

**Appendix B – Air Quality and Greenhouse Gas Emissions Calculations and Summary, Baseline
Environmental Consultants 2019**

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Equipment type	Equiv class	HP	HP Type	Tier	Hours
Compactor	CAT 825H	405	Net (SAE J1349)	4	4079
Roller	CAT CS56	157		4	626
LGP Bulldozer	CAT D6N LGP	166	Net (SAE J1349)	4	1600
Bulldozer - D6 equiv.	CAT D6	215	Net (SAE J1349)	4	6935
Bulldozer - D9 equiv.	CAT D9T	436	Net (SAE 1349)	4	3863
39 Ton excavator	CAT 336	273	Net (SAE J1349)	4	1720
56 Ton excvator	CAT 352	417	Net (SAE J1349)	4	7343
96 Ton excavator	CAT 390	524	Net (SAE J1349)	4	5898
Motor grader - 140 equiv.	CAT 140	250	Net (SAE J1349)	4	3651
Scraper - 623G equiv.	CAT 623K	407	Flywheel	3	5976
Scraper - 631K equiv.	CAT 631K	570	Flywheel	4	9636
40 Ton off-road haul truck	CAT 740	452	Gross (SAE J1995)	4	36318
8000 Gallon water pull	CAT 623K	407	Flywheel	3	1391
3500 Gallon water truck		240		CARB	5482

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Off-Road Construction Equipment

Equipment type	CalEEMod Equipment Type	CalEEMod Equipment Name	Equiv class	HP	HP Type	Tier	Hours	Hours/Year
Compactor	Plate Compactor	Plate Compactor	CAT 825H	405	Net (SAE J1349)	4	4079	2040
Roller	Roller	Roller	CAT CS56	157		4	626	313
LGP Bulldozer	Rubber Tired Dozer	LGP Bulldozer	CAT D6N LGP	166	Net (SAE J1349)	4	1600	800
Bulldozer - D6 equiv.		D6 Bulldozer	CAT D6	215	Net (SAE J1349)	4	6935	3468
Bulldozer - D9 equiv.		D9 Bulldozer	CAT D9T	436	Net (SAE 1349)	4	3863	1932
39 Ton excavator	Excavator	39t Excavator	CAT 336	273	Net (SAE J1349)	4	1720	860
56 Ton excvator		56t Excavator	CAT 352	417	Net (SAE J1349)	4	7343	3672
96 Ton excavator		96t Excavator	CAT 390	524	Net (SAE J1349)	4	5898	2949
Motor grader - 140 equiv.	Grader	Grader	CAT 140	250	Net (SAE J1349)	4	3651	1826
Scraper - 623G equiv.	Other Construction Equipment	623G Scraper	CAT 623K	407	Flywheel	3	5976	2988
Scraper - 631K equiv.	Scraper	631K Scraper	CAT 631K	570	Flywheel	4	9636	4818
40 Ton off-road haul truck	Off-Highway Truck	40t Truck	CAT 740	452	Gross (SAE J1995)	4	36318	18159
8000 Gallon water pull	Other Material Handling Equipment	8000-Gal Truck	CAT 623K	407	Flywheel	3	1391	696
3500 Gallon water truck	Other General Industrial Equipment	3500-Gal Truck		240		CalEEMod	5482	2741

On-Road Worker Vehicles

Work Days/Year	Worker Trips per Day	Worker Trip Length (One-Way)*
150	26	105

On-Road Haul Trucks

Materials	Import / Export	Volume for Transport (tons)	Total Haul Trips**	Haul Trip Length (Miles/Trip)
Site Concrete	Export	5,700	1370	200
Concrete V Ditch	Export	8,400		
Bridge Concrete	Export	1,500		
Demolition Debris	Export	1,700		
Rocks	Import	10,000		

Notes:

Information in the tables were provided by the project sponsor

Equipment marked in grey are used to calculate total acres graded based on the CalEEMod default methodology.

According to the project sponsor, the equipment hours would split evenly between the first and the second year of construction.

Assume off-haul of demolished infrastructures occurs in the first year of construction.

*According to project sponsor, travel time for workers is 3.5 hours per day. Assuming 60 miles/hour travel speed, this results in 210 miles/roundtrip.

** Number of haul trips is rounded to the nearest multiple of ten.

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.00	User Defined Unit	3,395.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	55
Climate Zone	4			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Arbitrary land use selection for generating construction equipment and vehicle lists.

Construction Phase - Generic construction phase, which includes all phases of construction, is used based on information provided by the project applicant.

