

Appendix F:
Greenhouse Gases Supporting Information

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**4475.0002 Eastvale Construction Run
Riverside-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.83	Acre	17.83	776,674.80	0
Other Non-Asphalt Surfaces	0.46	Acre	0.46	20,037.60	0
Fast Food Restaurant w/o Drive Thru	7.20	1000sqft	0.17	7,200.00	0
Fast Food Restaurant with Drive Thru	3.50	1000sqft	0.08	3,500.00	0
Fast Food Restaurant with Drive Thru	2.00	1000sqft	0.05	2,000.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0
Free-Standing Discount Superstore	192.00	1000sqft	4.41	192,000.00	0
Strip Mall	9.20	1000sqft	0.21	9,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10	Operational Year	2017		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 23.26 total acres; Walmart 192,000 sq ft; additional retail land use types are assumed for analysis purposes; storm water retention basin 0.46 acre

Construction Phase - Estimated construction schedule

Off-road Equipment -

Off-road Equipment - Based on expected equipment usage

Off-road Equipment - Based on expected equipment usage. An off-highway truck was added to represent a water truck that will be used.

Off-road Equipment - Based on expected equipment usage

Off-road Equipment - Based on expected equipment usage. An off-highway truck was added to represent a water truck that will be used.

Trips and VMT - 66,050 cy to be exported during site preparation and 101,620 cy to be imported during grading; assumes trucks will hold 18-cubic yards

Grading - 66,050 cy to be exported during site preparation and 101,620 cy to be imported during grading

Architectural Coating - Required by SCAQMD Rule 1113 Architectural Coatings. Coatings area 2 x building SF. 75% interior 25% exterior per CalEEMod App A.

Area Coating -

Construction Off-road Equipment Mitigation - Higher tier certification for equipment used during site preparation and grading phases

Area Mitigation - VOC Coatings 50 EF (g/L) or lower required by SCAQMD Rule 1113 Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	506,436.00	108,080.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,519,307.00	324,239.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	55
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	55
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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
tblConstructionPhase	NumDays	370.00	300.00
tblConstructionPhase	NumDays	35.00	81.00
tblConstructionPhase	NumDays	10.00	54.00
tblGrading	MaterialExported	0.00	66,050.00
tblGrading	MaterialImported	0.00	101,620.00

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	1/1/2016	3/16/2016	5	54	
2	Grading	Grading	3/17/2016	7/7/2016	5	81	
3	Paving	Paving	7/8/2016	8/4/2016	5	20	
4	Building Construction	Building Construction	8/5/2016	9/28/2017	5	300	
5	Architectural Coating	Architectural Coating	9/29/2017	10/26/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 202.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 324,239; Non-Residential Outdoor: 108,080 (Architectural Coating)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	1	8.00	250	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Off-Highway Trucks	1	8.00	189	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	8	20.00	0.00	7,340.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	11,224.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	405.00	166.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	81.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2016

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					0.4920	0.0000	0.4920	0.2688	0.0000	0.2688	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1573	1.6934	1.1924	1.2700e-003		0.0887	0.0887		0.0816	0.0816	0.0000	120.1897	120.1897	0.0363	0.0000	120.9510
Total	0.1573	1.6934	1.1924	1.2700e-003	0.4920	0.0887	0.5807	0.2688	0.0816	0.3504	0.0000	120.1897	120.1897	0.0363	0.0000	120.9510

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	0.0570	1.0255	0.6998	2.6100e-003	0.0631	0.0178	0.0809	0.0173	0.0164	0.0337	0.0000	238.8442	238.8442	1.5200e-003	0.0000	238.8761
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	1.8600e-003	2.7100e-003	0.0274	7.0000e-005	5.9400e-003	4.0000e-005	5.9700e-003	1.5800e-003	3.0000e-005	1.6100e-003	0.0000	5.0351	5.0351	2.3000e-004	0.0000	5.0400
Total	0.0589	1.0282	0.7271	2.6800e-003	0.0690	0.0179	0.0869	0.0189	0.0164	0.0353	0.0000	243.8793	243.8793	1.7500e-003	0.0000	243.9161

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					0.2214	0.0000	0.2214	0.1209	0.0000	0.1209	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0156	0.0674	0.6730	1.2700e-003		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	120.1896	120.1896	0.0363	0.0000	120.9509
Total	0.0156	0.0674	0.6730	1.2700e-003	0.2214	2.0700e-003	0.2235	0.1209	2.0700e-003	0.1230	0.0000	120.1896	120.1896	0.0363	0.0000	120.9509

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	0.0570	1.0255	0.6998	2.6100e-003	0.0631	0.0178	0.0809	0.0173	0.0164	0.0337	0.0000	238.8442	238.8442	1.5200e-003	0.0000	238.8761
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	1.8600e-003	2.7100e-003	0.0274	7.0000e-005	5.9400e-003	4.0000e-005	5.9700e-003	1.5800e-003	3.0000e-005	1.6100e-003	0.0000	5.0351	5.0351	2.3000e-004	0.0000	5.0400
Total	0.0589	1.0282	0.7271	2.6800e-003	0.0690	0.0179	0.0869	0.0189	0.0164	0.0353	0.0000	243.8793	243.8793	1.7500e-003	0.0000	243.9161

3.3 Grading - 2016

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					0.3513	0.0000	0.3513	0.1457	0.0000	0.1457	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2853	3.2776	2.0836	2.7500e-003		0.1558	0.1558		0.1434	0.1434	0.0000	259.0775	259.0775	0.0782	0.0000	260.7186
Total	0.2853	3.2776	2.0836	2.7500e-003	0.3513	0.1558	0.5071	0.1457	0.1434	0.2890	0.0000	259.0775	259.0775	0.0782	0.0000	260.7186

