Faria/Southwest Hills Annexation

SCH#2017032027

Draft
Environmental Impact Report

Volume II of III
Appendices D - K

Prepared for
The City of Pittsburg

October 2018

Prepared by
RANEY
PLANNING & MANAGEMENT, INC.
1501 Sports Drive, Suite A, Sacramento, CA 95834

APPENDIX D

California Emissions Estimator Model Results

Emissions Modeling Performed By:
Raney Planning & Management
Jacob Byrne
Zac Smith

Faria Master Plan Construction and Operations (Unmitigated)

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,500.00	Dwelling Unit	412.00	2,700,000.00	4800

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor adjusted per PG&E progress towards RPS

Land Use - Project Info

Construction Phase - Adjusted for 5-year construction schedule

Grading - Project Info

Vehicle Trips - Trip rate from Kimley-Horn Traffic Report

Area Mitigation -

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	550.00	998.00
tblConstructionPhase	NumDays	7,750.00	998.00
tblConstructionPhase	NumDays	775.00	94.00
tblConstructionPhase	NumDays	550.00	67.00
tblConstructionPhase	NumDays	300.00	37.00
tblConstructionPhase	PhaseEndDate	5/17/2058	1/13/2023
tblConstructionPhase	PhaseEndDate	2/27/2054	12/30/2022
tblConstructionPhase	PhaseEndDate	6/14/2024	12/3/2018
tblConstructionPhase	PhaseEndDate	4/7/2056	3/6/2019
tblConstructionPhase	PhaseEndDate	6/25/2021	7/24/2018
tblConstructionPhase	PhaseStartDate	4/8/2056	3/20/2019
tblConstructionPhase	PhaseStartDate	6/15/2024	3/6/2019
tblConstructionPhase	PhaseStartDate	6/26/2021	7/25/2018
tblConstructionPhase	PhaseStartDate	2/28/2054	12/4/2018
tblConstructionPhase	PhaseStartDate	5/2/2020	6/4/2018
tblGrading	AcresOfGrading	235.00	412.00
tblLandUse	LotAcreage	487.01	412.00
tblLandUse	Population	4,290.00	4,800.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	9.91	8.37
tblVehicleTrips	SU_TR	8.62	8.37
tblVehicleTrips	WD_TR	9.52	8.37

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					
2018	0.3458	3.8688	2.2569	3.9600e-003	0.8470	0.1811	1.0281	0.3659	0.1666	0.5325	0.0000	361.8512	361.8512	0.1097	0.0000	364.5936
2019	4.5476	5.0721	4.8146	0.0136	0.6510	0.1886	0.8396	0.1756	0.1779	0.3535	0.0000	1,241.8135	1,241.8135	0.1165	0.0000	1,244.7265
2020	5.6568	5.2445	5.1131	0.0157	0.7951	0.1761	0.9712	0.2144	0.1666	0.3810	0.0000	1,430.9938	1,430.9938	0.1181	0.0000	1,433.9462
2021	5.5695	4.7433	4.8179	0.0154	0.7921	0.1461	0.9382	0.2136	0.1381	0.3517	0.0000	1,400.2478	1,400.2478	0.1135	0.0000	1,403.0857
2022	5.4992	4.3483	4.5869	0.0150	0.7890	0.1238	0.9128	0.2128	0.1171	0.3299	0.0000	1,369.4936	1,369.4936	0.1100	0.0000	1,372.2441
2023	0.1929	7.4400e-003	0.0193	5.0000e-005	4.2700e-003	3.8000e-004	4.6500e-003	1.1400e-003	3.8000e-004	1.5100e-003	0.0000	4.6185	4.6185	1.4000e-004	0.0000	4.6220
Maximum	**5.6568**	**5.2445**	**5.1131**	**0.0157**	**0.8470**	**0.1886**	**1.0281**	**0.3659**	**0.1779**	**0.5325**	**0.0000**	**1,430.9938**	**1,430.9938**	**0.1181**	**0.0000**	**1,433.9462**

2.1 Overall Construction

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					
2018	0.3458	3.8688	2.2569	3.9600e-003	0.8470	0.1811	1.0281	0.3659	0.1666	0.5325	0.0000	361.8508	361.8508	0.1097	0.0000	364.5931
2019	4.5476	5.0721	4.8146	0.0136	0.6510	0.1886	0.8396	0.1756	0.1779	0.3535	0.0000	1,241.8131	1,241.8131	0.1165	0.0000	1,244.7261
2020	5.6568	5.2445	5.1131	0.0157	0.7951	0.1761	0.9712	0.2144	0.1666	0.3810	0.0000	1,430.9934	1,430.9934	0.1181	0.0000	1,433.9458
2021	5.5695	4.7433	4.8179	0.0154	0.7921	0.1461	0.9382	0.2136	0.1381	0.3517	0.0000	1,400.2474	1,400.2474	0.1135	0.0000	1,403.0853
2022	5.4992	4.3483	4.5869	0.0150	0.7890	0.1238	0.9128	0.2128	0.1171	0.3299	0.0000	1,369.4932	1,369.4932	0.1100	0.0000	1,372.2437
2023	0.1929	7.4400e-003	0.0193	5.0000e-005	4.2700e-003	3.8000e-004	4.6500e-003	1.1400e-003	3.8000e-004	1.5100e-003	0.0000	4.6185	4.6185	1.4000e-004	0.0000	4.6220
Maximum	**5.6568**	**5.2445**	**5.1131**	**0.0157**	**0.8470**	**0.1886**	**1.0281**	**0.3659**	**0.1779**	**0.5325**	**0.0000**	**1,430.9934**	**1,430.9934**	**0.1181**	**0.0000**	**1,433.9458**

	ROG	NOx	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)
1	**6-4-2018**	**9-3-2018**	1.9114	1.9114
2	**9-4-2018**	**12-3-2018**	2.1048	2.1048
3	**12-4-2018**	**3-3-2019**	0.5649	0.5649
4	**3-4-2019**	**6-3-2019**	2.6289	2.6289
5	**6-4-2019**	**9-3-2019**	2.8710	2.8710

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6	**9-4-2019**	**12-3-2019**	2.8571	2.8571
7	**12-4-2019**	**3-3-2020**	2.7619	2.7619
8	**3-4-2020**	**6-3-2020**	2.7316	2.7316
9	**6-4-2020**	**9-3-2020**	2.7252	2.7252
10	**9-4-2020**	**12-3-2020**	2.7102	2.7102
11	**12-4-2020**	**3-3-2021**	2.5928	2.5928
12	**3-4-2021**	**6-3-2021**	2.5947	2.5947
13	**6-4-2021**	**9-3-2021**	2.5893	2.5893
14	**9-4-2021**	**12-3-2021**	2.5735	2.5735
15	**12-4-2021**	**3-3-2022**	2.4772	2.4772
16	**3-4-2022**	**6-3-2022**	2.4874	2.4874
17	**6-4-2022**	**9-3-2022**	2.4825	2.4825
18	**9-4-2022**	**12-3-2022**	2.4667	2.4667
19	**12-4-2022**	**3-3-2023**	0.9339	0.9339
		Highest	2.8710	2.8710

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	21.6221	0.3222	23.9959	0.0271		1.9155	1.9155		1.9155	1.9155	190.6665	65.0079	255.6744	0.3777	0.0109	268.3659
Energy	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	4,484.9410	4,484.9410	0.2042	0.0757	4,512.5998
Mobile	2.8557	12.6451	32.4369	0.1206	10.7911	0.0988	10.8900	2.8962	0.0923	2.9884	0.0000	11,084.4579	11,084.4579	0.3849	0.0000	11,094.0804
Waste						0.0000	0.0000		0.0000	0.0000	409.2298	0.0000	409.2298	24.1848	0.0000	1,013.8495
Water						0.0000	0.0000		0.0000	0.0000	31.0056	132.4064	163.4119	3.1944	0.0772	266.2827
Total	**24.7128**	**14.9762**	**57.2877**	**0.1606**	**10.7911**	**2.1768**	**12.9679**	**2.8962**	**2.1702**	**5.0664**	**630.9018**	**15,766.8132**	**16,397.7150**	**28.3460**	**0.1638**	**17,155.1782**

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	12.0056	0.2384	11.1869	1.2900e-003		0.0706	0.0706		0.0706	0.0706	0.0000	145.5293	145.5293	0.0199	2.3300e-003	146.7233
Energy	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	4,484.9410	4,484.9410	0.2042	0.0757	4,512.5998
Mobile	2.8557	12.6451	32.4369	0.1206	10.7911	0.0988	10.8900	2.8962	0.0923	2.9884	0.0000	11,084.4579	11,084.4579	0.3849	0.0000	11,094.0804
Waste						0.0000	0.0000		0.0000	0.0000	409.2298	0.0000	409.2298	24.1848	0.0000	1,013.8495
Water						0.0000	0.0000		0.0000	0.0000	31.0056	132.4064	163.4119	3.1944	0.0772	266.2827
Total	**15.0963**	**14.8924**	**44.4787**	**0.1348**	**10.7911**	**0.3318**	**11.1229**	**2.8962**	**0.3252**	**3.2214**	**440.2353**	**15,847.3345**	**16,287.5698**	**27.9882**	**0.1552**	**17,033.5356**

	ROG	NOx	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	**38.91**	**0.56**	**22.36**	**16.07**	**0.00**	**84.76**	**14.23**	**0.00**	**85.01**	**36.42**	**30.22**	**-0.51**	**0.67**	**1.26**	**5.23**	**0.71**

3.0 Construction Detail

Construction Phase

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/4/2018	7/24/2018	5	37	
2	Grading	Grading	7/25/2018	12/3/2018	5	94	
3	Building Construction	Building Construction	3/6/2019	12/30/2022	5	998	
4	Paving	Paving	12/4/2018	3/6/2019	5	67	
5	Architectural Coating	Architectural Coating	3/20/2019	1/13/2023	5	998	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 412

Acres of Paving: 0

Residential Indoor: 5,467,500; Residential Outdoor: 1,822,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	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
Architectural Coating	1	108.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	540.00	160.00	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
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

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					0.3342	0.0000	0.3342	0.1837	0.0000	0.1837	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0844	0.8917	0.4158	7.0000e-004		0.0477	0.0477		0.0439	0.0439	0.0000	64.3058	64.3058	0.0200	0.0000	64.8063
Total	**0.0844**	**0.8917**	**0.4158**	**7.0000e-004**	**0.3342**	**0.0477**	**0.3819**	**0.1837**	**0.0439**	**0.2276**	**0.0000**	**64.3058**	**64.3058**	**0.0200**	**0.0000**	**64.8063**

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	1.3400e-003	1.0200e-003	0.0103	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4538	2.4538	7.0000e-005	0.0000	2.4556
Total	**1.3400e-003**	**1.0200e-003**	**0.0103**	**3.0000e-005**	**2.6300e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.4538**	**2.4538**	**7.0000e-005**	**0.0000**	**2.4556**

3.2 Site Preparation - 2018

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					0.3342	0.0000	0.3342	0.1837	0.0000	0.1837	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0844	0.8917	0.4158	7.0000e-004		0.0477	0.0477		0.0439	0.0439	0.0000	64.3058	64.3058	0.0200	0.0000	64.8062
Total	**0.0844**	**0.8917**	**0.4158**	**7.0000e-004**	**0.3342**	**0.0477**	**0.3819**	**0.1837**	**0.0439**	**0.2276**	**0.0000**	**64.3058**	**64.3058**	**0.0200**	**0.0000**	**64.8062**

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	1.3400e-003	1.0200e-003	0.0103	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4538	2.4538	7.0000e-005	0.0000	2.4556
Total	**1.3400e-003**	**1.0200e-003**	**0.0103**	**3.0000e-005**	**2.6300e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.4538**	**2.4538**	**7.0000e-005**	**0.0000**	**2.4556**

3.3 Grading - 2018

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					0.5015	0.0000	0.5015	0.1792	0.0000	0.1792	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2392	2.7975	1.6492	2.9200e-003		0.1238	0.1238		0.1139	0.1139	0.0000	266.2480	266.2480	0.0829	0.0000	268.3201
Total	**0.2392**	**2.7975**	**1.6492**	**2.9200e-003**	**0.5015**	**0.1238**	**0.6253**	**0.1792**	**0.1139**	**0.2931**	**0.0000**	**266.2480**	**266.2480**	**0.0829**	**0.0000**	**268.3201**

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	3.7800e-003	2.8800e-003	0.0290	8.0000e-005	7.4300e-003	5.0000e-005	7.4800e-003	1.9800e-003	5.0000e-005	2.0200e-003	0.0000	6.9267	6.9267	2.0000e-004	0.0000	6.9318
Total	**3.7800e-003**	**2.8800e-003**	**0.0290**	**8.0000e-005**	**7.4300e-003**	**5.0000e-005**	**7.4800e-003**	**1.9800e-003**	**5.0000e-005**	**2.0200e-003**	**0.0000**	**6.9267**	**6.9267**	**2.0000e-004**	**0.0000**	**6.9318**

3.3 Grading - 2018

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					0.5015	0.0000	0.5015	0.1792	0.0000	0.1792	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2392	2.7975	1.6492	2.9200e-003		0.1238	0.1238		0.1139	0.1139	0.0000	266.2476	266.2476	0.0829	0.0000	268.3198
Total	**0.2392**	**2.7975**	**1.6492**	**2.9200e-003**	**0.5015**	**0.1238**	**0.6253**	**0.1792**	**0.1139**	**0.2931**	**0.0000**	**266.2476**	**266.2476**	**0.0829**	**0.0000**	**268.3198**

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	3.7800e-003	2.8800e-003	0.0290	8.0000e-005	7.4300e-003	5.0000e-005	7.4800e-003	1.9800e-003	5.0000e-005	2.0200e-003	0.0000	6.9267	6.9267	2.0000e-004	0.0000	6.9318
Total	**3.7800e-003**	**2.8800e-003**	**0.0290**	**8.0000e-005**	**7.4300e-003**	**5.0000e-005**	**7.4800e-003**	**1.9800e-003**	**5.0000e-005**	**2.0200e-003**	**0.0000**	**6.9267**	**6.9267**	**2.0000e-004**	**0.0000**	**6.9318**

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	0.2538	2.2660	1.8451	2.8900e-003		0.1387	0.1387		0.1304	0.1304	0.0000	252.7370	252.7370	0.0616	0.0000	254.2762
Total	**0.2538**	**2.2660**	**1.8451**	**2.8900e-003**		**0.1387**	**0.1387**		**0.1304**	**0.1304**	**0.0000**	**252.7370**	**252.7370**	**0.0616**	**0.0000**	**254.2762**

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	0.0763	2.0732	0.5335	4.3600e-003	0.1020	0.0136	0.1156	0.0295	0.0130	0.0425	0.0000	418.2200	418.2200	0.0242	0.0000	418.8253
Worker	0.2104	0.1559	1.5898	4.5900e-003	0.4587	3.1600e-003	0.4619	0.1220	2.9100e-003	0.1249	0.0000	414.9243	414.9243	0.0111	0.0000	415.2022
Total	**0.2867**	**2.2291**	**2.1233**	**8.9500e-003**	**0.5607**	**0.0168**	**0.5775**	**0.1515**	**0.0159**	**0.1675**	**0.0000**	**833.1443**	**833.1443**	**0.0353**	**0.0000**	**834.0275**

3.4 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	0.2538	2.2660	1.8451	2.8900e-003		0.1387	0.1387		0.1304	0.1304	0.0000	252.7367	252.7367	0.0616	0.0000	254.2759
Total	**0.2538**	**2.2660**	**1.8451**	**2.8900e-003**		**0.1387**	**0.1387**		**0.1304**	**0.1304**	**0.0000**	**252.7367**	**252.7367**	**0.0616**	**0.0000**	**254.2759**

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	0.0763	2.0732	0.5335	4.3600e-003	0.1020	0.0136	0.1156	0.0295	0.0130	0.0425	0.0000	418.2200	418.2200	0.0242	0.0000	418.8253
Worker	0.2104	0.1559	1.5898	4.5900e-003	0.4587	3.1600e-003	0.4619	0.1220	2.9100e-003	0.1249	0.0000	414.9243	414.9243	0.0111	0.0000	415.2022
Total	**0.2867**	**2.2291**	**2.1233**	**8.9500e-003**	**0.5607**	**0.0168**	**0.5775**	**0.1515**	**0.0159**	**0.1675**	**0.0000**	**833.1443**	**833.1443**	**0.0353**	**0.0000**	**834.0275**

3.4 Building 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					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4091**	**303.4091**	**0.0740**	**0.0000**	**305.2596**

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	0.0764	2.3092	0.5811	5.2700e-003	0.1243	0.0107	0.1351	0.0360	0.0103	0.0462	0.0000	506.4739	506.4739	0.0273	0.0000	507.1554
Worker	0.2345	0.1678	1.7374	5.4200e-003	0.5590	3.7600e-003	0.5627	0.1487	3.4700e-003	0.1522	0.0000	489.7193	489.7193	0.0119	0.0000	490.0157
Total	**0.3108**	**2.4770**	**2.3185**	**0.0107**	**0.6833**	**0.0145**	**0.6978**	**0.1847**	**0.0137**	**0.1984**	**0.0000**	**996.1933**	**996.1933**	**0.0391**	**0.0000**	**997.1711**

3.4 Building 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					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4087**	**303.4087**	**0.0740**	**0.0000**	**305.2592**

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	0.0764	2.3092	0.5811	5.2700e-003	0.1243	0.0107	0.1351	0.0360	0.0103	0.0462	0.0000	506.4739	506.4739	0.0273	0.0000	507.1554
Worker	0.2345	0.1678	1.7374	5.4200e-003	0.5590	3.7600e-003	0.5627	0.1487	3.4700e-003	0.1522	0.0000	489.7193	489.7193	0.0119	0.0000	490.0157
Total	**0.3108**	**2.4770**	**2.3185**	**0.0107**	**0.6833**	**0.0145**	**0.6978**	**0.1847**	**0.0137**	**0.1984**	**0.0000**	**996.1933**	**996.1933**	**0.0391**	**0.0000**	**997.1711**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.0627	2.0901	0.5210	5.2000e-003	0.1238	4.3400e-003	0.1282	0.0358	4.1500e-003	0.0400	0.0000	499.7621	499.7621	0.0256	0.0000	500.4030
Worker	0.2163	0.1492	1.5806	5.2000e-003	0.5568	3.6400e-003	0.5605	0.1481	3.3600e-003	0.1515	0.0000	470.7326	470.7326	0.0106	0.0000	470.9965
Total	**0.2790**	**2.2393**	**2.1015**	**0.0104**	**0.6807**	**7.9800e-003**	**0.6887**	**0.1840**	**7.5100e-003**	**0.1915**	**0.0000**	**970.4947**	**970.4947**	**0.0362**	**0.0000**	**971.3994**

3.4 Building 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					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.0627	2.0901	0.5210	5.2000e-003	0.1238	4.3400e-003	0.1282	0.0358	4.1500e-003	0.0400	0.0000	499.7621	499.7621	0.0256	0.0000	500.4030
Worker	0.2163	0.1492	1.5806	5.2000e-003	0.5568	3.6400e-003	0.5605	0.1481	3.3600e-003	0.1515	0.0000	470.7326	470.7326	0.0106	0.0000	470.9965
Total	**0.2790**	**2.2393**	**2.1015**	**0.0104**	**0.6807**	**7.9800e-003**	**0.6887**	**0.1840**	**7.5100e-003**	**0.1915**	**0.0000**	**970.4947**	**970.4947**	**0.0362**	**0.0000**	**971.3994**

3.4 Building Construction - 2022

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

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	0.0582	1.9753	0.4875	5.1300e-003	0.1234	3.7500e-003	0.1271	0.0357	3.5900e-003	0.0393	0.0000	492.9737	492.9737	0.0244	0.0000	493.5831
Worker	0.2008	0.1333	1.4470	4.9900e-003	0.5547	3.5400e-003	0.5583	0.1476	3.2600e-003	0.1508	0.0000	451.7374	451.7374	9.4300e-003	0.0000	451.9731
Total	**0.2590**	**2.1085**	**1.9345**	**0.0101**	**0.6781**	**7.2900e-003**	**0.6854**	**0.1833**	**6.8500e-003**	**0.1901**	**0.0000**	**944.7110**	**944.7110**	**0.0338**	**0.0000**	**945.5561**

3.4 Building Construction - 2022

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

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	0.0582	1.9753	0.4875	5.1300e-003	0.1234	3.7500e-003	0.1271	0.0357	3.5900e-003	0.0393	0.0000	492.9737	492.9737	0.0244	0.0000	493.5831
Worker	0.2008	0.1333	1.4470	4.9900e-003	0.5547	3.5400e-003	0.5583	0.1476	3.2600e-003	0.1508	0.0000	451.7374	451.7374	9.4300e-003	0.0000	451.9731
Total	**0.2590**	**2.1085**	**1.9345**	**0.0101**	**0.6781**	**7.2900e-003**	**0.6854**	**0.1833**	**6.8500e-003**	**0.1901**	**0.0000**	**944.7110**	**944.7110**	**0.0338**	**0.0000**	**945.5561**

3.5 Paving - 2018

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	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.6000e-004	4.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1053	1.1053	3.0000e-005	0.0000	1.1061
Total	**6.0000e-004**	**4.6000e-004**	**4.6300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1053**	**1.1053**	**3.0000e-005**	**0.0000**	**1.1061**

3.5 Paving - 2018

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	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.6000e-004	4.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1053	1.1053	3.0000e-005	0.0000	1.1061
Total	**6.0000e-004**	**4.6000e-004**	**4.6300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1053**	**1.1053**	**3.0000e-005**	**0.0000**	**1.1061**

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	0.0342	0.3582	0.3446	5.4000e-004		0.0194	0.0194		0.0178	0.0178	0.0000	48.1167	48.1167	0.0152	0.0000	48.4973
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0342**	**0.3582**	**0.3446**	**5.4000e-004**		**0.0194**	**0.0194**		**0.0178**	**0.0178**	**0.0000**	**48.1167**	**48.1167**	**0.0152**	**0.0000**	**48.4973**

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	1.2800e-003	9.5000e-004	9.6500e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.5196	2.5196	7.0000e-005	0.0000	2.5213
Total	**1.2800e-003**	**9.5000e-004**	**9.6500e-003**	**3.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.5196**	**2.5196**	**7.0000e-005**	**0.0000**	**2.5213**

3.5 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	tons/yr										MT/yr					
Off-Road	0.0342	0.3582	0.3446	5.4000e-004		0.0194	0.0194		0.0178	0.0178	0.0000	48.1166	48.1166	0.0152	0.0000	48.4972
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0342**	**0.3582**	**0.3446**	**5.4000e-004**		**0.0194**	**0.0194**		**0.0178**	**0.0178**	**0.0000**	**48.1166**	**48.1166**	**0.0152**	**0.0000**	**48.4972**

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	1.2800e-003	9.5000e-004	9.6500e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.5196	2.5196	7.0000e-005	0.0000	2.5213
Total	**1.2800e-003**	**9.5000e-004**	**9.6500e-003**	**3.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.5196**	**2.5196**	**7.0000e-005**	**0.0000**	**2.5213**

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	3.9041					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0273	0.1881	0.1887	3.0000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	26.1709	26.1709	2.2100e-003	0.0000	26.2261
Total	**3.9314**	**0.1881**	**0.1887**	**3.0000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**26.1709**	**26.1709**	**2.2100e-003**	**0.0000**	**26.2261**

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	0.0401	0.0297	0.3032	8.8000e-004	0.0875	6.0000e-004	0.0881	0.0233	5.5000e-004	0.0238	0.0000	79.1251	79.1251	2.1200e-003	0.0000	79.1781
Total	**0.0401**	**0.0297**	**0.3032**	**8.8000e-004**	**0.0875**	**6.0000e-004**	**0.0881**	**0.0233**	**5.5000e-004**	**0.0238**	**0.0000**	**79.1251**	**79.1251**	**2.1200e-003**	**0.0000**	**79.1781**

3.6 Architectural Coating - 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					
Archit. Coating	3.9041					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0273	0.1881	0.1887	3.0000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	26.1708	26.1708	2.2100e-003	0.0000	26.2261
Total	**3.9314**	**0.1881**	**0.1887**	**3.0000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**26.1708**	**26.1708**	**2.2100e-003**	**0.0000**	**26.2261**

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	0.0401	0.0297	0.3032	8.8000e-004	0.0875	6.0000e-004	0.0881	0.0233	5.5000e-004	0.0238	0.0000	79.1251	79.1251	2.1200e-003	0.0000	79.1781
Total	**0.0401**	**0.0297**	**0.3032**	**8.8000e-004**	**0.0875**	**6.0000e-004**	**0.0881**	**0.0233**	**5.5000e-004**	**0.0238**	**0.0000**	**79.1251**	**79.1251**	**2.1200e-003**	**0.0000**	**79.1781**

3.6 Architectural Coating - 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					
Archit. Coating	4.9897					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5124
Total	**5.0214**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5124**

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	0.0469	0.0336	0.3475	1.0800e-003	0.1118	7.5000e-004	0.1126	0.0297	6.9000e-004	0.0304	0.0000	97.9439	97.9439	2.3700e-003	0.0000	98.0031
Total	**0.0469**	**0.0336**	**0.3475**	**1.0800e-003**	**0.1118**	**7.5000e-004**	**0.1126**	**0.0297**	**6.9000e-004**	**0.0304**	**0.0000**	**97.9439**	**97.9439**	**2.3700e-003**	**0.0000**	**98.0031**

3.6 Architectural Coating - 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					
Archit. Coating	4.9897					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5123
Total	**5.0214**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5123**

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	0.0469	0.0336	0.3475	1.0800e-003	0.1118	7.5000e-004	0.1126	0.0297	6.9000e-004	0.0304	0.0000	97.9439	97.9439	2.3700e-003	0.0000	98.0031
Total	**0.0469**	**0.0336**	**0.3475**	**1.0800e-003**	**0.1118**	**7.5000e-004**	**0.1126**	**0.0297**	**6.9000e-004**	**0.0304**	**0.0000**	**97.9439**	**97.9439**	**2.3700e-003**	**0.0000**	**98.0031**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.9706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0286	0.1993	0.2372	3.9000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	33.3200	33.3200	2.2900e-003	0.0000	33.3771
Total	**4.9992**	**0.1993**	**0.2372**	**3.9000e-004**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**33.3200**	**33.3200**	**2.2900e-003**	**0.0000**	**33.3771**

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	0.0433	0.0298	0.3161	1.0400e-003	0.1114	7.3000e-004	0.1121	0.0296	6.7000e-004	0.0303	0.0000	94.1465	94.1465	2.1100e-003	0.0000	94.1993
Total	**0.0433**	**0.0298**	**0.3161**	**1.0400e-003**	**0.1114**	**7.3000e-004**	**0.1121**	**0.0296**	**6.7000e-004**	**0.0303**	**0.0000**	**94.1465**	**94.1465**	**2.1100e-003**	**0.0000**	**94.1993**

3.6 Architectural Coating - 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					
Archit. Coating	4.9706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0286	0.1993	0.2372	3.9000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	33.3199	33.3199	2.2900e-003	0.0000	33.3771
Total	**4.9992**	**0.1993**	**0.2372**	**3.9000e-004**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**33.3199**	**33.3199**	**2.2900e-003**	**0.0000**	**33.3771**

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	0.0433	0.0298	0.3161	1.0400e-003	0.1114	7.3000e-004	0.1121	0.0296	6.7000e-004	0.0303	0.0000	94.1465	94.1465	2.1100e-003	0.0000	94.1993
Total	**0.0433**	**0.0298**	**0.3161**	**1.0400e-003**	**0.1114**	**7.3000e-004**	**0.1121**	**0.0296**	**6.7000e-004**	**0.0303**	**0.0000**	**94.1465**	**94.1465**	**2.1100e-003**	**0.0000**	**94.1993**

3.6 Architectural Coating - 2022

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	4.9516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
Total	**4.9782**	**0.1831**	**0.2358**	**3.9000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**33.1923**	**33.1923**	**2.1600e-003**	**0.0000**	**33.2463**

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	0.0402	0.0267	0.2894	1.0000e-003	0.1109	7.1000e-004	0.1117	0.0295	6.5000e-004	0.0302	0.0000	90.3475	90.3475	1.8900e-003	0.0000	90.3946
Total	**0.0402**	**0.0267**	**0.2894**	**1.0000e-003**	**0.1109**	**7.1000e-004**	**0.1117**	**0.0295**	**6.5000e-004**	**0.0302**	**0.0000**	**90.3475**	**90.3475**	**1.8900e-003**	**0.0000**	**90.3946**

3.6 Architectural Coating - 2022

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	4.9516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
Total	**4.9782**	**0.1831**	**0.2358**	**3.9000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**33.1923**	**33.1923**	**2.1600e-003**	**0.0000**	**33.2463**

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	0.0402	0.0267	0.2894	1.0000e-003	0.1109	7.1000e-004	0.1117	0.0295	6.5000e-004	0.0302	0.0000	90.3475	90.3475	1.8900e-003	0.0000	90.3946
Total	**0.0402**	**0.0267**	**0.2894**	**1.0000e-003**	**0.1109**	**7.1000e-004**	**0.1117**	**0.0295**	**6.5000e-004**	**0.0302**	**0.0000**	**90.3475**	**90.3475**	**1.8900e-003**	**0.0000**	**90.3946**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1904					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1914**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

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	1.4400e-003	9.2000e-004	0.0102	4.0000e-005	4.2700e-003	3.0000e-005	4.2900e-003	1.1400e-003	2.0000e-005	1.1600e-003	0.0000	3.3418	3.3418	7.0000e-005	0.0000	3.3435
Total	**1.4400e-003**	**9.2000e-004**	**0.0102**	**4.0000e-005**	**4.2700e-003**	**3.0000e-005**	**4.2900e-003**	**1.1400e-003**	**2.0000e-005**	**1.1600e-003**	**0.0000**	**3.3418**	**3.3418**	**7.0000e-005**	**0.0000**	**3.3435**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1904					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1914**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

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	1.4400e-003	9.2000e-004	0.0102	4.0000e-005	4.2700e-003	3.0000e-005	4.2900e-003	1.1400e-003	2.0000e-005	1.1600e-003	0.0000	3.3418	3.3418	7.0000e-005	0.0000	3.3435
Total	**1.4400e-003**	**9.2000e-004**	**0.0102**	**4.0000e-005**	**4.2700e-003**	**3.0000e-005**	**4.2900e-003**	**1.1400e-003**	**2.0000e-005**	**1.1600e-003**	**0.0000**	**3.3418**	**3.3418**	**7.0000e-005**	**0.0000**	**3.3435**

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	2.8557	12.6451	32.4369	0.1206	10.7911	0.0988	10.8900	2.8962	0.0923	2.9884	0.0000	11,084.4579	11,084.4579	0.3849	0.0000	11,094.0804
Unmitigated	2.8557	12.6451	32.4369	0.1206	10.7911	0.0988	10.8900	2.8962	0.0923	2.9884	0.0000	11,084.4579	11,084.4579	0.3849	0.0000	11,094.0804

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	12,555.00	12,555.00	12555.00	28,997,120	28,997,120
Total	12,555.00	12,555.00	12,555.00	28,997,120	28,997,120

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

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	2,158.4051	2,158.4051	0.1596	0.0330	2,172.2385
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,158.4051	2,158.4051	0.1596	0.0330	2,172.2385
NaturalGas Mitigated	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	2,326.5358	2,326.5358	0.0446	0.0427	2,340.3613
NaturalGas Unmitigated	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	2,326.5358	2,326.5358	0.0446	0.0427	2,340.3613

