Jess Ranch - Phase 1 Construction

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	102.00	1000sqft	2.34	102,000.00	0
Other Asphalt Surfaces	291.12	1000sqft	6.68	291,119.00	0
Other Non-Asphalt Surfaces	275.16	1000sqft	6.32	275,156.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use -

Construction Phase - 90 day building construction schedule based on overall schedule and use of pre-fab and modular buildings

Grading - 30 acres expected to be disturbed

Architectural Coating - 0 sq ft of interior and exterior due to the use of pre-fab and modular buildings.

Vehicle Trips - operational emissions calculated separately

Water And Wastewater - no indoor water use

Solid Waste - no solid waste produced on-site

Construction Off-road Equipment Mitigation - Off-road Mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	51,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	153,000.00	0.00
tblArchitecturalCoating	ConstArea_Parking	33,977.00	1,307.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	300.00	90.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	75.00	30.00
tblLandUse	LandUseSquareFeet	291,120.00	291,119.00
tblLandUse	LandUseSquareFeet	275,160.00	275,156.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	126.48	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

tblWater	IndoorWaterUseRate	23,587,500.00	0.00

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					
2019	0.3025	2.8083	2.0828	4.9700e-003	0.3347	0.1197	0.4544	0.1384	0.1116	0.2500	0.0000	451.0169	451.0169	0.0751	0.0000	452.8939
Maximum	**0.3025**	**2.8083**	**2.0828**	**4.9700e-003**	**0.3347**	**0.1197**	**0.4544**	**0.1384**	**0.1116**	**0.2500**	**0.0000**	**451.0169**	**451.0169**	**0.0751**	**0.0000**	**452.8939**

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					
2019	0.1785	2.8651	2.1956	4.9700e-003	0.2265	0.0775	0.3040	0.0829	0.0773	0.1601	0.0000	451.0167	451.0167	0.0751	0.0000	452.8937
Maximum	**0.1785**	**2.8651**	**2.1956**	**4.9700e-003**	**0.2265**	**0.0775**	**0.3040**	**0.0829**	**0.0773**	**0.1601**	**0.0000**	**451.0167**	**451.0167**	**0.0751**	**0.0000**	**452.8937**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**40.97**	**-2.02**	**-5.42**	**0.00**	**32.31**	**35.29**	**33.10**	**40.13**	**30.75**	**35.95**	**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	**7-1-2019**	**9-30-2019**	1.6949	1.6849
		Highest	1.6949	1.6849

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5006	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Energy	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	388.6879	388.6879	0.0138	4.9300e-003	390.5016
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
Total	**0.5151**	**0.1320**	**0.1170**	**7.9000e-004**	**0.0000**	**0.0100**	**0.0100**	**0.0000**	**0.0100**	**0.0100**	**0.0000**	**388.6999**	**388.6999**	**0.0139**	**4.9300e-003**	**390.5143**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5006	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Energy	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	388.6879	388.6879	0.0138	4.9300e-003	390.5016
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
Total	**0.5151**	**0.1320**	**0.1170**	**7.9000e-004**	**0.0000**	**0.0100**	**0.0100**	**0.0000**	**0.0100**	**0.0100**	**0.0000**	**388.6999**	**388.6999**	**0.0139**	**4.9300e-003**	**390.5143**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/3/2019	6/13/2019	6	10	
2	Grading	Grading	6/14/2019	7/18/2019	6	30	
3	Building Construction	Building Construction	7/19/2019	10/31/2019	6	90	
4	Paving	Paving	11/1/2019	11/23/2019	6	20	
5	Architectural Coating	Architectural Coating	11/24/2019	12/17/2019	6	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 30

Acres of Paving: 13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,307 (Architectural Coating – sqft)

OffRoad Equipment

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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
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

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	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	281.00	110.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	56.00	0.00	0.00	10.80	6.60	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 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

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	3.4000e-004	2.6000e-004	2.6200e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6528	0.6528	2.0000e-005	0.0000	0.6532
Total	**3.4000e-004**	**2.6000e-004**	**2.6200e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6528**	**0.6528**	**2.0000e-005**	**0.0000**	**0.6532**

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	6.0500e-003	0.1686	0.1148	1.9000e-004		4.7300e-003	4.7300e-003		4.7300e-003	4.7300e-003	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**6.0500e-003**	**0.1686**	**0.1148**	**1.9000e-004**	**0.0407**	**4.7300e-003**	**0.0454**	**0.0223**	**4.7300e-003**	**0.0271**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

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	3.4000e-004	2.6000e-004	2.6200e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6528	0.6528	2.0000e-005	0.0000	0.6532
Total	**3.4000e-004**	**2.6000e-004**	**2.6200e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6528**	**0.6528**	**2.0000e-005**	**0.0000**	**0.6532**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1062	0.0000	0.1062	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.8178	0.5007	9.3000e-004		0.0357	0.0357		0.0329	0.0329	0.0000	83.5520	83.5520	0.0264	0.0000	84.2129
Total	**0.0711**	**0.8178**	**0.5007**	**9.3000e-004**	**0.1062**	**0.0357**	**0.1420**	**0.0514**	**0.0329**	**0.0843**	**0.0000**	**83.5520**	**83.5520**	**0.0264**	**0.0000**	**84.2129**

3.3 Grading - 2019

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	1.1400e-003	8.7000e-004	8.7500e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.1759	2.1759	6.0000e-005	0.0000	2.1774
Total	**1.1400e-003**	**8.7000e-004**	**8.7500e-003**	**2.0000e-005**	**2.3700e-003**	**2.0000e-005**	**2.3900e-003**	**6.3000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.1759**	**2.1759**	**6.0000e-005**	**0.0000**	**2.1774**

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					0.0478	0.0000	0.0478	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.7686	0.5508	9.3000e-004		0.0200	0.0200		0.0200	0.0200	0.0000	83.5519	83.5519	0.0264	0.0000	84.2128
Total	**0.0272**	**0.7686**	**0.5508**	**9.3000e-004**	**0.0478**	**0.0200**	**0.0678**	**0.0231**	**0.0200**	**0.0431**	**0.0000**	**83.5519**	**83.5519**	**0.0264**	**0.0000**	**84.2128**

3.3 Grading - 2019

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	1.1400e-003	8.7000e-004	8.7500e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.1759	2.1759	6.0000e-005	0.0000	2.1774
Total	**1.1400e-003**	**8.7000e-004**	**8.7500e-003**	**2.0000e-005**	**2.3700e-003**	**2.0000e-005**	**2.3900e-003**	**6.3000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.1759**	**2.1759**	**6.0000e-005**	**0.0000**	**2.1774**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1063	0.9486	0.7724	1.2100e-003		0.0580	0.0580		0.0546	0.0546	0.0000	105.7969	105.7969	0.0258	0.0000	106.4412
Total	**0.1063**	**0.9486**	**0.7724**	**1.2100e-003**		**0.0580**	**0.0580**		**0.0546**	**0.0546**	**0.0000**	**105.7969**	**105.7969**	**0.0258**	**0.0000**	**106.4412**

3.4 Building Construction - 2019

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	0.0209	0.6036	0.1335	1.2700e-003	0.0294	3.6800e-003	0.0331	8.5100e-003	3.5200e-003	0.0120	0.0000	121.8639	121.8639	7.9300e-003	0.0000	122.0622
Worker	0.0479	0.0365	0.3688	1.0200e-003	0.1000	7.1000e-004	0.1007	0.0266	6.6000e-004	0.0273	0.0000	91.7132	91.7132	2.6200e-003	0.0000	91.7785
Total	**0.0688**	**0.6401**	**0.5023**	**2.2900e-003**	**0.1294**	**4.3900e-003**	**0.1338**	**0.0351**	**4.1800e-003**	**0.0393**	**0.0000**	**213.5771**	**213.5771**	**0.0106**	**0.0000**	**213.8407**

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	0.0486	1.0600	0.8043	1.2100e-003		0.0407	0.0407		0.0407	0.0407	0.0000	105.7968	105.7968	0.0258	0.0000	106.4411
Total	**0.0486**	**1.0600**	**0.8043**	**1.2100e-003**		**0.0407**	**0.0407**		**0.0407**	**0.0407**	**0.0000**	**105.7968**	**105.7968**	**0.0258**	**0.0000**	**106.4411**

3.4 Building Construction - 2019

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	0.0209	0.6036	0.1335	1.2700e-003	0.0294	3.6800e-003	0.0331	8.5100e-003	3.5200e-003	0.0120	0.0000	121.8639	121.8639	7.9300e-003	0.0000	122.0622
Worker	0.0479	0.0365	0.3688	1.0200e-003	0.1000	7.1000e-004	0.1007	0.0266	6.6000e-004	0.0273	0.0000	91.7132	91.7132	2.6200e-003	0.0000	91.7785
Total	**0.0688**	**0.6401**	**0.5023**	**2.2900e-003**	**0.1294**	**4.3900e-003**	**0.1338**	**0.0351**	**4.1800e-003**	**0.0393**	**0.0000**	**213.5771**	**213.5771**	**0.0106**	**0.0000**	**213.8407**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	8.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0233**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

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	5.7000e-004	4.3000e-004	4.3700e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0879	1.0879	3.0000e-005	0.0000	1.0887
Total	**5.7000e-004**	**4.3000e-004**	**4.3700e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0879**	**1.0879**	**3.0000e-005**	**0.0000**	**1.0887**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.3100e-003	0.2012	0.1730	2.3000e-004		6.6700e-003	6.6700e-003		6.6700e-003	6.6700e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	8.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0181**	**0.2012**	**0.1730**	**2.3000e-004**		**6.6700e-003**	**6.6700e-003**		**6.6700e-003**	**6.6700e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

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	5.7000e-004	4.3000e-004	4.3700e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0879	1.0879	3.0000e-005	0.0000	1.0887
Total	**5.7000e-004**	**4.3000e-004**	**4.3700e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0879**	**1.0879**	**3.0000e-005**	**0.0000**	**1.0887**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587
Total	**7.2000e-003**	**0.0184**	**0.0184**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5587**

3.6 Architectural Coating - 2019

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	2.1200e-003	1.6200e-003	0.0163	4.0000e-005	4.4300e-003	3.0000e-005	4.4600e-003	1.1800e-003	3.0000e-005	1.2100e-003	0.0000	4.0616	4.0616	1.2000e-004	0.0000	4.0645
Total	**2.1200e-003**	**1.6200e-003**	**0.0163**	**4.0000e-005**	**4.4300e-003**	**3.0000e-005**	**4.4600e-003**	**1.1800e-003**	**3.0000e-005**	**1.2100e-003**	**0.0000**	**4.0616**	**4.0616**	**1.2000e-004**	**0.0000**	**4.0645**

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	4.5400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1400e-003	0.0235	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586
Total	**5.6800e-003**	**0.0235**	**0.0183**	**3.0000e-005**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5586**

3.6 Architectural Coating - 2019

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	2.1200e-003	1.6200e-003	0.0163	4.0000e-005	4.4300e-003	3.0000e-005	4.4600e-003	1.1800e-003	3.0000e-005	1.2100e-003	0.0000	4.0616	4.0616	1.2000e-004	0.0000	4.0645
Total	**2.1200e-003**	**1.6200e-003**	**0.0163**	**4.0000e-005**	**4.4300e-003**	**3.0000e-005**	**4.4600e-003**	**1.1800e-003**	**3.0000e-005**	**1.2100e-003**	**0.0000**	**4.0616**	**4.0616**	**1.2000e-004**	**0.0000**	**4.0645**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Other Asphalt Surfaces	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Other Non-Asphalt Surfaces	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

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	245.0987	245.0987	0.0111	2.2900e-003	246.0591
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	245.0987	245.0987	0.0111	2.2900e-003	246.0591
NaturalGas Mitigated	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425
NaturalGas Unmitigated	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425

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 Light Industry	2.69076e+006	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425
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
Total		**0.0145**	**0.1319**	**0.1108**	**7.9000e-004**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**143.5892**	**143.5892**	**2.7500e-003**	**2.6300e-003**	**144.4425**

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 Light Industry	2.69076e+006	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425
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
Total		**0.0145**	**0.1319**	**0.1108**	**7.9000e-004**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**143.5892**	**143.5892**	**2.7500e-003**	**2.6300e-003**	**144.4425**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	842520	245.0987	0.0111	2.2900e-003	246.0591
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
Total		**245.0987**	**0.0111**	**2.2900e-003**	**246.0591**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	842520	245.0987	0.0111	2.2900e-003	246.0591
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
Total		**245.0987**	**0.0111**	**2.2900e-003**	**246.0591**

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	0.5006	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Unmitigated	0.5006	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127

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	0.0650					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.8000e-004	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Total	**0.5006**	**6.0000e-005**	**6.1800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0119**	**0.0119**	**3.0000e-005**	**0.0000**	**0.0127**

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	0.0650					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.8000e-004	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Total	**0.5006**	**6.0000e-005**	**6.1800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0119**	**0.0119**	**3.0000e-005**	**0.0000**	**0.0127**

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			
General Light Industry	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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	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
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			
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 Light Industry	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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	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
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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Jess Ranch - Phase 1 Construction

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	102.00	1000sqft	2.34	102,000.00	0
Other Asphalt Surfaces	291.12	1000sqft	6.68	291,119.00	0
Other Non-Asphalt Surfaces	275.16	1000sqft	6.32	275,156.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Jess Ranch - Phase 1 Construction - Alameda County, Summer

Project Characteristics -

Land Use -

Construction Phase - 90 day building construction schedule based on overall schedule and use of pre-fab and modular buildings

Grading - 30 acres expected to be disturbed

Architectural Coating - 0 sq ft of interior and exterior due to the use of pre-fab and modular buildings.