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	0.0872	1.5681	1.0701	3.9900e-003	0.0965	0.0272	0.1237	0.0265	0.0251	0.0515	0.0000	365.2299	365.2299	2.3200e-003	0.0000	365.2787
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	3.2000e-003	4.6800e-003	0.0472	1.2000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.6855	8.6855	4.0000e-004	0.0000	8.6940
Total	0.0904	1.5728	1.1173	4.1100e-003	0.1067	0.0273	0.1340	0.0292	0.0251	0.0543	0.0000	373.9153	373.9153	2.7200e-003	0.0000	373.9727

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					0.1581	0.0000	0.1581	0.0656	0.0000	0.0656	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0337	0.1461	1.5214	2.7500e-003		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003	0.0000	259.0772	259.0772	0.0782	0.0000	260.7183
Total	0.0337	0.1461	1.5214	2.7500e-003	0.1581	4.5000e-003	0.1626	0.0656	4.5000e-003	0.0701	0.0000	259.0772	259.0772	0.0782	0.0000	260.7183

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	0.0872	1.5681	1.0701	3.9900e-003	0.0965	0.0272	0.1237	0.0265	0.0251	0.0515	0.0000	365.2299	365.2299	2.3200e-003	0.0000	365.2787
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	3.2000e-003	4.6800e-003	0.0472	1.2000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.6855	8.6855	4.0000e-004	0.0000	8.6940
Total	0.0904	1.5728	1.1173	4.1100e-003	0.1067	0.0273	0.1340	0.0292	0.0251	0.0543	0.0000	373.9153	373.9153	2.7200e-003	0.0000	373.9727

3.4 Paving - 2016

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	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0443	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469

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	5.2000e-004	7.5000e-004	7.6000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3986	1.3986	7.0000e-005	0.0000	1.4000
Total	5.2000e-004	7.5000e-004	7.6000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3986	1.3986	7.0000e-005	0.0000	1.4000

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	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0443	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469

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	5.2000e-004	7.5000e-004	7.6000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3986	1.3986	7.0000e-005	0.0000	1.4000
Total	5.2000e-004	7.5000e-004	7.6000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3986	1.3986	7.0000e-005	0.0000	1.4000

3.5 Building Construction - 2016

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	0.1805	1.5108	0.9809	1.4200e-003		0.1043	0.1043		0.0980	0.0980	0.0000	128.3414	128.3414	0.0318	0.0000	129.0099
Total	0.1805	1.5108	0.9809	1.4200e-003		0.1043	0.1043		0.0980	0.0980	0.0000	128.3414	128.3414	0.0318	0.0000	129.0099

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	0.0722	0.7716	0.9031	1.8500e-003	0.0546	0.0144	0.0690	0.0156	0.0132	0.0289	0.0000	168.0185	168.0185	1.1100e-003	0.0000	168.0418
Worker	0.0738	0.1078	1.0872	2.6600e-003	0.2359	1.5000e-003	0.2374	0.0627	1.3800e-003	0.0640	0.0000	200.1431	200.1431	9.3200e-003	0.0000	200.3388
Total	0.1459	0.8795	1.9903	4.5100e-003	0.2905	0.0159	0.3064	0.0783	0.0146	0.0929	0.0000	368.1615	368.1615	0.0104	0.0000	368.3806

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	0.1384	1.0809	0.9710	1.4200e-003		0.0701	0.0701		0.0666	0.0666	0.0000	128.3413	128.3413	0.0318	0.0000	129.0097
Total	0.1384	1.0809	0.9710	1.4200e-003		0.0701	0.0701		0.0666	0.0666	0.0000	128.3413	128.3413	0.0318	0.0000	129.0097

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	0.0722	0.7716	0.9031	1.8500e-003	0.0546	0.0144	0.0690	0.0156	0.0132	0.0289	0.0000	168.0185	168.0185	1.1100e-003	0.0000	168.0418
Worker	0.0738	0.1078	1.0872	2.6600e-003	0.2359	1.5000e-003	0.2374	0.0627	1.3800e-003	0.0640	0.0000	200.1431	200.1431	9.3200e-003	0.0000	200.3388
Total	0.1459	0.8795	1.9903	4.5100e-003	0.2905	0.0159	0.3064	0.0783	0.0146	0.0929	0.0000	368.1615	368.1615	0.0104	0.0000	368.3806

3.5 Building Construction - 2017

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	0.3009	2.5614	1.7585	2.6000e-003		0.1728	0.1728		0.1623	0.1623	0.0000	232.2947	232.2947	0.0572	0.0000	233.4953
Total	0.3009	2.5614	1.7585	2.6000e-003		0.1728	0.1728		0.1623	0.1623	0.0000	232.2947	232.2947	0.0572	0.0000	233.4953

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	0.1190	1.2802	1.5603	3.3700e-003	0.0999	0.0236	0.1235	0.0286	0.0217	0.0503	0.0000	302.3097	302.3097	1.9600e-003	0.0000	302.3509
Worker	0.1204	0.1770	1.7810	4.8800e-003	0.4318	2.6700e-003	0.4345	0.1147	2.4600e-003	0.1171	0.0000	351.7638	351.7638	0.0156	0.0000	352.0923
Total	0.2394	1.4571	3.3412	8.2500e-003	0.5317	0.0263	0.5580	0.1433	0.0242	0.1674	0.0000	654.0735	654.0735	0.0176	0.0000	654.4432