Off-road Equipment - According to equipment specification and hours provided by the project applicant. Load factor is populated by CalEEMod default.

Off-road Equipment - Equipment list, hours of operation, and horsepower are provided by the project applicant

Trips and VMT - According to worker and hauling truck trip information provided by the project applicant. Assume hauling of all materials occurs in Year 1. Default haul trip length modified to 200 miles to be conservative.

On-road Fugitive Dust - Assume 99.5 percent of travel takes place on paved roads.

Demolition -

Grading - Assume all demolition and off-haul occur in Year 1. Total acres graded calculated based on the equipment list and CalEEMod default grading methodology. Material moisture content modified to be project-specific.

Road Dust -

Land Use Change -

Construction Off-road Equipment Mitigation - Tier 4 engines will be used to reduce emission for most equipment if available.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	6,000.00	1.00
tblGrading	AcresOfGrading	716.38	1,477.00
tblGrading	MaterialExported	0.00	17,300.00
tblGrading	MaterialMoistureContentBulldozing	7.90	20.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	20.00
tblLandUse	LotAcreage	0.00	3,395.00
tblOffRoadEquipment	HorsePower	247.00	166.00
tblOffRoadEquipment	HorsePower	247.00	215.00
tblOffRoadEquipment	HorsePower	247.00	436.00
tblOffRoadEquipment	HorsePower	158.00	273.00
tblOffRoadEquipment	HorsePower	158.00	417.00
tblOffRoadEquipment	HorsePower	158.00	524.00
tblOffRoadEquipment	HorsePower	187.00	250.00
tblOffRoadEquipment	HorsePower	402.00	452.00
tblOffRoadEquipment	HorsePower	172.00	407.00
tblOffRoadEquipment	HorsePower	88.00	240.00
tblOffRoadEquipment	HorsePower	168.00	407.00
tblOffRoadEquipment	HorsePower	8.00	405.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	367.00	570.00
tblOffRoadEquipment	LoadFactor	0.42	0.48
tblOffRoadEquipment	LoadFactor	0.34	0.38
tblOffRoadEquipment	LoadFactor	0.40	0.38

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	800.00
tblOffRoadEquipment	UsageHours	8.00	3,468.00
tblOffRoadEquipment	UsageHours	8.00	1,932.00
tblOnRoadDust	HaulingPercentPave	94.00	99.50
tblOnRoadDust	VendorPercentPave	94.00	99.50
tblOnRoadDust	WorkerPercentPave	94.00	99.50
tblTripsAndVMT	HaulingTripLength	20.00	200.00
tblTripsAndVMT	HaulingTripNumber	1,711.00	1,370.00
tblTripsAndVMT	WorkerTripLength	10.00	105.00
tblTripsAndVMT	WorkerTripNumber	35.00	3,900.00

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	19.2916	7.1483
		Highest	19.2916	7.1483

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	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Generic construction	Site Preparation	1/1/2020	1/1/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Generic construction	Excavators	1	860.00	273	0.38
Generic construction	Excavators	1	3,672.00	417	0.38
Generic construction	Excavators	1	2,949.00	524	0.38
Generic construction	Graders	1	1,826.00	250	0.41
Generic construction	Off-Highway Trucks	1	18,159.00	452	0.38
Generic construction	Other Construction Equipment	1	2,988.00	407	0.48
Generic construction	Other General Industrial Equipment	1	2,741.00	240	0.38
Generic construction	Other Material Handling Equipment	1	696.00	407	0.38
Generic construction	Plate Compactors	1	2,040.00	405	0.43
Generic construction	Rollers	1	313.00	157	0.38
Generic construction	Rubber Tired Dozers	1	800.00	166	0.40
Generic construction	Rubber Tired Dozers	1	3,468.00	215	0.40
Generic construction	Rubber Tired Dozers	1	1,932.00	436	0.40
Generic construction	Scrapers	1	4,818.00	570	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
Generic construction	14	3,900.00	0.00	1,370.00	105.00	7.00	200.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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Use Cleaner Engines for Construction Equipment

3.2 Generic construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4205	0.0000	1.4205	0.4683	0.0000	0.4683	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2154	23.4188	13.4816	0.0406		0.8954	0.8954		0.8238	0.8238	0.0000	3,565.5208	3,565.5208	1.1532	0.0000	3,594.3498
Total	2.2154	23.4188	13.4816	0.0406	1.4205	0.8954	2.3159	0.4683	0.8238	1.2920	0.0000	3,565.5208	3,565.5208	1.1532	0.0000	3,594.3498