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					
Single Family Housing	4.35976e+007	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	2,326.5358	2,326.5358	0.0446	0.0427	2,340.3613
Total		**0.2351**	**2.0089**	**0.8549**	**0.0128**		**0.1624**	**0.1624**		**0.1624**	**0.1624**	**0.0000**	**2,326.5358**	**2,326.5358**	**0.0446**	**0.0427**	**2,340.3613**

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					
Single Family Housing	4.35976e+007	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	2,326.5358	2,326.5358	0.0446	0.0427	2,340.3613
Total		**0.2351**	**2.0089**	**0.8549**	**0.0128**		**0.1624**	**0.1624**		**0.1624**	**0.1624**	**0.0000**	**2,326.5358**	**2,326.5358**	**0.0446**	**0.0427**	**2,340.3613**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.21359e+007	2,158.4051	0.1596	0.0330	2,172.2385
Total		**2,158.4051**	**0.1596**	**0.0330**	**2,172.2385**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.21359e+007	2,158.4051	0.1596	0.0330	2,172.2385
Total		**2,158.4051**	**0.1596**	**0.0330**	**2,172.2385**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Annual

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	12.0056	0.2384	11.1869	1.2900e-003		0.0706	0.0706		0.0706	0.0706	0.0000	145.5293	145.5293	0.0199	2.3300e-003	146.7233
Unmitigated	21.6221	0.3222	23.9959	0.0271		1.9155	1.9155		1.9155	1.9155	190.6665	65.0079	255.6744	0.3777	0.0109	268.3659

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	1.9006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	10.5449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.8410	0.1938	12.8557	0.0265		1.8539	1.8539		1.8539	1.8539	190.6665	46.8147	237.4812	0.3603	0.0109	249.7353
Landscaping	0.3356	0.1284	11.1402	5.9000e-004		0.0617	0.0617		0.0617	0.0617	0.0000	18.1932	18.1932	0.0175	0.0000	18.6306
Total	**21.6221**	**0.3222**	**23.9959**	**0.0271**		**1.9155**	**1.9155**		**1.9155**	**1.9155**	**190.6665**	**65.0079**	**255.6744**	**0.3777**	**0.0109**	**268.3659**

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	1.9006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.7565					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0129	0.1100	0.0468	7.0000e-004		8.8900e-003	8.8900e-003		8.8900e-003	8.8900e-003	0.0000	127.3361	127.3361	2.4400e-003	2.3300e-003	128.0928
Landscaping	0.3356	0.1284	11.1402	5.9000e-004		0.0617	0.0617		0.0617	0.0617	0.0000	18.1932	18.1932	0.0175	0.0000	18.6306
Total	**12.0056**	**0.2384**	**11.1869**	**1.2900e-003**		**0.0706**	**0.0706**		**0.0706**	**0.0706**	**0.0000**	**145.5293**	**145.5293**	**0.0199**	**2.3300e-003**	**146.7233**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	163.4119	3.1944	0.0772	266.2827
Unmitigated	163.4119	3.1944	0.0772	266.2827

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	97.731 / 61.613	163.4119	3.1944	0.0772	266.2827
Total		**163.4119**	**3.1944**	**0.0772**	**266.2827**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	97.731 / 61.613	163.4119	3.1944	0.0772	266.2827
Total		**163.4119**	**3.1944**	**0.0772**	**266.2827**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	409.2298	24.1848	0.0000	1,013.8495
Unmitigated	409.2298	24.1848	0.0000	1,013.8495

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2016	409.2298	24.1848	0.0000	1,013.8495
Total		**409.2298**	**24.1848**	**0.0000**	**1,013.8495**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2016	409.2298	24.1848	0.0000	1,013.8495
Total		**409.2298**	**24.1848**	**0.0000**	**1,013.8495**

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

Faria Master Plan Construction and Operations (Unmitigated)

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,500.00	Dwelling Unit	412.00	2,700,000.00	4800

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor adjusted per PG&E progress towards RPS

Land Use - Project Info

Construction Phase - Adjusted for 5-year construction schedule

Grading - Project Info

Vehicle Trips - Trip rate from Kimley-Horn Traffic Report

Area Mitigation -

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	550.00	998.00
tblConstructionPhase	NumDays	7,750.00	998.00
tblConstructionPhase	NumDays	775.00	94.00
tblConstructionPhase	NumDays	550.00	67.00
tblConstructionPhase	NumDays	300.00	37.00
tblConstructionPhase	PhaseEndDate	5/17/2058	1/13/2023
tblConstructionPhase	PhaseEndDate	2/27/2054	12/30/2022
tblConstructionPhase	PhaseEndDate	6/14/2024	12/3/2018
tblConstructionPhase	PhaseEndDate	4/7/2056	3/6/2019
tblConstructionPhase	PhaseEndDate	6/25/2021	7/24/2018
tblConstructionPhase	PhaseStartDate	4/8/2056	3/20/2019
tblConstructionPhase	PhaseStartDate	6/15/2024	3/6/2019
tblConstructionPhase	PhaseStartDate	6/26/2021	7/25/2018
tblConstructionPhase	PhaseStartDate	2/28/2054	12/4/2018
tblConstructionPhase	PhaseStartDate	5/2/2020	6/4/2018
tblGrading	AcresOfGrading	235.00	412.00
tblLandUse	LotAcreage	487.01	412.00
tblLandUse	Population	4,290.00	4,800.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	9.91	8.37
tblVehicleTrips	SU_TR	8.62	8.37
tblVehicleTrips	WD_TR	9.52	8.37

2.0 Emissions Summary

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Summer

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					
2018	5.1744	59.5762	35.7594	0.0638	18.2141	2.6349	20.7920	9.9699	2.4241	12.3416	0.0000	6,419.1412	6,419.1412	1.9491	0.0000	6,467.8681
2019	43.8763	56.6895	53.0193	0.1379	6.3027	2.2704	7.8824	1.6940	2.1195	3.6108	0.0000	13,889.3067	13,889.3067	1.7095	0.0000	13,932.0451
2020	43.2736	39.6669	40.2073	0.1240	6.3027	1.3438	7.6465	1.6940	1.2708	2.9648	0.0000	12,464.5383	12,464.5383	0.9938	0.0000	12,489.3841
2021	42.7611	36.0423	38.0272	0.1217	6.3028	1.1190	7.4217	1.6940	1.0576	2.7515	0.0000	12,237.4072	12,237.4072	0.9587	0.0000	12,261.3746
2022	42.3760	33.1784	36.3364	0.1194	6.3028	0.9518	7.2546	1.6940	0.9001	2.5942	0.0000	12,008.5423	12,008.5423	0.9325	0.0000	12,031.8557
2023	38.5824	1.4667	4.0656	0.0109	0.8872	0.0762	0.9634	0.2353	0.0757	0.3111	0.0000	1,073.7887	1,073.7887	0.0323	0.0000	1,074.5951
Maximum	**43.8763**	**59.5762**	**53.0193**	**0.1379**	**18.2141**	**2.6349**	**20.7920**	**9.9699**	**2.4241**	**12.3416**	**0.0000**	**13,889.3067**	**13,889.3067**	**1.9491**	**0.0000**	**13,932.0451**

2.1 Overall Construction (Maximum Daily Emission)

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					
2018	5.1744	59.5762	35.7594	0.0638	18.2141	2.6349	20.7920	9.9699	2.4241	12.3416	0.0000	6,419.1412	6,419.1412	1.9491	0.0000	6,467.8681
2019	43.8763	56.6895	53.0193	0.1379	6.3027	2.2704	7.8824	1.6940	2.1195	3.6108	0.0000	13,889.3067	13,889.3067	1.7095	0.0000	13,932.0451
2020	43.2736	39.6669	40.2073	0.1240	6.3027	1.3438	7.6465	1.6940	1.2708	2.9648	0.0000	12,464.5383	12,464.5383	0.9938	0.0000	12,489.3841
2021	42.7611	36.0423	38.0272	0.1217	6.3028	1.1190	7.4217	1.6940	1.0576	2.7515	0.0000	12,237.4072	12,237.4072	0.9587	0.0000	12,261.3745
2022	42.3760	33.1784	36.3364	0.1194	6.3028	0.9518	7.2546	1.6940	0.9001	2.5942	0.0000	12,008.5423	12,008.5423	0.9325	0.0000	12,031.8557
2023	38.5824	1.4667	4.0656	0.0109	0.8872	0.0762	0.9634	0.2353	0.0757	0.3111	0.0000	1,073.7887	1,073.7887	0.0323	0.0000	1,074.5951
Maximum	**43.8763**	**59.5762**	**53.0193**	**0.1379**	**18.2141**	**2.6349**	**20.7920**	**9.9699**	**2.4241**	**12.3416**	**0.0000**	**13,889.3067**	**13,889.3067**	**1.9491**	**0.0000**	**13,932.0451**

	ROG	NOx	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	1,626.3997	31.3577	2,134.2125	3.7927		284.9704	284.9704		284.9704	284.9704	30,567.5078	9,487.5343	40,055.0422	38.0096	2.1570	41,648.0577
Energy	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Mobile	18.0518	67.3621	185.6009	0.7015	61.6004	0.5424	62.1429	16.4797	0.5065	16.9862		71,007.7469	71,007.7469	2.3459		71,066.3936
Total	**1,645.7396**	**109.7274**	**2,324.4975**	**4.5645**	**61.6004**	**286.4028**	**348.0032**	**16.4797**	**286.3668**	**302.8465**	**30,567.5078**	**94,547.7019**	**125,115.2097**	**40.6248**	**2.4146**	**126,850.3784**

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	69.9135	21.1668	132.1795	0.1325		2.2811	2.2811		2.2811	2.2811	0.0000	25,422.8285	25,422.8285	0.6973	0.4620	25,577.9364
Energy	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Mobile	18.0518	67.3621	185.6009	0.7015	61.6004	0.5424	62.1429	16.4797	0.5065	16.9862		71,007.7469	71,007.7469	2.3459		71,066.3936
Total	**89.2534**	**99.5366**	**322.4645**	**0.9043**	**61.6004**	**3.7135**	**65.3140**	**16.4797**	**3.6776**	**20.1573**	**0.0000**	**110,482.9960**	**110,482.9960**	**3.3125**	**0.7196**	**110,780.2571**

	ROG	NOx	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	94.58	9.29	86.13	80.19	0.00	98.70	81.23	0.00	98.72	93.34	100.00	-16.85	11.69	91.85	70.20	12.67

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	6/4/2018	7/24/2018	5	37	
2	Grading	Grading	7/25/2018	12/3/2018	5	94	
3	Building Construction	Building Construction	3/6/2019	12/30/2022	5	998	
4	Paving	Paving	12/4/2018	3/6/2019	5	67	
5	Architectural Coating	Architectural Coating	3/20/2019	1/13/2023	5	998	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 412

Acres of Paving: 0

Residential Indoor: 5,467,500; Residential Outdoor: 1,822,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	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
Architectural Coating	1	108.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	540.00	160.00	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
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

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	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

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	0.0758	0.0490	0.6030	1.5800e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		157.2415	157.2415	4.5900e-003		157.3563
Total	**0.0758**	**0.0490**	**0.6030**	**1.5800e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**157.2415**	**157.2415**	**4.5900e-003**		**157.3563**

3.2 Site Preparation - 2018

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

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	0.0758	0.0490	0.6030	1.5800e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		157.2415	157.2415	4.5900e-003		157.3563
Total	**0.0758**	**0.0490**	**0.6030**	**1.5800e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**157.2415**	**157.2415**	**4.5900e-003**		**157.3563**

3.3 Grading - 2018

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					10.6702	0.0000	10.6702	3.8121	0.0000	3.8121			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230		6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**10.6702**	**2.6337**	**13.3040**	**3.8121**	**2.4230**	**6.2352**		**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

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	0.0843	0.0544	0.6701	1.7500e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		174.7128	174.7128	5.1000e-003		174.8403
Total	**0.0843**	**0.0544**	**0.6701**	**1.7500e-003**	**0.1643**	**1.1100e-003**	**0.1654**	**0.0436**	**1.0200e-003**	**0.0446**		**174.7128**	**174.7128**	**5.1000e-003**		**174.8403**

3.3 Grading - 2018

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					10.6702	0.0000	10.6702	3.8121	0.0000	3.8121			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230	0.0000	6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**10.6702**	**2.6337**	**13.3040**	**3.8121**	**2.4230**	**6.2352**	**0.0000**	**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

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	0.0843	0.0544	0.6701	1.7500e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		174.7128	174.7128	5.1000e-003		174.8403
Total	**0.0843**	**0.0544**	**0.6701**	**1.7500e-003**	**0.1643**	**1.1100e-003**	**0.1654**	**0.0436**	**1.0200e-003**	**0.0446**		**174.7128**	**174.7128**	**5.1000e-003**		**174.8403**

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**

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	0.6955	19.0447	4.6414	0.0410	0.9796	0.1258	1.1053	0.2820	0.1203	0.4023		4,337.5551	4,337.5551	0.2391		4,343.5319
Worker	2.0535	1.2862	16.1019	0.0459	4.4360	0.0294	4.4654	1.1766	0.0271	1.2037		4,576.0563	4,576.0563	0.1217		4,579.0977
Total	**2.7490**	**20.3309**	**20.7434**	**0.0869**	**5.4155**	**0.1551**	**5.5707**	**1.4587**	**0.1474**	**1.6060**		**8,913.6114**	**8,913.6114**	**0.3607**		**8,922.6297**

3.4 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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	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**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.6955	19.0447	4.6414	0.0410	0.9796	0.1258	1.1053	0.2820	0.1203	0.4023		4,337.5551	4,337.5551	0.2391		4,343.5319
Worker	2.0535	1.2862	16.1019	0.0459	4.4360	0.0294	4.4654	1.1766	0.0271	1.2037		4,576.0563	4,576.0563	0.1217		4,579.0977
Total	**2.7490**	**20.3309**	**20.7434**	**0.0869**	**5.4155**	**0.1551**	**5.5707**	**1.4587**	**0.1474**	**1.6060**		**8,913.6114**	**8,913.6114**	**0.3607**		**8,922.6297**

3.4 Building 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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.5703	17.4334	4.1413	0.0407	0.9796	0.0813	1.0609	0.2820	0.0778	0.3598		4,311.3951	4,311.3951	0.2210		4,316.9207
Worker	1.8769	1.1363	14.4884	0.0445	4.4360	0.0287	4.4647	1.1766	0.0265	1.2031		4,432.1934	4,432.1934	0.1068		4,434.8634
Total	**2.4472**	**18.5697**	**18.6297**	**0.0852**	**5.4155**	**0.1100**	**5.5256**	**1.4587**	**0.1043**	**1.5629**		**8,743.5885**	**8,743.5885**	**0.3278**		**8,751.7841**

3.4 Building 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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.5703	17.4334	4.1413	0.0407	0.9796	0.0813	1.0609	0.2820	0.0778	0.3598		4,311.3951	4,311.3951	0.2210		4,316.9207
Worker	1.8769	1.1363	14.4884	0.0445	4.4360	0.0287	4.4647	1.1766	0.0265	1.2031		4,432.1934	4,432.1934	0.1068		4,434.8634
Total	**2.4472**	**18.5697**	**18.6297**	**0.0852**	**5.4155**	**0.1100**	**5.5256**	**1.4587**	**0.1043**	**1.5629**		**8,743.5885**	**8,743.5885**	**0.3278**		**8,751.7841**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

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

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	0.4687	15.8657	3.7175	0.0403	0.9796	0.0328	1.0124	0.2820	0.0313	0.3134		4,270.6976	4,270.6976	0.2087		4,275.9137
Worker	1.7363	1.0147	13.2641	0.0429	4.4360	0.0279	4.4639	1.1766	0.0257	1.2023		4,276.5814	4,276.5814	0.0956		4,278.9714
Total	**2.2050**	**16.8804**	**16.9816**	**0.0832**	**5.4156**	**0.0607**	**5.4762**	**1.4587**	**0.0570**	**1.5157**		**8,547.2790**	**8,547.2790**	**0.3043**		**8,554.8851**

3.4 Building 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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.4687	15.8657	3.7175	0.0403	0.9796	0.0328	1.0124	0.2820	0.0313	0.3134		4,270.6976	4,270.6976	0.2087		4,275.9137
Worker	1.7363	1.0147	13.2641	0.0429	4.4360	0.0279	4.4639	1.1766	0.0257	1.2023		4,276.5814	4,276.5814	0.0956		4,278.9714
Total	**2.2050**	**16.8804**	**16.9816**	**0.0832**	**5.4156**	**0.0607**	**5.4762**	**1.4587**	**0.0570**	**1.5157**		**8,547.2790**	**8,547.2790**	**0.3043**		**8,554.8851**

3.4 Building Construction - 2022

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.4369	15.0621	3.4928	0.0399	0.9796	0.0284	1.0080	0.2821	0.0271	0.3092		4,229.1987	4,229.1987	0.1993		4,234.1799
Worker	1.6161	0.9101	12.2221	0.0413	4.4360	0.0273	4.4632	1.1766	0.0251	1.2017		4,119.6350	4,119.6350	0.0859		4,121.7812
Total	**2.0530**	**15.9723**	**15.7150**	**0.0812**	**5.4156**	**0.0556**	**5.4713**	**1.4587**	**0.0523**	**1.5109**		**8,348.8337**	**8,348.8337**	**0.2851**		**8,355.9611**

3.4 Building Construction - 2022

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.4369	15.0621	3.4928	0.0399	0.9796	0.0284	1.0080	0.2821	0.0271	0.3092		4,229.1987	4,229.1987	0.1993		4,234.1799
Worker	1.6161	0.9101	12.2221	0.0413	4.4360	0.0273	4.4632	1.1766	0.0251	1.2017		4,119.6350	4,119.6350	0.0859		4,121.7812
Total	**2.0530**	**15.9723**	**15.7150**	**0.0812**	**5.4156**	**0.0556**	**5.4713**	**1.4587**	**0.0523**	**1.5109**		**8,348.8337**	**8,348.8337**	**0.2851**		**8,355.9611**

3.5 Paving - 2018

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	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6437**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**		**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

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	0.0632	0.0408	0.5025	1.3200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		131.0346	131.0346	3.8300e-003		131.1303
Total	**0.0632**	**0.0408**	**0.5025**	**1.3200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**131.0346**	**131.0346**	**3.8300e-003**		**131.1303**

3.5 Paving - 2018

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	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6437**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**	**0.0000**	**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

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	0.0632	0.0408	0.5025	1.3200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		131.0346	131.0346	3.8300e-003		131.1303
Total	**0.0632**	**0.0408**	**0.5025**	**1.3200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**131.0346**	**131.0346**	**3.8300e-003**		**131.1303**

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

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	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	**0.0570**	**0.0357**	**0.4473**	**1.2800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**127.1127**	**127.1127**	**3.3800e-003**		**127.1972**

3.5 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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	**0.0570**	**0.0357**	**0.4473**	**1.2800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**127.1127**	**127.1127**	**3.3800e-003**		**127.1972**

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	38.0890					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	**38.3554**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.4107	0.2573	3.2204	9.1900e-003	0.8872	5.8800e-003	0.8931	0.2353	5.4100e-003	0.2407		915.2113	915.2113	0.0243		915.8195
Total	**0.4107**	**0.2573**	**3.2204**	**9.1900e-003**	**0.8872**	**5.8800e-003**	**0.8931**	**0.2353**	**5.4100e-003**	**0.2407**		**915.2113**	**915.2113**	**0.0243**		**915.8195**

3.6 Architectural Coating - 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					
Archit. Coating	38.0890					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	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**38.3554**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.4107	0.2573	3.2204	9.1900e-003	0.8872	5.8800e-003	0.8931	0.2353	5.4100e-003	0.2407		915.2113	915.2113	0.0243		915.8195
Total	**0.4107**	**0.2573**	**3.2204**	**9.1900e-003**	**0.8872**	**5.8800e-003**	**0.8931**	**0.2353**	**5.4100e-003**	**0.2407**		**915.2113**	**915.2113**	**0.0243**		**915.8195**

3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**38.3312**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

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	0.3754	0.2273	2.8977	8.8900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		886.4387	886.4387	0.0214		886.9727
Total	**0.3754**	**0.2273**	**2.8977**	**8.8900e-003**	**0.8872**	**5.7400e-003**	**0.8929**	**0.2353**	**5.2900e-003**	**0.2406**		**886.4387**	**886.4387**	**0.0214**		**886.9727**

3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**38.3312**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

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	0.3754	0.2273	2.8977	8.8900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		886.4387	886.4387	0.0214		886.9727
Total	**0.3754**	**0.2273**	**2.8977**	**8.8900e-003**	**0.8872**	**5.7400e-003**	**0.8929**	**0.2353**	**5.2900e-003**	**0.2406**		**886.4387**	**886.4387**	**0.0214**		**886.9727**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**38.3079**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.3473	0.2030	2.6528	8.5800e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		855.3163	855.3163	0.0191		855.7943
Total	**0.3473**	**0.2030**	**2.6528**	**8.5800e-003**	**0.8872**	**5.5800e-003**	**0.8928**	**0.2353**	**5.1400e-003**	**0.2405**		**855.3163**	**855.3163**	**0.0191**		**855.7943**

3.6 Architectural Coating - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**38.3079**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.3473	0.2030	2.6528	8.5800e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		855.3163	855.3163	0.0191		855.7943
Total	**0.3473**	**0.2030**	**2.6528**	**8.5800e-003**	**0.8872**	**5.5800e-003**	**0.8928**	**0.2353**	**5.1400e-003**	**0.2405**		**855.3163**	**855.3163**	**0.0191**		**855.7943**

3.6 Architectural Coating - 2022

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**38.2935**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3232	0.1820	2.4444	8.2600e-003	0.8872	5.4500e-003	0.8927	0.2353	5.0200e-003	0.2404		823.9270	823.9270	0.0172		824.3562
Total	**0.3232**	**0.1820**	**2.4444**	**8.2600e-003**	**0.8872**	**5.4500e-003**	**0.8927**	**0.2353**	**5.0200e-003**	**0.2404**		**823.9270**	**823.9270**	**0.0172**		**824.3562**

3.6 Architectural Coating - 2022

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**38.2935**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3232	0.1820	2.4444	8.2600e-003	0.8872	5.4500e-003	0.8927	0.2353	5.0200e-003	0.2404		823.9270	823.9270	0.0172		824.3562
Total	**0.3232**	**0.1820**	**2.4444**	**8.2600e-003**	**0.8872**	**5.4500e-003**	**0.8927**	**0.2353**	**5.0200e-003**	**0.2404**		**823.9270**	**823.9270**	**0.0172**		**824.3562**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**38.2806**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3017	0.1637	2.2545	7.9400e-003	0.8872	5.3400e-003	0.8925	0.2353	4.9200e-003	0.2402		792.3407	792.3407	0.0154		792.7261
Total	**0.3017**	**0.1637**	**2.2545**	**7.9400e-003**	**0.8872**	**5.3400e-003**	**0.8925**	**0.2353**	**4.9200e-003**	**0.2402**		**792.3407**	**792.3407**	**0.0154**		**792.7261**

3.6 Architectural Coating - 2023

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**38.2806**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3017	0.1637	2.2545	7.9400e-003	0.8872	5.3400e-003	0.8925	0.2353	4.9200e-003	0.2402		792.3407	792.3407	0.0154		792.7261
Total	**0.3017**	**0.1637**	**2.2545**	**7.9400e-003**	**0.8872**	**5.3400e-003**	**0.8925**	**0.2353**	**4.9200e-003**	**0.2402**		**792.3407**	**792.3407**	**0.0154**		**792.7261**

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	18.0518	67.3621	185.6009	0.7015	61.6004	0.5424	62.1429	16.4797	0.5065	16.9862		71,007.7469	71,007.7469	2.3459		71,066.3936
Unmitigated	18.0518	67.3621	185.6009	0.7015	61.6004	0.5424	62.1429	16.4797	0.5065	16.9862		71,007.7469	71,007.7469	2.3459		71,066.3936

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	12,555.00	12,555.00	12555.00	28,997,120	28,997,120
Total	12,555.00	12,555.00	12,555.00	28,997,120	28,997,120

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

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	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
NaturalGas Unmitigated	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271

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					
Single Family Housing	119446	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Total		**1.2881**	**11.0077**	**4.6841**	**0.0703**		**0.8900**	**0.8900**		**0.8900**	**0.8900**		**14,052.4206**	**14,052.4206**	**0.2693**	**0.2576**	**14,135.9271**

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					
Single Family Housing	119.446	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Total		**1.2881**	**11.0077**	**4.6841**	**0.0703**		**0.8900**	**0.8900**		**0.8900**	**0.8900**		**14,052.4206**	**14,052.4206**	**0.2693**	**0.2576**	**14,135.9271**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Summer

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	69.9135	21.1668	132.1795	0.1325		2.2811	2.2811		2.2811	2.2811	0.0000	25,422.8285	25,422.8285	0.6973	0.4620	25,577.9364
Unmitigated	1,626.3997	31.3577	2,134.2125	3.7927		284.9704	284.9704		284.9704	284.9704	30,567.5078	9,487.5343	40,055.0422	38.0096	2.1570	41,648.0577

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	10.4145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	57.7800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,554.4762	29.9308	2,010.4330	3.7862		284.2853	284.2853		284.2853	284.2853	30,567.5078	9,264.7059	39,832.2137	37.7954	2.1570	41,419.8723
Landscaping	3.7290	1.4268	123.7795	6.5300e-003		0.6851	0.6851		0.6851	0.6851		222.8285	222.8285	0.2143		228.1854
Total	**1,626.3997**	**31.3577**	**2,134.2125**	**3.7927**		**284.9704**	**284.9704**		**284.9704**	**284.9704**	**30,567.5078**	**9,487.5343**	**40,055.0422**	**38.0096**	**2.1570**	**41,648.0577**

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	10.4145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	53.4600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3100	19.7400	8.4000	0.1260		1.5960	1.5960		1.5960	1.5960	0.0000	25,200.0000	25,200.0000	0.4830	0.4620	25,349.7510
Landscaping	3.7290	1.4268	123.7795	6.5300e-003		0.6851	0.6851		0.6851	0.6851		222.8285	222.8285	0.2143		228.1854
Total	**69.9135**	**21.1668**	**132.1795**	**0.1325**		**2.2811**	**2.2811**		**2.2811**	**2.2811**	**0.0000**	**25,422.8285**	**25,422.8285**	**0.6973**	**0.4620**	**25,577.9364**

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

Faria Master Plan Construction and Operations (Unmitigated)

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,500.00	Dwelling Unit	412.00	2,700,000.00	4800

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor adjusted per PG&E progress towards RPS

Land Use - Project Info

Construction Phase - Adjusted for 5-year construction schedule

Grading - Project Info

Vehicle Trips - Trip rate from Kimley-Horn Traffic Report

Area Mitigation -

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	550.00	998.00
tblConstructionPhase	NumDays	7,750.00	998.00
tblConstructionPhase	NumDays	775.00	94.00
tblConstructionPhase	NumDays	550.00	67.00
tblConstructionPhase	NumDays	300.00	37.00
tblConstructionPhase	PhaseEndDate	5/17/2058	1/13/2023
tblConstructionPhase	PhaseEndDate	2/27/2054	12/30/2022
tblConstructionPhase	PhaseEndDate	6/14/2024	12/3/2018
tblConstructionPhase	PhaseEndDate	4/7/2056	3/6/2019
tblConstructionPhase	PhaseEndDate	6/25/2021	7/24/2018
tblConstructionPhase	PhaseStartDate	4/8/2056	3/20/2019
tblConstructionPhase	PhaseStartDate	6/15/2024	3/6/2019
tblConstructionPhase	PhaseStartDate	6/26/2021	7/25/2018
tblConstructionPhase	PhaseStartDate	2/28/2054	12/4/2018
tblConstructionPhase	PhaseStartDate	5/2/2020	6/4/2018
tblGrading	AcresOfGrading	235.00	412.00
tblLandUse	LotAcreage	487.01	412.00
tblLandUse	Population	4,290.00	4,800.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	9.91	8.37
tblVehicleTrips	SU_TR	8.62	8.37
tblVehicleTrips	WD_TR	9.52	8.37

2.0 Emissions Summary

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Winter

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					
2018	5.1793	59.5890	35.7262	0.0637	18.2141	2.6349	20.7920	9.9699	2.4241	12.3416	0.0000	6,405.3857	6,405.3857	1.9488	0.0000	6,454.1058
2019	44.0525	57.2178	52.7909	0.1331	6.3027	2.2727	7.8846	1.6940	2.1216	3.6130	0.0000	13,401.7961	13,401.7961	1.7229	0.0000	13,444.8675
2020	43.4350	40.1457	39.7806	0.1187	6.3027	1.3453	7.6480	1.6940	1.2723	2.9662	0.0000	11,927.1172	11,927.1172	1.0043	0.0000	11,952.2252
2021	42.9138	36.4322	37.5883	0.1165	6.3028	1.1202	7.4230	1.6940	1.0587	2.7527	0.0000	11,715.6046	11,715.6046	0.9688	0.0000	11,739.8235
2022	42.5238	33.5179	35.8846	0.1144	6.3028	0.9530	7.2558	1.6940	0.9012	2.5952	0.0000	11,502.1831	11,502.1831	0.9421	0.0000	11,525.7358
2023	38.6023	1.5051	3.9029	0.0103	0.8872	0.0762	0.9634	0.2353	0.0757	0.3111	0.0000	1,011.3965	1,011.3965	0.0311	0.0000	1,012.1745
Maximum	**44.0525**	**59.5890**	**52.7909**	**0.1331**	**18.2141**	**2.6349**	**20.7920**	**9.9699**	**2.4241**	**12.3416**	**0.0000**	**13,401.7961**	**13,401.7961**	**1.9488**	**0.0000**	**13,444.8675**

2.1 Overall Construction (Maximum Daily Emission)

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					
2018	5.1793	59.5890	35.7262	0.0637	18.2141	2.6349	20.7920	9.9699	2.4241	12.3416	0.0000	6,405.3857	6,405.3857	1.9488	0.0000	6,454.1058
2019	44.0525	57.2178	52.7909	0.1331	6.3027	2.2727	7.8846	1.6940	2.1216	3.6130	0.0000	13,401.7961	13,401.7961	1.7229	0.0000	13,444.8674
2020	43.4350	40.1457	39.7806	0.1187	6.3027	1.3453	7.6480	1.6940	1.2723	2.9662	0.0000	11,927.1172	11,927.1172	1.0043	0.0000	11,952.2252
2021	42.9138	36.4322	37.5883	0.1165	6.3028	1.1202	7.4230	1.6940	1.0587	2.7527	0.0000	11,715.6046	11,715.6046	0.9688	0.0000	11,739.8235
2022	42.5238	33.5179	35.8846	0.1144	6.3028	0.9530	7.2558	1.6940	0.9012	2.5952	0.0000	11,502.1831	11,502.1831	0.9421	0.0000	11,525.7358
2023	38.6023	1.5051	3.9029	0.0103	0.8872	0.0762	0.9634	0.2353	0.0757	0.3111	0.0000	1,011.3965	1,011.3965	0.0311	0.0000	1,012.1745
Maximum	**44.0525**	**59.5890**	**52.7909**	**0.1331**	**18.2141**	**2.6349**	**20.7920**	**9.9699**	**2.4241**	**12.3416**	**0.0000**	**13,401.7961**	**13,401.7961**	**1.9488**	**0.0000**	**13,444.8674**