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	0.2299	1.8282	1.7453	2.6000e-003		0.1158	0.1158		0.1099	0.1099	0.0000	232.2945	232.2945	0.0572	0.0000	233.4951
Total	0.2299	1.8282	1.7453	2.6000e-003		0.1158	0.1158		0.1099	0.1099	0.0000	232.2945	232.2945	0.0572	0.0000	233.4951

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	0.1190	1.2802	1.5603	3.3700e-003	0.0999	0.0236	0.1235	0.0286	0.0217	0.0503	0.0000	302.3097	302.3097	1.9600e-003	0.0000	302.3509
Worker	0.1204	0.1770	1.7810	4.8800e-003	0.4318	2.6700e-003	0.4345	0.1147	2.4600e-003	0.1171	0.0000	351.7638	351.7638	0.0156	0.0000	352.0923
Total	0.2394	1.4571	3.3412	8.2500e-003	0.5317	0.0263	0.5580	0.1433	0.0242	0.1674	0.0000	654.0735	654.0735	0.0176	0.0000	654.4432

3.6 Architectural Coating - 2017

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	0.5010					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3200e-003	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589
Total	0.5043	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589

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	2.4800e-003	3.6500e-003	0.0367	1.0000e-004	8.9000e-003	6.0000e-005	8.9600e-003	2.3600e-003	5.0000e-005	2.4100e-003	0.0000	7.2529	7.2529	3.2000e-004	0.0000	7.2596
Total	2.4800e-003	3.6500e-003	0.0367	1.0000e-004	8.9000e-003	6.0000e-005	8.9600e-003	2.3600e-003	5.0000e-005	2.4100e-003	0.0000	7.2529	7.2529	3.2000e-004	0.0000	7.2596

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	0.5010					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3200e-003	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589
Total	0.5043	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589

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	2.4800e-003	3.6500e-003	0.0367	1.0000e-004	8.9000e-003	6.0000e-005	8.9600e-003	2.3600e-003	5.0000e-005	2.4100e-003	0.0000	7.2529	7.2529	3.2000e-004	0.0000	7.2596
Total	2.4800e-003	3.6500e-003	0.0367	1.0000e-004	8.9000e-003	6.0000e-005	8.9600e-003	2.3600e-003	5.0000e-005	2.4100e-003	0.0000	7.2529	7.2529	3.2000e-004	0.0000	7.2596

**4475.0002 Eastvale Operational Light Duty Auto Run
Riverside-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.83	Acre	17.83	776,674.80	0
Other Non-Asphalt Surfaces	0.46	Acre	0.46	20,037.60	0
Fast Food Restaurant w/o Drive Thru	7.20	1000sqft	0.17	7,200.00	0
Fast Food Restaurant with Drive Thru	3.50	1000sqft	0.08	3,500.00	0
User Defined Recreational	2.00	User Defined Unit	0.05	2,000.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0
Free-Standing Discount Superstore	192.00	1000sqft	4.41	192,000.00	0
Strip Mall	9.20	1000sqft	0.21	9,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10	Operational Year	2017		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 23.26 total acres; Walmart 192,000 sq ft; storm water retention basin 0.46 acre; additional retail land use types are assumed for analysis purposes

Construction Phase - Operational run

Off-road Equipment - Operational run

Trips and VMT - Operational run

On-road Fugitive Dust -

Architectural Coating - VOC Coatings 50EF (g/L) or lower required by SCAQMD Rule 1113 Architectural Coatings

Vehicle Trips - Based on 2015 Eastvale Walmart Traffic Impact Analysis prepared by Urban Crossroads

Vehicle Emission Factors - Fleet mix adjusted to reflect vehicles used by employees and customers

Vehicle Emission Factors - Light duty auto run

Vehicle Emission Factors - Light duty auto run

Consumer Products -

Area Coating - VOC coating 50 EF (g/L) or lower required by SCAQMD Rule 1113 Architectural Coatings

Energy Use - User Defined Recreational updated to reflect energy usage

Water And Wastewater - User defined recreational updated

Solid Waste - User defined recreational updated

Mobile Land Use Mitigation -

Area Mitigation - VOC Coatings 50EF (g/L) or lower required by SCAQMD Rule 1113 Architectural Coatings

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	LightingElect	0.00	8.79
tblEnergyUse	NT24E	0.00	28.48
tblEnergyUse	NT24NG	0.00	195.77
tblEnergyUse	T24E	0.00	15.13
tblEnergyUse	T24NG	0.00	81.74
tblLandUse	LandUseSquareFeet	0.00	2,000.00
tblLandUse	LotAcreage	0.00	0.05
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblSolidWaste	SolidWasteGenerationRate	0.00	40.32
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00

tblTripsAndVMT	WorkerTripNumber	81.00	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	0.48
tblVehicleEF	LDA	0.46	0.48
tblVehicleEF	LDA	0.46	0.48
tblVehicleEF	LDT1	0.07	0.09
tblVehicleEF	LDT1	0.07	0.09
tblVehicleEF	LDT1	0.07	0.09
tblVehicleEF	LDT2	0.18	0.20
tblVehicleEF	LDT2	0.18	0.20
tblVehicleEF	LDT2	0.18	0.20
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleTrips	CC_TTP	0.00	78.80
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	2.20
tblVehicleTrips	DV_TP	0.00	21.00
tblVehicleTrips	PB_TP	65.00	56.00
tblVehicleTrips	PB_TP	12.00	43.00
tblVehicleTrips	PB_TP	0.00	50.00
tblVehicleTrips	PR_TP	14.00	23.00
tblVehicleTrips	PR_TP	51.00	20.00
tblVehicleTrips	PR_TP	0.00	29.00
tblVehicleTrips	ST_TR	204.47	137.53
tblVehicleTrips	ST_TR	696.00	626.40
tblVehicleTrips	ST_TR	722.03	649.83
tblVehicleTrips	ST_TR	64.07	57.66

