</b>	<b>4.3000e-003</b>		<b>74.1906</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	1.1600e-003	5.8000e-004	7.9900e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	1.0000e-005	2.2000e-004		0.8691	0.8691	4.0000e-005		0.8702
<b>Total</b>	<b>1.1600e-003</b>	<b>5.8000e-004</b>	<b>7.9900e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>2.1000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>		<b>0.8691</b>	<b>0.8691</b>	<b>4.0000e-005</b>		<b>0.8702</b>

**4.0 Operational Detail - Mobile**

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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	22.7502	365.6061	295.1425	2.1992	208.3388	0.8669	209.2057	56.4544	0.8127	57.2671		227,707.5830	227,707.5830	6.6912		227,874.8624
Unmitigated	22.7502	365.6061	295.1425	2.1992	208.3388	0.8669	209.2057	56.4544	0.8127	57.2671		227,707.5830	227,707.5830	6.6912		227,874.8624

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	11,154.54	11,154.54	11154.54	38,631,287	38,631,287
General Light Industry	16,402.42	16,402.42	16402.42	35,092,999	35,092,999
Regional Shopping Center	9,904.85	9,904.85	9904.85	6,374,283	6,374,283
Single Family Housing	6,674.08	6,674.08	6674.08	15,638,734	15,638,734
User Defined Recreational	0.00	0.00	0.00		
<b>Total</b>	<b>44,135.89</b>	<b>44,135.89</b>	<b>44,135.89</b>	<b>95,737,303</b>	<b>95,737,303</b>

**4.3 Trip Type Information**

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

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
General Heavy Industry	10.20	10.20	10.20	59.00	28.00	13.00	92	5	3
General Light Industry	6.30	6.30	6.30	59.00	28.00	13.00	92	5	3
Regional Shopping Center	2.80	2.80	2.80	16.30	64.70	19.00	54	35	11
Single Family Housing	7.25	7.25	7.25	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	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
General Heavy Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
General Light Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
Regional Shopping Center	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
Single Family Housing	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
User Defined Recreational	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	5.0409	45.6719	37.3606	0.2750		3.4828	3.4828		3.4828	3.4828		54,991.7096	54,991.7096	1.0540	1.0082	55,318.4978
NaturalGas Unmitigated	5.0409	45.6719	37.3606	0.2750		3.4828	3.4828		3.4828	3.4828		54,991.7096	54,991.7096	1.0540	1.0082	55,318.4978

**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					
General Heavy Industry	177386	1.9130	17.3908	14.6082	0.1043		1.3217	1.3217		1.3217	1.3217		20,868.9036	20,868.9036	0.4000	0.3826	20,992.9171
General Light Industry	260840	2.8130	25.5726	21.4810	0.1534		1.9435	1.9435		1.9435	1.9435		30,687.0870	30,687.0870	0.5882	0.5626	30,869.4450
Regional Shopping Center	2925.66	0.0316	0.2868	0.2409	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.1954	344.1954	6.6000e-003	6.3100e-003	346.2408
Single Family Housing	26278	0.2834	2.4217	1.0305	0.0155		0.1958	0.1958		0.1958	0.1958		3,091.5236	3,091.5236	0.0593	0.0567	3,109.8950
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.0409</b>	<b>45.6718</b>	<b>37.3606</b>	<b>0.2750</b>		<b>3.4828</b>	<b>3.4828</b>		<b>3.4828</b>	<b>3.4828</b>		<b>54,991.7096</b>	<b>54,991.7096</b>	<b>1.0540</b>	<b>1.0082</b>	<b>55,318.4978</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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					
General Heavy Industry	177.386	1.9130	17.3908	14.6082	0.1043		1.3217	1.3217		1.3217	1.3217		20,868.9036	20,868.9036	0.4000	0.3826	20,992.9171
General Light Industry	260.84	2.8130	25.5726	21.4810	0.1534		1.9435	1.9435		1.9435	1.9435		30,687.0870	30,687.0870	0.5882	0.5626	30,869.4450
Regional Shopping Center	2.92566	0.0316	0.2868	0.2409	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.1954	344.1954	6.6000e-003	6.3100e-003	346.2408
Single Family Housing	26.278	0.2834	2.4217	1.0305	0.0155		0.1958	0.1958		0.1958	0.1958		3,091.5236	3,091.5236	0.0593	0.0567	3,109.8950
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.0409</b>	<b>45.6718</b>	<b>37.3606</b>	<b>0.2750</b>		<b>3.4828</b>	<b>3.4828</b>		<b>3.4828</b>	<b>3.4828</b>		<b>54,991.7096</b>	<b>54,991.7096</b>	<b>1.0540</b>	<b>1.0082</b>	<b>55,318.4978</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	239.7636	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266	0.0000	106.9129	106.9129	0.1048	0.0000	109.5336
Unmitigated	239.7636	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266	0.0000	106.9129	106.9129	0.1048	0.0000	109.5336