	ROG	NOx	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	1,626.3997	31.3577	2,134.2125	3.7927		284.9704	284.9704		284.9704	284.9704	30,567.5078	9,487.5343	40,055.0422	38.0096	2.1570	41,648.0577
Energy	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Mobile	15.5343	70.8177	186.4647	0.6568	61.6004	0.5450	62.1455	16.4797	0.5090	16.9887		66,502.0122	66,502.0122	2.3890		66,561.7363
Total	**1,643.2222**	**113.1831**	**2,325.3613**	**4.5198**	**61.6004**	**286.4054**	**348.0058**	**16.4797**	**286.3693**	**302.8490**	**30,567.5078**	**90,041.9672**	**120,609.4750**	**40.6679**	**2.4146**	**122,345.7211**

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	69.9135	21.1668	132.1795	0.1325		2.2811	2.2811		2.2811	2.2811	0.0000	25,422.8285	25,422.8285	0.6973	0.4620	25,577.9364
Energy	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Mobile	15.5343	70.8177	186.4647	0.6568	61.6004	0.5450	62.1455	16.4797	0.5090	16.9887		66,502.0122	66,502.0122	2.3890		66,561.7363
Total	**86.7360**	**102.9923**	**323.3283**	**0.8596**	**61.6004**	**3.7161**	**65.3166**	**16.4797**	**3.6801**	**20.1598**	**0.0000**	**105,977.2613**	**105,977.2613**	**3.3556**	**0.7196**	**106,275.5998**

	ROG	NOx	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	94.72	9.00	86.10	80.98	0.00	98.70	81.23	0.00	98.71	93.34	100.00	-17.70	12.13	91.75	70.20	13.14

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	6/4/2018	7/24/2018	5	37	
2	Grading	Grading	7/25/2018	12/3/2018	5	94	
3	Building Construction	Building Construction	3/6/2019	12/30/2022	5	998	
4	Paving	Paving	12/4/2018	3/6/2019	5	67	
5	Architectural Coating	Architectural Coating	3/20/2019	1/13/2023	5	998	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 412

Acres of Paving: 0

Residential Indoor: 5,467,500; Residential Outdoor: 1,822,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Faria Master Plan Construction and Operations (Unmitigated) - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	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
Architectural Coating	1	108.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	540.00	160.00	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
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

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	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0605	0.5731	1.4600e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		144.8616	144.8616	4.3400e-003		144.9702
Total	**0.0802**	**0.0605**	**0.5731**	**1.4600e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**144.8616**	**144.8616**	**4.3400e-003**		**144.9702**

3.2 Site Preparation - 2018

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0605	0.5731	1.4600e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		144.8616	144.8616	4.3400e-003		144.9702
Total	**0.0802**	**0.0605**	**0.5731**	**1.4600e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**144.8616**	**144.8616**	**4.3400e-003**		**144.9702**

3.3 Grading - 2018

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					10.6702	0.0000	10.6702	3.8121	0.0000	3.8121			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230		6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**10.6702**	**2.6337**	**13.3040**	**3.8121**	**2.4230**	**6.2352**		**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

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	0.0891	0.0672	0.6368	1.6200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		160.9573	160.9573	4.8300e-003		161.0780
Total	**0.0891**	**0.0672**	**0.6368**	**1.6200e-003**	**0.1643**	**1.1100e-003**	**0.1654**	**0.0436**	**1.0200e-003**	**0.0446**		**160.9573**	**160.9573**	**4.8300e-003**		**161.0780**

3.3 Grading - 2018

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					10.6702	0.0000	10.6702	3.8121	0.0000	3.8121			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230	0.0000	6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**10.6702**	**2.6337**	**13.3040**	**3.8121**	**2.4230**	**6.2352**	**0.0000**	**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

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	0.0891	0.0672	0.6368	1.6200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		160.9573	160.9573	4.8300e-003		161.0780
Total	**0.0891**	**0.0672**	**0.6368**	**1.6200e-003**	**0.1643**	**1.1100e-003**	**0.1654**	**0.0436**	**1.0200e-003**	**0.0446**		**160.9573**	**160.9573**	**4.8300e-003**		**161.0780**

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**

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	0.7308	19.2609	5.3366	0.0399	0.9796	0.1280	1.1076	0.2820	0.1225	0.4045		4,220.7063	4,220.7063	0.2598		4,227.2005
Worker	2.1710	1.5900	15.2034	0.0423	4.4360	0.0294	4.4654	1.1766	0.0271	1.2037		4,215.4124	4,215.4124	0.1145		4,218.2744
Total	**2.9018**	**20.8508**	**20.5400**	**0.0822**	**5.4155**	**0.1574**	**5.5729**	**1.4587**	**0.1495**	**1.6082**		**8,436.1187**	**8,436.1187**	**0.3743**		**8,445.4749**

3.4 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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	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**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.7308	19.2609	5.3366	0.0399	0.9796	0.1280	1.1076	0.2820	0.1225	0.4045		4,220.7063	4,220.7063	0.2598		4,227.2005
Worker	2.1710	1.5900	15.2034	0.0423	4.4360	0.0294	4.4654	1.1766	0.0271	1.2037		4,215.4124	4,215.4124	0.1145		4,218.2744
Total	**2.9018**	**20.8508**	**20.5400**	**0.0822**	**5.4155**	**0.1574**	**5.5729**	**1.4587**	**0.1495**	**1.6082**		**8,436.1187**	**8,436.1187**	**0.3743**		**8,445.4749**

3.4 Building 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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.6017	17.5911	4.7719	0.0396	0.9796	0.0828	1.0624	0.2820	0.0792	0.3613		4,193.3022	4,193.3022	0.2398		4,199.2983
Worker	1.9853	1.4040	13.6074	0.0410	4.4360	0.0287	4.4647	1.1766	0.0265	1.2031		4,082.7532	4,082.7532	0.0999		4,085.2497
Total	**2.5869**	**18.9951**	**18.3792**	**0.0806**	**5.4155**	**0.1116**	**5.5271**	**1.4587**	**0.1057**	**1.5644**		**8,276.0554**	**8,276.0554**	**0.3397**		**8,284.5480**

3.4 Building 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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.6017	17.5911	4.7719	0.0396	0.9796	0.0828	1.0624	0.2820	0.0792	0.3613		4,193.3022	4,193.3022	0.2398		4,199.2983
Worker	1.9853	1.4040	13.6074	0.0410	4.4360	0.0287	4.4647	1.1766	0.0265	1.2031		4,082.7532	4,082.7532	0.0999		4,085.2497
Total	**2.5869**	**18.9951**	**18.3792**	**0.0806**	**5.4155**	**0.1116**	**5.5271**	**1.4587**	**0.1057**	**1.5644**		**8,276.0554**	**8,276.0554**	**0.3397**		**8,284.5480**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

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

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	0.4978	15.9692	4.3038	0.0392	0.9796	0.0340	1.0136	0.2820	0.0325	0.3146		4,153.3953	4,153.3953	0.2265		4,159.0567
Worker	1.8394	1.2534	12.4098	0.0395	4.4360	0.0279	4.4639	1.1766	0.0257	1.2023		3,939.4979	3,939.4979	0.0891		3,941.7264
Total	**2.3372**	**17.2226**	**16.7136**	**0.0787**	**5.4156**	**0.0619**	**5.4775**	**1.4587**	**0.0582**	**1.5169**		**8,092.8931**	**8,092.8931**	**0.3156**		**8,100.7831**

3.4 Building 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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.4978	15.9692	4.3038	0.0392	0.9796	0.0340	1.0136	0.2820	0.0325	0.3146		4,153.3953	4,153.3953	0.2265		4,159.0567
Worker	1.8394	1.2534	12.4098	0.0395	4.4360	0.0279	4.4639	1.1766	0.0257	1.2023		3,939.4979	3,939.4979	0.0891		3,941.7264
Total	**2.3372**	**17.2226**	**16.7136**	**0.0787**	**5.4156**	**0.0619**	**5.4775**	**1.4587**	**0.0582**	**1.5169**		**8,092.8931**	**8,092.8931**	**0.3156**		**8,100.7831**

3.4 Building Construction - 2022

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.4639	15.1452	4.0421	0.0388	0.9796	0.0295	1.0092	0.2821	0.0282	0.3103		4,112.3091	4,112.3091	0.2161		4,117.7108
Worker	1.7168	1.1238	11.3879	0.0381	4.4360	0.0273	4.4632	1.1766	0.0251	1.2017		3,795.0769	3,795.0769	0.0798		3,797.0722
Total	**2.1807**	**16.2690**	**15.4300**	**0.0769**	**5.4156**	**0.0568**	**5.4724**	**1.4587**	**0.0533**	**1.5120**		**7,907.3860**	**7,907.3860**	**0.2959**		**7,914.7830**

3.4 Building Construction - 2022

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.4639	15.1452	4.0421	0.0388	0.9796	0.0295	1.0092	0.2821	0.0282	0.3103		4,112.3091	4,112.3091	0.2161		4,117.7108
Worker	1.7168	1.1238	11.3879	0.0381	4.4360	0.0273	4.4632	1.1766	0.0251	1.2017		3,795.0769	3,795.0769	0.0798		3,797.0722
Total	**2.1807**	**16.2690**	**15.4300**	**0.0769**	**5.4156**	**0.0568**	**5.4724**	**1.4587**	**0.0533**	**1.5120**		**7,907.3860**	**7,907.3860**	**0.2959**		**7,914.7830**

3.5 Paving - 2018

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	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6437**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**		**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

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	0.0669	0.0504	0.4776	1.2100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		120.7180	120.7180	3.6200e-003		120.8085
Total	**0.0669**	**0.0504**	**0.4776**	**1.2100e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**120.7180**	**120.7180**	**3.6200e-003**		**120.8085**

3.5 Paving - 2018

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	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6437**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**	**0.0000**	**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

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	0.0669	0.0504	0.4776	1.2100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		120.7180	120.7180	3.6200e-003		120.8085
Total	**0.0669**	**0.0504**	**0.4776**	**1.2100e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**120.7180**	**120.7180**	**3.6200e-003**		**120.8085**

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

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	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	**0.0603**	**0.0442**	**0.4223**	**1.1800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**117.0948**	**117.0948**	**3.1800e-003**		**117.1743**

3.5 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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	**0.0603**	**0.0442**	**0.4223**	**1.1800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**117.0948**	**117.0948**	**3.1800e-003**		**117.1743**

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	38.0890					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	**38.3554**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.4342	0.3180	3.0407	8.4600e-003	0.8872	5.8800e-003	0.8931	0.2353	5.4100e-003	0.2407		843.0825	843.0825	0.0229		843.6549
Total	**0.4342**	**0.3180**	**3.0407**	**8.4600e-003**	**0.8872**	**5.8800e-003**	**0.8931**	**0.2353**	**5.4100e-003**	**0.2407**		**843.0825**	**843.0825**	**0.0229**		**843.6549**

3.6 Architectural Coating - 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					
Archit. Coating	38.0890					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	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**38.3554**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.4342	0.3180	3.0407	8.4600e-003	0.8872	5.8800e-003	0.8931	0.2353	5.4100e-003	0.2407		843.0825	843.0825	0.0229		843.6549
Total	**0.4342**	**0.3180**	**3.0407**	**8.4600e-003**	**0.8872**	**5.8800e-003**	**0.8931**	**0.2353**	**5.4100e-003**	**0.2407**		**843.0825**	**843.0825**	**0.0229**		**843.6549**

3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**38.3312**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

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	0.3971	0.2808	2.7215	8.1900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		816.5506	816.5506	0.0200		817.0499
Total	**0.3971**	**0.2808**	**2.7215**	**8.1900e-003**	**0.8872**	**5.7400e-003**	**0.8929**	**0.2353**	**5.2900e-003**	**0.2406**		**816.5506**	**816.5506**	**0.0200**		**817.0499**

3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**38.3312**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

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	0.3971	0.2808	2.7215	8.1900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		816.5506	816.5506	0.0200		817.0499
Total	**0.3971**	**0.2808**	**2.7215**	**8.1900e-003**	**0.8872**	**5.7400e-003**	**0.8929**	**0.2353**	**5.2900e-003**	**0.2406**		**816.5506**	**816.5506**	**0.0200**		**817.0499**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**38.3079**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.3679	0.2507	2.4820	7.9000e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		787.8996	787.8996	0.0178		788.3453
Total	**0.3679**	**0.2507**	**2.4820**	**7.9000e-003**	**0.8872**	**5.5800e-003**	**0.8928**	**0.2353**	**5.1400e-003**	**0.2405**		**787.8996**	**787.8996**	**0.0178**		**788.3453**

3.6 Architectural Coating - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**38.3079**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.3679	0.2507	2.4820	7.9000e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		787.8996	787.8996	0.0178		788.3453
Total	**0.3679**	**0.2507**	**2.4820**	**7.9000e-003**	**0.8872**	**5.5800e-003**	**0.8928**	**0.2353**	**5.1400e-003**	**0.2405**		**787.8996**	**787.8996**	**0.0178**		**788.3453**

3.6 Architectural Coating - 2022

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**38.2935**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3434	0.2248	2.2776	7.6100e-003	0.8872	5.4500e-003	0.8927	0.2353	5.0200e-003	0.2404		759.0154	759.0154	0.0160		759.4144
Total	**0.3434**	**0.2248**	**2.2776**	**7.6100e-003**	**0.8872**	**5.4500e-003**	**0.8927**	**0.2353**	**5.0200e-003**	**0.2404**		**759.0154**	**759.0154**	**0.0160**		**759.4144**

3.6 Architectural Coating - 2022

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**38.2935**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3434	0.2248	2.2776	7.6100e-003	0.8872	5.4500e-003	0.8927	0.2353	5.0200e-003	0.2404		759.0154	759.0154	0.0160		759.4144
Total	**0.3434**	**0.2248**	**2.2776**	**7.6100e-003**	**0.8872**	**5.4500e-003**	**0.8927**	**0.2353**	**5.0200e-003**	**0.2404**		**759.0154**	**759.0154**	**0.0160**		**759.4144**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**38.2806**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3216	0.2021	2.0918	7.3200e-003	0.8872	5.3400e-003	0.8925	0.2353	4.9200e-003	0.2402		729.9484	729.9484	0.0143		730.3055
Total	**0.3216**	**0.2021**	**2.0918**	**7.3200e-003**	**0.8872**	**5.3400e-003**	**0.8925**	**0.2353**	**4.9200e-003**	**0.2402**		**729.9484**	**729.9484**	**0.0143**		**730.3055**

3.6 Architectural Coating - 2023

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**38.2806**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3216	0.2021	2.0918	7.3200e-003	0.8872	5.3400e-003	0.8925	0.2353	4.9200e-003	0.2402		729.9484	729.9484	0.0143		730.3055
Total	**0.3216**	**0.2021**	**2.0918**	**7.3200e-003**	**0.8872**	**5.3400e-003**	**0.8925**	**0.2353**	**4.9200e-003**	**0.2402**		**729.9484**	**729.9484**	**0.0143**		**730.3055**

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	15.5343	70.8177	186.4647	0.6568	61.6004	0.5450	62.1455	16.4797	0.5090	16.9887		66,502.0122	66,502.0122	2.3890		66,561.7363
Unmitigated	15.5343	70.8177	186.4647	0.6568	61.6004	0.5450	62.1455	16.4797	0.5090	16.9887		66,502.0122	66,502.0122	2.3890		66,561.7363

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	12,555.00	12,555.00	12555.00	28,997,120	28,997,120
Total	12,555.00	12,555.00	12,555.00	28,997,120	28,997,120

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

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	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
NaturalGas Unmitigated	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271

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					
Single Family Housing	119446	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Total		**1.2881**	**11.0077**	**4.6841**	**0.0703**		**0.8900**	**0.8900**		**0.8900**	**0.8900**		**14,052.4206**	**14,052.4206**	**0.2693**	**0.2576**	**14,135.9271**

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					
Single Family Housing	119.446	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Total		**1.2881**	**11.0077**	**4.6841**	**0.0703**		**0.8900**	**0.8900**		**0.8900**	**0.8900**		**14,052.4206**	**14,052.4206**	**0.2693**	**0.2576**	**14,135.9271**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	69.9135	21.1668	132.1795	0.1325		2.2811	2.2811		2.2811	2.2811	0.0000	25,422.8285	25,422.8285	0.6973	0.4620	25,577.9364
Unmitigated	1,626.3997	31.3577	2,134.2125	3.7927		284.9704	284.9704		284.9704	284.9704	30,567.5078	9,487.5343	40,055.0422	38.0096	2.1570	41,648.0577

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	10.4145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	57.7800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,554.4762	29.9308	2,010.4330	3.7862		284.2853	284.2853		284.2853	284.2853	30,567.5078	9,264.7059	39,832.2137	37.7954	2.1570	41,419.8723
Landscaping	3.7290	1.4268	123.7795	6.5300e-003		0.6851	0.6851		0.6851	0.6851		222.8285	222.8285	0.2143		228.1854
Total	**1,626.3997**	**31.3577**	**2,134.2125**	**3.7927**		**284.9704**	**284.9704**		**284.9704**	**284.9704**	**30,567.5078**	**9,487.5343**	**40,055.0422**	**38.0096**	**2.1570**	**41,648.0577**

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	10.4145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	53.4600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3100	19.7400	8.4000	0.1260		1.5960	1.5960		1.5960	1.5960	0.0000	25,200.0000	25,200.0000	0.4830	0.4620	25,349.7510
Landscaping	3.7290	1.4268	123.7795	6.5300e-003		0.6851	0.6851		0.6851	0.6851		222.8285	222.8285	0.2143		228.1854
Total	**69.9135**	**21.1668**	**132.1795**	**0.1325**		**2.2811**	**2.2811**		**2.2811**	**2.2811**	**0.0000**	**25,422.8285**	**25,422.8285**	**0.6973**	**0.4620**	**25,577.9364**

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

Faria Master Plan Construction and Operations (Unmitigated)

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	2	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	1.15150E-001	7.97580E-001	9.10670E-001	1.48000E-003	5.09900E-002	5.09900E-002	0.00000E+000	1.27407E+002	1.27407E+002	9.32000E-003	0.00000E+000	1.27640E+002
Cranes	1.88960E-001	2.21273E+000	8.99830E-001	2.52000E-003	9.16700E-002	8.43400E-002	0.00000E+000	2.22395E+002	2.22395E+002	7.15800E-002	0.00000E+000	2.24185E+002
Excavators	2.71800E-002	2.91010E-001	3.07910E-001	4.90000E-004	1.41100E-002	1.29800E-002	0.00000E+000	4.43078E+001	4.43078E+001	1.37900E-002	0.00000E+000	4.46527E+001
Forklifts	2.03120E-001	1.84359E+000	1.75614E+000	2.29000E-003	1.33690E-001	1.23000E-001	0.00000E+000	2.01997E+002	2.01997E+002	6.50200E-002	0.00000E+000	2.03622E+002
Generator Sets	1.89550E-001	1.65568E+000	1.84439E+000	3.28000E-003	9.09700E-002	9.09700E-002	0.00000E+000	2.82039E+002	2.82039E+002	1.52700E-002	0.00000E+000	2.82420E+002
Graders	2.44300E-002	3.34990E-001	8.99900E-002	3.10000E-004	1.08900E-002	1.00200E-002	0.00000E+000	2.85645E+001	2.85645E+001	8.89000E-003	0.00000E+000	2.87868E+001
Pavers	2.00500E-002	2.19030E-001	1.94910E-001	3.20000E-004	1.07200E-002	9.86000E-003	0.00000E+000	2.84321E+001	2.84321E+001	8.95000E-003	0.00000E+000	2.86559E+001
Paving Equipment	1.47600E-002	1.59230E-001	1.69330E-001	2.70000E-004	7.86000E-003	7.24000E-003	0.00000E+000	2.46356E+001	2.46356E+001	7.76000E-003	0.00000E+000	2.48295E+001
Rollers	1.58100E-002	1.55190E-001	1.28350E-001	1.80000E-004	1.03600E-002	9.53000E-003	0.00000E+000	1.58606E+001	1.58606E+001	4.99000E-003	0.00000E+000	1.59854E+001
Rubber Tired Dozers	1.19520E-001	1.28740E+000	4.48590E-001	8.70000E-004	6.25800E-002	5.75800E-002	0.00000E+000	7.99845E+001	7.99845E+001	2.49000E-002	0.00000E+000	8.06070E+001
Scrapers	1.07810E-001	1.33401E+000	8.25950E-001	1.42000E-003	5.25700E-002	4.83700E-002	0.00000E+000	1.30028E+002	1.30028E+002	4.04800E-002	0.00000E+000	1.31040E+002
Tractors/Loaders/ Backhoes	3.02800E-001	3.04652E+000	3.36426E+000	4.59000E-003	1.90150E-001	1.74940E-001	0.00000E+000	4.06993E+002	4.06993E+002	1.30500E-001	0.00000E+000	4.10255E+002
Welders	1.61690E-001	7.67540E-001	8.70510E-001	1.28000E-003	4.00700E-002	4.00700E-002	0.00000E+000	9.39221E+001	9.39221E+001	1.31500E-002	0.00000E+000	9.42509E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	1.15150E-001	7.97580E-001	9.10660E-001	1.48000E-003	5.09900E-002	5.09900E-002	0.00000E+000	1.27407E+002	1.27407E+002	9.32000E-003	0.00000E+000	1.27640E+002
Cranes	1.88960E-001	2.21273E+000	8.99830E-001	2.52000E-003	9.16700E-002	8.43400E-002	0.00000E+000	2.22395E+002	2.22395E+002	7.15800E-002	0.00000E+000	2.24185E+002
Excavators	2.71800E-002	2.91010E-001	3.07910E-001	4.90000E-004	1.41100E-002	1.29800E-002	0.00000E+000	4.43078E+001	4.43078E+001	1.37900E-002	0.00000E+000	4.46526E+001
Forklifts	2.03110E-001	1.84358E+000	1.75614E+000	2.29000E-003	1.33690E-001	1.23000E-001	0.00000E+000	2.01996E+002	2.01996E+002	6.50200E-002	0.00000E+000	2.03622E+002
Generator Sets	1.89550E-001	1.65568E+000	1.84438E+000	3.28000E-003	9.09700E-002	9.09700E-002	0.00000E+000	2.82038E+002	2.82038E+002	1.52700E-002	0.00000E+000	2.82420E+002
Graders	2.44300E-002	3.34990E-001	8.99900E-002	3.10000E-004	1.08900E-002	1.00200E-002	0.00000E+000	2.85645E+001	2.85645E+001	8.89000E-003	0.00000E+000	2.87868E+001
Pavers	2.00500E-002	2.19030E-001	1.94910E-001	3.20000E-004	1.07200E-002	9.86000E-003	0.00000E+000	2.84321E+001	2.84321E+001	8.95000E-003	0.00000E+000	2.86559E+001
Paving Equipment	1.47600E-002	1.59230E-001	1.69330E-001	2.70000E-004	7.86000E-003	7.24000E-003	0.00000E+000	2.46356E+001	2.46356E+001	7.76000E-003	0.00000E+000	2.48295E+001
Rollers	1.58100E-002	1.55190E-001	1.28350E-001	1.80000E-004	1.03600E-002	9.53000E-003	0.00000E+000	1.58605E+001	1.58605E+001	4.99000E-003	0.00000E+000	1.59854E+001
Rubber Tired Dozers	1.19520E-001	1.28739E+000	4.48590E-001	8.70000E-004	6.25800E-002	5.75800E-002	0.00000E+000	7.99844E+001	7.99844E+001	2.49000E-002	0.00000E+000	8.06069E+001
Scrapers	1.07810E-001	1.33400E+000	8.25950E-001	1.42000E-003	5.25700E-002	4.83700E-002	0.00000E+000	1.30028E+002	1.30028E+002	4.04800E-002	0.00000E+000	1.31040E+002
Tractors/Loaders/Backhoes	3.02800E-001	3.04652E+000	3.36425E+000	4.59000E-003	1.90150E-001	1.74940E-001	0.00000E+000	4.06992E+002	4.06992E+002	1.30500E-001	0.00000E+000	4.10255E+002
Welders	1.61690E-001	7.67540E-001	8.70510E-001	1.28000E-003	4.00700E-002	4.00700E-002	0.00000E+000	9.39220E+001	9.39220E+001	1.31500E-002	0.00000E+000	9.42508E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	1.09809E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17733E-006	1.17733E-006	0.00000E+000	0.00000E+000	1.25352E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16909E-006	1.16909E-006	0.00000E+000	0.00000E+000	1.15976E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.35416E-006	1.35416E-006	0.00000E+000	0.00000E+000	1.34371E-006
Forklifts	4.92320E-005	5.42420E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18814E-006	1.18814E-006	0.00000E+000	0.00000E+000	1.22777E-006
Generator Sets	0.00000E+000	0.00000E+000	5.42185E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20551E-006	1.20551E-006	0.00000E+000	0.00000E+000	1.16847E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.05026E-006	1.05026E-006	0.00000E+000	0.00000E+000	1.04214E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.05514E-006	1.05514E-006	0.00000E+000	0.00000E+000	1.04690E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21775E-006	1.21775E-006	0.00000E+000	0.00000E+000	8.05493E-007
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.26099E-006	1.26099E-006	0.00000E+000	0.00000E+000	1.25114E-006
Rubber Tired Dozers	0.00000E+000	7.76759E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.12522E-006	1.12522E-006	0.00000E+000	0.00000E+000	1.24059E-006
Scrapers	0.00000E+000	7.49620E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15360E-006	1.15360E-006	0.00000E+000	0.00000E+000	1.22100E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	2.97242E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17938E-006	1.17938E-006	0.00000E+000	0.00000E+000	1.19438E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17118E-006	1.17118E-006	0.00000E+000	0.00000E+000	1.16710E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)			
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.43	0.11	0.43	0.11	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	2.60	0.70	2.60	0.70	0.00	0.00
Grading	Fugitive Dust	0.50	0.18	0.50	0.18	0.00	0.00
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.33	0.18	0.33	0.18	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	7.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	99.85	43.25	99.64	97.36	99.52	99.52	100.00	-172.00	46.38	99.32	78.62	48.71
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
Yes	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Faria Master Plan Construction and Operations (mitigated)

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,500.00	Dwelling Unit	412.00	2,700,000.00	4800

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor adjusted per PG&E progress towards RPS

Land Use - Project Info

Construction Phase - Adjusted for 5-year construction schedule

Grading - Project Info

Vehicle Trips - Trip rate from Kimley-Horn Traffic Report

Area Mitigation -

Construction Off-road Equipment Mitigation - Tier 4 Engine Mitigation

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	550.00	998.00
tblConstructionPhase	NumDays	7,750.00	998.00

tblConstructionPhase	NumDays	775.00	94.00
tblConstructionPhase	NumDays	550.00	67.00
tblConstructionPhase	NumDays	300.00	37.00
tblConstructionPhase	PhaseEndDate	5/17/2058	1/13/2023
tblConstructionPhase	PhaseEndDate	2/27/2054	12/30/2022
tblConstructionPhase	PhaseEndDate	6/14/2024	12/3/2018
tblConstructionPhase	PhaseEndDate	4/7/2056	3/6/2019
tblConstructionPhase	PhaseEndDate	6/25/2021	7/24/2018
tblConstructionPhase	PhaseStartDate	4/8/2056	3/20/2019
tblConstructionPhase	PhaseStartDate	6/15/2024	3/6/2019
tblConstructionPhase	PhaseStartDate	6/26/2021	7/25/2018
tblConstructionPhase	PhaseStartDate	2/28/2054	12/4/2018
tblConstructionPhase	PhaseStartDate	5/2/2020	6/4/2018
tblGrading	AcresOfGrading	235.00	412.00
tblLandUse	LotAcreage	487.01	412.00
tblLandUse	Population	4,290.00	4,800.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	9.91	8.37
tblVehicleTrips	SU_TR	8.62	8.37
tblVehicleTrips	WD_TR	9.52	8.37

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					
2018	0.3458	3.8688	2.2569	3.9600e-003	0.8470	0.1811	1.0281	0.3659	0.1666	0.5325	0.0000	361.8512	361.8512	0.1097	0.0000	364.5936
2019	4.5476	5.0721	4.8146	0.0136	0.6510	0.1886	0.8396	0.1756	0.1779	0.3535	0.0000	1,241.8135	1,241.8135	0.1165	0.0000	1,244.7265
2020	5.6568	5.2445	5.1131	0.0157	0.7951	0.1761	0.9712	0.2144	0.1666	0.3810	0.0000	1,430.9938	1,430.9938	0.1181	0.0000	1,433.9462
2021	5.5695	4.7433	4.8179	0.0154	0.7921	0.1461	0.9382	0.2136	0.1381	0.3517	0.0000	1,400.2478	1,400.2478	0.1135	0.0000	1,403.0857
2022	5.4992	4.3483	4.5869	0.0150	0.7890	0.1238	0.9128	0.2128	0.1171	0.3299	0.0000	1,369.4936	1,369.4936	0.1100	0.0000	1,372.2441
2023	0.1929	7.4400e-003	0.0193	5.0000e-005	4.2700e-003	3.8000e-004	4.6500e-003	1.1400e-003	3.8000e-004	1.5100e-003	0.0000	4.6185	4.6185	1.4000e-004	0.0000	4.6220
Maximum	**5.6568**	**5.2445**	**5.1131**	**0.0157**	**0.8470**	**0.1886**	**1.0281**	**0.3659**	**0.1779**	**0.5325**	**0.0000**	**1,430.9938**	**1,430.9938**	**0.1181**	**0.0000**	**1,433.9462**

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2.1 Overall Construction

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					
2018	0.0529	0.2089	2.1540	3.9600e-003	0.8470	6.3700e-003	0.8533	0.3659	6.3700e-003	0.3723	0.0000	361.8508	361.8508	0.1097	0.0000	364.5931
2019	4.2771	2.5418	4.9074	0.0136	0.6510	0.0231	0.6740	0.1756	0.0222	0.1977	0.0000	1,241.8131	1,241.8131	0.1165	0.0000	1,244.7261
2020	5.3942	2.8202	5.1933	0.0157	0.7951	0.0211	0.8162	0.2144	0.0203	0.2347	0.0000	1,430.9934	1,430.9934	0.1181	0.0000	1,433.9458
2021	5.3395	2.5776	4.9353	0.0154	0.7921	0.0146	0.8066	0.2136	0.0140	0.2276	0.0000	1,400.2474	1,400.2474	0.1135	0.0000	1,403.0853
2022	5.2972	2.4424	4.7319	0.0150	0.7890	0.0138	0.8028	0.2128	0.0133	0.2261	0.0000	1,369.4932	1,369.4932	0.1100	0.0000	1,372.2437
2023	0.1920	1.5700e-003	0.0194	5.0000e-005	4.2700e-003	5.0000e-005	4.3100e-003	1.1400e-003	4.0000e-005	1.1800e-003	0.0000	4.6185	4.6185	1.4000e-004	0.0000	4.6220
Maximum	**5.3942**	**2.8202**	**5.1933**	**0.0157**	**0.8470**	**0.0231**	**0.8533**	**0.3659**	**0.0222**	**0.3723**	**0.0000**	**1,430.9934**	**1,430.9934**	**0.1181**	**0.0000**	**1,433.9458**

	ROG	NOx	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	**5.77**	**54.51**	**-1.54**	**0.00**	**0.00**	**90.32**	**15.70**	**0.00**	**90.06**	**35.40**	**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	**6-4-2018**	**9-3-2018**	1.9114	0.1090
2	**9-4-2018**	**12-3-2018**	2.1048	0.1369
3	**12-4-2018**	**3-3-2019**	0.5649	0.0516
4	**3-4-2019**	**6-3-2019**	2.6289	1.8888
5	**6-4-2019**	**9-3-2019**	2.8710	2.1212