tblVehicleTrips	ST_TR	42.04	37.84
tblVehicleTrips	ST_TR	0.00	736.65
tblVehicleTrips	SU_TR	166.88	137.53
tblVehicleTrips	SU_TR	500.00	450.00
tblVehicleTrips	SU_TR	542.72	488.45
tblVehicleTrips	SU_TR	56.12	50.51
tblVehicleTrips	SU_TR	20.43	18.39
tblVehicleTrips	SU_TR	0.00	736.65
tblVehicleTrips	WD_TR	542.60	137.53
tblVehicleTrips	WD_TR	716.00	644.31
tblVehicleTrips	WD_TR	496.12	446.40
tblVehicleTrips	WD_TR	53.13	45.68
tblVehicleTrips	WD_TR	44.32	39.91
tblVehicleTrips	WD_TR	0.00	736.65
tblWater	IndoorWaterUseRate	0.00	1,062,367.99
tblWater	OutdoorWaterUseRate	0.00	67,810.72

2.0 Emissions Summary

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	4.5993	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003
Energy	0.0216	0.1959	0.1646	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	1,315.4764	1,315.4764	0.0548	0.0144	1,321.0878
Mobile	8.6671	9.5073	60.6532	0.1317	10.2516	0.0946	10.3463	2.7302	0.0872	2.8175	0.0000	9,795.4023	9,795.4023	0.4235	0.0000	9,804.2964
Waste						0.0000	0.0000		0.0000	0.0000	202.7819	0.0000	202.7819	11.9841	0.0000	454.4473
Water						0.0000	0.0000		0.0000	0.0000	6.1487	102.4583	108.6070	0.6362	0.0159	126.8926
Total	13.2879	9.7033	60.8210	0.1328	10.2516	0.1095	10.3612	2.7302	0.1021	2.8324	208.9305	11,213.3431	11,422.2737	13.0986	0.0303	11,706.7306

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	3.8951	3.0000e-005	3.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.0700e-003	6.0700e-003	2.0000e-005	0.0000	6.4300e-003
Energy	0.0192	0.1746	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	1,177.9667	1,177.9667	0.0491	0.0129	1,182.9896
Mobile	8.6401	9.3581	59.8578	0.1292	10.0466	0.0932	10.1398	2.6756	0.0859	2.7615	0.0000	9,609.9299	9,609.9299	0.4167	0.0000	9,618.6796
Waste						0.0000	0.0000		0.0000	0.0000	202.7819	0.0000	202.7819	11.9841	0.0000	454.4473
Water						0.0000	0.0000		0.0000	0.0000	6.1487	102.4583	108.6070	0.6361	0.0159	126.8828
Total	12.5543	9.5327	60.0077	0.1302	10.0466	0.1065	10.1531	2.6756	0.0992	2.7748	208.9305	10,890.3610	11,099.2915	13.0859	0.0287	11,383.0057

	ROG	NOx	CO	SO2	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	5.52	1.76	1.34	1.97	2.00	2.78	2.01	2.00	2.87	2.03	0.00	2.88	2.83	0.10	5.09	2.77

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive 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	8.6401	9.3581	59.8578	0.1292	10.0466	0.0932	10.1398	2.6756	0.0859	2.7615	0.0000	9,609.9299	9,609.9299	0.4167	0.0000	9,618.6796
Unmitigated	8.6671	9.5073	60.6532	0.1317	10.2516	0.0946	10.3463	2.7302	0.0872	2.8175	0.0000	9,795.4023	9,795.4023	0.4235	0.0000	9,804.2964

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,200.48	2,200.48	2200.48	1,895,923	1,858,004
Fast Food Restaurant w/o Drive Thru	4,639.00	4,510.08	3240.00	3,946,611	3,867,679
Fast Food Restaurant with Drive Thru	1,562.40	2,274.39	1709.57	1,773,418	1,737,949
Free-Standing Discount Superstore	8,770.56	11,071.30	9697.54	17,480,525	17,130,915
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	367.20	348.09	169.16	639,612	626,819
User Defined Recreational	1,473.30	1,473.30	1473.30	1,550,483	1,519,473
Total	19,012.94	21,877.64	18,490.04	27,286,571	26,740,839

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas Pumps	16.60	8.40	6.90	0.80	80.20	19.00	23	21	56
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	20	37	43
Fast Food Restaurant with Drive Thru	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Free-Standing Discount Superstore	16.60	8.40	6.90	13.20	67.80	19.00	47.5	35.5	17
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
User Defined Recreational	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.479761	0.088356	0.195773	0.170659	0.045477	0.007383	0.000000	0.000000	0.000954	0.001056	0.006454	0.000884	0.003242

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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					
NaturalGas Mitigated	0.0192	0.1746	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.0646	190.0646	3.6400e-003	3.4800e-003	191.2213
NaturalGas Unmitigated	0.0216	0.1959	0.1646	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.2632	213.2632	4.0900e-003	3.9100e-003	214.5611
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	987.9021	987.9021	0.0454	9.4000e-003	991.7683
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,102.2132	1,102.2132	0.0507	0.0105	1,106.5268