**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	26.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	211.6921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8169	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266		106.9129	106.9129	0.1048		109.5336
<b>Total</b>	<b>239.7636</b>	<b>0.6782</b>	<b>58.9466</b>	<b>3.1500e-003</b>		<b>0.3266</b>	<b>0.3266</b>		<b>0.3266</b>	<b>0.3266</b>	<b>0.0000</b>	<b>106.9129</b>	<b>106.9129</b>	<b>0.1048</b>	<b>0.0000</b>	<b>109.5336</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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	26.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	211.6921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8169	0.6782	58.9466	3.1500e-003		0.3266	0.3266		0.3266	0.3266		106.9129	106.9129	0.1048		109.5336
<b>Total</b>	<b>239.7636</b>	<b>0.6782</b>	<b>58.9466</b>	<b>3.1500e-003</b>		<b>0.3266</b>	<b>0.3266</b>		<b>0.3266</b>	<b>0.3266</b>	<b>0.0000</b>	<b>106.9129</b>	<b>106.9129</b>	<b>0.1048</b>	<b>0.0000</b>	<b>109.5336</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**



Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Winter

**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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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR**  
**Sacramento County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2,248.90	1000sqft	143.41	2,248,898.00	0
General Light Industry	3,306.94	1000sqft	210.88	3,306,936.00	0
User Defined Recreational	2,801.34	User Defined Unit	64.31	2,801,343.60	0
Single Family Housing	707.00	Dwelling Unit	117.80	1,272,600.00	2283
Regional Shopping Center	262.38	1000sqft	20.77	262,375.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	6			<b>Operational Year</b>	2040
<b>Utility Company</b>	Sacramento Municipal Utility District				
<b>CO2 Intensity (lb/MWhr)</b>	590.31	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Project Characteristics - CA average CO2 intensity factor.

Full buildout of project site anticipated in 2040.

Land Use - Proposed land use types and acreages per project description. Population based on estimated 3.23 persons per household.

Construction Phase - Operational emissions modeled. Construction activities zeroed out.

Off-road Equipment - Operational emissions modeled. Construction activities zeroed out.

Trips and VMT - Operational emissions modeled. Construction activities zeroed out.

Vehicle Trips - Trip rates and distances adjusted to reflect Transportation VMT Analysis with implementation of VMT reduction measures to achieve General Plan VMT limits by land use.

Woodstoves - No wood burning appliances.

Energy Use - Adjusted Title-24 Energy Intensity to 2019 Title-24 standards.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Waste Mitigation -

Fleet Mix - Industrial land use fleet mix adjusted to reflect anticipated increased use of heavy trucks.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.41	2.39
tblEnergyUse	T24E	3.26	2.28
tblEnergyUse	T24E	678.97	319.12
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	23.39	16.37
tblEnergyUse	T24NG	4.49	3.14

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblEnergyUse	T24NG	23,147.69	21,527.35
tblFireplaces	NumberNoFireplace	707.00	0.00
tblFleetMix	HHD	0.03	0.05
tblFleetMix	HHD	0.03	0.05
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDA	0.58	0.55
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD1	9.8700e-003	0.02
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	LHD2	4.2900e-003	5.2450e-003
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MCY	5.3700e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MH	5.4700e-004	0.00
tblFleetMix	MHD	0.02	0.14
tblFleetMix	MHD	0.02	0.14
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	OBUS	1.8530e-003	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	SBUS	5.8900e-004	0.00
tblFleetMix	UBUS	1.2750e-003	2.0540e-003