6	**9-4-2019**	**12-3-2019**	2.8571	2.1154
7	**12-4-2019**	**3-3-2020**	2.7619	2.0722
8	**3-4-2020**	**6-3-2020**	2.7316	2.0577
9	**6-4-2020**	**9-3-2020**	2.7252	2.0513
10	**9-4-2020**	**12-3-2020**	2.7102	2.0436
11	**12-4-2020**	**3-3-2021**	2.5928	1.9812
12	**3-4-2021**	**6-3-2021**	2.5947	1.9915
13	**6-4-2021**	**9-3-2021**	2.5893	1.9861
14	**9-4-2021**	**12-3-2021**	2.5735	1.9769
15	**12-4-2021**	**3-3-2022**	2.4772	1.9346
16	**3-4-2022**	**6-3-2022**	2.4874	1.9546
17	**6-4-2022**	**9-3-2022**	2.4825	1.9498
18	**9-4-2022**	**12-3-2022**	2.4667	1.9397
19	**12-4-2022**	**3-3-2023**	0.9339	0.7708
		Highest	2.8710	2.1212

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	21.6221	0.3222	23.9959	0.0271		1.9155	1.9155		1.9155	1.9155	190.6665	65.0079	255.6744	0.3777	0.0109	268.3659
Energy	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	4,484.9410	4,484.9410	0.2042	0.0757	4,512.5998
Mobile	2.8557	12.6451	32.4369	0.1206	10.7911	0.0988	10.8900	2.8962	0.0923	2.9884	0.0000	11,084.4579	11,084.4579	0.3849	0.0000	11,094.0804
Waste						0.0000	0.0000		0.0000	0.0000	409.2298	0.0000	409.2298	24.1848	0.0000	1,013.8495
Water						0.0000	0.0000		0.0000	0.0000	31.0056	132.4064	163.4119	3.1944	0.0772	266.2827
Total	**24.7128**	**14.9762**	**57.2877**	**0.1606**	**10.7911**	**2.1768**	**12.9679**	**2.8962**	**2.1702**	**5.0664**	**630.9018**	**15,766.8132**	**16,397.7150**	**28.3460**	**0.1638**	**17,155.1782**

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	12.0056	0.2384	11.1869	1.2900e-003		0.0706	0.0706		0.0706	0.0706	0.0000	145.5293	145.5293	0.0199	2.3300e-003	146.7233
Energy	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	4,484.9410	4,484.9410	0.2042	0.0757	4,512.5998
Mobile	2.8557	12.6451	32.4369	0.1206	10.7911	0.0988	10.8900	2.8962	0.0923	2.9884	0.0000	11,084.4579	11,084.4579	0.3849	0.0000	11,094.0804
Waste						0.0000	0.0000		0.0000	0.0000	409.2298	0.0000	409.2298	24.1848	0.0000	1,013.8495
Water						0.0000	0.0000		0.0000	0.0000	31.0056	132.4064	163.4119	3.1944	0.0772	266.2827
Total	**15.0963**	**14.8924**	**44.4787**	**0.1348**	**10.7911**	**0.3318**	**11.1229**	**2.8962**	**0.3252**	**3.2214**	**440.2353**	**15,847.3345**	**16,287.5698**	**27.9882**	**0.1552**	**17,033.5356**

	ROG	NOx	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	**38.91**	**0.56**	**22.36**	**16.07**	**0.00**	**84.76**	**14.23**	**0.00**	**85.01**	**36.42**	**30.22**	**-0.51**	**0.67**	**1.26**	**5.23**	**0.71**

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	6/4/2018	7/24/2018	5	37	
2	Grading	Grading	7/25/2018	12/3/2018	5	94	
3	Building Construction	Building Construction	3/6/2019	12/30/2022	5	998	
4	Paving	Paving	12/4/2018	3/6/2019	5	67	
5	Architectural Coating	Architectural Coating	3/20/2019	1/13/2023	5	998	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 412

Acres of Paving: 0

Residential Indoor: 5,467,500; Residential Outdoor: 1,822,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	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
Architectural Coating	1	108.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	540.00	160.00	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
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	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

3.2 Site Preparation - 2018

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					0.3342	0.0000	0.3342	0.1837	0.0000	0.1837	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0844	0.8917	0.4158	7.0000e-004		0.0477	0.0477		0.0439	0.0439	0.0000	64.3058	64.3058	0.0200	0.0000	64.8063
Total	**0.0844**	**0.8917**	**0.4158**	**7.0000e-004**	**0.3342**	**0.0477**	**0.3819**	**0.1837**	**0.0439**	**0.2276**	**0.0000**	**64.3058**	**64.3058**	**0.0200**	**0.0000**	**64.8063**

3.2 Site Preparation - 2018

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	1.3400e-003	1.0200e-003	0.0103	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4538	2.4538	7.0000e-005	0.0000	2.4556
Total	**1.3400e-003**	**1.0200e-003**	**0.0103**	**3.0000e-005**	**2.6300e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.4538**	**2.4538**	**7.0000e-005**	**0.0000**	**2.4556**

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					0.3342	0.0000	0.3342	0.1837	0.0000	0.1837	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6100e-003	0.0373	0.3861	7.0000e-004		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003	0.0000	64.3058	64.3058	0.0200	0.0000	64.8062
Total	**8.6100e-003**	**0.0373**	**0.3861**	**7.0000e-004**	**0.3342**	**1.1500e-003**	**0.3354**	**0.1837**	**1.1500e-003**	**0.1849**	**0.0000**	**64.3058**	**64.3058**	**0.0200**	**0.0000**	**64.8062**

3.2 Site Preparation - 2018

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	1.3400e-003	1.0200e-003	0.0103	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4538	2.4538	7.0000e-005	0.0000	2.4556
Total	**1.3400e-003**	**1.0200e-003**	**0.0103**	**3.0000e-005**	**2.6300e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.4538**	**2.4538**	**7.0000e-005**	**0.0000**	**2.4556**

3.3 Grading - 2018

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					0.5015	0.0000	0.5015	0.1792	0.0000	0.1792	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2392	2.7975	1.6492	2.9200e-003		0.1238	0.1238		0.1139	0.1139	0.0000	266.2480	266.2480	0.0829	0.0000	268.3201
Total	**0.2392**	**2.7975**	**1.6492**	**2.9200e-003**	**0.5015**	**0.1238**	**0.6253**	**0.1792**	**0.1139**	**0.2931**	**0.0000**	**266.2480**	**266.2480**	**0.0829**	**0.0000**	**268.3201**

3.3 Grading - 2018

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	3.7800e-003	2.8800e-003	0.0290	8.0000e-005	7.4300e-003	5.0000e-005	7.4800e-003	1.9800e-003	5.0000e-005	2.0200e-003	0.0000	6.9267	6.9267	2.0000e-004	0.0000	6.9318
Total	**3.7800e-003**	**2.8800e-003**	**0.0290**	**8.0000e-005**	**7.4300e-003**	**5.0000e-005**	**7.4800e-003**	**1.9800e-003**	**5.0000e-005**	**2.0200e-003**	**0.0000**	**6.9267**	**6.9267**	**2.0000e-004**	**0.0000**	**6.9318**

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					0.5015	0.0000	0.5015	0.1792	0.0000	0.1792	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0358	0.1551	1.5510	2.9200e-003		4.7700e-003	4.7700e-003		4.7700e-003	4.7700e-003	0.0000	266.2476	266.2476	0.0829	0.0000	268.3198
Total	**0.0358**	**0.1551**	**1.5510**	**2.9200e-003**	**0.5015**	**4.7700e-003**	**0.5063**	**0.1792**	**4.7700e-003**	**0.1839**	**0.0000**	**266.2476**	**266.2476**	**0.0829**	**0.0000**	**268.3198**

3.3 Grading - 2018

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	3.7800e-003	2.8800e-003	0.0290	8.0000e-005	7.4300e-003	5.0000e-005	7.4800e-003	1.9800e-003	5.0000e-005	2.0200e-003	0.0000	6.9267	6.9267	2.0000e-004	0.0000	6.9318
Total	**3.7800e-003**	**2.8800e-003**	**0.0290**	**8.0000e-005**	**7.4300e-003**	**5.0000e-005**	**7.4800e-003**	**1.9800e-003**	**5.0000e-005**	**2.0200e-003**	**0.0000**	**6.9267**	**6.9267**	**2.0000e-004**	**0.0000**	**6.9318**

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	0.2538	2.2660	1.8451	2.8900e-003		0.1387	0.1387		0.1304	0.1304	0.0000	252.7370	252.7370	0.0616	0.0000	254.2762
Total	**0.2538**	**2.2660**	**1.8451**	**2.8900e-003**		**0.1387**	**0.1387**		**0.1304**	**0.1304**	**0.0000**	**252.7370**	**252.7370**	**0.0616**	**0.0000**	**254.2762**

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	0.0763	2.0732	0.5335	4.3600e-003	0.1020	0.0136	0.1156	0.0295	0.0130	0.0425	0.0000	418.2200	418.2200	0.0242	0.0000	418.8253
Worker	0.2104	0.1559	1.5898	4.5900e-003	0.4587	3.1600e-003	0.4619	0.1220	2.9100e-003	0.1249	0.0000	414.9243	414.9243	0.0111	0.0000	415.2022
Total	**0.2867**	**2.2291**	**2.1233**	**8.9500e-003**	**0.5607**	**0.0168**	**0.5775**	**0.1515**	**0.0159**	**0.1675**	**0.0000**	**833.1443**	**833.1443**	**0.0353**	**0.0000**	**834.0275**

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	0.0352	0.2402	1.8770	2.8900e-003		4.3800e-003	4.3800e-003		4.3800e-003	4.3800e-003	0.0000	252.7367	252.7367	0.0616	0.0000	254.2759
Total	**0.0352**	**0.2402**	**1.8770**	**2.8900e-003**		**4.3800e-003**	**4.3800e-003**		**4.3800e-003**	**4.3800e-003**	**0.0000**	**252.7367**	**252.7367**	**0.0616**	**0.0000**	**254.2759**

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	0.0763	2.0732	0.5335	4.3600e-003	0.1020	0.0136	0.1156	0.0295	0.0130	0.0425	0.0000	418.2200	418.2200	0.0242	0.0000	418.8253
Worker	0.2104	0.1559	1.5898	4.5900e-003	0.4587	3.1600e-003	0.4619	0.1220	2.9100e-003	0.1249	0.0000	414.9243	414.9243	0.0111	0.0000	415.2022
Total	**0.2867**	**2.2291**	**2.1233**	**8.9500e-003**	**0.5607**	**0.0168**	**0.5775**	**0.1515**	**0.0159**	**0.1675**	**0.0000**	**833.1443**	**833.1443**	**0.0353**	**0.0000**	**834.0275**

3.4 Building 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					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4091**	**303.4091**	**0.0740**	**0.0000**	**305.2596**

3.4 Building Construction - 2020

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	0.0764	2.3092	0.5811	5.2700e-003	0.1243	0.0107	0.1351	0.0360	0.0103	0.0462	0.0000	506.4739	506.4739	0.0273	0.0000	507.1554
Worker	0.2345	0.1678	1.7374	5.4200e-003	0.5590	3.7600e-003	0.5627	0.1487	3.4700e-003	0.1522	0.0000	489.7193	489.7193	0.0119	0.0000	490.0157
Total	**0.3108**	**2.4770**	**2.3185**	**0.0107**	**0.6833**	**0.0145**	**0.6978**	**0.1847**	**0.0137**	**0.1984**	**0.0000**	**996.1933**	**996.1933**	**0.0391**	**0.0000**	**997.1711**

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	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592
Total	**0.0429**	**0.2928**	**2.2873**	**3.5300e-003**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**303.4087**	**303.4087**	**0.0740**	**0.0000**	**305.2592**

3.4 Building Construction - 2020

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	0.0764	2.3092	0.5811	5.2700e-003	0.1243	0.0107	0.1351	0.0360	0.0103	0.0462	0.0000	506.4739	506.4739	0.0273	0.0000	507.1554
Worker	0.2345	0.1678	1.7374	5.4200e-003	0.5590	3.7600e-003	0.5627	0.1487	3.4700e-003	0.1522	0.0000	489.7193	489.7193	0.0119	0.0000	490.0157
Total	**0.3108**	**2.4770**	**2.3185**	**0.0107**	**0.6833**	**0.0145**	**0.6978**	**0.1847**	**0.0137**	**0.1984**	**0.0000**	**996.1933**	**996.1933**	**0.0391**	**0.0000**	**997.1711**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0627	2.0901	0.5210	5.2000e-003	0.1238	4.3400e-003	0.1282	0.0358	4.1500e-003	0.0400	0.0000	499.7621	499.7621	0.0256	0.0000	500.4030
Worker	0.2163	0.1492	1.5806	5.2000e-003	0.5568	3.6400e-003	0.5605	0.1481	3.3600e-003	0.1515	0.0000	470.7326	470.7326	0.0106	0.0000	470.9965
Total	**0.2790**	**2.2393**	**2.1015**	**0.0104**	**0.6807**	**7.9800e-003**	**0.6887**	**0.1840**	**7.5100e-003**	**0.1915**	**0.0000**	**970.4947**	**970.4947**	**0.0362**	**0.0000**	**971.3994**

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	0.0428	0.2916	2.2786	3.5100e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.0428**	**0.2916**	**2.2786**	**3.5100e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0627	2.0901	0.5210	5.2000e-003	0.1238	4.3400e-003	0.1282	0.0358	4.1500e-003	0.0400	0.0000	499.7621	499.7621	0.0256	0.0000	500.4030
Worker	0.2163	0.1492	1.5806	5.2000e-003	0.5568	3.6400e-003	0.5605	0.1481	3.3600e-003	0.1515	0.0000	470.7326	470.7326	0.0106	0.0000	470.9965
Total	**0.2790**	**2.2393**	**2.1015**	**0.0104**	**0.6807**	**7.9800e-003**	**0.6887**	**0.1840**	**7.5100e-003**	**0.1915**	**0.0000**	**970.4947**	**970.4947**	**0.0362**	**0.0000**	**971.3994**

3.4 Building Construction - 2022

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

3.4 Building Construction - 2022

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	0.0582	1.9753	0.4875	5.1300e-003	0.1234	3.7500e-003	0.1271	0.0357	3.5900e-003	0.0393	0.0000	492.9737	492.9737	0.0244	0.0000	493.5831
Worker	0.2008	0.1333	1.4470	4.9900e-003	0.5547	3.5400e-003	0.5583	0.1476	3.2600e-003	0.1508	0.0000	451.7374	451.7374	9.4300e-003	0.0000	451.9731
Total	**0.2590**	**2.1085**	**1.9345**	**0.0101**	**0.6781**	**7.2900e-003**	**0.6854**	**0.1833**	**6.8500e-003**	**0.1901**	**0.0000**	**944.7110**	**944.7110**	**0.0338**	**0.0000**	**945.5561**

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	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.0426**	**0.2905**	**2.2698**	**3.5000e-003**		**5.3000e-003**	**5.3000e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

3.4 Building Construction - 2022

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	0.0582	1.9753	0.4875	5.1300e-003	0.1234	3.7500e-003	0.1271	0.0357	3.5900e-003	0.0393	0.0000	492.9737	492.9737	0.0244	0.0000	493.5831
Worker	0.2008	0.1333	1.4470	4.9900e-003	0.5547	3.5400e-003	0.5583	0.1476	3.2600e-003	0.1508	0.0000	451.7374	451.7374	9.4300e-003	0.0000	451.9731
Total	**0.2590**	**2.1085**	**1.9345**	**0.0101**	**0.6781**	**7.2900e-003**	**0.6854**	**0.1833**	**6.8500e-003**	**0.1901**	**0.0000**	**944.7110**	**944.7110**	**0.0338**	**0.0000**	**945.5561**

3.5 Paving - 2018

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	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.6000e-004	4.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1053	1.1053	3.0000e-005	0.0000	1.1061
Total	**6.0000e-004**	**4.6000e-004**	**4.6300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1053**	**1.1053**	**3.0000e-005**	**0.0000**	**1.1061**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0122**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.6000e-004	4.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1053	1.1053	3.0000e-005	0.0000	1.1061
Total	**6.0000e-004**	**4.6000e-004**	**4.6300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1053**	**1.1053**	**3.0000e-005**	**0.0000**	**1.1061**

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	0.0342	0.3582	0.3446	5.4000e-004		0.0194	0.0194		0.0178	0.0178	0.0000	48.1167	48.1167	0.0152	0.0000	48.4973
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0342**	**0.3582**	**0.3446**	**5.4000e-004**		**0.0194**	**0.0194**		**0.0178**	**0.0178**	**0.0000**	**48.1167**	**48.1167**	**0.0152**	**0.0000**	**48.4973**

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	1.2800e-003	9.5000e-004	9.6500e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.5196	2.5196	7.0000e-005	0.0000	2.5213
Total	**1.2800e-003**	**9.5000e-004**	**9.6500e-003**	**3.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.5196**	**2.5196**	**7.0000e-005**	**0.0000**	**2.5213**

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	6.5900e-003	0.0286	0.4065	5.4000e-004		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	48.1166	48.1166	0.0152	0.0000	48.4972
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5900e-003**	**0.0286**	**0.4065**	**5.4000e-004**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**48.1166**	**48.1166**	**0.0152**	**0.0000**	**48.4972**

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	1.2800e-003	9.5000e-004	9.6500e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.5196	2.5196	7.0000e-005	0.0000	2.5213
Total	**1.2800e-003**	**9.5000e-004**	**9.6500e-003**	**3.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.5196**	**2.5196**	**7.0000e-005**	**0.0000**	**2.5213**

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	3.9041					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0273	0.1881	0.1887	3.0000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	26.1709	26.1709	2.2100e-003	0.0000	26.2261
Total	**3.9314**	**0.1881**	**0.1887**	**3.0000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**26.1709**	**26.1709**	**2.2100e-003**	**0.0000**	**26.2261**

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	0.0401	0.0297	0.3032	8.8000e-004	0.0875	6.0000e-004	0.0881	0.0233	5.5000e-004	0.0238	0.0000	79.1251	79.1251	2.1200e-003	0.0000	79.1781
Total	**0.0401**	**0.0297**	**0.3032**	**8.8000e-004**	**0.0875**	**6.0000e-004**	**0.0881**	**0.0233**	**5.5000e-004**	**0.0238**	**0.0000**	**79.1251**	**79.1251**	**2.1200e-003**	**0.0000**	**79.1781**

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	3.9041					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0500e-003	0.0132	0.1878	3.0000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	26.1708	26.1708	2.2100e-003	0.0000	26.2261
Total	**3.9072**	**0.0132**	**0.1878**	**3.0000e-004**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**26.1708**	**26.1708**	**2.2100e-003**	**0.0000**	**26.2261**

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	0.0401	0.0297	0.3032	8.8000e-004	0.0875	6.0000e-004	0.0881	0.0233	5.5000e-004	0.0238	0.0000	79.1251	79.1251	2.1200e-003	0.0000	79.1781
Total	**0.0401**	**0.0297**	**0.3032**	**8.8000e-004**	**0.0875**	**6.0000e-004**	**0.0881**	**0.0233**	**5.5000e-004**	**0.0238**	**0.0000**	**79.1251**	**79.1251**	**2.1200e-003**	**0.0000**	**79.1781**

3.6 Architectural Coating - 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					
Archit. Coating	4.9897					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5124
Total	**5.0214**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5124**

3.6 Architectural Coating - 2020

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	0.0469	0.0336	0.3475	1.0800e-003	0.1118	7.5000e-004	0.1126	0.0297	6.9000e-004	0.0304	0.0000	97.9439	97.9439	2.3700e-003	0.0000	98.0031
Total	**0.0469**	**0.0336**	**0.3475**	**1.0800e-003**	**0.1118**	**7.5000e-004**	**0.1126**	**0.0297**	**6.9000e-004**	**0.0304**	**0.0000**	**97.9439**	**97.9439**	**2.3700e-003**	**0.0000**	**98.0031**

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	4.9897					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8900e-003	0.0169	0.2401	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5123
Total	**4.9936**	**0.0169**	**0.2401**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5123**

3.6 Architectural Coating - 2020

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	0.0469	0.0336	0.3475	1.0800e-003	0.1118	7.5000e-004	0.1126	0.0297	6.9000e-004	0.0304	0.0000	97.9439	97.9439	2.3700e-003	0.0000	98.0031
Total	**0.0469**	**0.0336**	**0.3475**	**1.0800e-003**	**0.1118**	**7.5000e-004**	**0.1126**	**0.0297**	**6.9000e-004**	**0.0304**	**0.0000**	**97.9439**	**97.9439**	**2.3700e-003**	**0.0000**	**98.0031**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.9706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0286	0.1993	0.2372	3.9000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	33.3200	33.3200	2.2900e-003	0.0000	33.3771
Total	**4.9992**	**0.1993**	**0.2372**	**3.9000e-004**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**33.3200**	**33.3200**	**2.2900e-003**	**0.0000**	**33.3771**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0433	0.0298	0.3161	1.0400e-003	0.1114	7.3000e-004	0.1121	0.0296	6.7000e-004	0.0303	0.0000	94.1465	94.1465	2.1100e-003	0.0000	94.1993
Total	**0.0433**	**0.0298**	**0.3161**	**1.0400e-003**	**0.1114**	**7.3000e-004**	**0.1121**	**0.0296**	**6.7000e-004**	**0.0303**	**0.0000**	**94.1465**	**94.1465**	**2.1100e-003**	**0.0000**	**94.1993**

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	4.9706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8800e-003	0.0168	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	2.2900e-003	0.0000	33.3771
Total	**4.9745**	**0.0168**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**2.2900e-003**	**0.0000**	**33.3771**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0433	0.0298	0.3161	1.0400e-003	0.1114	7.3000e-004	0.1121	0.0296	6.7000e-004	0.0303	0.0000	94.1465	94.1465	2.1100e-003	0.0000	94.1993
Total	**0.0433**	**0.0298**	**0.3161**	**1.0400e-003**	**0.1114**	**7.3000e-004**	**0.1121**	**0.0296**	**6.7000e-004**	**0.0303**	**0.0000**	**94.1465**	**94.1465**	**2.1100e-003**	**0.0000**	**94.1993**

3.6 Architectural Coating - 2022

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	4.9516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
Total	**4.9782**	**0.1831**	**0.2358**	**3.9000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**33.1923**	**33.1923**	**2.1600e-003**	**0.0000**	**33.2463**

3.6 Architectural Coating - 2022

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	0.0402	0.0267	0.2894	1.0000e-003	0.1109	7.1000e-004	0.1117	0.0295	6.5000e-004	0.0302	0.0000	90.3475	90.3475	1.8900e-003	0.0000	90.3946
Total	**0.0402**	**0.0267**	**0.2894**	**1.0000e-003**	**0.1109**	**7.1000e-004**	**0.1117**	**0.0295**	**6.5000e-004**	**0.0302**	**0.0000**	**90.3475**	**90.3475**	**1.8900e-003**	**0.0000**	**90.3946**

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	4.9516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8600e-003	0.0167	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
Total	**4.9554**	**0.0167**	**0.2382**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.1923**	**33.1923**	**2.1600e-003**	**0.0000**	**33.2463**

3.6 Architectural Coating - 2022

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	0.0402	0.0267	0.2894	1.0000e-003	0.1109	7.1000e-004	0.1117	0.0295	6.5000e-004	0.0302	0.0000	90.3475	90.3475	1.8900e-003	0.0000	90.3946
Total	**0.0402**	**0.0267**	**0.2894**	**1.0000e-003**	**0.1109**	**7.1000e-004**	**0.1117**	**0.0295**	**6.5000e-004**	**0.0302**	**0.0000**	**90.3475**	**90.3475**	**1.8900e-003**	**0.0000**	**90.3946**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1904					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1914**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.4400e-003	9.2000e-004	0.0102	4.0000e-005	4.2700e-003	3.0000e-005	4.2900e-003	1.1400e-003	2.0000e-005	1.1600e-003	0.0000	3.3418	3.3418	7.0000e-005	0.0000	3.3435
Total	**1.4400e-003**	**9.2000e-004**	**0.0102**	**4.0000e-005**	**4.2700e-003**	**3.0000e-005**	**4.2900e-003**	**1.1400e-003**	**2.0000e-005**	**1.1600e-003**	**0.0000**	**3.3418**	**3.3418**	**7.0000e-005**	**0.0000**	**3.3435**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1904					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1906**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.4400e-003	9.2000e-004	0.0102	4.0000e-005	4.2700e-003	3.0000e-005	4.2900e-003	1.1400e-003	2.0000e-005	1.1600e-003	0.0000	3.3418	3.3418	7.0000e-005	0.0000	3.3435
Total	**1.4400e-003**	**9.2000e-004**	**0.0102**	**4.0000e-005**	**4.2700e-003**	**3.0000e-005**	**4.2900e-003**	**1.1400e-003**	**2.0000e-005**	**1.1600e-003**	**0.0000**	**3.3418**	**3.3418**	**7.0000e-005**	**0.0000**	**3.3435**

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	2.8557	12.6451	32.4369	0.1206	10.7911	0.0988	10.8900	2.8962	0.0923	2.9884	0.0000	11,084.4579	11,084.4579	0.3849	0.0000	11,094.0804
Unmitigated	2.8557	12.6451	32.4369	0.1206	10.7911	0.0988	10.8900	2.8962	0.0923	2.9884	0.0000	11,084.4579	11,084.4579	0.3849	0.0000	11,094.0804

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	12,555.00	12,555.00	12555.00	28,997,120	28,997,120
Total	12,555.00	12,555.00	12,555.00	28,997,120	28,997,120

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

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	2,158.4051	2,158.4051	0.1596	0.0330	2,172.2385
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,158.4051	2,158.4051	0.1596	0.0330	2,172.2385
NaturalGas Mitigated	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	2,326.5358	2,326.5358	0.0446	0.0427	2,340.3613
NaturalGas Unmitigated	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	2,326.5358	2,326.5358	0.0446	0.0427	2,340.3613

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					
Single Family Housing	4.35976e+007	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	2,326.5358	2,326.5358	0.0446	0.0427	2,340.3613
Total		**0.2351**	**2.0089**	**0.8549**	**0.0128**		**0.1624**	**0.1624**		**0.1624**	**0.1624**	**0.0000**	**2,326.5358**	**2,326.5358**	**0.0446**	**0.0427**	**2,340.3613**

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					
Single Family Housing	4.35976e+007	0.2351	2.0089	0.8549	0.0128		0.1624	0.1624		0.1624	0.1624	0.0000	2,326.5358	2,326.5358	0.0446	0.0427	2,340.3613
Total		**0.2351**	**2.0089**	**0.8549**	**0.0128**		**0.1624**	**0.1624**		**0.1624**	**0.1624**	**0.0000**	**2,326.5358**	**2,326.5358**	**0.0446**	**0.0427**	**2,340.3613**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.21359e+007	2,158.4051	0.1596	0.0330	2,172.2385
Total		**2,158.4051**	**0.1596**	**0.0330**	**2,172.2385**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.21359e+007	2,158.4051	0.1596	0.0330	2,172.2385
Total		**2,158.4051**	**0.1596**	**0.0330**	**2,172.2385**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	12.0056	0.2384	11.1869	1.2900e-003		0.0706	0.0706		0.0706	0.0706	0.0000	145.5293	145.5293	0.0199	2.3300e-003	146.7233
Unmitigated	21.6221	0.3222	23.9959	0.0271		1.9155	1.9155		1.9155	1.9155	190.6665	65.0079	255.6744	0.3777	0.0109	268.3659

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	1.9006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	10.5449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.8410	0.1938	12.8557	0.0265		1.8539	1.8539		1.8539	1.8539	190.6665	46.8147	237.4812	0.3603	0.0109	249.7353
Landscaping	0.3356	0.1284	11.1402	5.9000e-004		0.0617	0.0617		0.0617	0.0617	0.0000	18.1932	18.1932	0.0175	0.0000	18.6306
Total	**21.6221**	**0.3222**	**23.9959**	**0.0271**		**1.9155**	**1.9155**		**1.9155**	**1.9155**	**190.6665**	**65.0079**	**255.6744**	**0.3777**	**0.0109**	**268.3659**

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	1.9006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.7565					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0129	0.1100	0.0468	7.0000e-004		8.8900e-003	8.8900e-003		8.8900e-003	8.8900e-003	0.0000	127.3361	127.3361	2.4400e-003	2.3300e-003	128.0928
Landscaping	0.3356	0.1284	11.1402	5.9000e-004		0.0617	0.0617		0.0617	0.0617	0.0000	18.1932	18.1932	0.0175	0.0000	18.6306
Total	**12.0056**	**0.2384**	**11.1869**	**1.2900e-003**		**0.0706**	**0.0706**		**0.0706**	**0.0706**	**0.0000**	**145.5293**	**145.5293**	**0.0199**	**2.3300e-003**	**146.7233**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	163.4119	3.1944	0.0772	266.2827
Unmitigated	163.4119	3.1944	0.0772	266.2827

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	97.731 / 61.613	163.4119	3.1944	0.0772	266.2827
Total		**163.4119**	**3.1944**	**0.0772**	**266.2827**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	97.731 / 61.613	163.4119	3.1944	0.0772	266.2827
Total		**163.4119**	**3.1944**	**0.0772**	**266.2827**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	409.2298	24.1848	0.0000	1,013.8495
Unmitigated	409.2298	24.1848	0.0000	1,013.8495

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2016	409.2298	24.1848	0.0000	1,013.8495
Total		**409.2298**	**24.1848**	**0.0000**	**1,013.8495**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2016	409.2298	24.1848	0.0000	1,013.8495
Total		**409.2298**	**24.1848**	**0.0000**	**1,013.8495**

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

Faria Master Plan Construction and Operations (mitigated)

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,500.00	Dwelling Unit	412.00	2,700,000.00	4800

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor adjusted per PG&E progress towards RPS

Land Use - Project Info

Construction Phase - Adjusted for 5-year construction schedule

Grading - Project Info

Vehicle Trips - Trip rate from Kimley-Horn Traffic Report

Area Mitigation -

Construction Off-road Equipment Mitigation - Tier 4 Engine 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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	550.00	998.00
tblConstructionPhase	NumDays	7,750.00	998.00

tblConstructionPhase	NumDays	775.00	94.00
tblConstructionPhase	NumDays	550.00	67.00
tblConstructionPhase	NumDays	300.00	37.00
tblConstructionPhase	PhaseEndDate	5/17/2058	1/13/2023
tblConstructionPhase	PhaseEndDate	2/27/2054	12/30/2022
tblConstructionPhase	PhaseEndDate	6/14/2024	12/3/2018
tblConstructionPhase	PhaseEndDate	4/7/2056	3/6/2019
tblConstructionPhase	PhaseEndDate	6/25/2021	7/24/2018
tblConstructionPhase	PhaseStartDate	4/8/2056	3/20/2019
tblConstructionPhase	PhaseStartDate	6/15/2024	3/6/2019
tblConstructionPhase	PhaseStartDate	6/26/2021	7/25/2018
tblConstructionPhase	PhaseStartDate	2/28/2054	12/4/2018
tblConstructionPhase	PhaseStartDate	5/2/2020	6/4/2018
tblGrading	AcresOfGrading	235.00	412.00
tblLandUse	LotAcreage	487.01	412.00
tblLandUse	Population	4,290.00	4,800.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	9.91	8.37
tblVehicleTrips	SU_TR	8.62	8.37
tblVehicleTrips	WD_TR	9.52	8.37

2.0 Emissions Summary

Faria Master Plan Construction and Operations (mitigated) - Bay Area AQMD Air District, Summer