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					
Convenience Market With Gas Pumps	5240.42	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2797	0.2797	1.0000e-005	1.0000e-005	0.2814
Fast Food Restaurant w/o Drive Thru	1.99807e+006	0.0108	0.0979	0.0823	5.9000e-004		7.4400e-003	7.4400e-003		7.4400e-003	7.4400e-003	0.0000	106.6247	106.6247	2.0400e-003	1.9500e-003	107.2736
Fast Food Restaurant with Drive Thru	971285	5.2400e-003	0.0476	0.0400	2.9000e-004		3.6200e-003	3.6200e-003		3.6200e-003	3.6200e-003	0.0000	51.8315	51.8315	9.9000e-004	9.5000e-004	52.1469
Free-Standing Discount Superstore	445440	2.4000e-003	0.0218	0.0183	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	23.7704	23.7704	4.6000e-004	4.4000e-004	23.9150
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Strip Mall	21344	1.2000e-004	1.0500e-003	8.8000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1390	1.1390	2.0000e-005	2.0000e-005	1.1459
User Defined Recreational	555020	2.9900e-003	0.0272	0.0229	1.6000e-004		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	29.6180	29.6180	5.7000e-004	5.4000e-004	29.7982
Total		0.0216	0.1959	0.1646	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.2632	213.2632	4.0900e-003	3.9100e-003	214.5611

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	3871.58	2.0000e-005	1.9000e-004	1.6000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.2066	0.2066	0.0000	0.0000	0.2079
Fast Food Restaurant w/o Drive Thru	1.82151e+006	9.8200e-003	0.0893	0.0750	5.4000e-004		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003	0.0000	97.2029	97.2029	1.8600e-003	1.7800e-003	97.7945
Fast Food Restaurant with Drive Thru	885458	4.7700e-003	0.0434	0.0365	2.6000e-004		3.3000e-003	3.3000e-003		3.3000e-003	3.3000e-003	0.0000	47.2514	47.2514	9.1000e-004	8.7000e-004	47.5390
Free-Standing Discount Superstore	329088	1.7700e-003	0.0161	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.5614	17.5614	3.4000e-004	3.2000e-004	17.6683
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Strip Mall	15768.8	9.0000e-005	7.7000e-004	6.5000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.8415	0.8415	2.0000e-005	2.0000e-005	0.8466
User Defined Recreational	505976	2.7300e-003	0.0248	0.0208	1.5000e-004		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	27.0008	27.0008	5.2000e-004	5.0000e-004	27.1651
Total		0.0192	0.1746	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.0646	190.0646	3.6500e-003	3.4900e-003	191.2213

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	35372.8	10.1225	4.7000e-004	1.0000e-004	10.1621
Fast Food Restaurant w/o Drive Thru	377280	107.9650	4.9600e-003	1.0300e-003	108.3876
Fast Food Restaurant with Drive Thru	183400	52.4830	2.4100e-003	5.0000e-004	52.6884
Free-Standing Discount Superstore	3.00672e+006	860.4237	0.0396	8.1800e-003	863.7910
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	144072	41.2286	1.9000e-003	3.9000e-004	41.3900
User Defined Recreational	104800	29.9903	1.3800e-003	2.9000e-004	30.1077
Total		1,102.2132	0.0507	0.0105	1,106.5268

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use Superstore	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	31578	9.0366	4.2000e-004	9.0000e-005	9.0720
Fast Food Restaurant w/o Drive Thru	344599	98.6129	4.5300e-003	9.4000e-004	98.9988
Fast Food Restaurant with Drive Thru	167514	47.9368	2.2000e-003	4.6000e-004	48.1244
Free-Standing Discount Superstore	2.68416e+006	768.1177	0.0353	7.3100e-003	771.1238
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	128616	36.8056	1.6900e-003	3.5000e-004	36.9497
User Defined Recreational	95722	27.3925	1.2600e-003	2.6000e-004	27.4997
Total		987.9021	0.0454	9.4100e-003	991.7683

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive 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	3.8951	3.0000e-005	3.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.0700e-003	6.0700e-003	2.0000e-005	0.0000	6.4300e-003
Unmitigated	4.5993	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.9389					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003
Total	4.5993	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2347					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.0700e-003	6.0700e-003	2.0000e-005	0.0000	6.4300e-003
Total	3.8951	3.0000e-005	3.1900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.0700e-003	6.0700e-003	2.0000e-005	0.0000	6.4300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	108.6070	0.6362	0.0159	126.8926
Mitigated	108.6070	0.6361	0.0159	126.8828

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.167315 / 0.102548	1.0026	5.5000e-003	1.4000e-004	1.1607
Fast Food Restaurant w/o Drive Thru	2.18544 / 0.139496	9.2802	0.0716	1.7600e-003	11.3305
Fast Food Restaurant with Drive Thru	1.06237 / 0.0678107	4.5112	0.0348	8.6000e-004	5.5079
Free-Standing Discount Superstore	14.2219 / 8.71666	85.2184	0.4671	0.0117	98.6583
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.681467 / 0.417673	4.0834	0.0224	5.6000e-004	4.7274
User Defined Recreational	1.06237 / 0.0678107	4.5112	0.0348	8.6000e-004	5.5079
Total		108.6070	0.6362	0.0159	126.8926

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.167315 / 0.102548	1.0026	5.4900e-003	1.4000e-004	1.1606
Fast Food Restaurant w/o Drive Thru	2.18544 / 0.139496	9.2802	0.0716	1.7600e-003	11.3294
Fast Food Restaurant with Drive Thru	1.06237 / 0.0678107	4.5112	0.0348	8.6000e-004	5.5074
Free-Standing Discount Superstore	14.2219 / 8.71666	85.2184	0.4671	0.0117	98.6511
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.681467 / 0.417673	4.0834	0.0224	5.6000e-004	4.7270
User Defined Recreational	1.06237 / 0.0678107	4.5112	0.0348	8.6000e-004	5.5074
Total		108.6070	0.6361	0.0159	126.8828

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	202.7819	11.9841	0.0000	454.4473
Unmitigated	202.7819	11.9841	0.0000	454.4473