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	0.0407	1.2047	0.2253	4.7700e-003	0.9719	6.0600e-003	0.9780	0.1172	5.8000e-003	0.1230	0.0000	453.6887	453.6887	4.4300e-003	0.0000	453.7994
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	0.0521	0.0419	0.3970	1.4800e-003	1.4294	9.5000e-004	1.4304	0.1675	8.7000e-004	0.1684	0.0000	133.5353	133.5353	3.0200e-003	0.0000	133.6109
Total	0.0928	1.2466	0.6224	6.2500e-003	2.4013	7.0100e-003	2.4083	0.2848	6.6700e-003	0.2914	0.0000	587.2240	587.2240	7.4500e-003	0.0000	587.4103

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3.2 Generic construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4205	0.0000	1.4205	0.4683	0.0000	0.4683	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9464	7.6871	18.2681	0.0406		0.3056	0.3056		0.2855	0.2855	0.0000	3,565.5165	3,565.5165	1.1532	0.0000	3,594.3455
Total	0.9464	7.6871	18.2681	0.0406	1.4205	0.3056	1.7261	0.4683	0.2855	0.7537	0.0000	3,565.5165	3,565.5165	1.1532	0.0000	3,594.3455

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	0.0407	1.2047	0.2253	4.7700e-003	0.9719	6.0600e-003	0.9780	0.1172	5.8000e-003	0.1230	0.0000	453.6887	453.6887	4.4300e-003	0.0000	453.7994
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	0.0521	0.0419	0.3970	1.4800e-003	1.4294	9.5000e-004	1.4304	0.1675	8.7000e-004	0.1684	0.0000	133.5353	133.5353	3.0200e-003	0.0000	133.6109
Total	0.0928	1.2466	0.6224	6.2500e-003	2.4013	7.0100e-003	2.4083	0.2848	6.6700e-003	0.2914	0.0000	587.2240	587.2240	7.4500e-003	0.0000	587.4103

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	10.00	5.00	7.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.520277	0.038864	0.193543	0.118146	0.022917	0.005635	0.034518	0.053912	0.001336	0.002070	0.007104	0.000691	0.000987

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

Lookout Slough Project Year 1 - Yolo/Solano AQMD Air District, Annual

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Lookout Slough Project Year 1 - Yolo/Solano AQMD Air District, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
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

Lookout Slough Project Year 1 - Yolo/Solano AQMD Air District, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
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
----------------	--------	-----------	-----------	-------------	-------------	-----------

Lookout Slough Project Year 1 - Yolo/Solano AQMD Air District, Annual

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

Lookout Slough Project Year 2 - Yolo/Solano AQMD Air District, Annual

Lookout Slough Project Year 2
Yolo/Solano AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.00	User Defined Unit	3,395.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	55
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Lookout Slough Project Year 2 - Yolo/Solano AQMD Air District, Annual

Project Characteristics -

Land Use - Arbitrary land use selection for generating construction equipment and vehicle lists.

Construction Phase - Generic construction phase, which includes all phases of construction, is used based on information provided by the project applicant.

Off-road Equipment - According to equipment specification and hours provided by the project applicant. Load factor is populated by CalEEMod default.

Off-road Equipment - Equipment list, hours of operation, and horsepower are provided by the project applicant

Trips and VMT - According to worker and hauling truck trip information provided by the project applicant. Assume hauling of demolition materials occurs in Year 1, not in Year 2.

On-road Fugitive Dust - Assume 99.5 percent of travel takes place on paved roads.

Demolition -

Grading - Assume all demolition and off-haul occur in Year 1, not in Year 2. Total acres graded calculated based on the equipment list and CalEEMod default grading methodology. Material moisture content modified to be project-specific.

Road Dust -

Land Use Change -

Construction Off-road Equipment Mitigation - Tier 4 engines will be used to reduce emission for most equipment if available.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	6,000.00	1.00
tblGrading	AcresOfGrading	716.38	1,477.00
tblGrading	MaterialMoistureContentBulldozing	7.90	20.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	20.00
tblLandUse	LotAcreage	0.00	3,395.00
tblOffRoadEquipment	HorsePower	247.00	166.00
tblOffRoadEquipment	HorsePower	247.00	215.00
tblOffRoadEquipment	HorsePower	247.00	436.00
tblOffRoadEquipment	HorsePower	158.00	273.00
tblOffRoadEquipment	HorsePower	158.00	417.00
tblOffRoadEquipment	HorsePower	158.00	524.00
tblOffRoadEquipment	HorsePower	187.00	250.00
tblOffRoadEquipment	HorsePower	402.00	452.00
tblOffRoadEquipment	HorsePower	172.00	407.00
tblOffRoadEquipment	HorsePower	88.00	240.00
tblOffRoadEquipment	HorsePower	168.00	407.00
tblOffRoadEquipment	HorsePower	8.00	405.00
tblOffRoadEquipment	HorsePower	80.00	157.00
tblOffRoadEquipment	HorsePower	367.00	570.00