Vehicle Trips - operational emissions calculated separately

Water And Wastewater - no indoor water use

Solid Waste - no solid waste produced on-site

Construction Off-road Equipment Mitigation - Off-road Mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	51,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	153,000.00	0.00
tblArchitecturalCoating	ConstArea_Parking	33,977.00	1,307.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	300.00	90.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	75.00	30.00
tblLandUse	LandUseSquareFeet	291,120.00	291,119.00
tblLandUse	LandUseSquareFeet	275,160.00	275,156.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	126.48	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

tblWater	IndoorWaterUseRate	23,587,500.00	0.00

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					
2019	4.8189	54.5711	34.0108	0.0799	18.2141	2.3914	20.6055	9.9699	2.2001	12.1700	0.0000	8,036.1837	8,036.1837	1.9475	0.0000	8,058.3177
Maximum	**4.8189**	**54.5711**	**34.0108**	**0.0799**	**18.2141**	**2.3914**	**20.6055**	**9.9699**	**2.2001**	**12.1700**	**0.0000**	**8,036.1837**	**8,036.1837**	**1.9475**	**0.0000**	**8,058.3177**

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					
2019	2.6612	51.2896	37.3566	0.0799	8.2777	1.3344	9.2249	4.5080	1.3344	5.4551	0.0000	8,036.1837	8,036.1837	1.9475	0.0000	8,058.3177
Maximum	**2.6612**	**51.2896**	**37.3566**	**0.0799**	**8.2777**	**1.3344**	**9.2249**	**4.5080**	**1.3344**	**5.4551**	**0.0000**	**8,036.1837**	**8,036.1837**	**1.9475**	**0.0000**	**8,058.3177**

Jess Ranch - Phase 1 Construction - Alameda 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	N20	CO2e
Percent Reduction	**44.78**	**6.01**	**-9.84**	**0.00**	**54.55**	**44.20**	**55.23**	**54.78**	**39.35**	**55.18**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	2.7460	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
Total	**2.8255**	**0.7234**	**0.6758**	**4.3500e-003**	**0.0000**	**0.0552**	**0.0552**	**0.0000**	**0.0552**	**0.0552**		**867.4339**	**867.4339**	**0.0170**	**0.0159**	**872.5976**

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	2.7460	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
Total	**2.8255**	**0.7234**	**0.6758**	**4.3500e-003**	**0.0000**	**0.0552**	**0.0552**	**0.0000**	**0.0552**	**0.0552**		**867.4339**	**867.4339**	**0.0170**	**0.0159**	**872.5976**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	6/3/2019	6/13/2019	6	10	
2	Grading	Grading	6/14/2019	7/18/2019	6	30	
3	Building Construction	Building Construction	7/19/2019	10/31/2019	6	90	
4	Paving	Paving	11/1/2019	11/23/2019	6	20	
5	Architectural Coating	Architectural Coating	11/24/2019	12/17/2019	6	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 30

Acres of Paving: 13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,307 (Architectural Coating – sqft)

OffRoad Equipment

Jess Ranch - Phase 1 Construction - Alameda County, Summer

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
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

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	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	281.00	110.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	56.00	0.00	0.00	10.80	6.60	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 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0720	0.0458	0.5706	1.5600e-003	0.1479	1.0100e-003	0.1489	0.0392	9.3000e-004	0.0402		155.1580	155.1580	4.3800e-003		155.2675
Total	**0.0720**	**0.0458**	**0.5706**	**1.5600e-003**	**0.1479**	**1.0100e-003**	**0.1489**	**0.0392**	**9.3000e-004**	**0.0402**		**155.1580**	**155.1580**	**4.3800e-003**		**155.2675**

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	1.2097	33.7214	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**1.2097**	**33.7214**	**22.9600**	**0.0380**	**8.1298**	**0.9462**	**9.0760**	**4.4688**	**0.9462**	**5.4150**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0720	0.0458	0.5706	1.5600e-003	0.1479	1.0100e-003	0.1489	0.0392	9.3000e-004	0.0402		155.1580	155.1580	4.3800e-003		155.2675
Total	**0.0720**	**0.0458**	**0.5706**	**1.5600e-003**	**0.1479**	**1.0100e-003**	**0.1489**	**0.0392**	**9.3000e-004**	**0.0402**		**155.1580**	**155.1580**	**4.3800e-003**		**155.2675**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**7.0826**	**2.3827**	**9.4652**	**3.4247**	**2.1920**	**5.6168**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

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	0.0800	0.0509	0.6340	1.7300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0400e-003	0.0446		172.3978	172.3978	4.8600e-003		172.5194
Total	**0.0800**	**0.0509**	**0.6340**	**1.7300e-003**	**0.1643**	**1.1300e-003**	**0.1654**	**0.0436**	**1.0400e-003**	**0.0446**		**172.3978**	**172.3978**	**4.8600e-003**		**172.5194**

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.8106	51.2386	36.7226	0.0620		1.3333	1.3333		1.3333	1.3333	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**1.8106**	**51.2386**	**36.7226**	**0.0620**	**3.1872**	**1.3333**	**4.5205**	**1.5411**	**1.3333**	**2.8744**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

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	0.0800	0.0509	0.6340	1.7300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0400e-003	0.0446		172.3978	172.3978	4.8600e-003		172.5194
Total	**0.0800**	**0.0509**	**0.6340**	**1.7300e-003**	**0.1643**	**1.1300e-003**	**0.1654**	**0.0436**	**1.0400e-003**	**0.0446**		**172.3978**	**172.3978**	**4.8600e-003**		**172.5194**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.4558	13.2593	2.7592	0.0287	0.6741	0.0813	0.7554	0.1941	0.0777	0.2719		3,022.4143	3,022.4143	0.1857		3,027.0562
Worker	1.1245	0.7155	8.9075	0.0243	2.3084	0.0158	2.3242	0.6123	0.0146	0.6269		2,422.1893	2,422.1893	0.0684		2,423.8981
Total	**1.5803**	**13.9748**	**11.6667**	**0.0530**	**2.9825**	**0.0971**	**3.0796**	**0.8064**	**0.0923**	**0.8987**		**5,444.6036**	**5,444.6036**	**0.2540**		**5,450.9542**

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	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**1.0809**	**23.5544**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.4558	13.2593	2.7592	0.0287	0.6741	0.0813	0.7554	0.1941	0.0777	0.2719		3,022.4143	3,022.4143	0.1857		3,027.0562
Worker	1.1245	0.7155	8.9075	0.0243	2.3084	0.0158	2.3242	0.6123	0.0146	0.6269		2,422.1893	2,422.1893	0.0684		2,423.8981
Total	**1.5803**	**13.9748**	**11.6667**	**0.0530**	**2.9825**	**0.0971**	**3.0796**	**0.8064**	**0.0923**	**0.8987**		**5,444.6036**	**5,444.6036**	**0.2540**		**5,450.9542**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.8751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3295**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0600	0.0382	0.4755	1.3000e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		129.2984	129.2984	3.6500e-003		129.3896
Total	**0.0600**	**0.0382**	**0.4755**	**1.3000e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**129.2984**	**129.2984**	**3.6500e-003**		**129.3896**

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	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.8751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8061**	**20.1146**	**17.2957**	**0.0228**		**0.6670**	**0.6670**		**0.6670**	**0.6670**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0600	0.0382	0.4755	1.3000e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		129.2984	129.2984	3.6500e-003		129.3896
Total	**0.0600**	**0.0382**	**0.4755**	**1.3000e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**129.2984**	**129.2984**	**3.6500e-003**		**129.3896**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.4544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**0.7208**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

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	0.2241	0.1426	1.7752	4.8500e-003	0.4600	3.1500e-003	0.4632	0.1220	2.9100e-003	0.1249		482.7139	482.7139	0.0136		483.0544
Total	**0.2241**	**0.1426**	**1.7752**	**4.8500e-003**	**0.4600**	**3.1500e-003**	**0.4632**	**0.1220**	**2.9100e-003**	**0.1249**		**482.7139**	**482.7139**	**0.0136**		**483.0544**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.4544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**0.5683**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

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	0.2241	0.1426	1.7752	4.8500e-003	0.4600	3.1500e-003	0.4632	0.1220	2.9100e-003	0.1249		482.7139	482.7139	0.0136		483.0544
Total	**0.2241**	**0.1426**	**1.7752**	**4.8500e-003**	**0.4600**	**3.1500e-003**	**0.4632**	**0.1220**	**2.9100e-003**	**0.1249**		**482.7139**	**482.7139**	**0.0136**		**483.0544**

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	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

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Other Asphalt Surfaces	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Other Non-Asphalt Surfaces	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

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	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
NaturalGas Unmitigated	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415

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 Light Industry	7371.95	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
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
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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 Light Industry	7.37195	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
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
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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	2.7460	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Unmitigated	2.7460	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561

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	0.3562					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4600e-003	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Total	**2.7460**	**6.3000e-004**	**0.0687**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1463**	**0.1463**	**3.9000e-004**		**0.1561**

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	0.3562					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4600e-003	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Total	**2.7460**	**6.3000e-004**	**0.0687**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1463**	**0.1463**	**3.9000e-004**		**0.1561**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Jess Ranch - Phase 1 Construction

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	102.00	1000sqft	2.34	102,000.00	0
Other Asphalt Surfaces	291.12	1000sqft	6.68	291,119.00	0
Other Non-Asphalt Surfaces	275.16	1000sqft	6.32	275,156.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Jess Ranch - Phase 1 Construction - Alameda County, Winter

Project Characteristics -

Land Use -

Construction Phase - 90 day building construction schedule based on overall schedule and use of pre-fab and modular buildings

Grading - 30 acres expected to be disturbed

Architectural Coating - 0 sq ft of interior and exterior due to the use of pre-fab and modular buildings.

Vehicle Trips - operational emissions calculated separately

Water And Wastewater - no indoor water use

Solid Waste - no solid waste produced on-site

Construction Off-road Equipment Mitigation - Off-road Mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	51,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	153,000.00	0.00
tblArchitecturalCoating	ConstArea_Parking	33,977.00	1,307.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	300.00	90.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	75.00	30.00
tblLandUse	LandUseSquareFeet	291,120.00	291,119.00
tblLandUse	LandUseSquareFeet	275,160.00	275,156.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	126.48	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

tblWater	IndoorWaterUseRate	23,587,500.00	0.00

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					
2019	4.8225	54.5835	33.9782	0.0771	18.2141	2.3914	20.6055	9.9699	2.2001	12.1700	0.0000	7,754.3540	7,754.3540	1.9472	0.0000	7,776.8781
Maximum	**4.8225**	**54.5835**	**33.9782**	**0.0771**	**18.2141**	**2.3914**	**20.6055**	**9.9699**	**2.2001**	**12.1700**	**0.0000**	**7,754.3540**	**7,754.3540**	**1.9472**	**0.0000**	**7,776.8781**

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					
2019	2.7336	51.3020	37.3241	0.0771	8.2777	1.3344	9.2249	4.5080	1.3344	5.4551	0.0000	7,754.3540	7,754.3540	1.9472	0.0000	7,776.8781
Maximum	**2.7336**	**51.3020**	**37.3241**	**0.0771**	**8.2777**	**1.3344**	**9.2249**	**4.5080**	**1.3344**	**5.4551**	**0.0000**	**7,754.3540**	**7,754.3540**	**1.9472**	**0.0000**	**7,776.8781**

Jess Ranch - Phase 1 Construction - Alameda 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	N20	CO2e
Percent Reduction	**43.32**	**6.01**	**-9.85**	**0.00**	**54.55**	**44.20**	**55.23**	**54.78**	**39.35**	**55.18**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	2.7460	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
Total	**2.8255**	**0.7234**	**0.6758**	**4.3500e-003**	**0.0000**	**0.0552**	**0.0552**	**0.0000**	**0.0552**	**0.0552**		**867.4339**	**867.4339**	**0.0170**	**0.0159**	**872.5976**

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	2.7460	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
Total	**2.8255**	**0.7234**	**0.6758**	**4.3500e-003**	**0.0000**	**0.0552**	**0.0552**	**0.0000**	**0.0552**	**0.0552**		**867.4339**	**867.4339**	**0.0170**	**0.0159**	**872.5976**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	6/3/2019	6/13/2019	6	10	
2	Grading	Grading	6/14/2019	7/18/2019	6	30	
3	Building Construction	Building Construction	7/19/2019	10/31/2019	6	90	
4	Paving	Paving	11/1/2019	11/23/2019	6	20	
5	Architectural Coating	Architectural Coating	11/24/2019	12/17/2019	6	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 30

Acres of Paving: 13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,307 (Architectural Coating – sqft)

OffRoad Equipment

Jess Ranch - Phase 1 Construction - Alameda County, Winter

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
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

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	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	281.00	110.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	56.00	0.00	0.00	10.80	6.60	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 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0752	0.0570	0.5413	1.4300e-003	0.1479	1.0100e-003	0.1489	0.0392	9.3000e-004	0.0402		142.7852	142.7852	4.1300e-003		142.8884
Total	**0.0752**	**0.0570**	**0.5413**	**1.4300e-003**	**0.1479**	**1.0100e-003**	**0.1489**	**0.0392**	**9.3000e-004**	**0.0402**		**142.7852**	**142.7852**	**4.1300e-003**		**142.8884**

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	1.2097	33.7214	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**1.2097**	**33.7214**	**22.9600**	**0.0380**	**8.1298**	**0.9462**	**9.0760**	**4.4688**	**0.9462**	**5.4150**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0752	0.0570	0.5413	1.4300e-003	0.1479	1.0100e-003	0.1489	0.0392	9.3000e-004	0.0402		142.7852	142.7852	4.1300e-003		142.8884
Total	**0.0752**	**0.0570**	**0.5413**	**1.4300e-003**	**0.1479**	**1.0100e-003**	**0.1489**	**0.0392**	**9.3000e-004**	**0.0402**		**142.7852**	**142.7852**	**4.1300e-003**		**142.8884**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**7.0826**	**2.3827**	**9.4652**	**3.4247**	**2.1920**	**5.6168**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

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	0.0836	0.0634	0.6015	1.5900e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0400e-003	0.0446		158.6502	158.6502	4.5900e-003		158.7649
Total	**0.0836**	**0.0634**	**0.6015**	**1.5900e-003**	**0.1643**	**1.1300e-003**	**0.1654**	**0.0436**	**1.0400e-003**	**0.0446**		**158.6502**	**158.6502**	**4.5900e-003**		**158.7649**

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.8106	51.2386	36.7226	0.0620		1.3333	1.3333		1.3333	1.3333	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**1.8106**	**51.2386**	**36.7226**	**0.0620**	**3.1872**	**1.3333**	**4.5205**	**1.5411**	**1.3333**	**2.8744**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

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	0.0836	0.0634	0.6015	1.5900e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0400e-003	0.0446		158.6502	158.6502	4.5900e-003		158.7649
Total	**0.0836**	**0.0634**	**0.6015**	**1.5900e-003**	**0.1643**	**1.1300e-003**	**0.1654**	**0.0436**	**1.0400e-003**	**0.0446**		**158.6502**	**158.6502**	**4.5900e-003**		**158.7649**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.4786	13.3883	3.2100	0.0278	0.6741	0.0826	0.7567	0.1941	0.0790	0.2731		2,933.7382	2,933.7382	0.2052		2,938.8683
Worker	1.1741	0.8902	8.4505	0.0224	2.3084	0.0158	2.3242	0.6123	0.0146	0.6269		2,229.0356	2,229.0356	0.0644		2,230.6464
Total	**1.6527**	**14.2785**	**11.6605**	**0.0502**	**2.9825**	**0.0984**	**3.0809**	**0.8064**	**0.0936**	**0.9000**		**5,162.7738**	**5,162.7738**	**0.2696**		**5,169.5147**

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	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**1.0809**	**23.5544**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.4786	13.3883	3.2100	0.0278	0.6741	0.0826	0.7567	0.1941	0.0790	0.2731		2,933.7382	2,933.7382	0.2052		2,938.8683
Worker	1.1741	0.8902	8.4505	0.0224	2.3084	0.0158	2.3242	0.6123	0.0146	0.6269		2,229.0356	2,229.0356	0.0644		2,230.6464
Total	**1.6527**	**14.2785**	**11.6605**	**0.0502**	**2.9825**	**0.0984**	**3.0809**	**0.8064**	**0.0936**	**0.9000**		**5,162.7738**	**5,162.7738**	**0.2696**		**5,169.5147**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.8751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3295**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0627	0.0475	0.4511	1.2000e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		118.9877	118.9877	3.4400e-003		119.0737
Total	**0.0627**	**0.0475**	**0.4511**	**1.2000e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**118.9877**	**118.9877**	**3.4400e-003**		**119.0737**

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	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.8751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8061**	**20.1146**	**17.2957**	**0.0228**		**0.6670**	**0.6670**		**0.6670**	**0.6670**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0627	0.0475	0.4511	1.2000e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		118.9877	118.9877	3.4400e-003		119.0737
Total	**0.0627**	**0.0475**	**0.4511**	**1.2000e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**118.9877**	**118.9877**	**3.4400e-003**		**119.0737**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.4544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**0.7208**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