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					
2018	5.1744	59.5762	35.7594	0.0638	18.2141	2.6349	20.7920	9.9699	2.4241	12.3416	0.0000	6,419.1412	6,419.1412	1.9491	0.0000	6,467.8681
2019	43.8763	56.6895	53.0193	0.1379	6.3027	2.2704	7.8824	1.6940	2.1195	3.6108	0.0000	13,889.3067	13,889.3067	1.7095	0.0000	13,932.0451
2020	43.2736	39.6669	40.2073	0.1240	6.3027	1.3438	7.6465	1.6940	1.2708	2.9648	0.0000	12,464.5383	12,464.5383	0.9938	0.0000	12,489.3841
2021	42.7611	36.0423	38.0272	0.1217	6.3028	1.1190	7.4217	1.6940	1.0576	2.7515	0.0000	12,237.4072	12,237.4072	0.9587	0.0000	12,261.3746
2022	42.3760	33.1784	36.3364	0.1194	6.3028	0.9518	7.2546	1.6940	0.9001	2.5942	0.0000	12,008.5423	12,008.5423	0.9325	0.0000	12,031.8557
2023	38.5824	1.4667	4.0656	0.0109	0.8872	0.0762	0.9634	0.2353	0.0757	0.3111	0.0000	1,073.7887	1,073.7887	0.0323	0.0000	1,074.5951
Maximum	**43.8763**	**59.5762**	**53.0193**	**0.1379**	**18.2141**	**2.6349**	**20.7920**	**9.9699**	**2.4241**	**12.3416**	**0.0000**	**13,889.3067**	**13,889.3067**	**1.9491**	**0.0000**	**13,932.0451**

2.1 Overall Construction (Maximum Daily Emission)

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					
2018	0.8458	3.3545	33.6692	0.0638	18.2141	0.1027	18.2772	9.9699	0.1026	10.0329	0.0000	6,419.1412	6,419.1412	1.9491	0.0000	6,467.8681
2019	41.6062	23.8167	55.9466	0.1379	6.3027	0.2341	6.5085	1.6940	0.2263	1.8915	0.0000	13,889.3067	13,889.3067	1.7095	0.0000	13,932.0451
2020	41.2691	21.1605	40.8201	0.1240	6.3027	0.1605	6.4633	1.6940	0.1543	1.8483	0.0000	12,464.5383	12,464.5383	0.9938	0.0000	12,489.3841
2021	40.9988	19.4468	38.9271	0.1217	6.3028	0.1110	6.4138	1.6940	0.1069	1.8009	0.0000	12,237.4072	12,237.4072	0.9587	0.0000	12,261.3745
2022	40.8227	18.5178	37.4520	0.1194	6.3028	0.1058	6.4087	1.6940	0.1020	1.7960	0.0000	12,008.5423	12,008.5423	0.9325	0.0000	12,031.8557
2023	38.4204	0.2925	4.0869	0.0109	0.8872	9.3000e-003	0.8965	0.2353	8.8800e-003	0.2442	0.0000	1,073.7887	1,073.7887	0.0323	0.0000	1,074.5951
Maximum	**41.6062**	**23.8167**	**55.9466**	**0.1379**	**18.2141**	**0.2341**	**18.2772**	**9.9699**	**0.2263**	**10.0329**	**0.0000**	**13,889.3067**	**13,889.3067**	**1.9491**	**0.0000**	**13,932.0451**

	ROG	NOx	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	**5.59**	**61.79**	**-1.68**	**0.00**	**0.00**	**91.38**	**13.46**	**0.00**	**91.07**	**28.32**	**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	1,626.3997	31.3577	2,134.2125	3.7927		284.9704	284.9704		284.9704	284.9704	30,567.5078	9,487.5343	40,055.0422	38.0096	2.1570	41,648.0577
Energy	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Mobile	18.0518	67.3621	185.6009	0.7015	61.6004	0.5424	62.1429	16.4797	0.5065	16.9862		71,007.7469	71,007.7469	2.3459		71,066.3936
Total	**1,645.7396**	**109.7274**	**2,324.4975**	**4.5645**	**61.6004**	**286.4028**	**348.0032**	**16.4797**	**286.3668**	**302.8465**	**30,567.5078**	**94,547.7019**	**125,115.2097**	**40.6248**	**2.4146**	**126,850.3784**

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	69.9135	21.1668	132.1795	0.1325		2.2811	2.2811		2.2811	2.2811	0.0000	25,422.8285	25,422.8285	0.6973	0.4620	25,577.9364
Energy	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Mobile	18.0518	67.3621	185.6009	0.7015	61.6004	0.5424	62.1429	16.4797	0.5065	16.9862		71,007.7469	71,007.7469	2.3459		71,066.3936
Total	**89.2534**	**99.5366**	**322.4645**	**0.9043**	**61.6004**	**3.7135**	**65.3140**	**16.4797**	**3.6776**	**20.1573**	**0.0000**	**110,482.9960**	**110,482.9960**	**3.3125**	**0.7196**	**110,780.2571**

	ROG	NOx	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	94.58	9.29	86.13	80.19	0.00	98.70	81.23	0.00	98.72	93.34	100.00	-16.85	11.69	91.85	70.20	12.67

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	6/4/2018	7/24/2018	5	37	
2	Grading	Grading	7/25/2018	12/3/2018	5	94	
3	Building Construction	Building Construction	3/6/2019	12/30/2022	5	998	
4	Paving	Paving	12/4/2018	3/6/2019	5	67	
5	Architectural Coating	Architectural Coating	3/20/2019	1/13/2023	5	998	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 412

Acres of Paving: 0

Residential Indoor: 5,467,500; Residential Outdoor: 1,822,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Faria Master Plan Construction and Operations (mitigated) - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	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
Architectural Coating	1	108.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	540.00	160.00	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
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	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

3.2 Site Preparation - 2018

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	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.2 Site Preparation - 2018

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	0.0758	0.0490	0.6030	1.5800e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		157.2415	157.2415	4.5900e-003		157.3563
Total	**0.0758**	**0.0490**	**0.6030**	**1.5800e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**157.2415**	**157.2415**	**4.5900e-003**		**157.3563**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**18.0663**	**0.0621**	**18.1283**	**9.9307**	**0.0621**	**9.9928**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.2 Site Preparation - 2018

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	0.0758	0.0490	0.6030	1.5800e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		157.2415	157.2415	4.5900e-003		157.3563
Total	**0.0758**	**0.0490**	**0.6030**	**1.5800e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**157.2415**	**157.2415**	**4.5900e-003**		**157.3563**

3.3 Grading - 2018

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					10.6702	0.0000	10.6702	3.8121	0.0000	3.8121			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230		6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**10.6702**	**2.6337**	**13.3040**	**3.8121**	**2.4230**	**6.2352**		**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

3.3 Grading - 2018

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	0.0843	0.0544	0.6701	1.7500e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		174.7128	174.7128	5.1000e-003		174.8403
Total	**0.0843**	**0.0544**	**0.6701**	**1.7500e-003**	**0.1643**	**1.1100e-003**	**0.1654**	**0.0436**	**1.0200e-003**	**0.0446**		**174.7128**	**174.7128**	**5.1000e-003**		**174.8403**

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					10.6702	0.0000	10.6702	3.8121	0.0000	3.8121			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**0.7616**	**3.3000**	**32.9991**	**0.0620**	**10.6702**	**0.1015**	**10.7718**	**3.8121**	**0.1015**	**3.9137**	**0.0000**	**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

3.3 Grading - 2018

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	0.0843	0.0544	0.6701	1.7500e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		174.7128	174.7128	5.1000e-003		174.8403
Total	**0.0843**	**0.0544**	**0.6701**	**1.7500e-003**	**0.1643**	**1.1100e-003**	**0.1654**	**0.0436**	**1.0200e-003**	**0.0446**		**174.7128**	**174.7128**	**5.1000e-003**		**174.8403**

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	0.6955	19.0447	4.6414	0.0410	0.9796	0.1258	1.1053	0.2820	0.1203	0.4023		4,337.5551	4,337.5551	0.2391		4,343.5319
Worker	2.0535	1.2862	16.1019	0.0459	4.4360	0.0294	4.4654	1.1766	0.0271	1.2037		4,576.0563	4,576.0563	0.1217		4,579.0977
Total	**2.7490**	**20.3309**	**20.7434**	**0.0869**	**5.4155**	**0.1551**	**5.5707**	**1.4587**	**0.1474**	**1.6060**		**8,913.6114**	**8,913.6114**	**0.3607**		**8,922.6297**

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**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	0.6955	19.0447	4.6414	0.0410	0.9796	0.1258	1.1053	0.2820	0.1203	0.4023		4,337.5551	4,337.5551	0.2391		4,343.5319
Worker	2.0535	1.2862	16.1019	0.0459	4.4360	0.0294	4.4654	1.1766	0.0271	1.2037		4,576.0563	4,576.0563	0.1217		4,579.0977
Total	**2.7490**	**20.3309**	**20.7434**	**0.0869**	**5.4155**	**0.1551**	**5.5707**	**1.4587**	**0.1474**	**1.6060**		**8,913.6114**	**8,913.6114**	**0.3607**		**8,922.6297**

3.4 Building 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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

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	0.5703	17.4334	4.1413	0.0407	0.9796	0.0813	1.0609	0.2820	0.0778	0.3598		4,311.3951	4,311.3951	0.2210		4,316.9207
Worker	1.8769	1.1363	14.4884	0.0445	4.4360	0.0287	4.4647	1.1766	0.0265	1.2031		4,432.1934	4,432.1934	0.1068		4,434.8634
Total	**2.4472**	**18.5697**	**18.6297**	**0.0852**	**5.4155**	**0.1100**	**5.5256**	**1.4587**	**0.1043**	**1.5629**		**8,743.5885**	**8,743.5885**	**0.3278**		**8,751.7841**

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

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	0.5703	17.4334	4.1413	0.0407	0.9796	0.0813	1.0609	0.2820	0.0778	0.3598		4,311.3951	4,311.3951	0.2210		4,316.9207
Worker	1.8769	1.1363	14.4884	0.0445	4.4360	0.0287	4.4647	1.1766	0.0265	1.2031		4,432.1934	4,432.1934	0.1068		4,434.8634
Total	**2.4472**	**18.5697**	**18.6297**	**0.0852**	**5.4155**	**0.1100**	**5.5256**	**1.4587**	**0.1043**	**1.5629**		**8,743.5885**	**8,743.5885**	**0.3278**		**8,751.7841**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

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

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4687	15.8657	3.7175	0.0403	0.9796	0.0328	1.0124	0.2820	0.0313	0.3134		4,270.6976	4,270.6976	0.2087		4,275.9137
Worker	1.7363	1.0147	13.2641	0.0429	4.4360	0.0279	4.4639	1.1766	0.0257	1.2023		4,276.5814	4,276.5814	0.0956		4,278.9714
Total	**2.2050**	**16.8804**	**16.9816**	**0.0832**	**5.4156**	**0.0607**	**5.4762**	**1.4587**	**0.0570**	**1.5157**		**8,547.2790**	**8,547.2790**	**0.3043**		**8,554.8851**

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4687	15.8657	3.7175	0.0403	0.9796	0.0328	1.0124	0.2820	0.0313	0.3134		4,270.6976	4,270.6976	0.2087		4,275.9137
Worker	1.7363	1.0147	13.2641	0.0429	4.4360	0.0279	4.4639	1.1766	0.0257	1.2023		4,276.5814	4,276.5814	0.0956		4,278.9714
Total	**2.2050**	**16.8804**	**16.9816**	**0.0832**	**5.4156**	**0.0607**	**5.4762**	**1.4587**	**0.0570**	**1.5157**		**8,547.2790**	**8,547.2790**	**0.3043**		**8,554.8851**

3.4 Building Construction - 2022

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

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	0.4369	15.0621	3.4928	0.0399	0.9796	0.0284	1.0080	0.2821	0.0271	0.3092		4,229.1987	4,229.1987	0.1993		4,234.1799
Worker	1.6161	0.9101	12.2221	0.0413	4.4360	0.0273	4.4632	1.1766	0.0251	1.2017		4,119.6350	4,119.6350	0.0859		4,121.7812
Total	**2.0530**	**15.9723**	**15.7150**	**0.0812**	**5.4156**	**0.0556**	**5.4713**	**1.4587**	**0.0523**	**1.5109**		**8,348.8337**	**8,348.8337**	**0.2851**		**8,355.9611**

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

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	0.4369	15.0621	3.4928	0.0399	0.9796	0.0284	1.0080	0.2821	0.0271	0.3092		4,229.1987	4,229.1987	0.1993		4,234.1799
Worker	1.6161	0.9101	12.2221	0.0413	4.4360	0.0273	4.4632	1.1766	0.0251	1.2017		4,119.6350	4,119.6350	0.0859		4,121.7812
Total	**2.0530**	**15.9723**	**15.7150**	**0.0812**	**5.4156**	**0.0556**	**5.4713**	**1.4587**	**0.0523**	**1.5109**		**8,348.8337**	**8,348.8337**	**0.2851**		**8,355.9611**

3.5 Paving - 2018

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	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6437**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**		**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

3.5 Paving - 2018

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	0.0632	0.0408	0.5025	1.3200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		131.0346	131.0346	3.8300e-003		131.1303
Total	**0.0632**	**0.0408**	**0.5025**	**1.3200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**131.0346**	**131.0346**	**3.8300e-003**		**131.1303**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

3.5 Paving - 2018

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	0.0632	0.0408	0.5025	1.3200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		131.0346	131.0346	3.8300e-003		131.1303
Total	**0.0632**	**0.0408**	**0.5025**	**1.3200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**131.0346**	**131.0346**	**3.8300e-003**		**131.1303**

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

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	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	**0.0570**	**0.0357**	**0.4473**	**1.2800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**127.1127**	**127.1127**	**3.3800e-003**		**127.1972**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**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	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	**0.0570**	**0.0357**	**0.4473**	**1.2800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**127.1127**	**127.1127**	**3.3800e-003**		**127.1972**

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	38.0890					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	**38.3554**	**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	0.4107	0.2573	3.2204	9.1900e-003	0.8872	5.8800e-003	0.8931	0.2353	5.4100e-003	0.2407		915.2113	915.2113	0.0243		915.8195
Total	**0.4107**	**0.2573**	**3.2204**	**9.1900e-003**	**0.8872**	**5.8800e-003**	**0.8931**	**0.2353**	**5.4100e-003**	**0.2407**		**915.2113**	**915.2113**	**0.0243**		**915.8195**

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**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	0.4107	0.2573	3.2204	9.1900e-003	0.8872	5.8800e-003	0.8931	0.2353	5.4100e-003	0.2407		915.2113	915.2113	0.0243		915.8195
Total	**0.4107**	**0.2573**	**3.2204**	**9.1900e-003**	**0.8872**	**5.8800e-003**	**0.8931**	**0.2353**	**5.4100e-003**	**0.2407**		**915.2113**	**915.2113**	**0.0243**		**915.8195**

3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**38.3312**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

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	0.3754	0.2273	2.8977	8.8900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		886.4387	886.4387	0.0214		886.9727
Total	**0.3754**	**0.2273**	**2.8977**	**8.8900e-003**	**0.8872**	**5.7400e-003**	**0.8929**	**0.2353**	**5.2900e-003**	**0.2406**		**886.4387**	**886.4387**	**0.0214**		**886.9727**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

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	0.3754	0.2273	2.8977	8.8900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		886.4387	886.4387	0.0214		886.9727
Total	**0.3754**	**0.2273**	**2.8977**	**8.8900e-003**	**0.8872**	**5.7400e-003**	**0.8929**	**0.2353**	**5.2900e-003**	**0.2406**		**886.4387**	**886.4387**	**0.0214**		**886.9727**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**38.3079**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3473	0.2030	2.6528	8.5800e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		855.3163	855.3163	0.0191		855.7943
Total	**0.3473**	**0.2030**	**2.6528**	**8.5800e-003**	**0.8872**	**5.5800e-003**	**0.8928**	**0.2353**	**5.1400e-003**	**0.2405**		**855.3163**	**855.3163**	**0.0191**		**855.7943**

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3473	0.2030	2.6528	8.5800e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		855.3163	855.3163	0.0191		855.7943
Total	**0.3473**	**0.2030**	**2.6528**	**8.5800e-003**	**0.8872**	**5.5800e-003**	**0.8928**	**0.2353**	**5.1400e-003**	**0.2405**		**855.3163**	**855.3163**	**0.0191**		**855.7943**

3.6 Architectural Coating - 2022

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**38.2935**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

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	0.3232	0.1820	2.4444	8.2600e-003	0.8872	5.4500e-003	0.8927	0.2353	5.0200e-003	0.2404		823.9270	823.9270	0.0172		824.3562
Total	**0.3232**	**0.1820**	**2.4444**	**8.2600e-003**	**0.8872**	**5.4500e-003**	**0.8927**	**0.2353**	**5.0200e-003**	**0.2404**		**823.9270**	**823.9270**	**0.0172**		**824.3562**

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

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	0.3232	0.1820	2.4444	8.2600e-003	0.8872	5.4500e-003	0.8927	0.2353	5.0200e-003	0.2404		823.9270	823.9270	0.0172		824.3562
Total	**0.3232**	**0.1820**	**2.4444**	**8.2600e-003**	**0.8872**	**5.4500e-003**	**0.8927**	**0.2353**	**5.0200e-003**	**0.2404**		**823.9270**	**823.9270**	**0.0172**		**824.3562**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**38.2806**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.3017	0.1637	2.2545	7.9400e-003	0.8872	5.3400e-003	0.8925	0.2353	4.9200e-003	0.2402		792.3407	792.3407	0.0154		792.7261
Total	**0.3017**	**0.1637**	**2.2545**	**7.9400e-003**	**0.8872**	**5.3400e-003**	**0.8925**	**0.2353**	**4.9200e-003**	**0.2402**		**792.3407**	**792.3407**	**0.0154**		**792.7261**

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.3017	0.1637	2.2545	7.9400e-003	0.8872	5.3400e-003	0.8925	0.2353	4.9200e-003	0.2402		792.3407	792.3407	0.0154		792.7261
Total	**0.3017**	**0.1637**	**2.2545**	**7.9400e-003**	**0.8872**	**5.3400e-003**	**0.8925**	**0.2353**	**4.9200e-003**	**0.2402**		**792.3407**	**792.3407**	**0.0154**		**792.7261**

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	18.0518	67.3621	185.6009	0.7015	61.6004	0.5424	62.1429	16.4797	0.5065	16.9862		71,007.7469	71,007.7469	2.3459		71,066.3936
Unmitigated	18.0518	67.3621	185.6009	0.7015	61.6004	0.5424	62.1429	16.4797	0.5065	16.9862		71,007.7469	71,007.7469	2.3459		71,066.3936

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	12,555.00	12,555.00	12555.00	28,997,120	28,997,120
Total	12,555.00	12,555.00	12,555.00	28,997,120	28,997,120

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

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	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
NaturalGas Unmitigated	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271

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					
Single Family Housing	119446	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Total		**1.2881**	**11.0077**	**4.6841**	**0.0703**		**0.8900**	**0.8900**		**0.8900**	**0.8900**		**14,052.4206**	**14,052.4206**	**0.2693**	**0.2576**	**14,135.9271**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	119.446	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Total		**1.2881**	**11.0077**	**4.6841**	**0.0703**		**0.8900**	**0.8900**		**0.8900**	**0.8900**		**14,052.4206**	**14,052.4206**	**0.2693**	**0.2576**	**14,135.9271**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	69.9135	21.1668	132.1795	0.1325		2.2811	2.2811		2.2811	2.2811	0.0000	25,422.8285	25,422.8285	0.6973	0.4620	25,577.9364
Unmitigated	1,626.3997	31.3577	2,134.2125	3.7927		284.9704	284.9704		284.9704	284.9704	30,567.5078	9,487.5343	40,055.0422	38.0096	2.1570	41,648.0577

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	10.4145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	57.7800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,554.4762	29.9308	2,010.4330	3.7862		284.2853	284.2853		284.2853	284.2853	30,567.5078	9,264.7059	39,832.2137	37.7954	2.1570	41,419.8723
Landscaping	3.7290	1.4268	123.7795	6.5300e-003		0.6851	0.6851		0.6851	0.6851		222.8285	222.8285	0.2143		228.1854
Total	**1,626.3997**	**31.3577**	**2,134.2125**	**3.7927**		**284.9704**	**284.9704**		**284.9704**	**284.9704**	**30,567.5078**	**9,487.5343**	**40,055.0422**	**38.0096**	**2.1570**	**41,648.0577**

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	10.4145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	53.4600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3100	19.7400	8.4000	0.1260		1.5960	1.5960		1.5960	1.5960	0.0000	25,200.0000	25,200.0000	0.4830	0.4620	25,349.7510
Landscaping	3.7290	1.4268	123.7795	6.5300e-003		0.6851	0.6851		0.6851	0.6851		222.8285	222.8285	0.2143		228.1854
Total	**69.9135**	**21.1668**	**132.1795**	**0.1325**		**2.2811**	**2.2811**		**2.2811**	**2.2811**	**0.0000**	**25,422.8285**	**25,422.8285**	**0.6973**	**0.4620**	**25,577.9364**

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

Faria Master Plan Construction and Operations (mitigated)

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,500.00	Dwelling Unit	412.00	2,700,000.00	4800

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor adjusted per PG&E progress towards RPS

Land Use - Project Info

Construction Phase - Adjusted for 5-year construction schedule

Grading - Project Info

Vehicle Trips - Trip rate from Kimley-Horn Traffic Report

Area Mitigation -

Construction Off-road Equipment Mitigation - Tier 4 Engine Mitigation

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

Faria Master Plan Construction and Operations (mitigated) - Bay Area AQMD Air District, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	550.00	998.00
tblConstructionPhase	NumDays	7,750.00	998.00

tblConstructionPhase	NumDays	775.00	94.00
tblConstructionPhase	NumDays	550.00	67.00
tblConstructionPhase	NumDays	300.00	37.00
tblConstructionPhase	PhaseEndDate	5/17/2058	1/13/2023
tblConstructionPhase	PhaseEndDate	2/27/2054	12/30/2022
tblConstructionPhase	PhaseEndDate	6/14/2024	12/3/2018
tblConstructionPhase	PhaseEndDate	4/7/2056	3/6/2019
tblConstructionPhase	PhaseEndDate	6/25/2021	7/24/2018
tblConstructionPhase	PhaseStartDate	4/8/2056	3/20/2019
tblConstructionPhase	PhaseStartDate	6/15/2024	3/6/2019
tblConstructionPhase	PhaseStartDate	6/26/2021	7/25/2018
tblConstructionPhase	PhaseStartDate	2/28/2054	12/4/2018
tblConstructionPhase	PhaseStartDate	5/2/2020	6/4/2018
tblGrading	AcresOfGrading	235.00	412.00
tblLandUse	LotAcreage	487.01	412.00
tblLandUse	Population	4,290.00	4,800.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	9.91	8.37
tblVehicleTrips	SU_TR	8.62	8.37
tblVehicleTrips	WD_TR	9.52	8.37

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					
2018	5.1793	59.5890	35.7262	0.0637	18.2141	2.6349	20.7920	9.9699	2.4241	12.3416	0.0000	6,405.3857	6,405.3857	1.9488	0.0000	6,454.1058
2019	44.0525	57.2178	52.7909	0.1331	6.3027	2.2727	7.8846	1.6940	2.1216	3.6130	0.0000	13,401.7961	13,401.7961	1.7229	0.0000	13,444.8675
2020	43.4350	40.1457	39.7806	0.1187	6.3027	1.3453	7.6480	1.6940	1.2723	2.9662	0.0000	11,927.1172	11,927.1172	1.0043	0.0000	11,952.2252
2021	42.9138	36.4322	37.5883	0.1165	6.3028	1.1202	7.4230	1.6940	1.0587	2.7527	0.0000	11,715.6046	11,715.6046	0.9688	0.0000	11,739.8235
2022	42.5238	33.5179	35.8846	0.1144	6.3028	0.9530	7.2558	1.6940	0.9012	2.5952	0.0000	11,502.1831	11,502.1831	0.9421	0.0000	11,525.7358
2023	38.6023	1.5051	3.9029	0.0103	0.8872	0.0762	0.9634	0.2353	0.0757	0.3111	0.0000	1,011.3965	1,011.3965	0.0311	0.0000	1,012.1745
Maximum	**44.0525**	**59.5890**	**52.7909**	**0.1331**	**18.2141**	**2.6349**	**20.7920**	**9.9699**	**2.4241**	**12.3416**	**0.0000**	**13,401.7961**	**13,401.7961**	**1.9488**	**0.0000**	**13,444.8675**

2.1 Overall Construction (Maximum Daily Emission)

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					
2018	0.8507	3.3673	33.6360	0.0637	18.2141	0.1027	18.2772	9.9699	0.1026	10.0329	0.0000	6,405.3857	6,405.3857	1.9488	0.0000	6,454.1058
2019	41.7825	24.3451	55.7182	0.1331	6.3027	0.2364	6.5108	1.6940	0.2285	1.8937	0.0000	13,401.7961	13,401.7961	1.7229	0.0000	13,444.8674
2020	41.4305	21.6393	40.3934	0.1187	6.3027	0.1621	6.4648	1.6940	0.1557	1.8497	0.0000	11,927.1172	11,927.1172	1.0043	0.0000	11,952.2252
2021	41.1515	19.8367	38.4883	0.1165	6.3028	0.1122	6.4150	1.6940	0.1081	1.8021	0.0000	11,715.6046	11,715.6046	0.9688	0.0000	11,739.8235
2022	40.9706	18.8572	37.0003	0.1144	6.3028	0.1070	6.4098	1.6940	0.1031	1.7971	0.0000	11,502.1831	11,502.1831	0.9421	0.0000	11,525.7358
2023	38.4403	0.3308	3.9242	0.0103	0.8872	9.3000e-003	0.8965	0.2353	8.8800e-003	0.2442	0.0000	1,011.3965	1,011.3965	0.0311	0.0000	1,012.1745
Maximum	**41.7825**	**24.3451**	**55.7182**	**0.1331**	**18.2141**	**0.2364**	**18.2772**	**9.9699**	**0.2285**	**10.0329**	**0.0000**	**13,401.7961**	**13,401.7961**	**1.9488**	**0.0000**	**13,444.8674**

	ROG	NOx	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	**5.57**	**61.31**	**-1.70**	**0.00**	**0.00**	**91.32**	**13.46**	**0.00**	**91.00**	**28.32**	**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	1,626.3997	31.3577	2,134.2125	3.7927		284.9704	284.9704		284.9704	284.9704	30,567.5078	9,487.5343	40,055.0422	38.0096	2.1570	41,648.0577
Energy	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Mobile	15.5343	70.8177	186.4647	0.6568	61.6004	0.5450	62.1455	16.4797	0.5090	16.9887		66,502.0122	66,502.0122	2.3890		66,561.7363
Total	**1,643.2222**	**113.1831**	**2,325.3613**	**4.5198**	**61.6004**	**286.4054**	**348.0058**	**16.4797**	**286.3693**	**302.8490**	**30,567.5078**	**90,041.9672**	**120,609.4750**	**40.6679**	**2.4146**	**122,345.7211**

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	69.9135	21.1668	132.1795	0.1325		2.2811	2.2811		2.2811	2.2811	0.0000	25,422.8285	25,422.8285	0.6973	0.4620	25,577.9364
Energy	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Mobile	15.5343	70.8177	186.4647	0.6568	61.6004	0.5450	62.1455	16.4797	0.5090	16.9887		66,502.0122	66,502.0122	2.3890		66,561.7363
Total	**86.7360**	**102.9923**	**323.3283**	**0.8596**	**61.6004**	**3.7161**	**65.3166**	**16.4797**	**3.6801**	**20.1598**	**0.0000**	**105,977.2613**	**105,977.2613**	**3.3556**	**0.7196**	**106,275.5998**

	ROG	NOx	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	94.72	9.00	86.10	80.98	0.00	98.70	81.23	0.00	98.71	93.34	100.00	-17.70	12.13	91.75	70.20	13.14

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	6/4/2018	7/24/2018	5	37	
2	Grading	Grading	7/25/2018	12/3/2018	5	94	
3	Building Construction	Building Construction	3/6/2019	12/30/2022	5	998	
4	Paving	Paving	12/4/2018	3/6/2019	5	67	
5	Architectural Coating	Architectural Coating	3/20/2019	1/13/2023	5	998	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 412

Acres of Paving: 0

Residential Indoor: 5,467,500; Residential Outdoor: 1,822,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Faria Master Plan Construction and Operations (mitigated) - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	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
Architectural Coating	1	108.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	540.00	160.00	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
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	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

3.2 Site Preparation - 2018

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	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.2 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0605	0.5731	1.4600e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		144.8616	144.8616	4.3400e-003		144.9702
Total	**0.0802**	**0.0605**	**0.5731**	**1.4600e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**144.8616**	**144.8616**	**4.3400e-003**		**144.9702**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**18.0663**	**0.0621**	**18.1283**	**9.9307**	**0.0621**	**9.9928**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0605	0.5731	1.4600e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		144.8616	144.8616	4.3400e-003		144.9702
Total	**0.0802**	**0.0605**	**0.5731**	**1.4600e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**144.8616**	**144.8616**	**4.3400e-003**		**144.9702**

3.3 Grading - 2018

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					10.6702	0.0000	10.6702	3.8121	0.0000	3.8121			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230		6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**10.6702**	**2.6337**	**13.3040**	**3.8121**	**2.4230**	**6.2352**		**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

3.3 Grading - 2018

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	0.0891	0.0672	0.6368	1.6200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		160.9573	160.9573	4.8300e-003		161.0780
Total	**0.0891**	**0.0672**	**0.6368**	**1.6200e-003**	**0.1643**	**1.1100e-003**	**0.1654**	**0.0436**	**1.0200e-003**	**0.0446**		**160.9573**	**160.9573**	**4.8300e-003**		**161.0780**

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					10.6702	0.0000	10.6702	3.8121	0.0000	3.8121			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**0.7616**	**3.3000**	**32.9991**	**0.0620**	**10.6702**	**0.1015**	**10.7718**	**3.8121**	**0.1015**	**3.9137**	**0.0000**	**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

3.3 Grading - 2018

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	0.0891	0.0672	0.6368	1.6200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		160.9573	160.9573	4.8300e-003		161.0780
Total	**0.0891**	**0.0672**	**0.6368**	**1.6200e-003**	**0.1643**	**1.1100e-003**	**0.1654**	**0.0436**	**1.0200e-003**	**0.0446**		**160.9573**	**160.9573**	**4.8300e-003**		**161.0780**

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	0.7308	19.2609	5.3366	0.0399	0.9796	0.1280	1.1076	0.2820	0.1225	0.4045		4,220.7063	4,220.7063	0.2598		4,227.2005
Worker	2.1710	1.5900	15.2034	0.0423	4.4360	0.0294	4.4654	1.1766	0.0271	1.2037		4,215.4124	4,215.4124	0.1145		4,218.2744
Total	**2.9018**	**20.8508**	**20.5400**	**0.0822**	**5.4155**	**0.1574**	**5.5729**	**1.4587**	**0.1495**	**1.6082**		**8,436.1187**	**8,436.1187**	**0.3743**		**8,445.4749**

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**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	0.7308	19.2609	5.3366	0.0399	0.9796	0.1280	1.1076	0.2820	0.1225	0.4045		4,220.7063	4,220.7063	0.2598		4,227.2005
Worker	2.1710	1.5900	15.2034	0.0423	4.4360	0.0294	4.4654	1.1766	0.0271	1.2037		4,215.4124	4,215.4124	0.1145		4,218.2744
Total	**2.9018**	**20.8508**	**20.5400**	**0.0822**	**5.4155**	**0.1574**	**5.5729**	**1.4587**	**0.1495**	**1.6082**		**8,436.1187**	**8,436.1187**	**0.3743**		**8,445.4749**