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	82.94	16.8361	0.9950	0.0000	37.7307
Fast Food Restaurant with Drive Thru	40.32	8.1846	0.4837	0.0000	18.3422
Free-Standing Discount Superstore	825.73	167.6157	9.9058	0.0000	375.6377
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	9.66	1.9609	0.1159	0.0000	4.3945
User Defined Recreational	40.32	8.1846	0.4837	0.0000	18.3422
Total		202.7819	11.9841	0.0000	454.4473

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	82.94	16.8361	0.9950	0.0000	37.7307
Fast Food Restaurant with Drive Thru	40.32	8.1846	0.4837	0.0000	18.3422
Free-Standing Discount Superstore	825.73	167.6157	9.9058	0.0000	375.6377
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	9.66	1.9609	0.1159	0.0000	4.3945
User Defined Recreational	40.32	8.1846	0.4837	0.0000	18.3422
Total		202.7819	11.9841	0.0000	454.4473

9.0 Operational Offroad

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

4475.0002 Eastvale Operational Truck Only Run
Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.83	Acre	17.83	776,674.80	0
Other Non-Asphalt Surfaces	0.46	Acre	0.46	20,037.60	0
Fast Food Restaurant w/o Drive Thru	7.20	1000sqft	0.17	7,200.00	0
Fast Food Restaurant with Drive Thru	3.50	1000sqft	0.08	3,500.00	0
User Defined Recreational	2.00	User Defined Unit	0.05	2,000.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0
Free-Standing Discount Superstore	192.00	1000sqft	4.41	192,000.00	0
Strip Mall	9.20	1000sqft	0.21	9,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Walmart 192,000 sq ft; additional retail uses assumed for analysis purposes; storm water retention basin 0.46 acre

Construction Phase - Operational truck run

Off-road Equipment - Operational run

Trips and VMT - Operational run

Vehicle Trips - Based on estimated average daily truck deliveries during project operations; trip length increased to 40 miles

Vehicle Emission Factors - Truck only run

Vehicle Emission Factors - Fleet mix adjusted to reflect a truck only run

Vehicle Emission Factors - Fleet mix adjusted to represent a truck only run

Consumer Products - Truck only run

Area Coating - Truck only run

Energy Use - Truck only run

Water And Wastewater - User defined recreational updated

Solid Waste - User defined recreational updated

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Interior	453611	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24NG	2.02	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	2.02	0.00
tblEnergyUse	T24NG	2.02	0.00
tblLandUse	LandUseSquareFeet	0.00	2,000.00
tblLandUse	LotAcreage	0.00	0.05
tblOffRoadEquipment	HorsePower	78.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00

tblProjectCharacteristics	OperationalYear	2014	2017
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	82.94	0.00
tblSolidWaste	SolidWasteGenerationRate	40.32	0.00
tblSolidWaste	SolidWasteGenerationRate	825.73	0.00
tblSolidWaste	SolidWasteGenerationRate	9.66	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripNumber	21.00	0.00
tblVehicleEF	HHD	0.04	0.48
tblVehicleEF	HHD	0.04	0.48
tblVehicleEF	HHD	0.04	0.48
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.80	100.00
tblVehicleTrips	CW_TTP	1.50	100.00
tblVehicleTrips	CW_TTP	2.20	100.00
tblVehicleTrips	CW_TTP	13.20	100.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	CW_TTP	16.60	100.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	35.50	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	17.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	47.50	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	204.47	0.50

tblWater	AnaerobicandFacultativeLagoonsPercentage	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercentage	2.21	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	167,314.87	0.00
tblWater	IndoorWaterUseRate	2,185,442.73	0.00
tblWater	IndoorWaterUseRate	1,062,367.99	0.00

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2874	5.9176	2.7806	0.0179	0.5775	0.1311	0.7086	0.1653	0.1206	0.2860	0.0000	1,610.0205	1,610.0205	8.6900e-003	0.0000	1,610.2030
Unmitigated	0.2874	5.9176	2.7806	0.0179	0.5775	0.1311	0.7086	0.1653	0.1206	0.2860	0.0000	1,610.0205	1,610.0205	8.6900e-003	0.0000	1,610.2030

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	8.00	8.00	8.00	116,480	116,480
Fast Food Restaurant w/o Drive Thru	12.02	12.02	12.02	175,069	175,069
Fast Food Restaurant with Drive Thru	12.01	12.01	12.01	174,793	174,793
Free-Standing Discount Superstore	38.40	38.40	38.40	559,104	559,104
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	5.98	5.98	5.98	87,069	87,069
User Defined Recreational	12.00	12.00	12.00	174,720	174,720
Total	88.41	88.41	88.41	1,287,235	1,287,235

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas Pumps	40.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Fast Food Restaurant w/o Drive Thru	40.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Fast Food Restaurant with Drive Thru	40.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Free-Standing Discount Superstore	40.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Other Asphalt Surfaces	40.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Other Non-Asphalt Surfaces	40.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	40.00	0.00	0.00	100.00	0.00	0.00	100	0	0
User Defined Recreational	40.00	0.00	0.00	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.522727	0.477273	0.000000	0.000000	0.000000	0.000000	0.000000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Free-Standing Discount Superstore	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Free-Standing Discount Superstore	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.6603	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003
Unmitigated	3.6603	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003
Total	3.6603	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	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	3.6600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003
Total	3.6603	3.0000e-005	3.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1600e-003	6.1600e-003	2.0000e-005	0.0000	6.5200e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	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			
Convenience Market With Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food	0 / 0	0.0000	0.0000	0.0000	0.0000
Restaurant w/o Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
Free-Standing Discount Superstore	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
Free-Standing Discount Superstore	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	0.0000	0.0000	0.0000	0.0000
Mitigated	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			
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Free-Standing Discount Superstore	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Free-Standing Discount Superstore	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Air Conditioning Fugitive Emissions