Lookout Slough Project Year 2 - Yolo/Solano AQMD Air District, Annual

tblOffRoadEquipment	LoadFactor	0.42	0.48
tblOffRoadEquipment	LoadFactor	0.34	0.38
tblOffRoadEquipment	LoadFactor	0.40	0.38
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	800.00
tblOffRoadEquipment	UsageHours	8.00	3,468.00
tblOffRoadEquipment	UsageHours	8.00	1,932.00
tblOnRoadDust	HaulingPercentPave	94.00	99.50
tblOnRoadDust	VendorPercentPave	94.00	99.50
tblOnRoadDust	WorkerPercentPave	94.00	99.50
tblTripsAndVMT	WorkerTripLength	10.00	105.00
tblTripsAndVMT	WorkerTripNumber	35.00	3,900.00

2.0 Emissions Summary

Lookout Slough Project Year 2 - Yolo/Solano AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	16.3296	5.8089
		Highest	16.3296	5.8089

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	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Generic construction	Site Preparation	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Generic construction	Excavators	1	860.00	273	0.38
Generic construction	Excavators	1	3,672.00	417	0.38
Generic construction	Excavators	1	2,949.00	524	0.38
Generic construction	Graders	1	1,826.00	250	0.41
Generic construction	Off-Highway Trucks	1	18,159.00	452	0.38
Generic construction	Other Construction Equipment	1	2,988.00	407	0.48
Generic construction	Other General Industrial Equipment	1	2,741.00	240	0.38
Generic construction	Other Material Handling Equipment	1	696.00	407	0.38
Generic construction	Plate Compactors	1	2,040.00	405	0.43
Generic construction	Rollers	1	313.00	157	0.38
Generic construction	Rubber Tired Dozers	1	800.00	166	0.40
Generic construction	Rubber Tired Dozers	1	3,468.00	215	0.40
Generic construction	Rubber Tired Dozers	1	1,932.00	436	0.40
Generic construction	Scrapers	1	4,818.00	570	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
Generic construction	14	3,900.00	0.00	0.00	105.00	7.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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Use Cleaner Engines for Construction Equipment

3.2 Generic construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4189	0.0000	1.4189	0.4680	0.0000	0.4680	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0683	20.6948	12.8977	0.0406		0.7975	0.7975		0.7337	0.7337	0.0000	3,564.944 3	3,564.944 3	1.1530	0.0000	3,593.768 7
Total	2.0683	20.6948	12.8977	0.0406	1.4189	0.7975	2.2164	0.4680	0.7337	1.2017	0.0000	3,564.944 3	3,564.944 3	1.1530	0.0000	3,593.768 7

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	0.0486	0.0375	0.3636	1.4200e-003	1.4294	9.2000e-004	1.4303	0.1675	8.5000e-004	0.1684	0.0000	128.8595	128.8595	2.7100e-003	0.0000	128.9273
Total	0.0486	0.0375	0.3636	1.4200e-003	1.4294	9.2000e-004	1.4303	0.1675	8.5000e-004	0.1684	0.0000	128.8595	128.8595	2.7100e-003	0.0000	128.9273

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3.2 Generic construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4189	0.0000	1.4189	0.4680	0.0000	0.4680	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9119	7.1222	18.1115	0.0406		0.2831	0.2831		0.2648	0.2648	0.0000	3,564.940 1	3,564.940 1	1.1530	0.0000	3,593.764 4
Total	0.9119	7.1222	18.1115	0.0406	1.4189	0.2831	1.7020	0.4680	0.2648	0.7328	0.0000	3,564.940 1	3,564.940 1	1.1530	0.0000	3,593.764 4

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	0.0486	0.0375	0.3636	1.4200e-003	1.4294	9.2000e-004	1.4303	0.1675	8.5000e-004	0.1684	0.0000	128.8595	128.8595	2.7100e-003	0.0000	128.9273
Total	0.0486	0.0375	0.3636	1.4200e-003	1.4294	9.2000e-004	1.4303	0.1675	8.5000e-004	0.1684	0.0000	128.8595	128.8595	2.7100e-003	0.0000	128.9273

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	10.00	5.00	7.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
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

Lookout Slough Project Year 2 - Yolo/Solano AQMD Air District, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Lookout Slough Project Year 2 - Yolo/Solano AQMD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Greenhouse Gas(GHG) Emissions Reduction Plan Consistency Determination

For Projects Using Contractors or Other Outside Labor

This form is to be used by DWR project managers to document a DWR CEQA project's consistency with the DWR Greenhouse Gas Emissions Reduction Plan. This form is to be used only when DWR is the Lead Agency and when contractors or outside labor and equipment are used to implement the project.