3.4 Building 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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

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	0.6017	17.5911	4.7719	0.0396	0.9796	0.0828	1.0624	0.2820	0.0792	0.3613		4,193.3022	4,193.3022	0.2398		4,199.2983
Worker	1.9853	1.4040	13.6074	0.0410	4.4360	0.0287	4.4647	1.1766	0.0265	1.2031		4,082.7532	4,082.7532	0.0999		4,085.2497
Total	**2.5869**	**18.9951**	**18.3792**	**0.0806**	**5.4155**	**0.1116**	**5.5271**	**1.4587**	**0.1057**	**1.5644**		**8,276.0554**	**8,276.0554**	**0.3397**		**8,284.5480**

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

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	0.6017	17.5911	4.7719	0.0396	0.9796	0.0828	1.0624	0.2820	0.0792	0.3613		4,193.3022	4,193.3022	0.2398		4,199.2983
Worker	1.9853	1.4040	13.6074	0.0410	4.4360	0.0287	4.4647	1.1766	0.0265	1.2031		4,082.7532	4,082.7532	0.0999		4,085.2497
Total	**2.5869**	**18.9951**	**18.3792**	**0.0806**	**5.4155**	**0.1116**	**5.5271**	**1.4587**	**0.1057**	**1.5644**		**8,276.0554**	**8,276.0554**	**0.3397**		**8,284.5480**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

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

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4978	15.9692	4.3038	0.0392	0.9796	0.0340	1.0136	0.2820	0.0325	0.3146		4,153.3953	4,153.3953	0.2265		4,159.0567
Worker	1.8394	1.2534	12.4098	0.0395	4.4360	0.0279	4.4639	1.1766	0.0257	1.2023		3,939.4979	3,939.4979	0.0891		3,941.7264
Total	**2.3372**	**17.2226**	**16.7136**	**0.0787**	**5.4156**	**0.0619**	**5.4775**	**1.4587**	**0.0582**	**1.5169**		**8,092.8931**	**8,092.8931**	**0.3156**		**8,100.7831**

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4978	15.9692	4.3038	0.0392	0.9796	0.0340	1.0136	0.2820	0.0325	0.3146		4,153.3953	4,153.3953	0.2265		4,159.0567
Worker	1.8394	1.2534	12.4098	0.0395	4.4360	0.0279	4.4639	1.1766	0.0257	1.2023		3,939.4979	3,939.4979	0.0891		3,941.7264
Total	**2.3372**	**17.2226**	**16.7136**	**0.0787**	**5.4156**	**0.0619**	**5.4775**	**1.4587**	**0.0582**	**1.5169**		**8,092.8931**	**8,092.8931**	**0.3156**		**8,100.7831**

3.4 Building Construction - 2022

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

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	0.4639	15.1452	4.0421	0.0388	0.9796	0.0295	1.0092	0.2821	0.0282	0.3103		4,112.3091	4,112.3091	0.2161		4,117.7108
Worker	1.7168	1.1238	11.3879	0.0381	4.4360	0.0273	4.4632	1.1766	0.0251	1.2017		3,795.0769	3,795.0769	0.0798		3,797.0722
Total	**2.1807**	**16.2690**	**15.4300**	**0.0769**	**5.4156**	**0.0568**	**5.4724**	**1.4587**	**0.0533**	**1.5120**		**7,907.3860**	**7,907.3860**	**0.2959**		**7,914.7830**

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

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	0.4639	15.1452	4.0421	0.0388	0.9796	0.0295	1.0092	0.2821	0.0282	0.3103		4,112.3091	4,112.3091	0.2161		4,117.7108
Worker	1.7168	1.1238	11.3879	0.0381	4.4360	0.0273	4.4632	1.1766	0.0251	1.2017		3,795.0769	3,795.0769	0.0798		3,797.0722
Total	**2.1807**	**16.2690**	**15.4300**	**0.0769**	**5.4156**	**0.0568**	**5.4724**	**1.4587**	**0.0533**	**1.5120**		**7,907.3860**	**7,907.3860**	**0.2959**		**7,914.7830**

3.5 Paving - 2018

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	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6437**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**		**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

3.5 Paving - 2018

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	0.0669	0.0504	0.4776	1.2100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		120.7180	120.7180	3.6200e-003		120.8085
Total	**0.0669**	**0.0504**	**0.4776**	**1.2100e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**120.7180**	**120.7180**	**3.6200e-003**		**120.8085**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

3.5 Paving - 2018

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	0.0669	0.0504	0.4776	1.2100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		120.7180	120.7180	3.6200e-003		120.8085
Total	**0.0669**	**0.0504**	**0.4776**	**1.2100e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**120.7180**	**120.7180**	**3.6200e-003**		**120.8085**

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

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	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	**0.0603**	**0.0442**	**0.4223**	**1.1800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**117.0948**	**117.0948**	**3.1800e-003**		**117.1743**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**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	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	**0.0603**	**0.0442**	**0.4223**	**1.1800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**117.0948**	**117.0948**	**3.1800e-003**		**117.1743**

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	38.0890					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	**38.3554**	**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	0.4342	0.3180	3.0407	8.4600e-003	0.8872	5.8800e-003	0.8931	0.2353	5.4100e-003	0.2407		843.0825	843.0825	0.0229		843.6549
Total	**0.4342**	**0.3180**	**3.0407**	**8.4600e-003**	**0.8872**	**5.8800e-003**	**0.8931**	**0.2353**	**5.4100e-003**	**0.2407**		**843.0825**	**843.0825**	**0.0229**		**843.6549**

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**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	0.4342	0.3180	3.0407	8.4600e-003	0.8872	5.8800e-003	0.8931	0.2353	5.4100e-003	0.2407		843.0825	843.0825	0.0229		843.6549
Total	**0.4342**	**0.3180**	**3.0407**	**8.4600e-003**	**0.8872**	**5.8800e-003**	**0.8931**	**0.2353**	**5.4100e-003**	**0.2407**		**843.0825**	**843.0825**	**0.0229**		**843.6549**

3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**38.3312**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

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	0.3971	0.2808	2.7215	8.1900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		816.5506	816.5506	0.0200		817.0499
Total	**0.3971**	**0.2808**	**2.7215**	**8.1900e-003**	**0.8872**	**5.7400e-003**	**0.8929**	**0.2353**	**5.2900e-003**	**0.2406**		**816.5506**	**816.5506**	**0.0200**		**817.0499**

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

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	0.3971	0.2808	2.7215	8.1900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		816.5506	816.5506	0.0200		817.0499
Total	**0.3971**	**0.2808**	**2.7215**	**8.1900e-003**	**0.8872**	**5.7400e-003**	**0.8929**	**0.2353**	**5.2900e-003**	**0.2406**		**816.5506**	**816.5506**	**0.0200**		**817.0499**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**38.3079**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3679	0.2507	2.4820	7.9000e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		787.8996	787.8996	0.0178		788.3453
Total	**0.3679**	**0.2507**	**2.4820**	**7.9000e-003**	**0.8872**	**5.5800e-003**	**0.8928**	**0.2353**	**5.1400e-003**	**0.2405**		**787.8996**	**787.8996**	**0.0178**		**788.3453**

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3679	0.2507	2.4820	7.9000e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		787.8996	787.8996	0.0178		788.3453
Total	**0.3679**	**0.2507**	**2.4820**	**7.9000e-003**	**0.8872**	**5.5800e-003**	**0.8928**	**0.2353**	**5.1400e-003**	**0.2405**		**787.8996**	**787.8996**	**0.0178**		**788.3453**

3.6 Architectural Coating - 2022

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**38.2935**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

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	0.3434	0.2248	2.2776	7.6100e-003	0.8872	5.4500e-003	0.8927	0.2353	5.0200e-003	0.2404		759.0154	759.0154	0.0160		759.4144
Total	**0.3434**	**0.2248**	**2.2776**	**7.6100e-003**	**0.8872**	**5.4500e-003**	**0.8927**	**0.2353**	**5.0200e-003**	**0.2404**		**759.0154**	**759.0154**	**0.0160**		**759.4144**

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

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	0.3434	0.2248	2.2776	7.6100e-003	0.8872	5.4500e-003	0.8927	0.2353	5.0200e-003	0.2404		759.0154	759.0154	0.0160		759.4144
Total	**0.3434**	**0.2248**	**2.2776**	**7.6100e-003**	**0.8872**	**5.4500e-003**	**0.8927**	**0.2353**	**5.0200e-003**	**0.2404**		**759.0154**	**759.0154**	**0.0160**		**759.4144**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**38.2806**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.3216	0.2021	2.0918	7.3200e-003	0.8872	5.3400e-003	0.8925	0.2353	4.9200e-003	0.2402		729.9484	729.9484	0.0143		730.3055
Total	**0.3216**	**0.2021**	**2.0918**	**7.3200e-003**	**0.8872**	**5.3400e-003**	**0.8925**	**0.2353**	**4.9200e-003**	**0.2402**		**729.9484**	**729.9484**	**0.0143**		**730.3055**

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	38.0890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**38.1187**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.3216	0.2021	2.0918	7.3200e-003	0.8872	5.3400e-003	0.8925	0.2353	4.9200e-003	0.2402		729.9484	729.9484	0.0143		730.3055
Total	**0.3216**	**0.2021**	**2.0918**	**7.3200e-003**	**0.8872**	**5.3400e-003**	**0.8925**	**0.2353**	**4.9200e-003**	**0.2402**		**729.9484**	**729.9484**	**0.0143**		**730.3055**

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	15.5343	70.8177	186.4647	0.6568	61.6004	0.5450	62.1455	16.4797	0.5090	16.9887		66,502.0122	66,502.0122	2.3890		66,561.7363
Unmitigated	15.5343	70.8177	186.4647	0.6568	61.6004	0.5450	62.1455	16.4797	0.5090	16.9887		66,502.0122	66,502.0122	2.3890		66,561.7363

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	12,555.00	12,555.00	12555.00	28,997,120	28,997,120
Total	12,555.00	12,555.00	12,555.00	28,997,120	28,997,120

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

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	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
NaturalGas Unmitigated	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271

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					
Single Family Housing	119446	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Total		**1.2881**	**11.0077**	**4.6841**	**0.0703**		**0.8900**	**0.8900**		**0.8900**	**0.8900**		**14,052.4206**	**14,052.4206**	**0.2693**	**0.2576**	**14,135.9271**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	119.446	1.2881	11.0077	4.6841	0.0703		0.8900	0.8900		0.8900	0.8900		14,052.4206	14,052.4206	0.2693	0.2576	14,135.9271
Total		**1.2881**	**11.0077**	**4.6841**	**0.0703**		**0.8900**	**0.8900**		**0.8900**	**0.8900**		**14,052.4206**	**14,052.4206**	**0.2693**	**0.2576**	**14,135.9271**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	69.9135	21.1668	132.1795	0.1325		2.2811	2.2811		2.2811	2.2811	0.0000	25,422.8285	25,422.8285	0.6973	0.4620	25,577.9364
Unmitigated	1,626.3997	31.3577	2,134.2125	3.7927		284.9704	284.9704		284.9704	284.9704	30,567.5078	9,487.5343	40,055.0422	38.0096	2.1570	41,648.0577

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	10.4145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	57.7800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,554.4762	29.9308	2,010.4330	3.7862		284.2853	284.2853		284.2853	284.2853	30,567.5078	9,264.7059	39,832.2137	37.7954	2.1570	41,419.8723
Landscaping	3.7290	1.4268	123.7795	6.5300e-003		0.6851	0.6851		0.6851	0.6851		222.8285	222.8285	0.2143		228.1854
Total	**1,626.3997**	**31.3577**	**2,134.2125**	**3.7927**		**284.9704**	**284.9704**		**284.9704**	**284.9704**	**30,567.5078**	**9,487.5343**	**40,055.0422**	**38.0096**	**2.1570**	**41,648.0577**

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	10.4145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	53.4600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3100	19.7400	8.4000	0.1260		1.5960	1.5960		1.5960	1.5960	0.0000	25,200.0000	25,200.0000	0.4830	0.4620	25,349.7510
Landscaping	3.7290	1.4268	123.7795	6.5300e-003		0.6851	0.6851		0.6851	0.6851		222.8285	222.8285	0.2143		228.1854
Total	**69.9135**	**21.1668**	**132.1795**	**0.1325**		**2.2811**	**2.2811**		**2.2811**	**2.2811**	**0.0000**	**25,422.8285**	**25,422.8285**	**0.6973**	**0.4620**	**25,577.9364**

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

Faria Master Plan Construction and Operations (mitigated)

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.01	0.80	0.00	0.00	0.91	0.91	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.39	0.44	-0.02	0.00	0.88	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.84	0.94	0.06	0.00	0.96	0.96	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.79	0.92	-0.17	0.00	0.96	0.95	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.88	0.96	0.07	0.00	0.98	0.97	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 4 Final	1	1	No Change	0.00
Excavators	Diesel	Tier 4 Final	2	2	No Change	0.00
Cranes	Diesel	Tier 4 Final	1	1	No Change	0.00
Forklifts	Diesel	Tier 4 Final	3	3	No Change	0.00
Graders	Diesel	Tier 4 Final	1	1	No Change	0.00
Pavers	Diesel	Tier 4 Final	2	2	No Change	0.00
Rollers	Diesel	Tier 4 Final	2	2	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 4 Final	4	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	9	9	No Change	0.00
Generator Sets	Diesel	Tier 4 Final	1	1	No Change	0.00
Paving Equipment	Diesel	Tier 4 Final	2	2	No Change	0.00
Scrapers	Diesel	Tier 4 Final	2	2	No Change	0.00
Welders	Diesel	Tier 4 Final	1	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	1.15150E-001	7.97580E-001	9.10670E-001	1.48000E-003	5.09900E-002	5.09900E-002	0.00000E+000	1.27407E+002	1.27407E+002	9.32000E-003	0.00000E+000	1.27640E+002
Cranes	1.88960E-001	2.21273E+000	8.99830E-001	2.52000E-003	9.16700E-002	8.43400E-002	0.00000E+000	2.22395E+002	2.22395E+002	7.15800E-002	0.00000E+000	2.24185E+002
Excavators	2.71800E-002	2.91010E-001	3.07910E-001	4.90000E-004	1.41100E-002	1.29800E-002	0.00000E+000	4.43078E+001	4.43078E+001	1.37900E-002	0.00000E+000	4.46527E+001
Forklifts	2.03120E-001	1.84359E+000	1.75614E+000	2.29000E-003	1.33690E-001	1.23000E-001	0.00000E+000	2.01997E+002	2.01997E+002	6.50200E-002	0.00000E+000	2.03622E+002
Generator Sets	1.89550E-001	1.65568E+000	1.84439E+000	3.28000E-003	9.09700E-002	9.09700E-002	0.00000E+000	2.82039E+002	2.82039E+002	1.52700E-002	0.00000E+000	2.82420E+002
Graders	2.44300E-002	3.34990E-001	8.99900E-002	3.10000E-004	1.08900E-002	1.00200E-002	0.00000E+000	2.85645E+001	2.85645E+001	8.89000E-003	0.00000E+000	2.87868E+001
Pavers	2.00500E-002	2.19030E-001	1.94910E-001	3.20000E-004	1.07200E-002	9.86000E-003	0.00000E+000	2.84321E+001	2.84321E+001	8.95000E-003	0.00000E+000	2.86559E+001
Paving Equipment	1.47600E-002	1.59230E-001	1.69330E-001	2.70000E-004	7.86000E-003	7.24000E-003	0.00000E+000	2.46356E+001	2.46356E+001	7.76000E-003	0.00000E+000	2.48295E+001
Rollers	1.58100E-002	1.55190E-001	1.28350E-001	1.80000E-004	1.03600E-002	9.53000E-003	0.00000E+000	1.58606E+001	1.58606E+001	4.99000E-003	0.00000E+000	1.59854E+001
Rubber Tired Dozers	1.19520E-001	1.28740E+000	4.48590E-001	8.70000E-004	6.25800E-002	5.75800E-002	0.00000E+000	7.99845E+001	7.99845E+001	2.49000E-002	0.00000E+000	8.06070E+001
Scrapers	1.07810E-001	1.33401E+000	8.25950E-001	1.42000E-003	5.25700E-002	4.83700E-002	0.00000E+000	1.30028E+002	1.30028E+002	4.04800E-002	0.00000E+000	1.31040E+002
Tractors/Loaders/ Backhoes	3.02800E-001	3.04652E+000	3.36426E+000	4.59000E-003	1.90150E-001	1.74940E-001	0.00000E+000	4.06993E+002	4.06993E+002	1.30500E-001	0.00000E+000	4.10255E+002
Welders	1.61690E-001	7.67540E-001	8.70510E-001	1.28000E-003	4.00700E-002	4.00700E-002	0.00000E+000	9.39221E+001	9.39221E+001	1.31500E-002	0.00000E+000	9.42509E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	1.48300E-002	6.42500E-002	9.14370E-001	1.48000E-003	1.98000E-003	1.98000E-003	0.00000E+000	1.27407E+002	1.27407E+002	9.32000E-003	0.00000E+000	1.27640E+002
Cranes	3.09500E-002	1.34130E-001	1.13492E+000	2.52000E-003	4.13000E-003	4.13000E-003	0.00000E+000	2.22395E+002	2.22395E+002	7.15800E-002	0.00000E+000	2.24185E+002
Excavators	5.97000E-003	2.58800E-002	3.68290E-001	4.90000E-004	8.00000E-004	8.00000E-004	0.00000E+000	4.43078E+001	4.43078E+001	1.37900E-002	0.00000E+000	4.46526E+001
Forklifts	2.82000E-002	1.22190E-001	1.73887E+000	2.29000E-003	3.76000E-003	3.76000E-003	0.00000E+000	2.01996E+002	2.01996E+002	6.50200E-002	0.00000E+000	2.03622E+002
Generator Sets	3.28200E-002	1.42240E-001	2.02412E+000	3.28000E-003	4.38000E-003	4.38000E-003	0.00000E+000	2.82038E+002	2.82038E+002	1.52700E-002	0.00000E+000	2.82420E+002
Graders	3.81000E-003	1.65200E-002	1.39820E-001	3.10000E-004	5.10000E-004	5.10000E-004	0.00000E+000	2.85645E+001	2.85645E+001	8.89000E-003	0.00000E+000	2.87868E+001
Pavers	3.87000E-003	1.67800E-002	2.38720E-001	3.20000E-004	5.20000E-004	5.20000E-004	0.00000E+000	2.84321E+001	2.84321E+001	8.95000E-003	0.00000E+000	2.86559E+001
Paving Equipment	3.37000E-003	1.46000E-002	2.07770E-001	2.70000E-004	4.50000E-004	4.50000E-004	0.00000E+000	2.46356E+001	2.46356E+001	7.76000E-003	0.00000E+000	2.48295E+001
Rollers	2.16000E-003	9.34000E-003	1.32910E-001	1.80000E-004	2.90000E-004	2.90000E-004	0.00000E+000	1.58605E+001	1.58605E+001	4.99000E-003	0.00000E+000	1.59854E+001
Rubber Tired Dozers	1.07200E-002	4.64400E-002	3.92940E-001	8.70000E-004	1.43000E-003	1.43000E-003	0.00000E+000	7.99844E+001	7.99844E+001	2.49000E-002	0.00000E+000	8.06069E+001
Scrapers	1.75200E-002	7.59300E-002	6.42510E-001	1.42000E-003	2.34000E-003	2.34000E-003	0.00000E+000	1.30028E+002	1.30028E+002	4.04800E-002	0.00000E+000	1.31040E+002
Tractors/Loaders/Backhoes	5.61300E-002	2.43230E-001	3.46128E+000	4.59000E-003	7.48000E-003	7.48000E-003	0.00000E+000	4.06992E+002	4.06992E+002	1.30500E-001	0.00000E+000	4.10255E+002
Welders	2.18600E-002	5.00990E-001	7.46930E-001	1.28000E-003	1.46000E-003	1.46000E-003	0.00000E+000	9.39220E+001	9.39220E+001	1.31500E-002	0.00000E+000	9.42508E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	8.71211E-001	9.19444E-001	-4.06294E-003	0.00000E+000	9.61169E-001	9.61169E-001	0.00000E+000	1.17733E-006	1.17733E-006	0.00000E+000	0.00000E+000	1.25352E-006
Cranes	8.36209E-001	9.39383E-001	-2.61260E-001	0.00000E+000	9.54947E-001	9.51032E-001	0.00000E+000	1.16909E-006	1.16909E-006	0.00000E+000	0.00000E+000	1.15976E-006
Excavators	7.80353E-001	9.11068E-001	-1.96096E-001	0.00000E+000	9.43303E-001	9.38367E-001	0.00000E+000	1.35416E-006	1.35416E-006	0.00000E+000	0.00000E+000	1.34371E-006
Forklifts	8.61166E-001	9.33722E-001	9.83407E-003	0.00000E+000	9.71875E-001	9.69431E-001	0.00000E+000	1.18814E-006	1.18814E-006	0.00000E+000	0.00000E+000	1.22777E-006
Generator Sets	8.26853E-001	9.14090E-001	-9.74469E-002	0.00000E+000	9.51852E-001	9.51852E-001	0.00000E+000	1.20551E-006	1.20551E-006	0.00000E+000	0.00000E+000	1.16847E-006
Graders	8.44044E-001	9.50685E-001	-5.53728E-001	0.00000E+000	9.53168E-001	9.49102E-001	0.00000E+000	1.05026E-006	1.05026E-006	0.00000E+000	0.00000E+000	1.04214E-006
Pavers	8.06983E-001	9.23389E-001	-2.24770E-001	0.00000E+000	9.51493E-001	9.47262E-001	0.00000E+000	1.05514E-006	1.05514E-006	0.00000E+000	0.00000E+000	1.04690E-006
Paving Equipment	7.71680E-001	9.08309E-001	-2.27012E-001	0.00000E+000	9.42748E-001	9.37845E-001	0.00000E+000	1.21775E-006	1.21775E-006	0.00000E+000	0.00000E+000	8.05493E-007
Rollers	8.63378E-001	9.39816E-001	-3.55279E-002	0.00000E+000	9.72008E-001	9.69570E-001	0.00000E+000	1.26099E-006	1.26099E-006	0.00000E+000	0.00000E+000	1.25114E-006
Rubber Tired Dozers	9.10308E-001	9.63927E-001	1.24055E-001	0.00000E+000	9.77149E-001	9.75165E-001	0.00000E+000	1.12522E-006	1.12522E-006	0.00000E+000	0.00000E+000	1.24059E-006
Scrapers	8.37492E-001	9.43081E-001	2.22096E-001	0.00000E+000	9.55488E-001	9.51623E-001	0.00000E+000	1.15360E-006	1.15360E-006	0.00000E+000	0.00000E+000	1.22100E-006
Tractors/Loaders/Backhoes	8.14630E-001	9.20161E-001	-2.88384E-002	0.00000E+000	9.60663E-001	9.57242E-001	0.00000E+000	1.17938E-006	1.17938E-006	0.00000E+000	0.00000E+000	1.19438E-006
Welders	8.64803E-001	3.47278E-001	1.41963E-001	0.00000E+000	9.63564E-001	9.63564E-001	0.00000E+000	1.17118E-006	1.17118E-006	0.00000E+000	0.00000E+000	1.16710E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Water Exposed Area	PM10 Reduction	0.00	PM2.5 Reduction	0.00	Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.43	0.11	0.43	0.11	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	2.60	0.70	2.60	0.70	0.00	0.00
Grading	Fugitive Dust	0.50	0.18	0.50	0.18	0.00	0.00
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.33	0.18	0.33	0.18	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	7.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	99.85	43.25	99.64	97.36	99.52	99.52	100.00	-172.00	46.38	99.32	78.62	48.71
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
Yes	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,500.00	Dwelling Unit	373.00	2,700,000.00	4800

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	302.08	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factors for CO2 adjusted based on PG&E RPS reductions

Land Use - Applicant provided

Construction Phase - Construction not modeled

Trips and VMT - Construction not modeled

Architectural Coating - Construction not modeled

Vehicle Trips - Per Traffic Impact Study by Kimley-Horn and Associates, Inc.

Area Mitigation - As regulated by BAAQMD

Energy Mitigation - 2016 Title 24 standards (latest standards) are anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

Off-road Equipment -

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	0.00
tblConstructionPhase	NumDays	440.00	1.00
tblConstructionPhase	PhaseEndDate	6/3/2018	6/4/2018
tblLandUse	LotAcreage	487.01	373.00
tblLandUse	Population	4,290.00	4,800.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	302.08
tblProjectCharacteristics	OperationalYear	2018	2030
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblVehicleTrips	ST_TR	9.91	8.37
tblVehicleTrips	SU_TR	8.62	8.37
tblVehicleTrips	WD_TR	9.52	8.37

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					
2018	2.1000e-004	1.0300e-003	1.2600e-003	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.0000	0.1393	0.1393	1.0000e-005	0.0000	0.1396
Maximum	**2.1000e-004**	**1.0300e-003**	**1.2600e-003**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.1393**	**0.1393**	**1.0000e-005**	**0.0000**	**0.1396**

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					
2018	2.1000e-004	1.0300e-003	1.2600e-003	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.0000	0.1393	0.1393	1.0000e-005	0.0000	0.1396
Maximum	**2.1000e-004**	**1.0300e-003**	**1.2600e-003**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.1393**	**0.1393**	**1.0000e-005**	**0.0000**	**0.1396**

	ROG	NOx	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**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-4-2018	9-3-2018	0.0009	0.0009
		Highest	0.0009	0.0009

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	21.6187	0.3218	23.9640	0.0271		1.9157	1.9157		1.9157	1.9157	190.6665	65.0079	255.6744	0.3776	0.0109	268.3619
Energy	0.2908	2.4850	1.0574	0.0159		0.2009	0.2009		0.2009	0.2009	0.0000	4,657.3789	4,657.3789	0.2260	0.0881	4,689.2844
Mobile	2.0079	10.4041	22.3261	0.1009	10.7839	0.0670	10.8508	2.8927	0.0623	2.9551	0.0000	9,311.2046	9,311.2046	0.2949	0.0000	9,318.5759
Waste						0.0000	0.0000		0.0000	0.0000	409.2298	0.0000	409.2298	24.1848	0.0000	1,013.8495
Water						0.0000	0.0000		0.0000	0.0000	31.0056	102.0079	133.0135	3.1944	0.0772	235.8842
Total	**23.9174**	**13.2108**	**47.3475**	**0.1438**	**10.7839**	**2.1835**	**12.9674**	**2.8927**	**2.1789**	**5.0716**	**630.9018**	**14,135.5994**	**14,766.5012**	**28.2776**	**0.1762**	**15,525.9559**

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	12.0022	0.2380	11.1550	1.2900e-003		0.0707	0.0707		0.0707	0.0707	0.0000	145.5293	145.5293	0.0198	2.3300e-003	146.7193
Energy	0.2165	1.8502	0.7873	0.0118		0.1496	0.1496		0.1496	0.1496	0.0000	3,901.0624	3,901.0624	0.2099	0.0742	3,928.4230
Mobile	2.0079	10.4041	22.3261	0.1009	10.7839	0.0670	10.8508	2.8927	0.0623	2.9551	0.0000	9,311.2046	9,311.2046	0.2949	0.0000	9,318.5759
Waste						0.0000	0.0000		0.0000	0.0000	409.2298	0.0000	409.2298	24.1848	0.0000	1,013.8495
Water						0.0000	0.0000		0.0000	0.0000	31.0056	102.0079	133.0135	3.1944	0.0772	235.8842
Total	**14.2266**	**12.4923**	**34.2685**	**0.1140**	**10.7839**	**0.2872**	**11.0711**	**2.8927**	**0.2826**	**3.1753**	**440.2353**	**13,459.8042**	**13,900.0396**	**27.9036**	**0.1538**	**14,643.4520**

	ROG	NOx	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	**40.52**	**5.44**	**27.62**	**20.76**	**0.00**	**86.85**	**14.62**	**0.00**	**87.03**	**37.39**	**30.22**	**4.78**	**5.87**	**1.32**	**12.75**	**5.68**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/4/2018	6/4/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 5,467,500; Residential Outdoor: 1,822,500; 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
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
Architectural Coating	1	108.00	0.00	0.00	0.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	1.0000e-003	9.3000e-004	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1280
Total	**1.5000e-004**	**1.0000e-003**	**9.3000e-004**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1280**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	2.0000e-005	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.0116	0.0000	0.0000	0.0116
Total	**6.0000e-005**	**2.0000e-005**	**3.4000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0116**	**0.0116**	**0.0000**	**0.0000**	**0.0116**

3.2 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	1.0000e-003	9.3000e-004	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1280
Total	**1.5000e-004**	**1.0000e-003**	**9.3000e-004**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1280**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	2.0000e-005	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.0116	0.0000	0.0000	0.0116
Total	**6.0000e-005**	**2.0000e-005**	**3.4000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0116**	**0.0116**	**0.0000**	**0.0000**	**0.0116**

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	2.0079	10.4041	22.3261	0.1009	10.7839	0.0670	10.8508	2.8927	0.0623	2.9551	0.0000	9,311.2046	9,311.2046	0.2949	0.0000	9,318.5759
Unmitigated	2.0079	10.4041	22.3261	0.1009	10.7839	0.0670	10.8508	2.8927	0.0623	2.9551	0.0000	9,311.2046	9,311.2046	0.2949	0.0000	9,318.5759

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	12,555.00	12,555.00	12555.00	28,997,120	28,997,120
Total	12,555.00	12,555.00	12,555.00	28,997,120	28,997,120

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,758.2981	1,758.2981	0.1688	0.0349	1,772.9254
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,779.5291	1,779.5291	0.1708	0.0354	1,794.3329
NaturalGas Mitigated	0.2165	1.8502	0.7873	0.0118		0.1496	0.1496		0.1496	0.1496	0.0000	2,142.7643	2,142.7643	0.0411	0.0393	2,155.4977
NaturalGas Unmitigated	0.2908	2.4850	1.0574	0.0159		0.2009	0.2009		0.2009	0.2009	0.0000	2,877.8499	2,877.8499	0.0552	0.0528	2,894.9515

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					
Single Family Housing	5.39289e+007	0.2908	2.4850	1.0574	0.0159		0.2009	0.2009		0.2009	0.2009	0.0000	2,877.8499	2,877.8499	0.0552	0.0528	2,894.9515
Total		**0.2908**	**2.4850**	**1.0574**	**0.0159**		**0.2009**	**0.2009**		**0.2009**	**0.2009**	**0.0000**	**2,877.8499**	**2,877.8499**	**0.0552**	**0.0528**	**2,894.9515**

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					
Single Family Housing	4.01539e+007	0.2165	1.8502	0.7873	0.0118		0.1496	0.1496		0.1496	0.1496	0.0000	2,142.7643	2,142.7643	0.0411	0.0393	2,155.4977
Total		**0.2165**	**1.8502**	**0.7873**	**0.0118**		**0.1496**	**0.1496**		**0.1496**	**0.1496**	**0.0000**	**2,142.7643**	**2,142.7643**	**0.0411**	**0.0393**	**2,155.4977**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.29873e+007	1,779.5291	0.1708	0.0354	1,794.3329
Total		**1,779.5291**	**0.1708**	**0.0354**	**1,794.3329**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.28323e+007	1,758.2981	0.1688	0.0349	1,772.9254
Total		**1,758.2981**	**0.1688**	**0.0349**	**1,772.9254**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan - 2030 Operational Only - Bay Area AQMD Air District, Annual

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	12.0022	0.2380	11.1550	1.2900e-003		0.0707	0.0707		0.0707	0.0707	0.0000	145.5293	145.5293	0.0198	2.3300e-003	146.7193
Unmitigated	21.6187	0.3218	23.9640	0.0271		1.9157	1.9157		1.9157	1.9157	190.6665	65.0079	255.6744	0.3776	0.0109	268.3619

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	1.9006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	10.5449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.8410	0.1938	12.8557	0.0265		1.8539	1.8539		1.8539	1.8539	190.6665	46.8147	237.4812	0.3603	0.0109	249.7353
Landscaping	0.3323	0.1281	11.1082	5.9000e-004		0.0618	0.0618		0.0618	0.0618	0.0000	18.1932	18.1932	0.0173	0.0000	18.6265
Total	**21.6187**	**0.3218**	**23.9640**	**0.0271**		**1.9157**	**1.9157**		**1.9157**	**1.9157**	**190.6665**	**65.0079**	**255.6744**	**0.3776**	**0.0109**	**268.3619**

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	1.9006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.7565					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0129	0.1100	0.0468	7.0000e-004		8.8900e-003	8.8900e-003		8.8900e-003	8.8900e-003	0.0000	127.3361	127.3361	2.4400e-003	2.3300e-003	128.0928
Landscaping	0.3323	0.1281	11.1082	5.9000e-004		0.0618	0.0618		0.0618	0.0618	0.0000	18.1932	18.1932	0.0173	0.0000	18.6265
Total	**12.0022**	**0.2380**	**11.1550**	**1.2900e-003**		**0.0707**	**0.0707**		**0.0707**	**0.0707**	**0.0000**	**145.5293**	**145.5293**	**0.0198**	**2.3300e-003**	**146.7193**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	133.0135	3.1944	0.0772	235.8842
Unmitigated	133.0135	3.1944	0.0772	235.8842

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	97.731 / 61.613	133.0135	3.1944	0.0772	235.8842
Total		**133.0135**	**3.1944**	**0.0772**	**235.8842**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	97.731 / 61.613	133.0135	3.1944	0.0772	235.8842
Total		**133.0135**	**3.1944**	**0.0772**	**235.8842**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	409.2298	24.1848	0.0000	1,013.8495
Unmitigated	409.2298	24.1848	0.0000	1,013.8495

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2016	409.2298	24.1848	0.0000	1,013.8495
Total		**409.2298**	**24.1848**	**0.0000**	**1,013.8495**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2016	409.2298	24.1848	0.0000	1,013.8495
Total		**409.2298**	**24.1848**	**0.0000**	**1,013.8495**

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

Faria Master Plan - 2050 Operational Only

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,500.00	Dwelling Unit	373.00	2,700,000.00	4800

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2050
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	302.08	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factors for CO2 adjusted based on PG&E RPS reductions

Land Use - Applicant provided

Construction Phase - Construction not modeled

Trips and VMT - Construction not modeled

Architectural Coating - Construction not modeled

Vehicle Trips - Per Traffic Impact Study by Kimley-Horn and Associates, Inc.