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	0.2340	0.1774	1.6841	4.4600e-003	0.4600	3.1500e-003	0.4632	0.1220	2.9100e-003	0.1249		444.2206	444.2206	0.0128		444.5416
Total	**0.2340**	**0.1774**	**1.6841**	**4.4600e-003**	**0.4600**	**3.1500e-003**	**0.4632**	**0.1220**	**2.9100e-003**	**0.1249**		**444.2206**	**444.2206**	**0.0128**		**444.5416**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.4544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**0.5683**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

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	0.2340	0.1774	1.6841	4.4600e-003	0.4600	3.1500e-003	0.4632	0.1220	2.9100e-003	0.1249		444.2206	444.2206	0.0128		444.5416
Total	**0.2340**	**0.1774**	**1.6841**	**4.4600e-003**	**0.4600**	**3.1500e-003**	**0.4632**	**0.1220**	**2.9100e-003**	**0.1249**		**444.2206**	**444.2206**	**0.0128**		**444.5416**

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	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

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Other Asphalt Surfaces	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Other Non-Asphalt Surfaces	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

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	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
NaturalGas Unmitigated	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415

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 Light Industry	7371.95	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
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
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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 Light Industry	7.37195	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
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
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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	2.7460	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Unmitigated	2.7460	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561

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	0.3562					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4600e-003	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Total	**2.7460**	**6.3000e-004**	**0.0687**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1463**	**0.1463**	**3.9000e-004**		**0.1561**

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	0.3562					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4600e-003	6.3000e-004	0.0687	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1463	0.1463	3.9000e-004		0.1561
Total	**2.7460**	**6.3000e-004**	**0.0687**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1463**	**0.1463**	**3.9000e-004**		**0.1561**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Jess Ranch - Phase 2 Construction

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	102.00	1000sqft	2.34	102,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Grading - 10 acres disturbed

Architectural Coating -

Vehicle Trips - Operational Emissions Calculated Separately

Water And Wastewater - Operation calculated separately

Solid Waste - Operation Calculated Separately

Construction Off-road Equipment Mitigation - off-road mitigation

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblGrading	AcresOfGrading	3.00	10.00
tblGrading	AcresOfGrading	4.50	10.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	126.48	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	23,587,500.00	0.00

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					
2019	0.0154	0.1637	0.1110	2.0000e-004	0.0296	8.1600e-003	0.0378	0.0113	7.5100e-003	0.0188	0.0000	17.6268	17.6268	5.2800e-003	0.0000	17.7589
Maximum	**0.0154**	**0.1637**	**0.1110**	**2.0000e-004**	**0.0296**	**8.1600e-003**	**0.0378**	**0.0113**	**7.5100e-003**	**0.0188**	**0.0000**	**17.6268**	**17.6268**	**5.2800e-003**	**0.0000**	**17.7589**

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					
2019	6.9900e-003	0.1627	0.1252	2.0000e-004	0.0138	5.0000e-003	0.0188	5.2300e-003	5.0000e-003	0.0102	0.0000	17.6268	17.6268	5.2800e-003	0.0000	17.7589
Maximum	**6.9900e-003**	**0.1627**	**0.1252**	**2.0000e-004**	**0.0138**	**5.0000e-003**	**0.0188**	**5.2300e-003**	**5.0000e-003**	**0.0102**	**0.0000**	**17.6268**	**17.6268**	**5.2800e-003**	**0.0000**	**17.7589**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**54.58**	**0.60**	**-12.78**	**0.00**	**53.28**	**38.73**	**50.12**	**53.80**	**33.42**	**45.67**	**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	7-1-2019	9-30-2019	0.1655	0.1581
		Highest	0.1655	0.1581

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4516	1.0000e-005	9.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8200e-003	1.8200e-003	0.0000	0.0000	1.9400e-003
Energy	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	388.6879	388.6879	0.0138	4.9300e-003	390.5016
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
Total	**0.4661**	**0.1319**	**0.1117**	**7.9000e-004**	**0.0000**	**0.0100**	**0.0100**	**0.0000**	**0.0100**	**0.0100**	**0.0000**	**388.6898**	**388.6898**	**0.0138**	**4.9300e-003**	**390.5035**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4516	1.0000e-005	9.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8200e-003	1.8200e-003	0.0000	0.0000	1.9400e-003
Energy	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	388.6879	388.6879	0.0138	4.9300e-003	390.5016
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
Total	**0.4661**	**0.1319**	**0.1117**	**7.9000e-004**	**0.0000**	**0.0100**	**0.0100**	**0.0000**	**0.0100**	**0.0100**	**0.0000**	**388.6898**	**388.6898**	**0.0138**	**4.9300e-003**	**390.5035**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	7/1/2019	7/3/2019	5	3	
2	Grading	Grading	7/4/2019	7/11/2019	5	6	
3	Paving	Paving	7/12/2019	7/25/2019	5	10	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 10

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	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	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	3	8.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	6.60	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 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-003	0.0000	5.3000e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6300e-003	0.0323	0.0179	4.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281
Total	**2.6300e-003**	**0.0323**	**0.0179**	**4.0000e-005**	**5.3000e-003**	**1.2800e-003**	**6.5800e-003**	**5.7000e-004**	**1.1800e-003**	**1.7500e-003**	**0.0000**	**3.3020**	**3.3020**	**1.0400e-003**	**0.0000**	**3.3281**

3.2 Site Preparation - 2019

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	5.0000e-005	3.0000e-005	3.5000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0870	0.0870	0.0000	0.0000	0.0871
Total	**5.0000e-005**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0870**	**0.0870**	**0.0000**	**0.0000**	**0.0871**

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					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9000e-004	0.0300	0.0205	4.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281
Total	**9.9000e-004**	**0.0300**	**0.0205**	**4.0000e-005**	**2.3900e-003**	**7.5000e-004**	**3.1400e-003**	**2.6000e-004**	**7.5000e-004**	**1.0100e-003**	**0.0000**	**3.3020**	**3.3020**	**1.0400e-003**	**0.0000**	**3.3281**

3.2 Site Preparation - 2019

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	5.0000e-005	3.0000e-005	3.5000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0870	0.0870	0.0000	0.0000	0.0871
Total	**5.0000e-005**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0870**	**0.0870**	**0.0000**	**0.0000**	**0.0871**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0234	0.0000	0.0234	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0900e-003	0.0682	0.0305	6.0000e-005		3.2200e-003	3.2200e-003		2.9600e-003	2.9600e-003	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993
Total	**6.0900e-003**	**0.0682**	**0.0305**	**6.0000e-005**	**0.0234**	**3.2200e-003**	**0.0266**	**0.0105**	**2.9600e-003**	**0.0135**	**0.0000**	**5.5554**	**5.5554**	**1.7600e-003**	**0.0000**	**5.5993**

3.3 Grading - 2019

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	1.1000e-004	9.0000e-005	8.7000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2176	0.2176	1.0000e-005	0.0000	0.2177
Total	**1.1000e-004**	**9.0000e-005**	**8.7000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2176**	**0.2176**	**1.0000e-005**	**0.0000**	**0.2177**

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					0.0105	0.0000	0.0105	4.7300e-003	0.0000	4.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8800e-003	0.0543	0.0364	6.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993
Total	**1.8800e-003**	**0.0543**	**0.0364**	**6.0000e-005**	**0.0105**	**1.4600e-003**	**0.0120**	**4.7300e-003**	**1.4600e-003**	**6.1900e-003**	**0.0000**	**5.5554**	**5.5554**	**1.7600e-003**	**0.0000**	**5.5993**

3.3 Grading - 2019

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	1.1000e-004	9.0000e-005	8.7000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2176	0.2176	1.0000e-005	0.0000	0.2177
Total	**1.1000e-004**	**9.0000e-005**	**8.7000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2176**	**0.2176**	**1.0000e-005**	**0.0000**	**0.2177**

3.4 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.2300e-003	0.0628	0.0593	9.0000e-005		3.6500e-003	3.6500e-003		3.3600e-003	3.3600e-003	0.0000	7.9208	7.9208	2.4600e-003	0.0000	7.9823
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.2300e-003**	**0.0628**	**0.0593**	**9.0000e-005**		**3.6500e-003**	**3.6500e-003**		**3.3600e-003**	**3.3600e-003**	**0.0000**	**7.9208**	**7.9208**	**2.4600e-003**	**0.0000**	**7.9823**

3.4 Paving - 2019

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	2.8000e-004	2.2000e-004	2.1900e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5440	0.5440	2.0000e-005	0.0000	0.5444
Total	**2.8000e-004**	**2.2000e-004**	**2.1900e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5440**	**0.5440**	**2.0000e-005**	**0.0000**	**0.5444**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6700e-003	0.0781	0.0649	9.0000e-005		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003	0.0000	7.9208	7.9208	2.4600e-003	0.0000	7.9823
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.6700e-003**	**0.0781**	**0.0649**	**9.0000e-005**		**2.7900e-003**	**2.7900e-003**		**2.7900e-003**	**2.7900e-003**	**0.0000**	**7.9208**	**7.9208**	**2.4600e-003**	**0.0000**	**7.9823**

3.4 Paving - 2019

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	2.8000e-004	2.2000e-004	2.1900e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5440	0.5440	2.0000e-005	0.0000	0.5444
Total	**2.8000e-004**	**2.2000e-004**	**2.1900e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5440**	**0.5440**	**2.0000e-005**	**0.0000**	**0.5444**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

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	245.0987	245.0987	0.0111	2.2900e-003	246.0591
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	245.0987	245.0987	0.0111	2.2900e-003	246.0591
NaturalGas Mitigated	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425
NaturalGas Unmitigated	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425

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 Light Industry	2.69076e+006	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425
Total		**0.0145**	**0.1319**	**0.1108**	**7.9000e-004**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**143.5892**	**143.5892**	**2.7500e-003**	**2.6300e-003**	**144.4425**

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 Light Industry	2.69076e+006	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425
Total		**0.0145**	**0.1319**	**0.1108**	**7.9000e-004**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**143.5892**	**143.5892**	**2.7500e-003**	**2.6300e-003**	**144.4425**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	842520	245.0987	0.0111	2.2900e-003	246.0591
Total		**245.0987**	**0.0111**	**2.2900e-003**	**246.0591**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	842520	245.0987	0.0111	2.2900e-003	246.0591
Total		**245.0987**	**0.0111**	**2.2900e-003**	**246.0591**

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	0.4516	1.0000e-005	9.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8200e-003	1.8200e-003	0.0000	0.0000	1.9400e-003
Unmitigated	0.4516	1.0000e-005	9.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8200e-003	1.8200e-003	0.0000	0.0000	1.9400e-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	0.0532					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3984					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8200e-003	1.8200e-003	0.0000	0.0000	1.9400e-003
Total	**0.4516**	**1.0000e-005**	**9.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.8200e-003**	**1.8200e-003**	**0.0000**	**0.0000**	**1.9400e-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	0.0532					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3984					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8200e-003	1.8200e-003	0.0000	0.0000	1.9400e-003
Total	**0.4516**	**1.0000e-005**	**9.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.8200e-003**	**1.8200e-003**	**0.0000**	**0.0000**	**1.9400e-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			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	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			
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 Light Industry	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			
General Light Industry	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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Jess Ranch - Phase 2 Construction

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	102.00	1000sqft	2.34	102,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Grading - 10 acres disturbed

Architectural Coating -

Vehicle Trips - Operational Emissions Calculated Separately

Water And Wastewater - Operation calculated separately

Solid Waste - Operation Calculated Separately

Construction Off-road Equipment Mitigation - off-road mitigation

Jess Ranch - Phase 2 Construction - Alameda County, Summer

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblGrading	AcresOfGrading	3.00	10.00
tblGrading	AcresOfGrading	4.50	10.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	126.48	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	23,587,500.00	0.00

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					
2019	2.0687	22.7699	12.3262	0.0252	7.8717	1.0735	8.9453	3.5229	0.9877	4.5105	0.0000	2,495.4999	2,495.4999	0.7697	0.0000	2,514.7418
Maximum	**2.0687**	**22.7699**	**12.3262**	**0.0252**	**7.8717**	**1.0735**	**8.9453**	**3.5229**	**0.9877**	**4.5105**	**0.0000**	**2,495.4999**	**2,495.4999**	**0.7697**	**0.0000**	**2,514.7418**

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					
2019	0.7945	20.0383	13.8967	0.0252	3.5875	0.5588	4.0730	1.5973	0.5587	2.0828	0.0000	2,495.4999	2,495.4999	0.7697	0.0000	2,514.7418
Maximum	**0.7945**	**20.0383**	**13.8967**	**0.0252**	**3.5875**	**0.5588**	**4.0730**	**1.5973**	**0.5587**	**2.0828**	**0.0000**	**2,495.4999**	**2,495.4999**	**0.7697**	**0.0000**	**2,514.7418**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**61.60**	**12.00**	**-12.74**	**0.00**	**54.43**	**47.95**	**54.47**	**54.66**	**43.43**	**53.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	2.4752	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
Total	**2.5547**	**0.7228**	**0.6175**	**4.3400e-003**	**0.0000**	**0.0550**	**0.0550**	**0.0000**	**0.0550**	**0.0550**		**867.3100**	**867.3100**	**0.0167**	**0.0159**	**872.4653**

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	2.4752	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
Total	**2.5547**	**0.7228**	**0.6175**	**4.3400e-003**	**0.0000**	**0.0550**	**0.0550**	**0.0000**	**0.0550**	**0.0550**		**867.3100**	**867.3100**	**0.0167**	**0.0159**	**872.4653**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	7/1/2019	7/3/2019	5	3	
2	Grading	Grading	7/4/2019	7/11/2019	5	6	
3	Paving	Paving	7/12/2019	7/25/2019	5	10	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 10

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	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	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	3	8.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	6.60	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 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5350	0.0000	3.5350	0.3817	0.0000	0.3817			0.0000			0.0000
Off-Road	1.7557	21.5386	11.9143	0.0245		0.8537	0.8537		0.7854	0.7854		2,426.5408	2,426.5408	0.7677		2,445.7341
Total	**1.7557**	**21.5386**	**11.9143**	**0.0245**	**3.5350**	**0.8537**	**4.3887**	**0.3817**	**0.7854**	**1.1671**		**2,426.5408**	**2,426.5408**	**0.7677**		**2,445.7341**

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	0.0320	0.0204	0.2536	6.9000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		68.9591	68.9591	1.9500e-003		69.0078
Total	**0.0320**	**0.0204**	**0.2536**	**6.9000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**68.9591**	**68.9591**	**1.9500e-003**		**69.0078**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	0.6625	20.0179	13.6431	0.0245		0.4988	0.4988		0.4988	0.4988	0.0000	2,426.5408	2,426.5408	0.7677		2,445.7341
Total	**0.6625**	**20.0179**	**13.6431**	**0.0245**	**1.5908**	**0.4988**	**2.0895**	**0.1718**	**0.4988**	**0.6705**	**0.0000**	**2,426.5408**	**2,426.5408**	**0.7677**		**2,445.7341**