Additional Guidance on filling out this form can be found at:

http://dwrclimatechange.water.ca.gov/guidance_resources.cfm

The DWR Greenhouse Gas Emissions Reduction Plan can be accessed at:

<https://water.ca.gov/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan>

Project Name:	Lookout Slough Tidal Habitat Restoration and Flood Improvement Project
Environmental Document Type:	Draft Environmental Impact Report
Manager's Name:	Heather Green
Manager's E-mail:	Heather.Green@water.ca.gov
Division:	Division of Environmental Services
Office, Branch, or Field Division:	Mitigation and Restoration Branch

Short Project Description:

The proposed Lookout Slough Restoration Project is a part of the Fish Restoration Program and proposes to restore tidal hydrology in a 3,395-acre area in unincorporated Solano County and Yolo County. Proposed construction activities include earthwork, vegetation and existing infrastructure removal on the site, lowering of the Shag Slough Levee, creation of levee breeches in Shag Slough, Cache Slough, and Vogel Levee, excavation of tidal channels, construction of a new Setback Levee and vehicle access. Main construction activities would occur from early-2020 to mid-2021.

Project GHG Emissions Summary:

Total Construction Emissions	7,955	mtCO ₂ e
Maximum Annual Construction Emissions	3,773	mtCO ₂ e
<input checked="" type="checkbox"/> All other emissions from the project not accounted for above will occur as ongoing operational, maintenance, or business activity emissions and therefore have already been accounted for and analyzed in the GGERP.		

Extraordinary Construction Project Determination:

Do total project construction emissions exceed 25,000 mtCO₂e for the entire construction phase or exceed 12,500 mtCO₂e in any single year of construction?

- No- Additional analysis not required
 Yes - Project specific emissions mitigation measures have been included in the environmental analysis document for the project

Project GHG Reduction Plan Checklist:	
<input checked="" type="checkbox"/>	All Project Level GHG Emissions Reduction Measures have been incorporated into the design or implementation plan for the project. (Project Level GHG Emissions Reduction Measures)
Or	
<input type="checkbox"/>	All feasible Project Level GHG Emissions Reduction Measures have been incorporated into the design or implementation plan for the project and Measures not incorporated have been listed and determined not to apply to the proposed project (include as an attachment)
<input checked="" type="checkbox"/>	Project does not conflict with any of the Specific Action GHG Emissions Reduction Measures (Specific Action GHG Emissions Reduction Measures)
<p>Would implementation of the project result in additional energy demands on the SWP system of 15 GWh/yr or greater?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If you answered Yes, attach a letter documenting that the project has consulted with the DWR SWP Power and Risk Office regarding the additional power requirements of the project.</p>	
<p>Is there substantial evidence that the effects of the proposed project may be cumulatively considerable notwithstanding the proposed project's compliance with the requirements of the DWR GHG Reduction Plan?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If you answered Yes, the project is not eligible for streamlined analysis of GHG emissions using the DWR GHG Emissions Reduction Plan. (See CEQA Guidelines, section 15183.5, subdivision (b)(2).)</p>	

Based on the information provided above and information provided in associated environmental documentation completed pursuant to the above referenced project, the DWR CEQA Climate Change Committee has determined that:

- The entire proposed project is consistent with the DWR Greenhouse Gas Reduction Plan and the greenhouse gases emitted by the project are covered by the plan's analysis.
- The operational and maintenance phase of the project is consistent with the DWR Greenhouse Gas Reduction Plan and the greenhouse gases emitted by the project are covered by the plan's analysis. Emissions from the construction phase of the project are not covered by the DWR Greenhouse Gas Emissions Reduction Plan and will be mitigated as part of the project.

Project Manager Signature:  Date: 12/11/19

C4 Approval Signature: Jennifer Morales Date: 12/12/2019

Attachments:

- GHG Emissions Inventory
- List and Explanation of excluded Project level GHG Emissions Reduction Measures
- SWP Power and Risk Office Consultation Letter

Links:
<https://current.water.ca.gov/programs/icc/SitePages/Home.aspx>
<https://water.ca.gov/Programs/All-Programs/Climate-Change-Program>