Area Mitigation - As regulated by BAAQMD

Energy Mitigation - 2016 Title 24 standards (latest standards) are anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

Off-road Equipment -

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	0.00
tblConstructionPhase	NumDays	440.00	1.00
tblConstructionPhase	PhaseEndDate	6/3/2018	6/4/2018
tblLandUse	LotAcreage	487.01	373.00
tblLandUse	Population	4,290.00	4,800.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	302.08
tblProjectCharacteristics	OperationalYear	2018	2050
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblVehicleTrips	ST_TR	9.91	8.37
tblVehicleTrips	SU_TR	8.62	8.37
tblVehicleTrips	WD_TR	9.52	8.37

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					
2018	2.1000e-004	1.0300e-003	1.2600e-003	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.0000	0.1393	0.1393	1.0000e-005	0.0000	0.1396
Maximum	**2.1000e-004**	**1.0300e-003**	**1.2600e-003**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.1393**	**0.1393**	**1.0000e-005**	**0.0000**	**0.1396**

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					
2018	2.1000e-004	1.0300e-003	1.2600e-003	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.0000	0.1393	0.1393	1.0000e-005	0.0000	0.1396
Maximum	**2.1000e-004**	**1.0300e-003**	**1.2600e-003**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.1393**	**0.1393**	**1.0000e-005**	**0.0000**	**0.1396**

	ROG	NOx	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**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-4-2018	9-3-2018	0.0009	0.0009
		Highest	0.0009	0.0009

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	21.6181	0.3218	23.9445	0.0271		1.9156	1.9156		1.9156	1.9156	190.6665	65.0079	255.6744	0.3776	0.0109	268.3615
Energy	0.2908	2.4850	1.0574	0.0159		0.2009	0.2009		0.2009	0.2009	0.0000	4,657.3789	4,657.3789	0.2260	0.0881	4,689.2844
Mobile	1.3215	9.9862	15.7979	0.0934	10.7916	0.0337	10.8253	2.8952	0.0315	2.9267	0.0000	8,670.3541	8,670.3541	0.2547	0.0000	8,676.7222
Waste						0.0000	0.0000		0.0000	0.0000	409.2298	0.0000	409.2298	24.1848	0.0000	1,013.8495
Water						0.0000	0.0000		0.0000	0.0000	31.0056	102.0079	133.0135	3.1944	0.0772	235.8842
Total	**23.2304**	**12.7929**	**40.7998**	**0.1364**	**10.7916**	**2.1503**	**12.9419**	**2.8952**	**2.1480**	**5.0432**	**630.9018**	**13,494.7489**	**14,125.6507**	**28.2374**	**0.1762**	**14,884.1018**

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	12.0016	0.2379	11.1355	1.2900e-003		0.0707	0.0707		0.0707	0.0707	0.0000	145.5293	145.5293	0.0198	2.3300e-003	146.7189
Energy	0.2165	1.8502	0.7873	0.0118		0.1496	0.1496		0.1496	0.1496	0.0000	3,901.0624	3,901.0624	0.2099	0.0742	3,928.4230
Mobile	1.3215	9.9862	15.7979	0.0934	10.7916	0.0337	10.8253	2.8952	0.0315	2.9267	0.0000	8,670.3541	8,670.3541	0.2547	0.0000	8,676.7222
Waste						0.0000	0.0000		0.0000	0.0000	409.2298	0.0000	409.2298	24.1848	0.0000	1,013.8495
Water						0.0000	0.0000		0.0000	0.0000	31.0056	102.0079	133.0135	3.1944	0.0772	235.8842
Total	**13.5396**	**12.0744**	**27.7208**	**0.1065**	**10.7916**	**0.2540**	**11.0456**	**2.8952**	**0.2517**	**3.1469**	**440.2353**	**12,818.9537**	**13,259.1890**	**27.8635**	**0.1538**	**14,001.5978**

	ROG	NOx	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	**41.72**	**5.62**	**32.06**	**21.89**	**0.00**	**88.19**	**14.65**	**0.00**	**88.28**	**37.60**	**30.22**	**5.01**	**6.13**	**1.32**	**12.75**	**5.93**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/4/2018	6/4/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 5,467,500; Residential Outdoor: 1,822,500; 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
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
Architectural Coating	1	108.00	0.00	0.00	0.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	1.0000e-003	9.3000e-004	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1280
Total	**1.5000e-004**	**1.0000e-003**	**9.3000e-004**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1280**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	2.0000e-005	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.0116	0.0000	0.0000	0.0116
Total	**6.0000e-005**	**2.0000e-005**	**3.4000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0116**	**0.0116**	**0.0000**	**0.0000**	**0.0116**

3.2 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	1.0000e-003	9.3000e-004	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1280
Total	**1.5000e-004**	**1.0000e-003**	**9.3000e-004**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1280**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	2.0000e-005	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.0116	0.0000	0.0000	0.0116
Total	**6.0000e-005**	**2.0000e-005**	**3.4000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0116**	**0.0116**	**0.0000**	**0.0000**	**0.0116**

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	1.3215	9.9862	15.7979	0.0934	10.7916	0.0337	10.8253	2.8952	0.0315	2.9267	0.0000	8,670.3541	8,670.3541	0.2547	0.0000	8,676.7222
Unmitigated	1.3215	9.9862	15.7979	0.0934	10.7916	0.0337	10.8253	2.8952	0.0315	2.9267	0.0000	8,670.3541	8,670.3541	0.2547	0.0000	8,676.7222

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	12,555.00	12,555.00	12555.00	28,997,120	28,997,120
Total	12,555.00	12,555.00	12,555.00	28,997,120	28,997,120

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.585089	0.035506	0.191350	0.104898	0.011211	0.005274	0.021718	0.033377	0.002912	0.001575	0.005503	0.000923	0.000663

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,758.2981	1,758.2981	0.1688	0.0349	1,772.9254
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,779.5291	1,779.5291	0.1708	0.0354	1,794.3329
NaturalGas Mitigated	0.2165	1.8502	0.7873	0.0118		0.1496	0.1496		0.1496	0.1496	0.0000	2,142.7643	2,142.7643	0.0411	0.0393	2,155.4977
NaturalGas Unmitigated	0.2908	2.4850	1.0574	0.0159		0.2009	0.2009		0.2009	0.2009	0.0000	2,877.8499	2,877.8499	0.0552	0.0528	2,894.9515

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					
Single Family Housing	5.39289e+007	0.2908	2.4850	1.0574	0.0159		0.2009	0.2009		0.2009	0.2009	0.0000	2,877.8499	2,877.8499	0.0552	0.0528	2,894.9515
Total		**0.2908**	**2.4850**	**1.0574**	**0.0159**		**0.2009**	**0.2009**		**0.2009**	**0.2009**	**0.0000**	**2,877.8499**	**2,877.8499**	**0.0552**	**0.0528**	**2,894.9515**

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					
Single Family Housing	4.01539e+007	0.2165	1.8502	0.7873	0.0118		0.1496	0.1496		0.1496	0.1496	0.0000	2,142.7643	2,142.7643	0.0411	0.0393	2,155.4977
Total		**0.2165**	**1.8502**	**0.7873**	**0.0118**		**0.1496**	**0.1496**		**0.1496**	**0.1496**	**0.0000**	**2,142.7643**	**2,142.7643**	**0.0411**	**0.0393**	**2,155.4977**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.29873e+007	1,779.5291	0.1708	0.0354	1,794.3329
Total		**1,779.5291**	**0.1708**	**0.0354**	**1,794.3329**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.28323e+007	1,758.2981	0.1688	0.0349	1,772.9254
Total		**1,758.2981**	**0.1688**	**0.0349**	**1,772.9254**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan - 2050 Operational Only - Bay Area AQMD Air District, Annual

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	12.0016	0.2379	11.1355	1.2900e-003		0.0707	0.0707		0.0707	0.0707	0.0000	145.5293	145.5293	0.0198	2.3300e-003	146.7189
Unmitigated	21.6181	0.3218	23.9445	0.0271		1.9156	1.9156		1.9156	1.9156	190.6665	65.0079	255.6744	0.3776	0.0109	268.3615

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	1.9006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	10.5449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.8410	0.1938	12.8557	0.0265		1.8539	1.8539		1.8539	1.8539	190.6665	46.8147	237.4812	0.3603	0.0109	249.7353
Landscaping	0.3317	0.1280	11.0887	5.9000e-004		0.0618	0.0618		0.0618	0.0618	0.0000	18.1932	18.1932	0.0173	0.0000	18.6261
Total	**21.6181**	**0.3218**	**23.9445**	**0.0271**		**1.9156**	**1.9156**		**1.9156**	**1.9156**	**190.6665**	**65.0079**	**255.6744**	**0.3776**	**0.0109**	**268.3615**

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	1.9006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.7565					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0129	0.1100	0.0468	7.0000e-004		8.8900e-003	8.8900e-003		8.8900e-003	8.8900e-003	0.0000	127.3361	127.3361	2.4400e-003	2.3300e-003	128.0928
Landscaping	0.3317	0.1280	11.0887	5.9000e-004		0.0618	0.0618		0.0618	0.0618	0.0000	18.1932	18.1932	0.0173	0.0000	18.6261
Total	**12.0016**	**0.2379**	**11.1355**	**1.2900e-003**		**0.0707**	**0.0707**		**0.0707**	**0.0707**	**0.0000**	**145.5293**	**145.5293**	**0.0198**	**2.3300e-003**	**146.7189**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	133.0135	3.1944	0.0772	235.8842
Unmitigated	133.0135	3.1944	0.0772	235.8842

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	97.731 / 61.613	133.0135	3.1944	0.0772	235.8842
Total		**133.0135**	**3.1944**	**0.0772**	**235.8842**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	97.731 / 61.613	133.0135	3.1944	0.0772	235.8842
Total		**133.0135**	**3.1944**	**0.0772**	**235.8842**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	409.2298	24.1848	0.0000	1,013.8495
Unmitigated	409.2298	24.1848	0.0000	1,013.8495

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2016	409.2298	24.1848	0.0000	1,013.8495
Total		**409.2298**	**24.1848**	**0.0000**	**1,013.8495**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2016	409.2298	24.1848	0.0000	1,013.8495
Total		**409.2298**	**24.1848**	**0.0000**	**1,013.8495**

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

Faria Master Plan - 1000 Unit Alternative - Operational

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,000.00	Dwelling Unit	373.00	1,800,000.00	3200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Annual

Project Characteristics - CO2 Intensity Factor adjusted for PG&E progress towards RPS

Land Use - Acreage based on Draft Master Plan developable area

Construction Phase - Construction not modeled

Off-road Equipment - Construction not modeled

Off-road Equipment -

Trips and VMT - Construction not modeled

Grading - *

Architectural Coating - Construction not modeled

Vehicle Trips - Trip rate adjusted from Kimley-Horn Traffic Report based on reduced unit count

Energy Use -

Area Mitigation -

Energy Mitigation - 2016 Title 24 standards (latest standards) is anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	0.00
tblConstructionPhase	NumDays	440.00	1.00
tblLandUse	LotAcreage	324.68	373.00
tblLandUse	Population	2,860.00	3,200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	OperationalYear	2018	2023
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	WorkerTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	72.00	0.00
tblVehicleTrips	ST_TR	9.91	8.65
tblVehicleTrips	SU_TR	8.62	8.65
tblVehicleTrips	WD_TR	9.52	8.65

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					
2018	0.0000	0.0000	0.0000	0.0000	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					
2018	0.0000	0.0000	0.0000	0.0000	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**

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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	14.4147	0.2148	15.9973	0.0181		1.2770	1.2770		1.2770	1.2770	127.1110	43.3386	170.4496	0.2518	7.2700e-003	178.9106
Energy	0.1939	1.6566	0.7050	0.0106		0.1339	0.1339		0.1339	0.1339	0.0000	3,458.4530	3,458.4530	0.1507	0.0587	3,479.7234
Mobile	1.9675	8.7121	22.3480	0.0831	7.4348	0.0681	7.5028	1.9954	0.0636	2.0589	0.0000	7,636.8428	7,636.8428	0.2652	0.0000	7,643.4724
Waste						0.0000	0.0000		0.0000	0.0000	272.8199	0.0000	272.8199	16.1232	0.0000	675.8996
Water						0.0000	0.0000		0.0000	0.0000	20.6704	88.2709	108.9413	2.1296	0.0515	177.5218
Total	**16.5760**	**10.5835**	**39.0502**	**0.1118**	**7.4348**	**1.4790**	**8.9138**	**1.9954**	**1.4745**	**3.4699**	**420.6012**	**11,226.9053**	**11,647.5065**	**18.9204**	**0.1175**	**12,155.5277**

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	8.0037	0.1589	7.4580	8.6000e-004		0.0470	0.0470		0.0470	0.0470	0.0000	97.0195	97.0195	0.0133	1.5600e-003	97.8156
Energy	0.1443	1.2335	0.5249	7.8700e-003		0.0997	0.0997		0.0997	0.0997	0.0000	2,950.0241	2,950.0241	0.1399	0.0495	2,968.2645
Mobile	1.9675	8.7121	22.3480	0.0831	7.4348	0.0681	7.5028	1.9954	0.0636	2.0589	0.0000	7,636.8428	7,636.8428	0.2652	0.0000	7,643.4724
Waste						0.0000	0.0000		0.0000	0.0000	272.8199	0.0000	272.8199	16.1232	0.0000	675.8996
Water						0.0000	0.0000		0.0000	0.0000	20.6704	88.2709	108.9413	2.1296	0.0515	177.5218
Total	**10.1155**	**10.1045**	**30.3309**	**0.0919**	**7.4348**	**0.2148**	**7.6496**	**1.9954**	**0.2103**	**2.2057**	**293.4902**	**10,772.1573**	**11,065.6475**	**18.6711**	**0.1025**	**11,562.9739**

	ROG	NOx	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	**38.98**	**4.53**	**22.33**	**17.81**	**0.00**	**85.48**	**14.18**	**0.00**	**85.74**	**36.43**	**30.22**	**4.05**	**5.00**	**1.32**	**12.75**	**4.87**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/4/2018	6/4/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 3,645,000; Residential Outdoor: 1,215,000; 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
Architectural Coating	Air Compressors	0	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
Architectural Coating	0	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

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

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 Architectural Coating - 2018

Mitigated Construction On-Site

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

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	1.9675	8.7121	22.3480	0.0831	7.4348	0.0681	7.5028	1.9954	0.0636	2.0589	0.0000	7,636.8428	7,636.8428	0.2652	0.0000	7,643.4724
Unmitigated	1.9675	8.7121	22.3480	0.0831	7.4348	0.0681	7.5028	1.9954	0.0636	2.0589	0.0000	7,636.8428	7,636.8428	0.2652	0.0000	7,643.4724

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	8,650.00	8,650.00	8650.00	19,978,103	19,978,103
Total	8,650.00	8,650.00	8,650.00	19,978,103	19,978,103

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,521.5146	1,521.5146	0.1125	0.0233	1,531.2661
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,539.8864	1,539.8864	0.1139	0.0236	1,549.7557
NaturalGas Mitigated	0.1443	1.2335	0.5249	7.8700e-003		0.0997	0.0997		0.0997	0.0997	0.0000	1,428.5095	1,428.5095	0.0274	0.0262	1,436.9985
NaturalGas Unmitigated	0.1939	1.6566	0.7050	0.0106		0.1339	0.1339		0.1339	0.1339	0.0000	1,918.5666	1,918.5666	0.0368	0.0352	1,929.9677

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					
Single Family Housing	3.59526e+007	0.1939	1.6566	0.7050	0.0106		0.1339	0.1339		0.1339	0.1339	0.0000	1,918.5666	1,918.5666	0.0368	0.0352	1,929.9677
Total		**0.1939**	**1.6566**	**0.7050**	**0.0106**		**0.1339**	**0.1339**		**0.1339**	**0.1339**	**0.0000**	**1,918.5666**	**1,918.5666**	**0.0368**	**0.0352**	**1,929.9677**

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					
Single Family Housing	2.67693e+007	0.1443	1.2335	0.5249	7.8700e-003		0.0997	0.0997		0.0997	0.0997	0.0000	1,428.5095	1,428.5095	0.0274	0.0262	1,436.9985
Total		**0.1443**	**1.2335**	**0.5249**	**7.8700e-003**		**0.0997**	**0.0997**		**0.0997**	**0.0997**	**0.0000**	**1,428.5095**	**1,428.5095**	**0.0274**	**0.0262**	**1,436.9985**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	8.65817e+006	1,539.8864	0.1139	0.0236	1,549.7557
Total		**1,539.8864**	**0.1139**	**0.0236**	**1,549.7557**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	8.55487e+006	1,521.5146	0.1125	0.0233	1,531.2661
Total		**1,521.5146**	**0.1125**	**0.0233**	**1,531.2661**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Annual

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.0037	0.1589	7.4580	8.6000e-004		0.0470	0.0470		0.0470	0.0470	0.0000	97.0195	97.0195	0.0133	1.5600e-003	97.8156
Unmitigated	14.4147	0.2148	15.9973	0.0181		1.2770	1.2770		1.2770	1.2770	127.1110	43.3386	170.4496	0.2518	7.2700e-003	178.9106

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	1.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.0299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.8940	0.1292	8.5705	0.0177		1.2359	1.2359		1.2359	1.2359	127.1110	31.2098	158.3208	0.2402	7.2700e-003	166.4902
Landscaping	0.2237	0.0856	7.4268	3.9000e-004		0.0411	0.0411		0.0411	0.0411	0.0000	12.1288	12.1288	0.0117	0.0000	12.4204
Total	**14.4147**	**0.2148**	**15.9973**	**0.0181**		**1.2770**	**1.2770**		**1.2770**	**1.2770**	**127.1110**	**43.3386**	**170.4496**	**0.2518**	**7.2700e-003**	**178.9106**

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	1.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.5043					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.5800e-003	0.0733	0.0312	4.7000e-004		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003	0.0000	84.8907	84.8907	1.6300e-003	1.5600e-003	85.3952
Landscaping	0.2237	0.0856	7.4268	3.9000e-004		0.0411	0.0411		0.0411	0.0411	0.0000	12.1288	12.1288	0.0117	0.0000	12.4204
Total	**8.0037**	**0.1589**	**7.4580**	**8.6000e-004**		**0.0470**	**0.0470**		**0.0470**	**0.0470**	**0.0000**	**97.0195**	**97.0195**	**0.0133**	**1.5600e-003**	**97.8156**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	108.9413	2.1296	0.0515	177.5218
Unmitigated	108.9413	2.1296	0.0515	177.5218

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	65.154 / 41.0754	108.9413	2.1296	0.0515	177.5218
Total		**108.9413**	**2.1296**	**0.0515**	**177.5218**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	65.154 / 41.0754	108.9413	2.1296	0.0515	177.5218
Total		**108.9413**	**2.1296**	**0.0515**	**177.5218**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	272.8199	16.1232	0.0000	675.8996
Unmitigated	272.8199	16.1232	0.0000	675.8996

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1344	272.8199	16.1232	0.0000	675.8996
Total		**272.8199**	**16.1232**	**0.0000**	**675.8996**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1344	272.8199	16.1232	0.0000	675.8996
Total		**272.8199**	**16.1232**	**0.0000**	**675.8996**

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

Faria Master Plan - 1000 Unit Alternative - Operational

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,000.00	Dwelling Unit	373.00	1,800,000.00	3200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Summer

Project Characteristics - CO2 Intensity Factor adjusted for PG&E progress towards RPS

Land Use - Acreage based on Draft Master Plan developable area

Construction Phase - Construction not modeled

Off-road Equipment - Construction not modeled

Off-road Equipment -

Trips and VMT - Construction not modeled

Grading - *

Architectural Coating - Construction not modeled

Vehicle Trips - Trip rate adjusted from Kimley-Horn Traffic Report based on reduced unit count

Energy Use -

Area Mitigation -

Energy Mitigation - 2016 Title 24 standards (latest standards) is anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	0.00
tblConstructionPhase	NumDays	440.00	1.00
tblLandUse	LotAcreage	324.68	373.00
tblLandUse	Population	2,860.00	3,200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	OperationalYear	2018	2023
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	WorkerTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	72.00	0.00
tblVehicleTrips	ST_TR	9.91	8.65
tblVehicleTrips	SU_TR	8.62	8.65
tblVehicleTrips	WD_TR	9.52	8.65

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					
2018	0.0000	0.0000	0.0000	0.0000	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					
2018	0.0000	0.0000	0.0000	0.0000	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	1,084.2665	20.9051	1,422.8083	2.5285		189.9802	189.9802		189.9802	189.9802	20,378.3386	6,325.0229	26,703.3615	25.3398	1.4380	27,765.3718
Energy	1.0623	9.0775	3.8628	0.0579		0.7339	0.7339		0.7339	0.7339		11,588.2611	11,588.2611	0.2221	0.2125	11,657.1243
Mobile	12.4371	46.4103	127.8732	0.4833	42.4408	0.3737	42.8145	11.3540	0.3489	11.7029		48,922.1036	48,922.1036	1.6162		48,962.5093
Total	**1,097.7659**	**76.3929**	**1,554.5442**	**3.0697**	**42.4408**	**191.0879**	**233.5286**	**11.3540**	**191.0631**	**202.4171**	**20,378.3386**	**66,835.3876**	**87,213.7262**	**27.1781**	**1.6504**	**88,385.0054**

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	46.6090	14.1112	88.1197	0.0884		1.5207	1.5207		1.5207	1.5207	0.0000	16,948.5523	16,948.5523	0.4649	0.3080	17,051.9576
Energy	0.7909	6.7588	2.8761	0.0431		0.5465	0.5465		0.5465	0.5465		8,628.2861	8,628.2861	0.1654	0.1582	8,679.5597
Mobile	12.4371	46.4103	127.8732	0.4833	42.4408	0.3737	42.8145	11.3540	0.3489	11.7029		48,922.1036	48,922.1036	1.6162		48,962.5093
Total	**59.8371**	**67.2804**	**218.8690**	**0.6148**	**42.4408**	**2.4409**	**44.8817**	**11.3540**	**2.4161**	**13.7701**	**0.0000**	**74,498.9420**	**74,498.9420**	**2.2465**	**0.4662**	**74,694.0266**

	ROG	NOx	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	94.55	11.93	85.92	79.97	0.00	98.72	80.78	0.00	98.74	93.20	100.00	-11.47	14.58	91.73	71.75	15.49

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/4/2018	6/4/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 3,645,000; Residential Outdoor: 1,215,000; 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
Architectural Coating	Air Compressors	0	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
Architectural Coating	0	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
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
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**

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	0.0000	0.0000	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**

3.2 Architectural Coating - 2018

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
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
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**

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	0.0000	0.0000	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**

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	12.4371	46.4103	127.8732	0.4833	42.4408	0.3737	42.8145	11.3540	0.3489	11.7029		48,922.1036	48,922.1036	1.6162		48,962.5093
Unmitigated	12.4371	46.4103	127.8732	0.4833	42.4408	0.3737	42.8145	11.3540	0.3489	11.7029		48,922.1036	48,922.1036	1.6162		48,962.5093

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	8,650.00	8,650.00	8650.00	19,978,103	19,978,103
Total	8,650.00	8,650.00	8,650.00	19,978,103	19,978,103

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7909	6.7588	2.8761	0.0431		0.5465	0.5465		0.5465	0.5465		8,628.2861	8,628.2861	0.1654	0.1582	8,679.5597
NaturalGas Unmitigated	1.0623	9.0775	3.8628	0.0579		0.7339	0.7339		0.7339	0.7339		11,588.2611	11,588.2611	0.2221	0.2125	11,657.1243

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					
Single Family Housing	98500.2	1.0623	9.0775	3.8628	0.0579		0.7339	0.7339		0.7339	0.7339		11,588.2611	11,588.2611	0.2221	0.2125	11,657.1243
Total		**1.0623**	**9.0775**	**3.8628**	**0.0579**		**0.7339**	**0.7339**		**0.7339**	**0.7339**		**11,588.2611**	**11,588.2611**	**0.2221**	**0.2125**	**11,657.1243**

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					
Single Family Housing	73.3404	0.7909	6.7588	2.8761	0.0431		0.5465	0.5465		0.5465	0.5465		8,628.2861	8,628.2861	0.1654	0.1582	8,679.5597
Total		**0.7909**	**6.7588**	**2.8761**	**0.0431**		**0.5465**	**0.5465**		**0.5465**	**0.5465**		**8,628.2861**	**8,628.2861**	**0.1654**	**0.1582**	**8,679.5597**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Summer

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	46.6090	14.1112	88.1197	0.0884		1.5207	1.5207		1.5207	1.5207	0.0000	16,948.5523	16,948.5523	0.4649	0.3080	17,051.9576
Unmitigated	1,084.2665	20.9051	1,422.8083	2.5285		189.9802	189.9802		189.9802	189.9802	20,378.3386	6,325.0229	26,703.3615	25.3398	1.4380	27,765.3718

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	6.9430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	38.5200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,036.3175	19.9539	1,340.2886	2.5241		189.5235	189.5235		189.5235	189.5235	20,378.3386	6,176.4706	26,554.8092	25.1969	1.4380	27,613.2482
Landscaping	2.4860	0.9512	82.5197	4.3600e-003		0.4567	0.4567		0.4567	0.4567		148.5523	148.5523	0.1429		152.1236
Total	**1,084.2665**	**20.9051**	**1,422.8083**	**2.5285**		**189.9802**	**189.9802**		**189.9802**	**189.9802**	**20,378.3386**	**6,325.0229**	**26,703.3615**	**25.3398**	**1.4380**	**27,765.3718**

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	6.9430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	35.6400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.5400	13.1600	5.6000	0.0840		1.0640	1.0640		1.0640	1.0640	0.0000	16,800.0000	16,800.0000	0.3220	0.3080	16,899.8340
Landscaping	2.4860	0.9512	82.5197	4.3600e-003		0.4567	0.4567		0.4567	0.4567		148.5523	148.5523	0.1429		152.1236
Total	**46.6090**	**14.1112**	**88.1197**	**0.0884**		**1.5207**	**1.5207**		**1.5207**	**1.5207**	**0.0000**	**16,948.5523**	**16,948.5523**	**0.4649**	**0.3080**	**17,051.9576**

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

Faria Master Plan - 1000 Unit Alternative - Operational

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,000.00	Dwelling Unit	373.00	1,800,000.00	3200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Winter

Project Characteristics - CO2 Intensity Factor adjusted for PG&E progress towards RPS

Land Use - Acreage based on Draft Master Plan developable area

Construction Phase - Construction not modeled

Off-road Equipment - Construction not modeled

Off-road Equipment -

Trips and VMT - Construction not modeled

Grading - *

Architectural Coating - Construction not modeled

Vehicle Trips - Trip rate adjusted from Kimley-Horn Traffic Report based on reduced unit count

Energy Use -

Area Mitigation -

Energy Mitigation - 2016 Title 24 standards (latest standards) is anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	0.00
tblConstructionPhase	NumDays	440.00	1.00
tblLandUse	LotAcreage	324.68	373.00
tblLandUse	Population	2,860.00	3,200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	OperationalYear	2018	2023
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	WorkerTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	72.00	0.00
tblVehicleTrips	ST_TR	9.91	8.65
tblVehicleTrips	SU_TR	8.62	8.65
tblVehicleTrips	WD_TR	9.52	8.65

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					
2018	0.0000	0.0000	0.0000	0.0000	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					
2018	0.0000	0.0000	0.0000	0.0000	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	1,084.2665	20.9051	1,422.8083	2.5285		189.9802	189.9802		189.9802	189.9802	20,378.3386	6,325.0229	26,703.3615	25.3398	1.4380	27,765.3718
Energy	1.0623	9.0775	3.8628	0.0579		0.7339	0.7339		0.7339	0.7339		11,588.2611	11,588.2611	0.2221	0.2125	11,657.1243
Mobile	10.7027	48.7912	128.4683	0.4525	42.4408	0.3755	42.8163	11.3540	0.3507	11.7047		45,817.7941	45,817.7941	1.6459		45,858.9422
Total	**1,096.0314**	**78.7738**	**1,555.1393**	**3.0389**	**42.4408**	**191.0897**	**233.5304**	**11.3540**	**191.0648**	**202.4188**	**20,378.3386**	**63,731.0781**	**84,109.4167**	**27.2078**	**1.6504**	**85,281.4383**