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblFleetMix	UBUS	1.2750e-003	2.0540e-003
tblLandUse	LandUseSquareFeet	2,248,900.00	2,248,898.00
tblLandUse	LandUseSquareFeet	3,306,940.00	3,306,936.00
tblLandUse	LandUseSquareFeet	0.00	2,801,343.60
tblLandUse	LandUseSquareFeet	262,380.00	262,375.00
tblLandUse	LotAcreage	51.63	143.41
tblLandUse	LotAcreage	75.92	210.88
tblLandUse	LotAcreage	0.00	64.31
tblLandUse	LotAcreage	229.55	117.80
tblLandUse	LotAcreage	6.02	20.77
tblLandUse	Population	1,888.00	2,283.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblTripsAndVMT	WorkerTripLength	10.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	1.00
tblVehicleTrips	CC_TL	5.00	10.20
tblVehicleTrips	CC_TL	5.00	6.30
tblVehicleTrips	CC_TL	5.00	2.80
tblVehicleTrips	CNW_TL	6.50	10.20
tblVehicleTrips	CNW_TL	6.50	6.30
tblVehicleTrips	CNW_TL	6.50	2.80
tblVehicleTrips	CW_TL	10.00	10.20
tblVehicleTrips	CW_TL	10.00	6.30
tblVehicleTrips	CW_TL	10.00	2.80
tblVehicleTrips	HO_TL	6.50	7.25
tblVehicleTrips	HS_TL	5.00	7.25

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

tblVehicleTrips	HW_TL	10.00	7.25
tblVehicleTrips	ST_TR	1.50	4.96
tblVehicleTrips	ST_TR	1.32	4.96
tblVehicleTrips	ST_TR	49.97	37.75
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	1.50	4.96
tblVehicleTrips	SU_TR	0.68	4.96
tblVehicleTrips	SU_TR	25.24	37.75
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	1.50	4.96
tblVehicleTrips	WD_TR	6.97	4.96
tblVehicleTrips	WD_TR	42.70	37.75
tblVehicleTrips	WD_TR	9.52	9.44

## 2.0 Emissions Summary

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	0.0002	0.0002
		Highest	0.0002	0.0002

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	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
Energy	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	32,845.3981	32,845.3981	1.3288	0.4115	33,001.2457
Mobile	4.3838	66.1338	52.3186	0.4067	36.6606	0.1571	36.8177	9.9662	0.1473	10.1135	0.0000	38,201.2108	38,201.2108	1.0739	0.0000	38,228.0572
Waste						0.0000	0.0000		0.0000	0.0000	1,621.2137	0.0000	1,621.2137	95.8110	0.0000	4,016.4884
Water						0.0000	0.0000		0.0000	0.0000	477.7337	1,839.8528	2,317.5864	1.7347	1.0576	2,676.1231
<b>Total</b>	<b>48.9967</b>	<b>74.9006</b>	<b>66.6529</b>	<b>0.4595</b>	<b>36.6606</b>	<b>0.8616</b>	<b>37.5222</b>	<b>9.9662</b>	<b>0.8518</b>	<b>10.8179</b>	<b>2,098.9474</b>	<b>72,898.5853</b>	<b>74,997.5327</b>	<b>99.9602</b>	<b>1.4691</b>	<b>77,934.3352</b>



Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
Energy	0.9606	8.6820	6.9659	0.0524		0.6637	0.6637		0.6637	0.6637	0.0000	32,845.3981	32,845.3981	1.3288	0.4115	33,001.2457
Mobile	4.3838	66.1338	52.3186	0.4067	36.6606	0.1571	36.8177	9.9662	0.1473	10.1135	0.0000	38,201.2108	38,201.2108	1.0739	0.0000	38,228.0572
Waste						0.0000	0.0000		0.0000	0.0000	1,621.2137	0.0000	1,621.2137	95.8110	0.0000	4,016.4884
Water						0.0000	0.0000		0.0000	0.0000	477.7337	1,839.8528	2,317.5864	1.7347	1.0576	2,676.1231
<b>Total</b>	<b>48.9967</b>	<b>74.9006</b>	<b>66.6529</b>	<b>0.4595</b>	<b>36.6606</b>	<b>0.8616</b>	<b>37.5222</b>	<b>9.9662</b>	<b>0.8518</b>	<b>10.8179</b>	<b>2,098.9474</b>	<b>72,898.5853</b>	<b>74,997.5327</b>	<b>99.9602</b>	<b>1.4691</b>	<b>77,934.3352</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
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	Demolition	Demolition	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

**Acres of Paving: 0**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

**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
Demolition	1	1.00	0.00	0.00	1.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-005	1.9000e-004	2.3000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0336	0.0336	0.0000	0.0000	0.0337
<b>Total</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>2.3000e-004</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>0.0000</b>	<b>0.0336</b>	<b>0.0336</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0337</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.0000e-004
<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>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**3.2 Demolition - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-005	1.9000e-004	2.3000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0336	0.0336	0.0000	0.0000	0.0337
<b>Total</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>2.3000e-004</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>0.0000</b>	<b>0.0336</b>	<b>0.0336</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0337</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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.0000e-004
<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>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>