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	0.0320	0.0204	0.2536	6.9000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		68.9591	68.9591	1.9500e-003		69.0078
Total	**0.0320**	**0.0204**	**0.2536**	**6.9000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**68.9591**	**68.9591**	**1.9500e-003**		**69.0078**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7896	0.0000	7.7896	3.5011	0.0000	3.5011			0.0000			0.0000
Off-Road	2.0287	22.7444	10.1518	0.0206		1.0730	1.0730		0.9871	0.9871		2,041.2539	2,041.2539	0.6458		2,057.3997
Total	**2.0287**	**22.7444**	**10.1518**	**0.0206**	**7.7896**	**1.0730**	**8.8626**	**3.5011**	**0.9871**	**4.4882**		**2,041.2539**	**2,041.2539**	**0.6458**		**2,057.3997**

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	0.0400	0.0255	0.3170	8.7000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.2000e-004	0.0223		86.1989	86.1989	2.4300e-003		86.2597
Total	**0.0400**	**0.0255**	**0.3170**	**8.7000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**86.1989**	**86.1989**	**2.4300e-003**		**86.2597**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5053	0.0000	3.5053	1.5755	0.0000	1.5755			0.0000			0.0000
Off-Road	0.6262	18.1050	12.1450	0.0206		0.4850	0.4850		0.4850	0.4850	0.0000	2,041.2539	2,041.2539	0.6458		2,057.3997
Total	**0.6262**	**18.1050**	**12.1450**	**0.0206**	**3.5053**	**0.4850**	**3.9903**	**1.5755**	**0.4850**	**2.0605**	**0.0000**	**2,041.2539**	**2,041.2539**	**0.6458**		**2,057.3997**

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	0.0400	0.0255	0.3170	8.7000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.2000e-004	0.0223		86.1989	86.1989	2.4300e-003		86.2597
Total	**0.0400**	**0.0255**	**0.3170**	**8.7000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**86.1989**	**86.1989**	**2.4300e-003**		**86.2597**

3.4 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2453	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728		1,746.2432	1,746.2432	0.5418		1,759.7870
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2453**	**12.5685**	**11.8507**	**0.0178**		**0.7301**	**0.7301**		**0.6728**	**0.6728**		**1,746.2432**	**1,746.2432**	**0.5418**		**1,759.7870**

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	0.0600	0.0382	0.4755	1.3000e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		129.2984	129.2984	3.6500e-003		129.3896
Total	**0.0600**	**0.0382**	**0.4755**	**1.3000e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**129.2984**	**129.2984**	**3.6500e-003**		**129.3896**

3.4 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7344	15.6108	12.9737	0.0178		0.5580	0.5580		0.5580	0.5580	0.0000	1,746.2432	1,746.2432	0.5418		1,759.7870
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7344**	**15.6108**	**12.9737**	**0.0178**		**0.5580**	**0.5580**		**0.5580**	**0.5580**	**0.0000**	**1,746.2432**	**1,746.2432**	**0.5418**		**1,759.7870**

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	0.0600	0.0382	0.4755	1.3000e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		129.2984	129.2984	3.6500e-003		129.3896
Total	**0.0600**	**0.0382**	**0.4755**	**1.3000e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**129.2984**	**129.2984**	**3.6500e-003**		**129.3896**

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	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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

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	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
NaturalGas Unmitigated	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415

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 Light Industry	7371.95	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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 Light Industry	7.37195	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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	2.4752	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Unmitigated	2.4752	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238

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	0.2914					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1828					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Total	**2.4752**	**1.0000e-004**	**0.0104**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0223**	**0.0223**	**6.0000e-005**		**0.0238**

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	0.2914					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1828					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Total	**2.4752**	**1.0000e-004**	**0.0104**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0223**	**0.0223**	**6.0000e-005**		**0.0238**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Jess Ranch - Phase 2 Construction

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	102.00	1000sqft	2.34	102,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Grading - 10 acres disturbed

Architectural Coating -

Vehicle Trips - Operational Emissions Calculated Separately

Water And Wastewater - Operation calculated separately

Solid Waste - Operation Calculated Separately

Construction Off-road Equipment Mitigation - off-road mitigation

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblGrading	AcresOfGrading	3.00	10.00
tblGrading	AcresOfGrading	4.50	10.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	126.48	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	23,587,500.00	0.00

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					
2019	2.0705	22.7761	12.3018	0.0252	7.8717	1.0735	8.9453	3.5229	0.9877	4.5105	0.0000	2,490.0009	2,490.0009	0.7696	0.0000	2,509.2400
Maximum	**2.0705**	**22.7761**	**12.3018**	**0.0252**	**7.8717**	**1.0735**	**8.9453**	**3.5229**	**0.9877**	**4.5105**	**0.0000**	**2,490.0009**	**2,490.0009**	**0.7696**	**0.0000**	**2,509.2400**

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					
2019	0.7971	20.0432	13.8837	0.0252	3.5875	0.5588	4.0730	1.5973	0.5587	2.0828	0.0000	2,490.0009	2,490.0009	0.7696	0.0000	2,509.2400
Maximum	**0.7971**	**20.0432**	**13.8837**	**0.0252**	**3.5875**	**0.5588**	**4.0730**	**1.5973**	**0.5587**	**2.0828**	**0.0000**	**2,490.0009**	**2,490.0009**	**0.7696**	**0.0000**	**2,509.2400**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**61.50**	**12.00**	**-12.86**	**0.00**	**54.43**	**47.95**	**54.47**	**54.66**	**43.43**	**53.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	2.4752	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
Total	**2.5547**	**0.7228**	**0.6175**	**4.3400e-003**	**0.0000**	**0.0550**	**0.0550**	**0.0000**	**0.0550**	**0.0550**		**867.3100**	**867.3100**	**0.0167**	**0.0159**	**872.4653**

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	2.4752	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
Total	**2.5547**	**0.7228**	**0.6175**	**4.3400e-003**	**0.0000**	**0.0550**	**0.0550**	**0.0000**	**0.0550**	**0.0550**		**867.3100**	**867.3100**	**0.0167**	**0.0159**	**872.4653**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	7/1/2019	7/3/2019	5	3	
2	Grading	Grading	7/4/2019	7/11/2019	5	6	
3	Paving	Paving	7/12/2019	7/25/2019	5	10	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 10

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	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	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	3	8.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	6.60	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 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5350	0.0000	3.5350	0.3817	0.0000	0.3817			0.0000			0.0000
Off-Road	1.7557	21.5386	11.9143	0.0245		0.8537	0.8537		0.7854	0.7854		2,426.5408	2,426.5408	0.7677		2,445.7341
Total	**1.7557**	**21.5386**	**11.9143**	**0.0245**	**3.5350**	**0.8537**	**4.3887**	**0.3817**	**0.7854**	**1.1671**		**2,426.5408**	**2,426.5408**	**0.7677**		**2,445.7341**

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	0.0334	0.0253	0.2406	6.4000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.4601	63.4601	1.8300e-003		63.5060
Total	**0.0334**	**0.0253**	**0.2406**	**6.4000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**63.4601**	**63.4601**	**1.8300e-003**		**63.5060**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	0.6625	20.0179	13.6431	0.0245		0.4988	0.4988		0.4988	0.4988	0.0000	2,426.5408	2,426.5408	0.7677		2,445.7341
Total	**0.6625**	**20.0179**	**13.6431**	**0.0245**	**1.5908**	**0.4988**	**2.0895**	**0.1718**	**0.4988**	**0.6705**	**0.0000**	**2,426.5408**	**2,426.5408**	**0.7677**		**2,445.7341**

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	0.0334	0.0253	0.2406	6.4000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.4601	63.4601	1.8300e-003		63.5060
Total	**0.0334**	**0.0253**	**0.2406**	**6.4000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**63.4601**	**63.4601**	**1.8300e-003**		**63.5060**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7896	0.0000	7.7896	3.5011	0.0000	3.5011			0.0000			0.0000
Off-Road	2.0287	22.7444	10.1518	0.0206		1.0730	1.0730		0.9871	0.9871		2,041.2539	2,041.2539	0.6458		2,057.3997
Total	**2.0287**	**22.7444**	**10.1518**	**0.0206**	**7.7896**	**1.0730**	**8.8626**	**3.5011**	**0.9871**	**4.4882**		**2,041.2539**	**2,041.2539**	**0.6458**		**2,057.3997**

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	0.0418	0.0317	0.3007	8.0000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.2000e-004	0.0223		79.3251	79.3251	2.2900e-003		79.3824
Total	**0.0418**	**0.0317**	**0.3007**	**8.0000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**79.3251**	**79.3251**	**2.2900e-003**		**79.3824**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5053	0.0000	3.5053	1.5755	0.0000	1.5755			0.0000			0.0000
Off-Road	0.6262	18.1050	12.1450	0.0206		0.4850	0.4850		0.4850	0.4850	0.0000	2,041.2539	2,041.2539	0.6458		2,057.3997
Total	**0.6262**	**18.1050**	**12.1450**	**0.0206**	**3.5053**	**0.4850**	**3.9903**	**1.5755**	**0.4850**	**2.0605**	**0.0000**	**2,041.2539**	**2,041.2539**	**0.6458**		**2,057.3997**

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	0.0418	0.0317	0.3007	8.0000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.2000e-004	0.0223		79.3251	79.3251	2.2900e-003		79.3824
Total	**0.0418**	**0.0317**	**0.3007**	**8.0000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**79.3251**	**79.3251**	**2.2900e-003**		**79.3824**

3.4 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2453	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728		1,746.2432	1,746.2432	0.5418		1,759.7870
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2453**	**12.5685**	**11.8507**	**0.0178**		**0.7301**	**0.7301**		**0.6728**	**0.6728**		**1,746.2432**	**1,746.2432**	**0.5418**		**1,759.7870**

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	0.0627	0.0475	0.4511	1.2000e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		118.9877	118.9877	3.4400e-003		119.0737
Total	**0.0627**	**0.0475**	**0.4511**	**1.2000e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**118.9877**	**118.9877**	**3.4400e-003**		**119.0737**

3.4 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7344	15.6108	12.9737	0.0178		0.5580	0.5580		0.5580	0.5580	0.0000	1,746.2432	1,746.2432	0.5418		1,759.7870
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7344**	**15.6108**	**12.9737**	**0.0178**		**0.5580**	**0.5580**		**0.5580**	**0.5580**	**0.0000**	**1,746.2432**	**1,746.2432**	**0.5418**		**1,759.7870**

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	0.0627	0.0475	0.4511	1.2000e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		118.9877	118.9877	3.4400e-003		119.0737
Total	**0.0627**	**0.0475**	**0.4511**	**1.2000e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**118.9877**	**118.9877**	**3.4400e-003**		**119.0737**

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	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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

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	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
NaturalGas Unmitigated	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415

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 Light Industry	7371.95	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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 Light Industry	7.37195	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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	2.4752	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Unmitigated	2.4752	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238

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	0.2914					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1828					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Total	**2.4752**	**1.0000e-004**	**0.0104**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0223**	**0.0223**	**6.0000e-005**		**0.0238**

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	0.2914					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1828					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7000e-004	1.0000e-004	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0223	0.0223	6.0000e-005		0.0238
Total	**2.4752**	**1.0000e-004**	**0.0104**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0223**	**0.0223**	**6.0000e-005**		**0.0238**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Jess Ranch - Buildout Operations

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	102.00	1000sqft	2.34	102,000.00	0
Other Asphalt Surfaces	100.00	1000sqft	2.30	100,000.00	0
Other Non-Asphalt Surfaces	335.60	1000sqft	7.70	335,597.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Jess Ranch - Buildout Operations - Alameda County, Annual

Project Characteristics -

Land Use -

Construction Phase - Construction Calculated Separately

Off-road Equipment - Construction Calculated Separately

Grading -

Trips and VMT - Construction Calculated Separately

Vehicle Trips - Trip rate based on 85 truck trips and 12 employee trips for 102,000 sf of industrial space. Trip length based on haul truck trips and employee commute lengths

Fleet Mix - Fleet mix modified to reflect 87.6% heavy truck trips and 12.4% employee commutes

Road Dust - heavy truck trip weight

Water And Wastewater - indoor daily consuption is 200 gpd; outdoor 20,000 gpd

Solid Waste -

Operational Off-Road Equipment - equipment required to handle on-site materials.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	PhaseEndDate	5/13/2020	3/20/2019
tblFleetMix	HHD	0.05	0.88
tblFleetMix	LDA	0.56	0.12
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2020e-003	0.00
tblFleetMix	MCY	5.5240e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	7.2100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.1840e-003	0.00

tblFleetMix	SBUS	3.2600e-004	0.00
tblFleetMix	UBUS	2.5610e-003	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	402.00	200.00
tblOperationalOffRoadEquipment	OperHorsePower	168.00	540.00
tblOperationalOffRoadEquipment	OperHorsePower	168.00	50.00
tblOperationalOffRoadEquipment	OperHorsePower	168.00	75.00
tblOperationalOffRoadEquipment	OperHorsePower	203.00	250.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.38	0.38
tblOperationalOffRoadEquipment	OperLoadFactor	0.40	0.40
tblOperationalOffRoadEquipment	OperLoadFactor	0.40	0.40
tblOperationalOffRoadEquipment	OperLoadFactor	0.40	0.40
tblOperationalOffRoadEquipment	OperLoadFactor	0.36	0.36
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	MobileAverageVehicleWeight	2.4	13
tblTripsAndVMT	VendorTripNumber	88.00	0.00
tblTripsAndVMT	WorkerTripNumber	226.00	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	65.50
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	0.95
tblVehicleTrips	SU_TR	0.68	0.95
tblVehicleTrips	WD_TR	6.97	0.95
tblWater	IndoorWaterUseRate	23,587,500.00	100,000.00
tblWater	OutdoorWaterUseRate	0.00	10,000,000.00

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					
2019	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2019	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4893	5.0000e-005	4.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	3.0000e-005	0.0000	0.0102
Energy	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	388.6879	388.6879	0.0138	4.9300e-003	390.5016
Mobile	0.3091	8.8262	2.1425	0.0338	4.0321	0.0325	4.0646	1.0153	0.0311	1.0464	0.0000	3,253.8838	3,253.8838	0.1121	0.0000	3,256.6850
Offroad	0.3967	3.4033	2.3864	7.4300e-003		0.1361	0.1361		0.1252	0.1252	0.0000	653.0250	653.0250	0.2112	0.0000	658.3050
Waste						0.0000	0.0000		0.0000	0.0000	25.6743	0.0000	25.6743	1.5173	0.0000	63.6070
Water						0.0000	0.0000		0.0000	0.0000	0.0317	10.3393	10.3710	3.7300e-003	1.7000e-004	10.5159
Total	**1.2095**	**12.3614**	**4.6446**	**0.0420**	**4.0321**	**0.1787**	**4.2108**	**1.0153**	**0.1664**	**1.1817**	**25.7060**	**4,305.9456**	**4,331.6516**	**1.8582**	**5.1000e-003**	**4,379.6248**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4893	5.0000e-005	4.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	3.0000e-005	0.0000	0.0102
Energy	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	388.6879	388.6879	0.0138	4.9300e-003	390.5016
Mobile	0.3091	8.8262	2.1425	0.0338	4.0321	0.0325	4.0646	1.0153	0.0311	1.0464	0.0000	3,253.8838	3,253.8838	0.1121	0.0000	3,256.6850
Offroad	0.3967	3.4033	2.3864	7.4300e-003		0.1361	0.1361		0.1252	0.1252	0.0000	653.0250	653.0250	0.2112	0.0000	658.3050
Waste						0.0000	0.0000		0.0000	0.0000	25.6743	0.0000	25.6743	1.5173	0.0000	63.6070
Water						0.0000	0.0000		0.0000	0.0000	0.0317	10.3393	10.3710	3.7300e-003	1.7000e-004	10.5159
Total	**1.2095**	**12.3614**	**4.6446**	**0.0420**	**4.0321**	**0.1787**	**4.2108**	**1.0153**	**0.1664**	**1.1817**	**25.7060**	**4,305.9456**	**4,331.6516**	**1.8582**	**5.1000e-003**	**4,379.6248**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	Building Construction	Building Construction	3/21/2019	3/20/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 10