Project: Eastvale Walmart
 Prepared by: FirstCarbon Solutions
 Prepared on: 4-Jun-15

Type of Unit	Units	Capacity of Unit (pounds)	Capacity of Unit (kg)	Annual Leak Rate in percent of capacity	Emissions (kg/year)	Emissions (tons/year)	Global Warming Potential (R410a)	MTCO2e per year
Without Regulations								
Packaged chiller air conditioning (medium)	38.3	526	239	7.0%	640	0.70	1725	1,102
Total						0.70		1,102
With Regulation and Mitigation								
Packaged chiller air conditioning (medium)	38.3	526	239	3.5%	320	0.35	1725	551
Total						0.35		551
Reduction from Regulations								50.0%

Sources:

- U.S. Environmental Protection Agency, Climate Leaders. May 2008. Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment. EPA430-K-03-004. <http://www.epa.gov/stateply/documents/resources/mfgrfg.pdf>
- California Air Resources Board. Appendix B, California Facilities and Greenhouse Gas Emissions Inventory - High-Global Warming Potential Stationary Source Refrigerant Management Program. www.arb.ca.gov/cc/reftrack/APPENDIX_B_10_22_.pdf
- With regulation refers to a change in the annual leak rate pursuant to California Air Resources Board Stationary Equipment Refrigerant Management Program. <http://www.arb.ca.gov/cc/reftrack/reftrack.htm>
- Source of number of units: It was assumed that there would be one HVAC unit per 5,000 square feet.
- Source of global warming potential: http://www.engineeringtoolbox.com/Refrigerants-Environment-Properties-d_1220.html and http://www.engineeringtoolbox.com/refrigerants-properties-d_145.html

	SF	SF/Unit	Units
Walmart AC Units	191,669	5,000	38.3338

Refrigerators and Freezers: Installation (Construction Related Emissions)

Project: Eastvale Walmart
 Prepared by: FirstCarbon Solutions
 Prepared on: 3-Jun-15

Store	Number	Doors	R = Refrigerator F = Freezer	Manufacturer	Model	Refrigerant Charge/unit (lbs)	Total Charge (kg)	Installation Emission Factor (% of capacity)	Emissions (kg/year)	Emissions (tons/year)	Global Warming Potential (R404a)	Metric Tons CO2 Equiv./year	
Walmart													
	6	3	R	HUSSMANN	RM3	3.2	8.6	3%	1.6	0.002	3785	6	
	10	4	R	HUSSMANN	RM4	4.1	18.5	3%	5.5	0.006	3785	21	
	20	5	R	HUSSMANN	RM5	5.1	45.9	3%	27.5	0.030	3785	104	
	16		F (open top)	HUSSMANN	?	5.1	36.7	3%	17.6	0.019	3785	67	
	18		R (open door)	HUSSMANN	?	5.1	41.3	3%	22.3	0.025	3785	84	
	7		F (for meat)	HILL PHOENIX	OHHM12	5.1	16.1	3%	3.4	0.004	3785	13	
	14		R (lunch meat, etc)	HILL PHOENIX	O5DM12	5.1	32.1	3%	13.5	0.015	3785	51	
	4		R (behind deli)	?	?	5.1	9.2	3%	1.1	0.001	3785	4	
	6		R (in deli)	TYLER	?	5.1	13.8	3%	2.5	0.003	3785	9	
	2		R (cakes)	KYSOR	?	5.1	4.6	3%	0.3	0.000	3785	1	
	4		R (beer)	KYSOR-WARREN	?	5.1	9.2	3%	1.1	0.001	3785	4	
	10		R (produce)	TYLER	N6DL12	5.1	23.0	3%	6.9	0.008	3785	26	
	1	Pipes and Compressors, estimation					3000	1350.0	3%	40.5	0.045	3785	153
	Subtotal					3058.3	1608.9	0.4	143.8	0.158		543	
	Fast food restaurant with drive through							35	3%	1.1	0.001	3785	4
	Convenience market with gas pumps							70	3%	2.1	0.002	3785	8
	Fast food restaurant without drive through							35	3%	1.1	0.001	3785	4
	Coffee/Donut Shop with drive through							35	3%	1.1	0.001	3785	4
	Subtotal											20	
	Total											563	

Refrigerators and Freezers: Operating Emissions (Business as Usual)

Project: Eastvale Walmart
 Prepared by: FirstCarbon Solutions
 Prepared on: 4-Jun-15

Store	Number	Doors	R = Refrigerator		Manufacturer	Model	Refrigerant	Total	Annual	Emissions	Emissions	Global	Metric Tons	
			F = Freezer				Charge/unit	Charge	Leak Rate					(kg/year)
							(lbs)	(kg)	in percent			(R404a)	Equiv./year	
Walmart	6	3	R		HUSSMANN	RM3	3.2	8.6	21%	10.9	0.012	3785	41	
	10	4	R		HUSSMANN	RM4	4.1	18.5	21%	38.7	0.043	3785	146	
	20	5	R		HUSSMANN	RM5	5.1	45.9	21%	192.8	0.212	3785	728	
	16		F (open top)		HUSSMANN	?	5.1	36.7	21%	123.4	0.136	3785	466	
	18		R (open door)		HUSSMANN	?	5.1	41.3	21%	156.2	0.172	3785	590	
	7		F (for meat)		HILL PHOENIX	OHMH12	5.1	16.1	21%	23.6	0.026	3785	89	
	14		R (lunch meat, etc)		HILL PHOENIX	O5DM12	5.1	32.1	21%	94.5	0.104	3785	357	
	4		R (behind deli)		?	?	5.1	9.2	21%	7.7	0.008	3785	29	
	6		R (in deli)		TYLER	?	5.1	13.8	21%	17.4	0.019	3785	66	
	2		R (cakes)		KYSOR	?	5.1	4.6	21%	1.9	0.002	3785	7	
	4		R (beer)		KYSOR-WARREN	?	5.1	9.2	21%	7.7	0.008	3785	29	
	10		R (produce)		TYLER	N6DL12	5.1	23.0	21%	48.2	0.053	3785	182	
	1	Pipes and Compressors, estimation						3000	1350.0	21%	283.5	0.312	3785	1,071
Subtotal							3058.3	1608.9		1006.4	1.107		3,801	