**4.0 Operational Detail - Mobile**

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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3838	66.1338	52.3186	0.4067	36.6606	0.1571	36.8177	9.9662	0.1473	10.1135	0.0000	38,201.2108	38,201.2108	1.0739	0.0000	38,228.0572
Unmitigated	4.3838	66.1338	52.3186	0.4067	36.6606	0.1571	36.8177	9.9662	0.1473	10.1135	0.0000	38,201.2108	38,201.2108	1.0739	0.0000	38,228.0572

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	11,154.54	11,154.54	11154.54	38,631,287	38,631,287
General Light Industry	16,402.42	16,402.42	16402.42	35,092,999	35,092,999
Regional Shopping Center	9,904.85	9,904.85	9904.85	6,374,283	6,374,283
Single Family Housing	6,674.08	6,674.08	6674.08	15,638,734	15,638,734
User Defined Recreational	0.00	0.00	0.00		
<b>Total</b>	<b>44,135.89</b>	<b>44,135.89</b>	<b>44,135.89</b>	<b>95,737,303</b>	<b>95,737,303</b>

**4.3 Trip Type Information**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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
General Heavy Industry	10.20	10.20	10.20	59.00	28.00	13.00	92	5	3
General Light Industry	6.30	6.30	6.30	59.00	28.00	13.00	92	5	3
Regional Shopping Center	2.80	2.80	2.80	16.30	64.70	19.00	54	35	11
Single Family Housing	7.25	7.25	7.25	46.50	12.50	41.00	86	11	3
User Defined Recreational	10.00	5.00	6.50	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
General Heavy Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
General Light Industry	0.545127	0.038733	0.206173	0.000000	0.019040	0.005245	0.136581	0.047048	0.000000	0.002054	0.000000	0.000000	0.000000
Regional Shopping Center	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
Single Family Housing	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547
User Defined Recreational	0.579346	0.033736	0.213495	0.104098	0.009870	0.004290	0.018795	0.026736	0.001853	0.001275	0.005370	0.000589	0.000547

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	23,339.1761	23,339.1761	1.1466	0.2372	23,438.5329
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	23,339.1761	23,339.1761	1.1466	0.2372	23,438.5329
NaturalGas Mitigated	0.9606	8.6820	6.9659	0.0524			0.6637	0.6637		0.6637	0.6637	9,506.2220	9,506.2220	0.1822	0.1743	9,562.7127
NaturalGas Unmitigated	0.9606	8.6820	6.9659	0.0524			0.6637	0.6637		0.6637	0.6637	9,506.2220	9,506.2220	0.1822	0.1743	9,562.7127

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**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	tons/yr										MT/yr					
General Heavy Industry	6.47458e+007	0.3491	3.1738	2.6660	0.0190		0.2412	0.2412		0.2412	0.2412	0.0000	3,455.0810	3,455.0810	0.0662	0.0633	3,475.6129
General Light Industry	9.52067e+007	0.5134	4.6670	3.9203	0.0280		0.3547	0.3547		0.3547	0.3547	0.0000	5,080.5914	5,080.5914	0.0974	0.0931	5,110.7828
Regional Shopping Center	1.06787e+006	5.7600e-003	0.0524	0.0440	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	56.9854	56.9854	1.0900e-003	1.0400e-003	57.3241
Single Family Housing	1.71195e+007	0.0923	0.7888	0.3357	5.0400e-003		0.0638	0.0638		0.0638	0.0638	0.0000	913.5641	913.5641	0.0175	0.0168	918.9930
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.9606</b>	<b>8.6820</b>	<b>6.9659</b>	<b>0.0524</b>		<b>0.6637</b>	<b>0.6637</b>		<b>0.6637</b>	<b>0.6637</b>	<b>0.0000</b>	<b>9,506.2220</b>	<b>9,506.2220</b>	<b>0.1822</b>	<b>0.1743</b>	<b>9,562.7127</b>



Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	6.47458e+007	0.3491	3.1738	2.6660	0.0190		0.2412	0.2412		0.2412	0.2412	0.0000	3,455.0810	3,455.0810	0.0662	0.0633	3,475.6129
General Light Industry	9.52067e+007	0.5134	4.6670	3.9203	0.0280		0.3547	0.3547		0.3547	0.3547	0.0000	5,080.5914	5,080.5914	0.0974	0.0931	5,110.7828
Regional Shopping Center	1.06787e+006	5.7600e-003	0.0524	0.0440	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	56.9854	56.9854	1.0900e-003	1.0400e-003	57.3241
Single Family Housing	1.71195e+007	0.0923	0.7888	0.3357	5.0400e-003		0.0638	0.0638		0.0638	0.0638	0.0000	913.5641	913.5641	0.0175	0.0168	918.9930
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.9606</b>	<b>8.6820</b>	<b>6.9659</b>	<b>0.0524</b>		<b>0.6637</b>	<b>0.6637</b>		<b>0.6637</b>	<b>0.6637</b>	<b>0.0000</b>	<b>9,506.2220</b>	<b>9,506.2220</b>	<b>0.1822</b>	<b>0.1743</b>	<b>9,562.7127</b>