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
Building Construction	Cranes	1	0.00	231	0.29
Building Construction	Forklifts	3	0.00	89	0.20
Building Construction	Generator Sets	1	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	0.00	97	0.37
Building Construction	Welders	1	0.00	46	0.45

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
Building Construction	9	0.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2019

Unmitigated Construction On-Site

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

3.2 Building Construction - 2019

Mitigated Construction On-Site

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

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	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 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	0.3091	8.8262	2.1425	0.0338	4.0321	0.0325	4.0646	1.0153	0.0311	1.0464	0.0000	3,253.8838	3,253.8838	0.1121	0.0000	3,256.6850
Unmitigated	0.3091	8.8262	2.1425	0.0338	4.0321	0.0325	4.0646	1.0153	0.0311	1.0464	0.0000	3,253.8838	3,253.8838	0.1121	0.0000	3,256.6850

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	96.90	96.90	96.90	2,154,451	2,154,451
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	96.90	96.90	96.90	2,154,451	2,154,451

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Light Industry	65.50	6.60	6.60	100.00	0.00	0.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.124000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.876000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Other Non-Asphalt Surfaces	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

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	245.0987	245.0987	0.0111	2.2900e-003	246.0591
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	245.0987	245.0987	0.0111	2.2900e-003	246.0591
NaturalGas Mitigated	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425
NaturalGas Unmitigated	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425

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 Light Industry	2.69076e+006	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425
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
Total		**0.0145**	**0.1319**	**0.1108**	**7.9000e-004**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**143.5892**	**143.5892**	**2.7500e-003**	**2.6300e-003**	**144.4425**

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 Light Industry	2.69076e+006	0.0145	0.1319	0.1108	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.5892	143.5892	2.7500e-003	2.6300e-003	144.4425
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
Total		**0.0145**	**0.1319**	**0.1108**	**7.9000e-004**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**143.5892**	**143.5892**	**2.7500e-003**	**2.6300e-003**	**144.4425**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	842520	245.0987	0.0111	2.2900e-003	246.0591
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
Total		**245.0987**	**0.0111**	**2.2900e-003**	**246.0591**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	842520	245.0987	0.0111	2.2900e-003	246.0591
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
Total		**245.0987**	**0.0111**	**2.2900e-003**	**246.0591**

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	0.4893	5.0000e-005	4.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	3.0000e-005	0.0000	0.0102
Unmitigated	0.4893	5.0000e-005	4.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	3.0000e-005	0.0000	0.0102

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	0.0623					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4265					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.6000e-004	5.0000e-005	4.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	3.0000e-005	0.0000	0.0102
Total	**0.4893**	**5.0000e-005**	**4.9500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.6100e-003**	**9.6100e-003**	**3.0000e-005**	**0.0000**	**0.0102**

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	0.0623					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4265					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.6000e-004	5.0000e-005	4.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	3.0000e-005	0.0000	0.0102
Total	**0.4893**	**5.0000e-005**	**4.9500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.6100e-003**	**9.6100e-003**	**3.0000e-005**	**0.0000**	**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.3710	3.7300e-003	1.7000e-004	10.5159
Unmitigated	10.3710	3.7300e-003	1.7000e-004	10.5159

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.1 / 10	10.3710	3.7300e-003	1.7000e-004	10.5159
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
Total		**10.3710**	**3.7300e-003**	**1.7000e-004**	**10.5159**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.1 / 10	10.3710	3.7300e-003	1.7000e-004	10.5159
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
Total		**10.3710**	**3.7300e-003**	**1.7000e-004**	**10.5159**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	25.6743	1.5173	0.0000	63.6070
Unmitigated	25.6743	1.5173	0.0000	63.6070

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	126.48	25.6743	1.5173	0.0000	63.6070
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
Total		**25.6743**	**1.5173**	**0.0000**	**63.6070**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	126.48	25.6743	1.5173	0.0000	63.6070
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
Total		**25.6743**	**1.5173**	**0.0000**	**63.6070**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	2	8.00	365	200	0.38	Diesel
Other Material Handling Equipment	1	8.00	365	540	0.40	Diesel
Other Material Handling Equipment	1	8.00	365	50	0.40	Diesel
Other Material Handling Equipment	1	8.00	365	75	0.40	Diesel
Rubber Tired Loaders	3	8.00	365	250	0.36	Diesel

UnMitigated/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
Equipment Type	tons/yr										MT/yr					
Off-Highway Trucks	0.1055	0.7955	0.6286	2.3900e-003		0.0313	0.0313		0.0288	0.0288	0.0000	209.4761	209.4761	0.0678	0.0000	211.1698
Other Material Handling Equipment	0.0938	0.5580	0.7201	8.1000e-004		0.0360	0.0360		0.0332	0.0332	0.0000	71.2241	71.2241	0.0230	0.0000	71.8000
Rubber Tired Loaders	0.1975	2.0498	1.0376	4.2400e-003		0.0688	0.0688		0.0633	0.0633	0.0000	372.3247	372.3247	0.1204	0.0000	375.3352
Total	**0.3967**	**3.4033**	**2.3864**	**7.4400e-003**		**0.1361**	**0.1361**		**0.1252**	**0.1252**	**0.0000**	**653.0250**	**653.0250**	**0.2112**	**0.0000**	**658.3050**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Jess Ranch - Buildout Operations

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	102.00	1000sqft	2.34	102,000.00	0
Other Asphalt Surfaces	100.00	1000sqft	2.30	100,000.00	0
Other Non-Asphalt Surfaces	335.60	1000sqft	7.70	335,597.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Jess Ranch - Buildout Operations - Alameda County, Summer

Project Characteristics -

Land Use -

Construction Phase - Construction Calculated Separately

Off-road Equipment - Construction Calculated Separately

Grading -

Trips and VMT - Construction Calculated Separately

Vehicle Trips - Trip rate based on 85 truck trips and 12 employee trips for 102,000 sf of industrial space. Trip length based on haul truck trips and employee commute lengths

Fleet Mix - Fleet mix modified to reflect 87.6% heavy truck trips and 12.4% employee commutes

Road Dust - heavy truck trip weight

Water And Wastewater - indoor daily consuption is 200 gpd; outdoor 20,000 gpd

Solid Waste -

Operational Off-Road Equipment - equipment required to handle on-site materials.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	PhaseEndDate	5/13/2020	3/20/2019
tblFleetMix	HHD	0.05	0.88
tblFleetMix	LDA	0.56	0.12
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2020e-003	0.00
tblFleetMix	MCY	5.5240e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	7.2100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.1840e-003	0.00

tblFleetMix	SBUS	3.2600e-004	0.00
tblFleetMix	UBUS	2.5610e-003	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	402.00	200.00
tblOperationalOffRoadEquipment	OperHorsePower	168.00	540.00
tblOperationalOffRoadEquipment	OperHorsePower	168.00	50.00
tblOperationalOffRoadEquipment	OperHorsePower	168.00	75.00
tblOperationalOffRoadEquipment	OperHorsePower	203.00	250.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.38	0.38
tblOperationalOffRoadEquipment	OperLoadFactor	0.40	0.40
tblOperationalOffRoadEquipment	OperLoadFactor	0.40	0.40
tblOperationalOffRoadEquipment	OperLoadFactor	0.40	0.40
tblOperationalOffRoadEquipment	OperLoadFactor	0.36	0.36
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	MobileAverageVehicleWeight	2.4	13
tblTripsAndVMT	VendorTripNumber	88.00	0.00
tblTripsAndVMT	WorkerTripNumber	226.00	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	65.50
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	0.95
tblVehicleTrips	SU_TR	0.68	0.95
tblVehicleTrips	WD_TR	6.97	0.95
tblWater	IndoorWaterUseRate	23,587,500.00	100,000.00
tblWater	OutdoorWaterUseRate	0.00	10,000,000.00

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					
2019	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2019	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

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	2.6834	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
Mobile	1.6939	47.1338	11.8534	0.1866	23.1004	0.1784	23.2788	5.8109	0.1706	5.9815		19,819.8279	19,819.8279	0.6702		19,836.5840
Offroad	2.1738	18.6484	13.0759	0.0407		0.7458	0.7458		0.6861	0.6861		3,944.3112	3,944.3112	1.2757		3,976.2029
Total	**6.6306**	**66.5054**	**25.5913**	**0.2316**	**23.1004**	**0.9794**	**24.0797**	**5.8109**	**0.9119**	**6.7228**		**24,631.5444**	**24,631.5444**	**1.9628**	**0.0159**	**24,685.3538**

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	lb/day										lb/day					
Area	2.6834	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
Mobile	1.6939	47.1338	11.8534	0.1866	23.1004	0.1784	23.2788	5.8109	0.1706	5.9815		19,819.8279	19,819.8279	0.6702		19,836.5840
Offroad	2.1738	18.6484	13.0759	0.0407		0.7458	0.7458		0.6861	0.6861		3,944.3112	3,944.3112	1.2757		3,976.2029
Total	**6.6306**	**66.5054**	**25.5913**	**0.2316**	**23.1004**	**0.9794**	**24.0797**	**5.8109**	**0.9119**	**6.7228**		**24,631.5444**	**24,631.5444**	**1.9628**	**0.0159**	**24,685.3538**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	Building Construction	Building Construction	3/21/2019	3/20/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 10

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
Building Construction	Cranes	1	0.00	231	0.29
Building Construction	Forklifts	3	0.00	89	0.20
Building Construction	Generator Sets	1	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	0.00	97	0.37
Building Construction	Welders	1	0.00	46	0.45

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
Building Construction	9	0.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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 Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Building Construction - 2019

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 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	lb/day										lb/day					
Mitigated	1.6939	47.1338	11.8534	0.1866	23.1004	0.1784	23.2788	5.8109	0.1706	5.9815		19,819.8279	19,819.8279	0.6702		19,836.5840
Unmitigated	1.6939	47.1338	11.8534	0.1866	23.1004	0.1784	23.2788	5.8109	0.1706	5.9815		19,819.8279	19,819.8279	0.6702		19,836.5840

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	96.90	96.90	96.90	2,154,451	2,154,451
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	96.90	96.90	96.90	2,154,451	2,154,451

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Light Industry	65.50	6.60	6.60	100.00	0.00	0.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.124000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.876000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Other Non-Asphalt Surfaces	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

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	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
NaturalGas Unmitigated	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415

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 Light Industry	7371.95	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
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
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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 Light Industry	7.37195	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
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
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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	2.6834	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Unmitigated	2.6834	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254

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	0.3412					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1100e-003	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Total	**2.6834**	**5.0000e-004**	**0.0550**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**		**0.1177**	**0.1177**	**3.1000e-004**		**0.1254**

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	0.3412					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1100e-003	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Total	**2.6834**	**5.0000e-004**	**0.0550**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**		**0.1177**	**0.1177**	**3.1000e-004**		**0.1254**

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
Off-Highway Trucks	2	8.00	365	200	0.38	Diesel
Other Material Handling Equipment	1	8.00	365	540	0.40	Diesel
Other Material Handling Equipment	1	8.00	365	50	0.40	Diesel
Other Material Handling Equipment	1	8.00	365	75	0.40	Diesel
Rubber Tired Loaders	3	8.00	365	250	0.36	Diesel

UnMitigated/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
Equipment Type	lb/day										lb/day					
Off-Highway Trucks	0.5780	4.3591	3.4446	0.0131		0.1716	0.1716		0.1579	0.1579		1,265.2488	1,265.2488	0.4092		1,275.4789
Other Material Handling Equipment	0.5139	3.0574	3.9457	4.4400e-003		0.1975	0.1975		0.1817	0.1817		430.1980	430.1980	0.1391		433.6764
Rubber Tired Loaders	1.0819	11.2319	5.6855	0.0232		0.3768	0.3768		0.3466	0.3466		2,248.8644	2,248.8644	0.7273		2,267.0476
Total	**2.1738**	**18.6484**	**13.0759**	**0.0407**		**0.7458**	**0.7458**		**0.6861**	**0.6861**		**3,944.3112**	**3,944.3112**	**1.2757**		**3,976.2029**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Jess Ranch - Buildout Operations

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	102.00	1000sqft	2.34	102,000.00	0
Other Asphalt Surfaces	100.00	1000sqft	2.30	100,000.00	0
Other Non-Asphalt Surfaces	335.60	1000sqft	7.70	335,597.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Jess Ranch - Buildout Operations - Alameda County, Winter

Project Characteristics -

Land Use -

Construction Phase - Construction Calculated Separately

Off-road Equipment - Construction Calculated Separately

Grading -

Trips and VMT - Construction Calculated Separately

Vehicle Trips - Trip rate based on 85 truck trips and 12 employee trips for 102,000 sf of industrial space. Trip length based on haul truck trips and employee commute lengths

Fleet Mix - Fleet mix modified to reflect 87.6% heavy truck trips and 12.4% employee commutes

Road Dust - heavy truck trip weight

Water And Wastewater - indoor daily consuption is 200 gpd; outdoor 20,000 gpd

Solid Waste -

Operational Off-Road Equipment - equipment required to handle on-site materials.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	PhaseEndDate	5/13/2020	3/20/2019
tblFleetMix	HHD	0.05	0.88
tblFleetMix	LDA	0.56	0.12
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2020e-003	0.00
tblFleetMix	MCY	5.5240e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	7.2100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.1840e-003	0.00

Jess Ranch - Buildout Operations - Alameda County, Winter

tblFleetMix	SBUS	3.2600e-004	0.00
tblFleetMix	UBUS	2.5610e-003	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	402.00	200.00
tblOperationalOffRoadEquipment	OperHorsePower	168.00	540.00
tblOperationalOffRoadEquipment	OperHorsePower	168.00	50.00
tblOperationalOffRoadEquipment	OperHorsePower	168.00	75.00
tblOperationalOffRoadEquipment	OperHorsePower	203.00	250.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.38	0.38
tblOperationalOffRoadEquipment	OperLoadFactor	0.40	0.40
tblOperationalOffRoadEquipment	OperLoadFactor	0.40	0.40
tblOperationalOffRoadEquipment	OperLoadFactor	0.40	0.40
tblOperationalOffRoadEquipment	OperLoadFactor	0.36	0.36
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	MobileAverageVehicleWeight	2.4	13
tblTripsAndVMT	VendorTripNumber	88.00	0.00
tblTripsAndVMT	WorkerTripNumber	226.00	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	65.50
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	0.95
tblVehicleTrips	SU_TR	0.68	0.95
tblVehicleTrips	WD_TR	6.97	0.95
tblWater	IndoorWaterUseRate	23,587,500.00	100,000.00
tblWater	OutdoorWaterUseRate	0.00	10,000,000.00

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					
2019	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2019	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

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	2.6834	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
Mobile	1.7055	49.0741	11.9467	0.1849	23.1004	0.1794	23.2798	5.8109	0.1716	5.9825		19,651.5663	19,651.5663	0.6927		19,668.8837
Offroad	2.1738	18.6484	13.0759	0.0407		0.7458	0.7458		0.6861	0.6861		3,944.3112	3,944.3112	1.2757		3,976.2029
Total	**6.6422**	**68.4457**	**25.6846**	**0.2300**	**23.1004**	**0.9804**	**24.0807**	**5.8109**	**0.9128**	**6.7238**		**24,463.2827**	**24,463.2827**	**1.9853**	**0.0159**	**24,517.6536**