Estimation methodology:

- U.S. Environmental Protection Agency, Climate Leaders. May 2008. Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment. EPA430-K-03-004. <http://www.epa.gov/stateply/documents/resources/mfgrfg.pdf>, Accessed in July 2008.
- HUSSMANN refrigerant charge for RM models: HUSSMANN RM with INNOVATOR Doors Technical Data Sheet P/N 0425645_H, July 2007. www.hussmann.com/docs/data_shts/impact/0425645_H_RMii.pdf
- HUSSMANN refrigerant charge for RL models: HUSSMANN, RL with INNOVATOR II No Heat Doors, Technical Data Sheet P/N 0440999_G, May 2008. http://www.hussmann.com/docs/data_shts/impact/0440999_G_RLii.pdf
- The highlighted items are assumed to have a refrigerant charge is assumed to be 5.1 per unit, which is the maximum observed in the HUSSMANN units. It is unknown how many produce units there would be; therefore, this number is estimated.
- It is assumed that there are emissions associated with the pipes that run from the racks (the refrigeration units) to a separate room that contains the compressors. It is also assumed that there are emissions associated with the compressors. The exact charge in the copper wires and pipes is unknown at this time; however, an industry specialist indicated that the charge can range from 1500 to 3000 pounds per store (personal communication, July 9, 2009)
- Inventory from a Wal-Mart store located in Beaumont, California.
- Global warming potential for the refrigerant is from: Forane 404a technical data sheet, April 2006, www.arkema-inc.com/tds/451.pdf
- The charge for the fast food restaurants, restaurant, and food court is from The Worlds First HFC-free McDonald's restaurant. 2004. Website: <http://www.unep.fr/ozonaction/information/mmcfiles/4256-e-mcdonalds.pdf>

Refrigerators and Freezers: Operating Emissions (with Regulation)

Project: Northwest Fresno Walmart

Prepared by: FirstCarbon Solutions

Prepared on: 12-Aug-13

Store	Number	Doors	R = Refrigerator			Manufacturer	Model	Refrigerant Charge/unit (lbs)	Total Charge (kg)	Annual Leak Rate in percent of capacity	Emissions (kg/year)	Emissions (tons/year)	Global Warming Potential (R404a)	Metric Tons CO2 Equiv./year
			F = Freezer											
Walmart	6	3	R		HUSSMANN	RM3	3.2	8.6	10%	5.2	0.006	3785	20	
	10	4	R		HUSSMANN	RM4	4.1	18.5	10%	18.5	0.020	3785	70	
	20	5	R		HUSSMANN	RM5	5.1	45.9	10%	91.8	0.101	3785	347	
	16		F (open top)		HUSSMANN	?	5.1	36.7	10%	58.8	0.065	3785	222	
	18		R (open door)		HUSSMANN	?	5.1	41.3	10%	74.4	0.082	3785	281	
	7		F (for meat)		HILL PHOENIX	OHMH12	5.1	16.1	10%	11.2	0.012	3785	42	
	14		R (lunch meat, etc)		HILL PHOENIX	O5DM12	5.1	32.1	10%	45.0	0.049	3785	170	
	4		R (behind deli)		?	?	5.1	9.2	10%	3.7	0.004	3785	14	
	6		R (in deli)		TYLER	?	5.1	13.8	10%	8.3	0.009	3785	31	
	2		R (cakes)		KYSOR	?	5.1	4.6	10%	0.9	0.001	3785	3	
	4		R (beer)		KYSOR-WARREN	?	5.1	9.2	10%	3.7	0.004	3785	14	
	10		R (produce)		TYLER	N6DL12	5.1	23.0	10%	23.0	0.025	3785	87	
	1	Pipes and Compressors, estimation						3000	1350.0	10%	135.0	0.149	3785	510
Subtotal							3058.3	1608.9		479.2	0.527		1,810	
Business as usual													3,801	
Reduction from business as usual													52.4%	

Note that the annual leak rate is 10 percent, while in the business as usual scenario the leak rate is 21 percent. This is due to regulations from Table 8 (for centralized refrigeration systems) from the following source: California Air Resources Board. 2009. Appendix B - California Facilities and Greenhouse Gas Emissions Inventory – High-Global Warming Potential Stationary Source Refrigerant Management Program. October 23. Available at: <http://www.arb.ca.gov/regact/2009/gwprmp09/refappb.pdf>

Emission Reduction Summary for Refrigerants

	BAU (MTCO₂e)	2020 (Regulated) (MTCO₂e)	Reduction from BAU	Percent Reduction from BAU
Air Conditioning Units	1,102	551		
Refrigerators and Freezers	3,801	1,810		
Installation Losses Amortized over 30 years	18.8	18.8		
Total	4,922	2379.766667	2,542	51.65%