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	3.18444e+007	8,526.6590	0.4189	0.0867	8,562.9577
General Light Industry	4.68262e+007	12,538.1922	0.6160	0.1274	12,591.5684
Regional Shopping Center	2.77855e+006	743.9852	0.0366	7.5600e-003	747.1524
Single Family Housing	5.71534e+006	1,530.3397	0.0752	0.0156	1,536.8545
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>23,339.1761</b>	<b>1.1466</b>	<b>0.2372</b>	<b>23,438.5329</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	3.18444e+007	8,526.6590	0.4189	0.0867	8,562.9577
General Light Industry	4.68262e+007	12,538.1922	0.6160	0.1274	12,591.5684
Regional Shopping Center	2.77855e+006	743.9852	0.0366	7.5600e-003	747.1524
Single Family Housing	5.71534e+006	1,530.3397	0.0752	0.0156	1,536.8545
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>23,339.1761</b>	<b>1.1466</b>	<b>0.2372</b>	<b>23,438.5329</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
Unmitigated	43.6524	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209

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	4.7915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	38.6338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2271	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
<b>Total</b>	<b>43.6524</b>	<b>0.0848</b>	<b>7.3683</b>	<b>3.9000e-004</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>12.1237</b>	<b>12.1237</b>	<b>0.0119</b>	<b>0.0000</b>	<b>12.4209</b>

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.7915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	38.6338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2271	0.0848	7.3683	3.9000e-004		0.0408	0.0408		0.0408	0.0408	0.0000	12.1237	12.1237	0.0119	0.0000	12.4209
<b>Total</b>	<b>43.6524</b>	<b>0.0848</b>	<b>7.3683</b>	<b>3.9000e-004</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>12.1237</b>	<b>12.1237</b>	<b>0.0119</b>	<b>0.0000</b>	<b>12.4209</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,317.586 4	1.7347	1.0576	2,676.123 1
Unmitigated	2,317.586 4	1.7347	1.0576	2,676.123 1

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	520.058 / 0	877.8285	0.6674	0.4072	1,015.854 7
General Light Industry	764.73 / 0	1,290.820 5	0.9814	0.5988	1,493.783 9
Regional Shopping Center	19.4351 / 11.9119	43.9688	0.0255	0.0153	49.1745
Single Family Housing	46.0639 / 29.0403	104.9686	0.0605	0.0363	117.3101
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2,317.586 4</b>	<b>1.7347</b>	<b>1.0576</b>	<b>2,676.123 1</b>

## Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	520.058 / 0	877.8285	0.6674	0.4072	1,015.8547
General Light Industry	764.73 / 0	1,290.8205	0.9814	0.5988	1,493.7839
Regional Shopping Center	19.4351 / 11.9119	43.9688	0.0255	0.0153	49.1745
Single Family Housing	46.0639 / 29.0403	104.9686	0.0605	0.0363	117.3101
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2,317.5864</b>	<b>1.7347</b>	<b>1.0576</b>	<b>2,676.1231</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,621.213 7	95.8110	0.0000	4,016.488 4
Unmitigated	1,621.213 7	95.8110	0.0000	4,016.488 4

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2788.64	566.0687	33.4537	0.0000	1,402.4113
General Light Industry	4100.61	832.3868	49.1927	0.0000	2,062.203 0
Regional Shopping Center	275.5	55.9240	3.3050	0.0000	138.5494
Single Family Housing	821.88	166.8342	9.8596	0.0000	413.3247
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,621.213 7</b>	<b>95.8110</b>	<b>0.0000</b>	<b>4,016.488 4</b>



Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2788.64	566.0687	33.4537	0.0000	1,402.4113
General Light Industry	4100.61	832.3868	49.1927	0.0000	2,062.2030
Regional Shopping Center	275.5	55.9240	3.3050	0.0000	138.5494
Single Family Housing	821.88	166.8342	9.8596	0.0000	413.3247
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,621.2137</b>	<b>95.8110</b>	<b>0.0000</b>	<b>4,016.4884</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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Operational (Mit) Elk Grove Multi-Sport Complex and SOIA SEIR - Sacramento County, Annual

**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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