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	lb/day										lb/day					
Area	2.6834	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Energy	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
Mobile	1.7055	49.0741	11.9467	0.1849	23.1004	0.1794	23.2798	5.8109	0.1716	5.9825		19,651.5663	19,651.5663	0.6927		19,668.8837
Offroad	2.1738	18.6484	13.0759	0.0407		0.7458	0.7458		0.6861	0.6861		3,944.3112	3,944.3112	1.2757		3,976.2029
Total	**6.6422**	**68.4457**	**25.6846**	**0.2300**	**23.1004**	**0.9804**	**24.0807**	**5.8109**	**0.9128**	**6.7238**		**24,463.2827**	**24,463.2827**	**1.9853**	**0.0159**	**24,517.6536**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	Building Construction	Building Construction	3/21/2019	3/20/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 10

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
Building Construction	Cranes	1	0.00	231	0.29
Building Construction	Forklifts	3	0.00	89	0.20
Building Construction	Generator Sets	1	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	0.00	97	0.37
Building Construction	Welders	1	0.00	46	0.45

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
Building Construction	9	0.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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 Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Building Construction - 2019

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 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	lb/day										lb/day					
Mitigated	1.7055	49.0741	11.9467	0.1849	23.1004	0.1794	23.2798	5.8109	0.1716	5.9825		19,651.5663	19,651.5663	0.6927		19,668.8837
Unmitigated	1.7055	49.0741	11.9467	0.1849	23.1004	0.1794	23.2798	5.8109	0.1716	5.9825		19,651.5663	19,651.5663	0.6927		19,668.8837

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	96.90	96.90	96.90	2,154,451	2,154,451
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	96.90	96.90	96.90	2,154,451	2,154,451

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Light Industry	65.50	6.60	6.60	100.00	0.00	0.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.124000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.876000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Other Non-Asphalt Surfaces	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

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	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
NaturalGas Unmitigated	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415

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 Light Industry	7371.95	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
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
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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 Light Industry	7.37195	0.0795	0.7227	0.6071	4.3400e-003		0.0549	0.0549		0.0549	0.0549		867.2877	867.2877	0.0166	0.0159	872.4415
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
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
Total		**0.0795**	**0.7227**	**0.6071**	**4.3400e-003**		**0.0549**	**0.0549**		**0.0549**	**0.0549**		**867.2877**	**867.2877**	**0.0166**	**0.0159**	**872.4415**

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	2.6834	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Unmitigated	2.6834	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254

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	0.3412					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1100e-003	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Total	**2.6834**	**5.0000e-004**	**0.0550**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**		**0.1177**	**0.1177**	**3.1000e-004**		**0.1254**

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	0.3412					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1100e-003	5.0000e-004	0.0550	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1177	0.1177	3.1000e-004		0.1254
Total	**2.6834**	**5.0000e-004**	**0.0550**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**		**0.1177**	**0.1177**	**3.1000e-004**		**0.1254**

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
Off-Highway Trucks	2	8.00	365	200	0.38	Diesel
Other Material Handling Equipment	1	8.00	365	540	0.40	Diesel
Other Material Handling Equipment	1	8.00	365	50	0.40	Diesel
Other Material Handling Equipment	1	8.00	365	75	0.40	Diesel
Rubber Tired Loaders	3	8.00	365	250	0.36	Diesel

UnMitigated/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
Equipment Type	lb/day										lb/day					
Off-Highway Trucks	0.5780	4.3591	3.4446	0.0131		0.1716	0.1716		0.1579	0.1579		1,265.2488	1,265.2488	0.4092		1,275.4789
Other Material Handling Equipment	0.5139	3.0574	3.9457	4.4400e-003		0.1975	0.1975		0.1817	0.1817		430.1980	430.1980	0.1391		433.6764
Rubber Tired Loaders	1.0819	11.2319	5.6855	0.0232		0.3768	0.3768		0.3466	0.3466		2,248.8644	2,248.8644	0.7273		2,267.0476
Total	**2.1738**	**18.6484**	**13.0759**	**0.0407**		**0.7458**	**0.7458**		**0.6861**	**0.6861**		**3,944.3112**	**3,944.3112**	**1.2757**		**3,976.2029**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
VOC Emissions
Full Buildout Operation

Composting Baseline VOC Emission Calculations

	Process rate (tpd)	VOC Emissions		
		Emission Factor (lb/ton)	Emission Rate (lb/day)	Emission Rate (tpy)
Unaerated Windrows *	1000	2.6	2600	475

* The VOC emission factor was obtained from SCWMA referencing CIWMB.

Composting Variables

Percentage of Emissions Generated During Composting Phase	
Phase	Percent
Active Phase [1]	80%
Curing Phase [1]	20%
Control Option Efficiencies	
Control Option	Percent
Micro-Porous Fabric Cover [2]	97%
ASP Control Efficiency [3]	23.2%
Finished Compost Layer Cover [4]	95%
Biofilter [2]	80%

[1] Obtained from CIWMB, represents the value for green waste.

[2] Obtained from EMC.

[3] Obtained from SJVAPCD, Appendix D, Page 55.

[4] Obtained from SCWMA

Composting Alternative Controlled VOC Emission Calculations

	Controlled VOC Emissions				Overall Control Efficiency [2]
	(lb/day)			(tpy)	
Alternative [1]	Active Phase	Curing Phase	Total		(%)
Windrows with Micro-Porous Fabric Cover	62	520	582	106	77.6%
Positive ASP with Micro-Porous Fabric	48	520	568	104	78.2%
Positive ASP with Compost Cover	80	520	600	109	76.9%
Negative ASP Vented to Biofilter	319	520	839	153	67.7%
Rotating Drum Vented to Biofilter [3]	319	520	839	153	67.7%

[1] Each alternative assumes that the control is applied only during the active phase of composting (i.e., to 80% of the generated emissions).

[2] Overall control efficiency calculated based on comparing the controlled emissions for the composting option to the uncontrolled emissions for unaerated windrow composting.

[3] Since the rotating drum is an aerated process, the assumption was made that the ASP control efficiency also applies to a rotating drum composting process.

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
Ammonia Emissions
Full Buildout Operation

Composting Baseline Ammonia Emission Calculations

	Process rate (tpd)	Ammonia Emissions		
		Emission Factor (lb/ton)	Emission Rate (lb/day)	Emission Rate (tpy)
Unaerated Windrows *	1000	0.24	240	44

* The ammonia emission factor was obtained from SCWMA referencing CIWMB.

Composting Variables

Percentage of Emissions Generated During Composting Phase	
Phase	Percent
Active Phase [1]	80%
Curing Phase [1]	20%
Control Option Efficiencies	
Control Option	Percent
Micro-Porous Fabric Cover [2]	94.7%
ASP Control Efficiency [3]	95.5%
Finished Compost Layer Cover [4]	70%
Biofilter [5]	0%

[1] Assumed the same as VOC.

[2] Obtained from EMC.

[3] Derived from SCWMA, Appendix AIR-6.

[4] No data available.

[5] Obtained from SJVTAP, average of field and lab results.

Composting Alternatives Ammonia Emission Calculations

	Controlled Ammonia Emissions (lb/day)			(tpy)	Overall Control Efficiency [2]
Alternative [1]	Active Phase	Curing Phase	Total		(%)
Windrows with Micro-Porous Fabric Cover	10	48	58	11	75.8%
Positive ASP with Micro-Porous Fabric	0.5	48	48	8.8	79.8%
Positive ASP with Compost Cover	2.6	48	51	9.2	78.9%
Negative ASP Vented to Biofilter	8.7	48	57	10	76.4%
Rotating Drum Vented to Biofilter [3]	8.7	48	57	10	76.4%

[1] Each alternative assumes that the control is applied only during the active phase of composting (i.e., to 80% of the generated emissions).
[2] Overall control efficiency calculated based on comparing the controlled emissions for the composting option to the uncontrolled emissions for unaerated windrow composting.
[3] Since the rotating drum is an aerated process, the assumption was made that the ASP control efficiency also applies to a rotating drum composting process.

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
GHG Emissions
Full Buildout Operation

Composting Baseline Ammonia Emission Calculations

	Process rate (tpd)	Methane Emissions			Methane GWP [b]	GHG Emissions (tpy)
		Emission Factor (lb/ton)	Emission Rate			
			(lb/day)	(tpy)		
Composting [a]	1000	0.83	830	151	23	3484

[a] The methane emission factor was obtained from SCWMA referencing CIWMB.

[b] Obtained from BAAQMD.

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
Toxic Air Contaminants (TAC)
Acute and Chronic Hazard Index
Full Buildout Operation - Project Only

Composting Baseline TAC Emissions

Unaerated Windrows

		Percentage of VOC			Unaerated Windrows Emissions		
Compound	CAS Number	Kumar	WERF	Maximum	lb/hr	lb/day	lb/yr
Acetaldehyde	75-07-0	0.14%	ND	0.14%	0.15	3.64	1,329
Ammonia	7664-41-7				10.0	240	87,600
Isopropyl alcohol	67-63-0	42.31%	12.56%	42.31%	45.8	1,100	401,522
Methyl alcohol	67-56-1	12.79%	37.81%	37.81%	41.0	983	358,817
Naphthalene	91-20-3	0.50%	ND	0.50%	0.54	13.0	4,745
Propene	115-07-1	0.22%	ND	0.22%	0.24	5.72	2,088

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest Receptor (m)	SCREEN3 Result for 1 lb/hr Emission Rate (µg/m^3)	
		Longer	Shorter		1-hour	Annual
Pad 1 Active	3.048	155	122	1133	47.77	4.78
Pad 2 Active	3.048	155	122	900	59.65	5.97
Curing	3.048	122	97	1142	53.24	5.32
Operations Area (DPM)	3.048	563	141	900	53.10	5.31

* Calculated by multiplying the 1 hour result by a factor of 0.1.

Composting Options Acute and Chronic Hazard Index Analysis

Windrows (Unmitigated)

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.06	0.06	0.03		8.13	0.81	470	140	0.017	0.006
Ammonia	4.0	4.0	2.0		536.16	53.62	3200	200	0.168	0.268
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	18.3	18.3	9.2		2457.53	245.75	32000	7000	0.077	0.035
Methyl alcohol	16.4	16.4	8.2		2196.16	219.62	28000	4000	0.078	0.055
Naphthalene	0.22	0.22	0.11		29.04	2.90		9.0		0.323
Propene	0.10	0.10	0.05		12.78	1.28		3000		0.0004
								Hazard Index	0.3	0.7

Windrows with Micro-Porous Fabric Cover

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.002	0.002	0.030		1.81	0.18	470	140	0.004	0.001
Ammonia	0.212	0.212	2.000		129.25	12.93	3200	200	0.040	0.065
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	0.550	0.550	9.167		547.14	54.71	32000	7000	0.017	0.008
Methyl alcohol	0.492	0.492	8.192		488.95	48.90	28000	4000	0.017	0.012
Naphthalene	0.007	0.007	0.108		6.47	0.65		9.0		0.072
Propene	0.003	0.003	0.048		2.84	0.28		3000		0.0001
								Hazard Index	0.1	0.2

Positive ASP with Micro-Porous Fabric

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.001	0.001	0.030		1.77	0.18	470	140	0.004	0.001
Ammonia	0.010	0.010	2.000		107.51	10.75	3200	200	0.034	0.054
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	0.422	0.422	9.167		533.44	53.34	32000	7000	0.017	0.008
Methyl alcohol	0.377	0.377	8.192		476.70	47.67	28000	4000	0.017	0.012
Naphthalene	0.005	0.005	0.108		6.30	0.63		9.0		0.070
Propene	0.002	0.002	0.048		2.77	0.28		3000		0.0001
								Hazard Index	0.1	0.2

Positive ASP with Compost Cover

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.002	0.002	0.030		1.87	0.19	470	140	0.004	0.001
Ammonia	0.054	0.054	2.000		112.30	11.23	3200	200	0.035	0.056
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	0.704	0.704	9.167		563.69	56.37	32000	7000	0.018	0.008
Methyl alcohol	0.629	0.629	8.192		503.74	50.37	28000	4000	0.018	0.013
Naphthalene	0.008	0.008	0.108		6.66	0.67		9.0		0.074
Propene	0.004	0.004	0.048		2.93	0.29		3000		0.0001
								Hazard Index	0.1	0.2

Negative ASP Vented to Biofilter

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.009	0.009	0.030		2.62	0.26	470	140	0.006	0.002
Ammonia	0.181	0.181	2.000		125.87	12.59	3200	200	0.039	0.063
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	2.816	2.816	9.167		790.57	79.06	32000	7000	0.025	0.011
Methyl alcohol	2.517	2.517	8.192		706.49	70.65	28000	4000	0.025	0.018
Naphthalene	0.033	0.033	0.108		9.34	0.93		9.0		0.104
Propene	0.015	0.015	0.048		4.11	0.41		3000		0.0001
								Hazard Index	0.1	0.2

Rotating Drum Vented to Biofilter

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.009	0.009	0.030		2.62	0.26	470	140	0.006	0.002
Ammonia	0.181	0.181	2.000		125.87	12.59	3200	200	0.039	0.063
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	2.816	2.816	9.167		790.57	79.06	32000	7000	0.025	0.011
Methyl alcohol	2.517	2.517	8.192		706.49	70.65	28000	4000	0.025	0.018
Naphthalene	0.033	0.033	0.108		9.34	0.93		9.0		0.104
Propene	0.015	0.015	0.048		4.11	0.41		3000		0.0001
								Hazard Index	0.1	0.2

* The Exhaust $PM_{2.5}$ value was used to represent DPM and is the sum of the Area, Mobile, and Offroad category contributions. The Energy category was not included because it is generated offsite.

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
Toxic Air Contaminants (TAC)
Cancer Risk
Full Buildout Operation - Project Only

Composting Baseline TAC Emissions

Unaerated Windrows

		Percentage of VOC			Unaerated Windrows Emissions		
Carcinogenic Compound	CAS Number	Kumar	WERF	Maximum	lb/hr	lb/day	lb/yr
Acetaldehyde	75-07-0	0.14%	ND	0.14%	0.15	3.64	1,329
Naphthalene	91-20-3	0.50%	ND	0.50%	0.54	13.0	4,745

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest	SCREEN3 Result for 1 lb/hr Emission Rate (µg/m^3)	
		Longer	Shorter	Receptor (m)	1-hour	Annual
Pad 1 Active	3.048	155	122	1133	47.77	4.78
Pad 2 Active	3.048	155	122	900	59.65	5.97
Curing	3.048	122	97	1142	53.24	5.32
Operations Area (DPM)	3.048	563	141	900	53.10	5.31

* Calculated by multiplying the 1 hour result by a factor of 0.1.

Composting Options Cancer Risk Analysis

Windrows (Unmitigated)

	Emissions (lb/hr)				Total Modeled Annual Impact (µg/m^3)	Dose (mg/kg-day)	CP Factor (mg/kg-day)$^{-1}$	Cancer Risk Increase (per million)
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*				
Acetaldehyde	0.061	0.061	0.030		0.81	0.165359	0.001	0.0003
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.217	0.217	0.108		2.90	0.590569	0.12	0.1205
							Increased Risk	0.2

Windrows with Micro-Porous Fabric Cover

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.002	0.002	0.030		0.18	0.036816	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.007	0.007	0.108		0.65	0.131484	0.12	0.0268
							Increased Risk	0.1

Positive ASP with Micro-Porous Fabric

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.001	0.001	0.030		0.18	0.035893	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.005	0.005	0.108		0.63	0.128190	0.12	0.0262
							Increased Risk	0.1

Positive ASP with Compost Cover

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.002	0.002	0.030		0.19	0.037929	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.008	0.008	0.108		0.67	0.135460	0.12	0.0276
							Increased Risk	0.1

Negative ASP Vented to Biofilter

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.009	0.009	0.030		0.26	0.053195	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.033	0.033	0.108		0.93	0.189982	0.12	0.0388
							Increased Risk	0.1

Rotating Drum Vented to Biofilter

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.009	0.009	0.030		0.26	0.053195	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.033	0.033	0.108		0.93	0.189982	0.12	0.0388
							Increased Risk	0.1

[a] The Exhaust $PM_{2.5}$ value was used to represent DPM and is the sum of the Area, Mobile, and Offroad category contributions. The Energy category was not included because it is generated offsite.

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
Ambient PM2.5 Increase
Full Buildout Operation - Project Only

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest	SCREEN3 Result for 1 lb/hr Emission Rate ($\mu g/m^3$)	
		Longer	Shorter	Receptor (m)	1-hour	Annual
Operations Area (DPM)	3.048	563	141	900	53.10	5.31

* Calculated by multiplying the 1 hour result by a factor of 0.1.

Composting Ambient PM2.5 Increase

	Emissions (lb/hr)	Modeled Annual Impact ($\mu g/m^3$)
$PM_{2.5}$	0.046	0.2

* The value is Total $PM_{2.5}$ and is the sum of the Area and Offroad category contributions. The Energy category was not included because it is generated offsite. The Mobile category was not included because the majority of those emissions occur offsite.

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
Toxic Air Contaminants (TAC)
Acute and Chronic Hazard Index
Full Buildout Operation - Cumulative

Composting Baseline TAC Emissions

Unaerated Windrows

		Percentage of VOC			Unaerated Windrows Emissions		
Compound	CAS Number	Kumar	WERF	Maximum	lb/hr	lb/day	lb/yr
Acetaldehyde	75-07-0	0.14%	ND	0.14%	0.15	3.64	1,329
Ammonia	7664-41-7				10.0	240	87,600
Isopropyl alcohol	67-63-0	42.31%	12.56%	42.31%	45.8	1,100	401,522
Methyl alcohol	67-56-1	12.79%	37.81%	37.81%	41.0	983	358,817
Naphthalene	91-20-3	0.50%	ND	0.50%	0.54	13.0	4,745
Propene	115-07-1	0.22%	ND	0.22%	0.24	5.72	2,088

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest	SCREEN3 Result for 1 lb/hr Emission Rate (µg/m^3)	
		Longer	Shorter	Receptor (m)	1-hour	Annual
Pad 1 Active	3.048	155	122	1133	47.77	4.78
Pad 2 Active	3.048	155	122	900	59.65	5.97
Curing	3.048	122	97	1142	53.24	5.32
Operations Area (DPM)	3.048	563	141	900	53.10	5.31

* Calculated by multiplying the 1 hour result by a factor of 0.1.

Composting Options Acute and Chronic Hazard Index Analysis

Windrows (Unmitigated)

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.06	0.06	0.03		8.13	0.81	470	140	0.017	0.006
Ammonia	4.0	4.0	2.0		536.16	53.62	3200	200	0.168	0.268
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	18.3	18.3	9.2		2457.53	245.75	32000	7000	0.077	0.035
Methyl alcohol	16.4	16.4	8.2		2196.16	219.62	28000	4000	0.078	0.055
Naphthalene	0.22	0.22	0.11		29.04	2.90		9.0		0.323
Propene	0.10	0.10	0.05		12.78	1.28		3000		0.0004
Highway 580 [b]									0.017	0.018
Nearby Stationary Sources [c]									0.000	0.0000
Nearby Surface Roads [d]									0.000	0.0000
								Hazard Index	0.4	0.8

Windrows with Micro-Porous Fabric Cover

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$ [a]	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.002	0.002	0.030		1.81	0.18	470	140	0.004	0.001
Ammonia	0.212	0.212	2.000		129.25	12.93	3200	200	0.040	0.065
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	0.550	0.550	9.167		547.14	54.71	32000	7000	0.017	0.008
Methyl alcohol	0.492	0.492	8.192		488.95	48.90	28000	4000	0.017	0.012
Naphthalene	0.007	0.007	0.108		6.47	0.65		9.0		0.072
Propene	0.003	0.003	0.048		2.84	0.28		3000		0.0001
Highway 580 [b]									0.017	0.018
Nearby Stationary Sources [c]									0.000	0.0000
Nearby Surface Roads [d]									0.000	0.0000
								Hazard Index	0.1	0.2

Positive ASP with Micro-Porous Fabric

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$ [a]	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.001	0.001	0.030		1.77	0.18	470	140	0.004	0.001
Ammonia	0.010	0.010	2.000		107.51	10.75	3200	200	0.034	0.054
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	0.422	0.422	9.167		533.44	53.34	32000	7000	0.017	0.008
Methyl alcohol	0.377	0.377	8.192		476.70	47.67	28000	4000	0.017	0.012
Naphthalene	0.005	0.005	0.108		6.30	0.63		9.0		0.070
Propene	0.002	0.002	0.048		2.77	0.28		3000		0.0001
Highway 580 [b]									0.017	0.0180
Nearby Stationary Sources [c]									0.000	0.0000
Nearby Surface Roads [d]									0.000	0.0000
								Hazard Index	0.1	0.2

Positive ASP with Compost Cover

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$ [a]	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.002	0.002	0.030		1.87	0.19	470	140	0.004	0.001
Ammonia	0.054	0.054	2.000		112.30	11.23	3200	200	0.035	0.056
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	0.704	0.704	9.167		563.69	56.37	32000	7000	0.018	0.008
Methyl alcohol	0.629	0.629	8.192		503.74	50.37	28000	4000	0.018	0.013
Naphthalene	0.008	0.008	0.108		6.66	0.67		9.0		0.074
Propene	0.004	0.004	0.048		2.93	0.29		3000		0.0001
Highway 580 [b]									0.017	0.0180
Nearby Stationary Sources [c]									0.000	0.0000
Nearby Surface Roads [d]									0.000	0.0000
								Hazard Index	0.1	0.2

Negative ASP Vented to Biofilter

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$ [a]	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.009	0.009	0.030		2.62	0.26	470	140	0.006	0.002
Ammonia	0.181	0.181	2.000		125.87	12.59	3200	200	0.039	0.063
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	2.816	2.816	9.167		790.57	79.06	32000	7000	0.025	0.011
Methyl alcohol	2.517	2.517	8.192		706.49	70.65	28000	4000	0.025	0.018
Naphthalene	0.033	0.033	0.108		9.34	0.93		9.0		0.104
Propene	0.015	0.015	0.048		4.11	0.41		3000		0.0001
Highway 580 [b]									0.017	0.0180
Nearby Stationary Sources [c]									0.000	0.0000
Nearby Surface Roads [d]									0.000	0.0000
								Hazard Index	0.1	0.3

Rotating Drum Vented to Biofilter

	Emissions (lb/hr)				Total Modeled Impact (µg/m^3)		REL (µg/m^3)		Hazard Quotient	
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$ [a]	1-Hour	Annual	Acute	Chronic	Acute	Chronic
Acetaldehyde	0.009	0.009	0.030		2.62	0.26	470	140	0.006	0.002
Ammonia	0.181	0.181	2.000		125.87	12.59	3200	200	0.039	0.063
Diesel Particulate Matter				0.048		0.26		5.0		0.051
Isopropyl alcohol	2.816	2.816	9.167		790.57	79.06	32000	7000	0.025	0.011
Methyl alcohol	2.517	2.517	8.192		706.49	70.65	28000	4000	0.025	0.018
Naphthalene	0.033	0.033	0.108		9.34	0.93		9.0		0.104
Propene	0.015	0.015	0.048		4.11	0.41		3000		0.0001
Highway 580 [b]									0.017	0.0180
Nearby Stationary Sources [c]									0.000	0.0000
Nearby Surface Roads [d]									0.000	0.0000
								Hazard Index	0.1	0.3

[a] The Exhaust $PM_{2.5}$ value represents the sum of the Area, Mobile, and Offroad category contributions. The Energy category was not included because it is generated offsite.

[b] Risk values obtained from the Highway Screening Analysis Tool "Alameda 6ft.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. The closest point on the project property boundary is located approximately 1000 ft south of the eastbound lane of Highway 580.

[c] Based on the Stationary Source Screening Analysis Tool "Alamdea_2012.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools, there are no significant stationary sources located within 1000 ft of the project.

[d] Based on the AADT of Altamont Pass Road obtained from https://www.acgov.org/cda/planning/landuseprojects/documents/apwra/Ch03-15_Traffic.pdf, Jess Ranch Road is expected to be a road with less than 10,000 AADT. Therefore, there are no surface roads with greater than 10,000 AADT within 1,000 ft of the proposed project.

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
Toxic Air Contaminants (TAC)
Cancer Risk
Full Buildout Operation - Cumulative

Composting Baseline TAC Emissions

Unaerated Windrows

		Percentage of VOC			Unaerated Windrows Emissions		
Carcinogenic Compound	CAS Number	Kumar	WERF	Maximum	lb/hr	lb/day	lb/yr
Acetaldehyde	75-07-0	0.14%	ND	0.14%	0.15	3.64	1,329
Naphthalene	91-20-3	0.50%	ND	0.50%	0.54	13.0	4,745

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest Receptor	SCREEN3 Result for 1 lb/hr Emission Rate (µg/m^3)	
		Longer	Shorter	(m)	1-hour	Annual
Pad 1 Active	3.048	155	122	1133	47.77	4.78
Pad 2 Active	3.048	155	122	900	59.65	5.97
Curing	3.048	122	97	1142	53.24	5.32
Operations Area (DPM)	3.048	563	141	900	53.10	5.31

* Calculated by multiplying the 1 hour result by a factor of 0.1.

Composting Options Cancer Risk Analysis

Windrows (Unmitigated)

	Emissions (lb/hr)				Total Modeled Annual Impact (µg/m^3)	Dose (mg/kg-day)	CP Factor (mg/kg-day)$^{-1}$	Cancer Risk Increase (per million)
TAC	Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*				
Acetaldehyde	0.061	0.061	0.030		0.81	0.165359	0.001	0.0003
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.217	0.217	0.108		2.90	0.590569	0.12	0.1205
Highway 580 [b]								20.664
Nearby Stationary Sources [c]								0.0000
Nearby Surface Roads [d]								0.0000
							Increased Risk	20.9

Windrows with Micro-Porous Fabric Cover

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.002	0.002	0.030		0.18	0.036816	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.007	0.007	0.108		0.65	0.131484	0.12	0.0268
Highway 580 [b]								20.664
Nearby Stationary Sources [c]								0.0000
Nearby Surface Roads [d]								0.0000
							Increased Risk	20.8

Positive ASP with Micro-Porous Fabric

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.001	0.001	0.030		0.18	0.035893	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.005	0.005	0.108		0.63	0.128190	0.12	0.0262
Highway 580 [b]								20.664
Nearby Stationary Sources [c]								0.0000
Nearby Surface Roads [d]								0.0000
							Increased Risk	20.8

Positive ASP with Compost Cover

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.002	0.002	0.030		0.19	0.037929	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.008	0.008	0.108		0.67	0.135460	0.12	0.0276
Highway 580 [b]								20.664
Nearby Stationary Sources [c]								0.0000
Nearby Surface Roads [d]								0.0000
							Increased Risk	20.8

Negative ASP Vented to Biofilter

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.009	0.009	0.030		0.26	0.053195	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.033	0.033	0.108		0.93	0.189982	0.12	0.0388
Highway 580 [b]								20.664
Nearby Stationary Sources [c]								0.0000
Nearby Surface Roads [d]								0.0000
							Increased Risk	20.8

Rotating Drum Vented to Biofilter

TAC	Emissions (lb/hr) Active Pile 1	Active Pile 2	Curing	Exhaust $PM_{2.5}$*	Total Modeled Annual Impact ($\mu g/m^3$)	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Acetaldehyde	0.009	0.009	0.030		0.26	0.053195	0.001	0.0001
Diesel Particulate Matter				0.048	0.26	0.051922	1.1	0.0971
Naphthalene	0.033	0.033	0.108		0.93	0.189982	0.12	0.0388
Highway 580 [b]								20.664
Nearby Stationary Sources [c]								0.0000
Nearby Surface Roads [d]								0.0000
							Increased Risk	20.8

[a] The Exhaust $PM_{2.5}$ value represents the sum of the Area, Mobile, and Offroad category contributions. The Energy category was not included because it is generated offsite.

[b] Risk values obtained from the Highway Screening Analysis Tool "Alameda 6ft.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. The closest point on the project property boundary is located approximately 1000 ft south of the eastbound lane of Highway 580.

[c] Based on the Stationary Source Screening Analysis Tool "Alamdea_2012.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools, there are no significant stationary sources located within 1000 ft of the project.

[d] Based on the AADT of Altamont Pass Road obtained from https://www.acgov.org/cda/planning/landuseprojects/documents/apwra/Ch03-15_Traffic.pdf, Jess Ranch Road is expected to be a road with less than 10,000 AADT. Therefore, there are no surface roads with greater than 10,000 AADT within 1,000 ft of the proposed project.

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
Ambient PM2.5 Increase
Full Buildout Operation - Cumulative

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest	SCREEN3 Result for 1 lb/hr Emission Rate ($\mu g/m^3$)	
		Longer	Shorter	Receptor (m)	1-hour	Annual
Operations Area (DPM)	3.048	563	141	900	53.10	5.31

* Calculated by multiplying the 1 hour result by a factor of 0.1.

Composting Ambient PM2.5 Increase

	Emissions (lb/hr)	Modeled Annual Impact ($\mu g/m^3$)
Facility Operations	0.046	0.2
Highway 580 [b]		0.144
Nearby Stationary Sources [c]		0.0
Nearby Surface Roads [d]		0.0
Cumulative $PM_{2.5}$ from all local sources		0.4

* The value is Total $PM_{2.5}$ and is the sum of the Area and Offroad category contributions. The Energy category was not included because it is generated offsite. The Mobile category was not included because the majority of those emissions occur offsite.

[b] Highway 580 $PM_{2.5}$ concentration obtained from the Highway Screening Analysis Tool "Alameda 6ft.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. The closest point on the project property boundary is located approximately 1000 ft south of the eastbound lane of Highway 580.

[c] Based on the Stationary Source Screening Analysis Tool "Alamdea_2012.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools, there are no significant stationary sources located within 1000 ft of the project.

[d] Based on the AADT of Altamont Pass Road obtained from https://www.acgov.org/cda/planning/landuseprojects/documents/apwra/Ch03-15_Traffic.pdf, Jess Ranch Road is expected to be a road with less than 10,000 AADT. Therefore, there are no surface roads with greater than 10,000 AADT within 1,000 ft of the proposed project.

Jess Ranch Composting
Air Quality Memo
Composting Operation Emission Calculations
Composting VOC Emissions Speciation

Non-TAC Compounds

Compound*	CAS Number	Percentage of VOC		TAC?
		Kumar	WERF	
1 Methyl, 3-1-methyl ethyl benzene	535-77-3	0.23%	ND	NO
1,1-Bicyclohexyl	92-51-3	ND	0.06%	NO
1-Propoxy 2-propanol	1569-01-3	ND	0.10%	NO
2 Butanol	78-92-2	0.39%	ND	NO
2 Butene	107-07-7	0.17%	ND	NO
2 Methyl 1-propene	115-11-7	0.41%	0.18%	NO
2,4-Dimethyl hexane	589-43-5	ND	0.05%	NO
2-Octene	7642-04-8 13389-42-9	ND	0.06%	NO
3 Hydroxy 2-butanone (acetoin)	513-86-0	0.43%	ND	NO
3 Methyl butanoic acid	503-74-2	0.28%	ND	NO
3-Decen-1-ol	51721-39-2	ND	0.09%	NO
3-Ethyl hexane	619-99-8	ND	0.09%	NO
3-Heptene	14686-14-7 7642-10-6	ND	0.11%	NO
3-Methyl 1-hexene	3404-61-3	ND	0.09%	NO
3-Methyl hexane	589-34-4	ND	0.06%	NO
Acetic acid	64-19-7	5.94%	ND	NO
Acetone	67-64-1	0.47%	0.06%	NO
Bornyl acetate	76-49-3	0.63%	ND	NO
Butanoic acid	107-92-6	1.35%	ND	NO
Camphene	79-92-5	0.24%	0.08%	NO
Camphor	76-22-2	1.18%	0.37%	NO
Carene	13466-78-9	ND	0.07%	NO
cis Methyldecahydro naphthalene	2547-26-4	ND	0.08%	NO
Dichlorodifluoromethane	75-71-8	ND	0.06%	NO
Dimethylsulfide	75-18-3	ND	0.08%	NO
Ethyl alcohol	64-17-5	18.16%	44.74%	NO
Eucalyptol	470-82-6	0.58%	0.18%	NO
Heptanal	111-71-7	ND	0.09%	NO
Heptyl hexanoate	6976-72-3	0.31%	ND	NO
Hexanal	66-25-1	ND	0.08%	NO
Hexanoic acid	142-62-1	0.39%	ND	NO
Isovaleraldehyde	590-86-3	0.15%	ND	NO
Limonene	138-86-3	2.27%	0.12%	NO
Methyl butylacetate	624-41-9	0.14%	ND	NO
Methyl cycloheptene	591-49-1	0.24%	ND	NO
Methyl propionic acid	79-31-2	0.26%	ND	NO
Methylbicyclo nonane	25107-01-1	ND	0.06%	NO
Methylthymyl ether	1076-56-8	0.73%	ND	NO
Naphthalenone octahydro methyl	21102-88-5	ND	0.10%	NO
Napthalene 2-ethyldecahydro	1618-23-1	ND	0.05%	NO
Nonanal	124-19-6	ND	0.10%	NO
Octanal	124-13-0	ND	0.09%	NO
Pentanoic acid	109-52-4	0.23%	ND	NO
Pinene isomers	2437-95-8	0.60%	0.32%	NO
Propionic acid	79-09-4	0.53%	ND	NO
Terpineol	98-55-5	0.35%	ND	NO
Tetramethyl silane	75-76-3	ND	0.06%	NO
Thujen-2one (Umbellulone)	24545-81-1	0.22%	ND	NO
trans 4-Methyldecahydro naphthalene	2958-75-0	ND	0.07%	NO
trans Decahydronaphthalene	493-02-7	ND	0.10%	NO
Undecadiene	61215-70-1	ND	0.07%	NO
Undecane	1120-21-4	0.20%	ND	NO
α-Pinene	80-56-8	1.36%	0.25%	NO

* The list of VOC compounds and percentages were obtained from Kumar and WERF.

Jess Ranch Composting
Air Quality Memo
Construction Emission Calculations
Toxic Air Contaminants (TAC)
Acute and Chronic Hazard Index
Project Only

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, rural, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest Receptor (m)	SCREEN3 Result for 1 lb/hr Emission Rate (µg/m^3)	
		Longer	Shorter		1-hour	Annual
Phase 1 Construction Area (DPM)	3.048	225	225	1133	33.34	3.33
Phase 2 Construction Area (DPM)	3.048	319	122	825	63.57	6.36

* Calculated by multiplying the 1 hour result by a factor of 0.1.

Diesel Particulate Matter [a]

	Emissions		Modeled Impact	Chronic REL	Chronic Hazard
	(lb/day) [b]	(lb/hr)	(µg/m^3) [c]	(µg/m^3)	Quotient
Phase 1 [d]	1.3797	0.057	0.19	5.0	0.04
Phase 2 [e]	1.3796	0.057	0.37	5.0	0.07

[a] DPM is the only TAC associated with construction and does not have an acute health impact.

[b] Corresponds to the peak maximum daily value from CalEEMod, reflecting the Tier 2 equipment mitigation measure.

[c] Represents the annual averaging period.

[d] The Exhaust $PM_{2.5}$ value was used to represent DPM and corresponds to the maximum daily Phase 1 Construction On-Site emissions.

[e] The Exhaust $PM_{2.5}$ value was used to represent DPM and corresponds to the maximum daily Phase 2 Construction On-Site emissions.

Jess Ranch Composting
Air Quality Memo
Construction Emission Calculations
Toxic Air Contaminants (TAC)
Cancer Risk
Project Only

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, rural, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest Receptor (m)	SCREEN3 Result for 1 lb/hr Emission Rate (µg/m^3)	
		Longer	Shorter		1-hour	Annual
Phase 1 Construction Area (DPM)	3.048	225	225	1133	33.34	3.33
Phase 2 Construction Area (DPM)	3.048	319	122	825	63.57	6.36

* Calculated by multiplying the 1 hour result by a factor of 0.1.

Diesel Particulate Matter [a]

	Emissions		Modeled Impact (µg/m^3) [c]	Dose (mg/kg-day)	CP Factor (mg/kg-day)$^{-1}$	Cancer Risk Increase (per million)
	(lb/day) [b]	(lb/hr)				
Phase 1 [d]	1.3797	0.057	0.19	0.038975	1.1	0.1
Phase 2 [e]	1.3796	0.057	0.37	0.074308	1.1	0.1

[a] DPM is the only carcinogen associated with construction.

[b] Corresponds to the peak maximum daily value from CalEEMod, reflecting the Tier 2 equipment mitigation measure.

[c] Represents the annual averaging period.

[d] The Exhaust $PM_{2.5}$ value was used to represent DPM and corresponds to the maximum daily Phase 1 Construction On-Site emissions.

[e] The Exhaust $PM_{2.5}$ value was used to represent DPM and corresponds to the maximum daily Phase 2 Construction On-Site emissions.

Jess Ranch Composting
Air Quality Memo
Construction Emission Calculations
Ambient PM2.5 Increase
Project Only

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, rural, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest Receptor (m)	SCREEN3 Result for 1 lb/hr Emission Rate (µg/m^3)	
		Longer	Shorter		1-hour	Annual
Phase 1 Construction Area	3.048	225	225	1133	33.34	3.33
Phase 2 Construction Area	3.048	319	122	825	63.57	6.36

* Calculated by multiplying the 1 hour result by a factor of 0.1.

Total On-Site Construction $PM_{2.5}$

	Emissions		Modeled Impact
	(tpy) [a]	(lb/hr) [b]	(µg/m^3) [c]
Phase 1	0.1692	0.039	0.13
Phase 2	0.0640	0.015	0.09

[a] Obtained from CalEEMod, reflecting the Tier 2 equipment mitigation measure.

[b] Represents an annualized hourly emission rate of the PM2.5 Total for the total phase construction period.

[c] Represents the annual averaging period.

Jess Ranch Composting
Air Quality Memo
Construction Emission Calculations
Toxic Air Contaminants (TAC)
Acute and Chronic Hazard Index
Cumulative Impacts

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, rural, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest Receptor (m)	SCREEN3 Result for 1 lb/hr Emission Rate (µg/m^3)	
		Longer	Shorter		1-hour	Annual
Phase 1 Construction Area (DPM)	3.048	225	225	1133	33.34	3.33
Phase 2 Construction Area (DPM)	3.048	319	122	825	63.57	6.36

* Calculated by multiplying the 1 hour result by a factor of 0.1.

TAC Analysis [a]

Phase 1	Emissions (lb/day) [b]	Emissions (lb/hr)	Modeled Impact (µg/m^3) [c]	Chronic REL (µg/m^3)	Chronic Hazard Quotient
Diesel Particulate Matter [d]	1.3797	0.057	0.19	5.0	0.04
Highway 580 [e]					0.02
Nearby Stationary Sources [f]					0.00
Nearby Surface Roads [g]					0.00
				Hazard Index	0.1
Phase 2					
Diesel Particulate Matter [h]	1.3796	0.057	0.37	5.0	0.07
Highway 580 [e]					0.02
Nearby Stationary Sources [f]					0.00
Nearby Surface Roads [g]					0.00
				Hazard Index	0.1

[a] DPM is the only TAC associated with construction and does not have an acute health impact.

[b] Corresponds to the peak maximum daily value from CalEEMod, reflecting the Tier 2 equipment mitigation measure.

[c] Represents the annual averaging period.

[d] The Exhaust $PM_{2.5}$ value was used to represent DPM and corresponds to the maximum daily Phase 1 Construction On-Site emissions.

[e] Risk values obtained from the Highway Screening Analysis Tool "Alameda 6ft.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. The closest point on the project property boundary is located approximately 1000 ft south of the eastbound lane of Highway 580.

[f] Based on the Stationary Source Screening Analysis Tool "Alamdea_2012.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools, there are no significant stationary sources located within 1000 ft of the project.

[g] Based on the AADT of Altamont Pass Road obtained from https://www.acgov.org/cda/planning/landuseprojects/documents/apwra/Ch03-15_Traffic.pdf, Jess Ranch Road is expected to be a road with less than 10,000 AADT. Therefore, there are no surface roads with greater than 10,000 AADT within 1,000 ft of the proposed project.

[h] The Exhaust $PM_{2.5}$ value was used to represent DPM and corresponds to the maximum daily Phase 2 Construction On-Site emissions.

Jess Ranch Composting
Air Quality Memo
Construction Emission Calculations
Toxic Air Contaminants (TAC)
Cancer Risk
Cumulative Impacts

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, rural, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest Receptor (m)	SCREEN3 Result for 1 lb/hr Emission Rate ($\mu g/m^3$)	
		Longer	Shorter		1-hour	Annual
Phase 1 Construction Area (DPM)	3.048	225	225	1133	33.34	3.33
Phase 2 Construction Area (DPM)	3.048	319	122	825	63.57	6.36

* Calculated by multiplying the 1 hour result by a factor of 0.1.

TAC Analysis [a]

Phase 1	Emissions (lb/day) [b]	Emissions (lb/hr)	Modeled Impact ($\mu g/m^3$) [c]	Dose (mg/kg-day)	CP Factor $(mg/kg\text{-}day)^{-1}$	Cancer Risk Increase (per million)
Diesel Particulate Matter [d]	1.3797	0.057	0.19	0.038975	1.1	0.1
Highway 580 [e]						20.7
Nearby Stationary Sources [f]						0.0
Nearby Surface Roads [g]						0.0
					Increased Risk	20.7
Phase 2						
Diesel Particulate Matter [h]	1.3796	0.057	0.37	0.074308	1.1	0.1
Highway 580 [e]						20.7
Nearby Stationary Sources [f]						0.0
Nearby Surface Roads [g]						0.0
					Increased Risk	20.8

[a] DPM is the only carcinogen associated with construction and does not have an acute health impact.

[b] Corresponds to the peak maximum daily value from CalEEMod, reflecting the Tier 2 equipment mitigation measure.

[c] Represents the annual averaging period.

[d] The Exhaust $PM_{2.5}$ value was used to represent DPM and corresponds to the maximum daily Phase 1 Construction On-Site emissions.

[e] Risk values obtained from the Highway Screening Analysis Tool "Alameda 6ft.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. The closest point on the project property boundary is located approximately 1000 ft south of the eastbound lane of Highway 580.

[f] Based on the Stationary Source Screening Analysis Tool "Alamdea_2012.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools, there are no significant stationary sources located within 1000 ft of the project

[g] Based on the AADT of Altamont Pass Road obtained from https://www.acgov.org/cda/planning/landuseprojects/documents/apwra/Ch03-15_Traffic.pdf, Jess Ranch Road is expected to be a road with less than 10,000 AADT. Therefore, there are no surface roads with greater than 10,000 AADT within 1,000 ft of the proposed project.

[h] The Exhaust $PM_{2.5}$ value was used to represent DPM and corresponds to the maximum daily Phase 2 Construction On-Site emissions.

Jess Ranch Composting
Air Quality Memo
Construction Emission Calculations
Ambient PM2.5 Increase
Cumulative Impacts

SCREEN3 Modeling

Inputs - Each modeled as an area source, flat elevation, rural, all stability classes and windspeeds, all wind directions, generic 1 lb/hr emission rate

Area	Release Height (m)	Side Length (m)		Distance to Nearest Receptor (m)	SCREEN3 Result for 1 lb/hr Emission Rate ($\mu g/m^3$)	
		Longer	Shorter		1-hour	Annual
Phase 1 Construction Area	3.048	225	225	1133	33.34	3.33
Phase 2 Construction Area	3.048	319	122	825	63.57	6.36

* Calculated by multiplying the 1 hour result by a factor of 0.1.

$PM_{2.5}$ Cumulative Impact Analysis

Phase 1	Emissions (tpy) [a]	Emissions (lb/hr) [b]	Modeled Impact ($\mu g/m^3$) [c]
Construction PM2.5 [d]	0.1692	0.039	0.13
Highway 580 [e]			0.144
Nearby Stationary Sources [f]			0.00
Nearby Surface Roads [g]			0.00
Cumulative $PM_{2.5}$ from all local sources			0.27
Construction PM2.5 [h]	0.0640	0.015	0.09
Highway 580 [d]			0.144
Nearby Stationary Sources [e]			0.00
Nearby Surface Roads [f]			0.00
Cumulative $PM_{2.5}$ from all local sources			0.24

[a] Obtained from CalEEMod, reflecting the Tier 2 equipment mitigation measure.

[b] Represents an annualized hourly emission rate.

[c] Represents the annual averaging period.

[d] Represents the PM2.5 Total for the total Phase 1 construction period.

[e] Highway 580 $PM_{2.5}$ concentration obtained from the Highway Screening Analysis Tool "Alameda 6ft.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. The closest point on the project property boundary is located approximately 1000 ft south of the eastbound lane of Highway 580.

[f] Based on the Stationary Source Screening Analysis Tool "Alamdea_2012.kmz" file obtained from http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools, there are no significant stationary sources located within 1000 ft of the project.

[g] Based on the AADT of Altamont Pass Road obtained from https://www.acgov.org/cda/planning/landuseprojects/documents/apwra/Ch03-15_Traffic.pdf, Jess Ranch Road is expected to be a road with less than 10,000 AADT. Therefore, there are no surface roads with greater than 10,000 AADT within 1,000 ft of the proposed project.

[h] Represents the PM2.5 Total for the total Phase 2 construction period.