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	46.6090	14.1112	88.1197	0.0884		1.5207	1.5207		1.5207	1.5207	0.0000	16,948.5523	16,948.5523	0.4649	0.3080	17,051.9576
Energy	0.7909	6.7588	2.8761	0.0431		0.5465	0.5465		0.5465	0.5465		8,628.2861	8,628.2861	0.1654	0.1582	8,679.5597
Mobile	10.7027	48.7912	128.4683	0.4525	42.4408	0.3755	42.8163	11.3540	0.3507	11.7047		45,817.7941	45,817.7941	1.6459		45,858.9422
Total	**58.1026**	**69.6612**	**219.4640**	**0.5840**	**42.4408**	**2.4427**	**44.8835**	**11.3540**	**2.4179**	**13.7719**	**0.0000**	**71,394.6325**	**71,394.6325**	**2.2762**	**0.4662**	**71,590.4594**

	ROG	NOx	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	94.70	11.57	85.89	80.78	0.00	98.72	80.78	0.00	98.73	93.20	100.00	-12.02	15.12	91.63	71.75	16.05

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/4/2018	6/4/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 3,645,000; Residential Outdoor: 1,215,000; 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
Architectural Coating	Air Compressors	0	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
Architectural Coating	0	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
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
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**

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	0.0000	0.0000	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**

3.2 Architectural Coating - 2018

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
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
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**

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	0.0000	0.0000	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**

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	10.7027	48.7912	128.4683	0.4525	42.4408	0.3755	42.8163	11.3540	0.3507	11.7047		45,817.7941	45,817.7941	1.6459		45,858.9422
Unmitigated	10.7027	48.7912	128.4683	0.4525	42.4408	0.3755	42.8163	11.3540	0.3507	11.7047		45,817.7941	45,817.7941	1.6459		45,858.9422

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	8,650.00	8,650.00	8650.00	19,978,103	19,978,103
Total	8,650.00	8,650.00	8,650.00	19,978,103	19,978,103

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7909	6.7588	2.8761	0.0431		0.5465	0.5465		0.5465	0.5465		8,628.2861	8,628.2861	0.1654	0.1582	8,679.5597
NaturalGas Unmitigated	1.0623	9.0775	3.8628	0.0579		0.7339	0.7339		0.7339	0.7339		11,588.2611	11,588.2611	0.2221	0.2125	11,657.1243

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					
Single Family Housing	98500.2	1.0623	9.0775	3.8628	0.0579		0.7339	0.7339		0.7339	0.7339		11,588.2611	11,588.2611	0.2221	0.2125	11,657.1243
Total		**1.0623**	**9.0775**	**3.8628**	**0.0579**		**0.7339**	**0.7339**		**0.7339**	**0.7339**		**11,588.2611**	**11,588.2611**	**0.2221**	**0.2125**	**11,657.1243**

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					
Single Family Housing	73.3404	0.7909	6.7588	2.8761	0.0431		0.5465	0.5465		0.5465	0.5465		8,628.2861	8,628.2861	0.1654	0.1582	8,679.5597
Total		**0.7909**	**6.7588**	**2.8761**	**0.0431**		**0.5465**	**0.5465**		**0.5465**	**0.5465**		**8,628.2861**	**8,628.2861**	**0.1654**	**0.1582**	**8,679.5597**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Winter

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	46.6090	14.1112	88.1197	0.0884		1.5207	1.5207		1.5207	1.5207	0.0000	16,948.5523	16,948.5523	0.4649	0.3080	17,051.9576
Unmitigated	1,084.2665	20.9051	1,422.8083	2.5285		189.9802	189.9802		189.9802	189.9802	20,378.3386	6,325.0229	26,703.3615	25.3398	1.4380	27,765.3718

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	6.9430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	38.5200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,036.3175	19.9539	1,340.2886	2.5241		189.5235	189.5235		189.5235	189.5235	20,378.3386	6,176.4706	26,554.8092	25.1969	1.4380	27,613.2482
Landscaping	2.4860	0.9512	82.5197	4.3600e-003		0.4567	0.4567		0.4567	0.4567		148.5523	148.5523	0.1429		152.1236
Total	**1,084.2665**	**20.9051**	**1,422.8083**	**2.5285**		**189.9802**	**189.9802**		**189.9802**	**189.9802**	**20,378.3386**	**6,325.0229**	**26,703.3615**	**25.3398**	**1.4380**	**27,765.3718**

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	6.9430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	35.6400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.5400	13.1600	5.6000	0.0840		1.0640	1.0640		1.0640	1.0640	0.0000	16,800.0000	16,800.0000	0.3220	0.3080	16,899.8340
Landscaping	2.4860	0.9512	82.5197	4.3600e-003		0.4567	0.4567		0.4567	0.4567		148.5523	148.5523	0.1429		152.1236
Total	**46.6090**	**14.1112**	**88.1197**	**0.0884**		**1.5207**	**1.5207**		**1.5207**	**1.5207**	**0.0000**	**16,948.5523**	**16,948.5523**	**0.4649**	**0.3080**	**17,051.9576**

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

Faria Master Plan - 1000 Unit Alternative - Operational

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

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

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	0	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)			
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	7.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19	1.19	1.19	1.19	1.19
Hearth	99.85	43.25	99.64	97.34	99.52	99.52	100.00	-172.00	46.38	99.32	78.54	48.71
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	25.54	25.54	25.54	25.54	25.54	25.54	0.00	25.54	25.54	25.54	25.53	25.54
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
Yes	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	28.00	
No	Install High Efficiency Lighting	0.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Faria Master Plan - 1000 Unit Alternative - Operational

Bay Area AQMD, Summary Report

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,000.00	Dwelling Unit	373.00	1,800,000.00	3200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments

Only CalEEMod defaults were used.

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Summary Report

Project Characteristics - CO2 Intensity Factor adjusted for PG&E progress towards RPS

Land Use - Acreage based on Draft Master Plan developable area

Construction Phase - Construction not modeled

Off-road Equipment - Construction not modeled

Off-road Equipment -

Trips and VMT - Construction not modeled

Grading - *

Architectural Coating - Construction not modeled

Vehicle Trips - Trip rate adjusted from Kimley-Horn Traffic Report based on reduced unit count

Energy Use -

Area Mitigation -

Energy Mitigation - 2016 Title 24 standards (latest standards) is anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

2.0 Peak Daily Emissions

Peak Daily Construction Emissions

Peak Daily Construction Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
Year	Phase	lb/day											
2018	Architectural Coating	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S
	Peak Daily Total	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S
	Air District Threshold												
	Exceed Significance?												

Faria Master Plan - 1000 Unit Alternative - Operational - Bay Area AQMD Air District, Summary Report

Peak Daily Operational Emissions

Peak Daily Operational Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
	Operational Activity	lb/day											
On-Site	Area	1,084.2665 S	20.9051 S	1,422.8083 S	2.5285 S	189.9802 S	189.9802 S	46.6090 S	14.1112 S	88.1197 S	0.0884 S	1.5207 S	1.5207 S
On-Site	Energy	1.0623 S	9.0775 S	3.8628 S	0.0579 S	0.7339 S	0.7339 S	0.7909 S	6.7588 S	2.8761 S	0.0431 S	0.5465 S	0.5465 S
Off-Site	Mobile	12.4371 S	48.7912 W	128.4683 W	0.4833 S	42.8163 W	11.7047 W	12.4371 S	48.7912 W	128.4683 W	0.4833 S	42.8163 W	11.7047 W
	Peak Daily Total	1,097.7659 S	78.7738 W	1,555.1393 W	3.0697 S	233.5304 W	202.4188 W	59.8371 S	69.6612 W	219.4640 W	0.6148 S	44.8835 W	13.7719 W
	Air District Threshold												
	Exceed Significance?												

3.0 Annual GHG Emissions

Annual GHG

Annual GHG

		Unmitigated				Mitigated			
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
GHG Activity	Year	MT/yr							
Construction	2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Operational	2023	11,647.5065	18.9204	0.1175	12,155.5293	11,065.6475	18.6712	0.1025	11,562.9748
	Total								
	Significance Threshold								
	Exceed Significance?								

Faria 1000-Unit Alternative (2030 Operational)

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,000.00	Dwelling Unit	373.00	1,800,000.00	3200

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	302.08	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity adjusted for PG&E progress towards RPS

Land Use - *

Construction Phase - Construction not modeled

Off-road Equipment -

Off-road Equipment - Construction not modeled

Vehicle Trips - *

Area Mitigation -

Energy Mitigation -

Trips and VMT - Construction not modeled

Faria 1000-Unit Alternative (2030 Operational) - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	240.00	1.00
tblLandUse	LotAcreage	324.68	373.00
tblLandUse	Population	2,860.00	3,200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	302.08
tblProjectCharacteristics	OperationalYear	2018	2030
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	9.91	8.85
tblVehicleTrips	SU_TR	8.62	8.85
tblVehicleTrips	WD_TR	9.52	8.85

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					
2018	0.0000	0.0000	0.0000	0.0000	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					
2018	0.0000	0.0000	0.0000	0.0000	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**

Faria 1000-Unit Alternative (2030 Operational) - Bay Area AQMD Air District, Annual

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	14.4125	0.2145	15.9760	0.0181		1.2771	1.2771		1.2771	1.2771	127.1110	43.3386	170.4496	0.2517	7.2700e-003	178.9079
Energy	0.1939	1.6566	0.7050	0.0106		0.1339	0.1339		0.1339	0.1339	0.0000	3,104.9193	3,104.9193	0.1507	0.0587	3,126.1896
Mobile	1.4153	7.3338	15.7376	0.0711	7.6016	0.0472	7.6487	2.0391	0.0439	2.0830	0.0000	6,563.4537	6,563.4537	0.2078	0.0000	6,568.6497
Waste						0.0000	0.0000		0.0000	0.0000	272.8199	0.0000	272.8199	16.1232	0.0000	675.8996
Water						0.0000	0.0000		0.0000	0.0000	20.6704	68.0053	88.6757	2.1296	0.0515	157.2562
Total	**16.0217**	**9.2050**	**32.4186**	**0.0997**	**7.6016**	**1.4582**	**9.0598**	**2.0391**	**1.4550**	**3.4941**	**420.6012**	**9,779.7169**	**10,200.3181**	**18.8630**	**0.1175**	**10,706.9030**

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	8.0015	0.1587	7.4367	8.6000e-004		0.0471	0.0471		0.0471	0.0471	0.0000	97.0195	97.0195	0.0132	1.5600e-003	97.8129
Energy	0.1443	1.2335	0.5249	7.8700e-003		0.0997	0.0997		0.0997	0.0997	0.0000	2,600.7083	2,600.7083	0.1399	0.0495	2,618.9487
Mobile	1.4153	7.3338	15.7376	0.0711	7.6016	0.0472	7.6487	2.0391	0.0439	2.0830	0.0000	6,563.4537	6,563.4537	0.2078	0.0000	6,568.6497
Waste						0.0000	0.0000		0.0000	0.0000	272.8199	0.0000	272.8199	16.1232	0.0000	675.8996
Water						0.0000	0.0000		0.0000	0.0000	20.6704	68.0053	88.6757	2.1296	0.0515	157.2562
Total	**9.5612**	**8.7260**	**23.6992**	**0.0798**	**7.6016**	**0.1940**	**7.7956**	**2.0391**	**0.1908**	**2.2299**	**293.4902**	**9,329.1867**	**9,622.6770**	**18.6137**	**0.1025**	**10,118.5671**

	ROG	NOx	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	**40.32**	**5.20**	**26.90**	**19.96**	**0.00**	**86.69**	**13.95**	**0.00**	**86.89**	**36.18**	**30.22**	**4.61**	**5.66**	**1.32**	**12.75**	**5.49**

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	6/4/2018	6/4/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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	1.4153	7.3338	15.7376	0.0711	7.6016	0.0472	7.6487	2.0391	0.0439	2.0830	0.0000	6,563.4537	6,563.4537	0.2078	0.0000	6,568.6497
Unmitigated	1.4153	7.3338	15.7376	0.0711	7.6016	0.0472	7.6487	2.0391	0.0439	2.0830	0.0000	6,563.4537	6,563.4537	0.2078	0.0000	6,568.6497

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	8,850.00	8,850.00	8850.00	20,440,025	20,440,025
Total	8,850.00	8,850.00	8,850.00	20,440,025	20,440,025

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,172.1987	1,172.1987	0.1125	0.0233	1,181.9503
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,186.3527	1,186.3527	0.1139	0.0236	1,196.2220
NaturalGas Mitigated	0.1443	1.2335	0.5249	7.8700e-003		0.0997	0.0997		0.0997	0.0997	0.0000	1,428.5095	1,428.5095	0.0274	0.0262	1,436.9985
NaturalGas Unmitigated	0.1939	1.6566	0.7050	0.0106		0.1339	0.1339		0.1339	0.1339	0.0000	1,918.5666	1,918.5666	0.0368	0.0352	1,929.9677

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					
Single Family Housing	3.59526e+007	0.1939	1.6566	0.7050	0.0106		0.1339	0.1339		0.1339	0.1339	0.0000	1,918.5666	1,918.5666	0.0368	0.0352	1,929.9677
Total		**0.1939**	**1.6566**	**0.7050**	**0.0106**		**0.1339**	**0.1339**		**0.1339**	**0.1339**	**0.0000**	**1,918.5666**	**1,918.5666**	**0.0368**	**0.0352**	**1,929.9677**

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					
Single Family Housing	2.67693e+007	0.1443	1.2335	0.5249	7.8700e-003		0.0997	0.0997		0.0997	0.0997	0.0000	1,428.5095	1,428.5095	0.0274	0.0262	1,436.9985
Total		**0.1443**	**1.2335**	**0.5249**	**7.8700e-003**		**0.0997**	**0.0997**		**0.0997**	**0.0997**	**0.0000**	**1,428.5095**	**1,428.5095**	**0.0274**	**0.0262**	**1,436.9985**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	8.65817e+006	1,186.3527	0.1139	0.0236	1,196.2220
Total		**1,186.3527**	**0.1139**	**0.0236**	**1,196.2220**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	8.55487e+006	1,172.1987	0.1125	0.0233	1,181.9503
Total		**1,172.1987**	**0.1125**	**0.0233**	**1,181.9503**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria 1000-Unit Alternative (2030 Operational) - Bay Area AQMD Air District, Annual

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.0015	0.1587	7.4367	8.6000e-004		0.0471	0.0471		0.0471	0.0471	0.0000	97.0195	97.0195	0.0132	1.5600e-003	97.8129
Unmitigated	14.4125	0.2145	15.9760	0.0181		1.2771	1.2771		1.2771	1.2771	127.1110	43.3386	170.4496	0.2517	7.2700e-003	178.9079

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	1.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.0299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.8940	0.1292	8.5705	0.0177		1.2359	1.2359		1.2359	1.2359	127.1110	31.2098	158.3208	0.2402	7.2700e-003	166.4902
Landscaping	0.2215	0.0854	7.4055	3.9000e-004		0.0412	0.0412		0.0412	0.0412	0.0000	12.1288	12.1288	0.0116	0.0000	12.4177
Total	**14.4125**	**0.2145**	**15.9760**	**0.0181**		**1.2771**	**1.2771**		**1.2771**	**1.2771**	**127.1110**	**43.3386**	**170.4496**	**0.2517**	**7.2700e-003**	**178.9079**

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	1.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.5043					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.5800e-003	0.0733	0.0312	4.7000e-004		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003	0.0000	84.8907	84.8907	1.6300e-003	1.5600e-003	85.3952
Landscaping	0.2215	0.0854	7.4055	3.9000e-004		0.0412	0.0412		0.0412	0.0412	0.0000	12.1288	12.1288	0.0116	0.0000	12.4177
Total	**8.0015**	**0.1587**	**7.4367**	**8.6000e-004**		**0.0471**	**0.0471**		**0.0471**	**0.0471**	**0.0000**	**97.0195**	**97.0195**	**0.0132**	**1.5600e-003**	**97.8129**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	88.6757	2.1296	0.0515	157.2562
Unmitigated	88.6757	2.1296	0.0515	157.2562

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	65.154 / 41.0754	88.6757	2.1296	0.0515	157.2562
Total		**88.6757**	**2.1296**	**0.0515**	**157.2562**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	65.154 / 41.0754	88.6757	2.1296	0.0515	157.2562
Total		**88.6757**	**2.1296**	**0.0515**	**157.2562**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	272.8199	16.1232	0.0000	675.8996
Unmitigated	272.8199	16.1232	0.0000	675.8996

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1344	272.8199	16.1232	0.0000	675.8996
Total		**272.8199**	**16.1232**	**0.0000**	**675.8996**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1344	272.8199	16.1232	0.0000	675.8996
Total		**272.8199**	**16.1232**	**0.0000**	**675.8996**

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

Faria Master Plan - 750 Unit Alternative - Operational

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	750.00	Dwelling Unit	373.00	1,350,000.00	2400

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Annual

Project Characteristics - CO2 Intensity Factor adjusted for PG&E progress towards RPS

Land Use - Acreage based on Draft Master Plan developable area

Construction Phase - Construction not modeled

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Construction not modeled

Grading - *

Vehicle Trips - Trip rate adjusted from Kimley-Horn Traffic Report based on reduced unit count

Area Mitigation -

Energy Mitigation - 2016 Title 24 standards (latest standards) is anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

Architectural Coating - Construction not modeled

Energy Use -

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	0.00
tblConstructionPhase	NumDays	440.00	1.00
tblConstructionPhase	PhaseEndDate	10/29/2026	1/3/2023
tblLandUse	LotAcreage	243.51	373.00
tblLandUse	Population	2,145.00	2,400.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	OperationalYear	2018	2023
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	WorkerTripNumber	54.00	0.00
tblTripsAndVMT	WorkerTripNumber	54.00	0.00
tblVehicleTrips	ST_TR	9.91	8.85
tblVehicleTrips	SU_TR	8.62	8.85
tblVehicleTrips	WD_TR	9.52	8.85

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					
2023	1.0000e-004	6.5000e-004	9.1000e-004	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Maximum	**1.0000e-004**	**6.5000e-004**	**9.1000e-004**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1279**

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					
2023	1.0000e-004	6.5000e-004	9.1000e-004	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Maximum	**1.0000e-004**	**6.5000e-004**	**9.1000e-004**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1279**

	ROG	NOx	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**

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
19	12-4-2022	3-3-2023	0.0005	0.0005
		Highest	0.0005	0.0005

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	10.8110	0.1611	11.9980	0.0135		0.9578	0.9578		0.9578	0.9578	95.3332	32.5040	127.8372	0.1889	5.4500e-003	134.1830
Energy	0.1454	1.2425	0.5287	7.9300e-003		0.1005	0.1005		0.1005	0.1005	0.0000	2,593.8398	2,593.8398	0.1130	0.0441	2,609.7925
Mobile	1.5097	6.6852	17.1486	0.0638	5.7050	0.0522	5.7572	1.5311	0.0488	1.5799	0.0000	5,860.0629	5,860.0629	0.2035	0.0000	5,865.1500
Waste						0.0000	0.0000		0.0000	0.0000	204.6149	0.0000	204.6149	12.0924	0.0000	506.9247
Water						0.0000	0.0000		0.0000	0.0000	15.5028	66.2032	81.7060	1.5972	0.0386	133.1413
Total	**12.4661**	**8.0887**	**29.6752**	**0.0853**	**5.7050**	**1.1105**	**6.8155**	**1.5311**	**1.1070**	**2.6381**	**315.4509**	**8,552.6098**	**8,868.0607**	**14.1949**	**0.0881**	**9,249.1916**

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	6.0028	0.1192	5.5935	6.4000e-004		0.0353	0.0353		0.0353	0.0353	0.0000	72.7646	72.7646	9.9700e-003	1.1700e-003	73.3617
Energy	0.1083	0.9251	0.3937	5.9000e-003		0.0748	0.0748		0.0748	0.0748	0.0000	2,212.5181	2,212.5181	0.1049	0.0371	2,226.1984
Mobile	1.5097	6.6852	17.1486	0.0638	5.7050	0.0522	5.7572	1.5311	0.0488	1.5799	0.0000	5,860.0629	5,860.0629	0.2035	0.0000	5,865.1500
Waste						0.0000	0.0000		0.0000	0.0000	204.6149	0.0000	204.6149	12.0924	0.0000	506.9247
Water						0.0000	0.0000		0.0000	0.0000	15.5028	66.2032	81.7060	1.5972	0.0386	133.1413
Total	**7.6208**	**7.7294**	**23.1357**	**0.0703**	**5.7050**	**0.1623**	**5.8673**	**1.5311**	**0.1588**	**1.6900**	**220.1177**	**8,211.5488**	**8,431.6664**	**14.0080**	**0.0769**	**8,804.7762**

	ROG	NOx	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	**38.87**	**4.44**	**22.04**	**17.51**	**0.00**	**85.38**	**13.91**	**0.00**	**85.65**	**35.94**	**30.22**	**3.99**	**4.92**	**1.32**	**12.75**	**4.80**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/3/2023	1/3/2023	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,733,750; Residential Outdoor: 911,250; 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
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
Architectural Coating	1	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	6.5000e-004	9.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Total	**1.0000e-004**	**6.5000e-004**	**9.1000e-004**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1279**

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 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	6.5000e-004	9.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Total	**1.0000e-004**	**6.5000e-004**	**9.1000e-004**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1279**

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	1.5097	6.6852	17.1486	0.0638	5.7050	0.0522	5.7572	1.5311	0.0488	1.5799	0.0000	5,860.0629	5,860.0629	0.2035	0.0000	5,865.1500
Unmitigated	1.5097	6.6852	17.1486	0.0638	5.7050	0.0522	5.7572	1.5311	0.0488	1.5799	0.0000	5,860.0629	5,860.0629	0.2035	0.0000	5,865.1500

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	6,637.50	6,637.50	6637.50	15,330,018	15,330,018
Total	6,637.50	6,637.50	6,637.50	15,330,018	15,330,018

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,141.1359	1,141.1359	0.0844	0.0175	1,148.4496
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,154.9148	1,154.9148	0.0854	0.0177	1,162.3168
NaturalGas Mitigated	0.1083	0.9251	0.3937	5.9000e-003		0.0748	0.0748		0.0748	0.0748	0.0000	1,071.3822	1,071.3822	0.0205	0.0196	1,077.7488
NaturalGas Unmitigated	0.1454	1.2425	0.5287	7.9300e-003		0.1005	0.1005		0.1005	0.1005	0.0000	1,438.9249	1,438.9249	0.0276	0.0264	1,447.4758

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					
Single Family Housing	2.69644e+007	0.1454	1.2425	0.5287	7.9300e-003		0.1005	0.1005		0.1005	0.1005	0.0000	1,438.9249	1,438.9249	0.0276	0.0264	1,447.4758
Total		**0.1454**	**1.2425**	**0.5287**	**7.9300e-003**		**0.1005**	**0.1005**		**0.1005**	**0.1005**	**0.0000**	**1,438.9249**	**1,438.9249**	**0.0276**	**0.0264**	**1,447.4758**

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					
Single Family Housing	2.00769e+007	0.1083	0.9251	0.3937	5.9000e-003		0.0748	0.0748		0.0748	0.0748	0.0000	1,071.3822	1,071.3822	0.0205	0.0196	1,077.7488
Total		**0.1083**	**0.9251**	**0.3937**	**5.9000e-003**		**0.0748**	**0.0748**		**0.0748**	**0.0748**	**0.0000**	**1,071.3822**	**1,071.3822**	**0.0205**	**0.0196**	**1,077.7488**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	6.49363e+006	1,154.9148	0.0854	0.0177	1,162.3168
Total		**1,154.9148**	**0.0854**	**0.0177**	**1,162.3168**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	6.41615e+006	1,141.1359	0.0844	0.0175	1,148.4496
Total		**1,141.1359**	**0.0844**	**0.0175**	**1,148.4496**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Annual

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.0028	0.1192	5.5935	6.4000e-004		0.0353	0.0353		0.0353	0.0353	0.0000	72.7646	72.7646	9.9700e-003	1.1700e-003	73.3617
Unmitigated	10.8110	0.1611	11.9980	0.0135		0.9578	0.9578		0.9578	0.9578	95.3332	32.5040	127.8372	0.1889	5.4500e-003	134.1830

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	0.9503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.4205	0.0969	6.4279	0.0133		0.9269	0.9269		0.9269	0.9269	95.3332	23.4074	118.7406	0.1801	5.4500e-003	124.8677
Landscaping	0.1678	0.0642	5.5701	2.9000e-004		0.0308	0.0308		0.0308	0.0308	0.0000	9.0966	9.0966	8.7500e-003	0.0000	9.3153
Total	**10.8110**	**0.1611**	**11.9980**	**0.0135**		**0.9578**	**0.9578**		**0.9578**	**0.9578**	**95.3332**	**32.5040**	**127.8372**	**0.1889**	**5.4500e-003**	**134.1830**

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	0.9503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.8782					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.4300e-003	0.0550	0.0234	3.5000e-004		4.4400e-003	4.4400e-003		4.4400e-003	4.4400e-003	0.0000	63.6680	63.6680	1.2200e-003	1.1700e-003	64.0464
Landscaping	0.1678	0.0642	5.5701	2.9000e-004		0.0308	0.0308		0.0308	0.0308	0.0000	9.0966	9.0966	8.7500e-003	0.0000	9.3153
Total	**6.0028**	**0.1192**	**5.5935**	**6.4000e-004**		**0.0353**	**0.0353**		**0.0353**	**0.0353**	**0.0000**	**72.7646**	**72.7646**	**9.9700e-003**	**1.1700e-003**	**73.3617**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	81.7060	1.5972	0.0386	133.1413
Unmitigated	81.7060	1.5972	0.0386	133.1413

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	48.8655 / 30.8065	81.7060	1.5972	0.0386	133.1413
Total		**81.7060**	**1.5972**	**0.0386**	**133.1413**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	48.8655 / 30.8065	81.7060	1.5972	0.0386	133.1413
Total		**81.7060**	**1.5972**	**0.0386**	**133.1413**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	204.6149	12.0924	0.0000	506.9247
Unmitigated	204.6149	12.0924	0.0000	506.9247

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1008	204.6149	12.0924	0.0000	506.9247
Total		**204.6149**	**12.0924**	**0.0000**	**506.9247**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1008	204.6149	12.0924	0.0000	506.9247
Total		**204.6149**	**12.0924**	**0.0000**	**506.9247**

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

Faria Master Plan - 750 Unit Alternative - Operational

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	750.00	Dwelling Unit	373.00	1,350,000.00	2400

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Summer

Project Characteristics - CO2 Intensity Factor adjusted for PG&E progress towards RPS

Land Use - Acreage based on Draft Master Plan developable area

Construction Phase - Construction not modeled

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Construction not modeled

Grading - *

Vehicle Trips - Trip rate adjusted from Kimley-Horn Traffic Report based on reduced unit count

Area Mitigation -

Energy Mitigation - 2016 Title 24 standards (latest standards) is anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

Architectural Coating - Construction not modeled

Energy Use -

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	0.00
tblConstructionPhase	NumDays	440.00	1.00
tblConstructionPhase	PhaseEndDate	10/29/2026	1/3/2023
tblLandUse	LotAcreage	243.51	373.00
tblLandUse	Population	2,145.00	2,400.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	OperationalYear	2018	2023
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	WorkerTripNumber	54.00	0.00
tblTripsAndVMT	WorkerTripNumber	54.00	0.00
tblVehicleTrips	ST_TR	9.91	8.85
tblVehicleTrips	SU_TR	8.62	8.85
tblVehicleTrips	WD_TR	9.52	8.85

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					
2023	0.1917	1.3030	1.8111	2.9700e-003	0.0000	0.0708	0.0708	0.0000	0.0708	0.0708	0.0000	281.4481	281.4481	0.0168	0.0000	281.8690
Maximum	**0.1917**	**1.3030**	**1.8111**	**2.9700e-003**	**0.0000**	**0.0708**	**0.0708**	**0.0000**	**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**	**0.0000**	**281.8690**

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					
2023	0.1917	1.3030	1.8111	2.9700e-003	0.0000	0.0708	0.0708	0.0000	0.0708	0.0708	0.0000	281.4481	281.4481	0.0168	0.0000	281.8690
Maximum	**0.1917**	**1.3030**	**1.8111**	**2.9700e-003**	**0.0000**	**0.0708**	**0.0708**	**0.0000**	**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**	**0.0000**	**281.8690**

	ROG	NOx	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	813.1999	15.6788	1,067.1062	1.8964		142.4852	142.4852		142.4852	142.4852	15,283.7539	4,743.7672	20,027.5211	19.0048	1.0785	20,824.0288
Energy	0.7967	6.8081	2.8971	0.0435		0.5504	0.5504		0.5504	0.5504		8,691.1958	8,691.1958	0.1666	0.1593	8,742.8432
Mobile	9.5435	35.6126	98.1223	0.3709	32.5665	0.2868	32.8533	8.7124	0.2678	8.9802		37,539.9379	37,539.9379	1.2402		37,570.9429
Total	**823.5401**	**58.0995**	**1,168.1256**	**2.3107**	**32.5665**	**143.3224**	**175.8889**	**8.7124**	**143.3034**	**152.0158**	**15,283.7539**	**50,974.9009**	**66,258.6548**	**20.4116**	**1.2378**	**67,137.8149**

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	34.9568	10.5834	66.0898	0.0663		1.1406	1.1406		1.1406	1.1406	0.0000	12,711.4142	12,711.4142	0.3486	0.2310	12,788.9682
Energy	0.5932	5.0691	2.1571	0.0324		0.4098	0.4098		0.4098	0.4098		6,471.2146	6,471.2146	0.1240	0.1186	6,509.6698
Mobile	9.5435	35.6126	98.1223	0.3709	32.5665	0.2868	32.8533	8.7124	0.2678	8.9802		37,539.9379	37,539.9379	1.2402		37,570.9429
Total	**45.0935**	**51.2651**	**166.3692**	**0.4695**	**32.5665**	**1.8372**	**34.4037**	**8.7124**	**1.8181**	**10.5305**	**0.0000**	**56,722.5667**	**56,722.5667**	**1.7129**	**0.3496**	**56,869.5808**

	ROG	NOx	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	94.52	11.76	85.76	79.68	0.00	98.72	80.44	0.00	98.73	93.07	100.00	-11.28	14.39	91.61	71.75	15.29

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/3/2023	1/3/2023	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,733,750; Residential Outdoor: 911,250; 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
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
Architectural Coating	1	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.1917**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	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**

3.2 Architectural Coating - 2023

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.1917**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	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**

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	9.5435	35.6126	98.1223	0.3709	32.5665	0.2868	32.8533	8.7124	0.2678	8.9802		37,539.9379	37,539.9379	1.2402		37,570.9429
Unmitigated	9.5435	35.6126	98.1223	0.3709	32.5665	0.2868	32.8533	8.7124	0.2678	8.9802		37,539.9379	37,539.9379	1.2402		37,570.9429

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	6,637.50	6,637.50	6637.50	15,330,018	15,330,018
Total	6,637.50	6,637.50	6,637.50	15,330,018	15,330,018

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.5932	5.0691	2.1571	0.0324		0.4098	0.4098		0.4098	0.4098		6,471.2146	6,471.2146	0.1240	0.1186	6,509.6698
NaturalGas Unmitigated	0.7967	6.8081	2.8971	0.0435		0.5504	0.5504		0.5504	0.5504		8,691.1958	8,691.1958	0.1666	0.1593	8,742.8432

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					
Single Family Housing	73875.2	0.7967	6.8081	2.8971	0.0435		0.5504	0.5504		0.5504	0.5504		8,691.1958	8,691.1958	0.1666	0.1593	8,742.8432
Total		**0.7967**	**6.8081**	**2.8971**	**0.0435**		**0.5504**	**0.5504**		**0.5504**	**0.5504**		**8,691.1958**	**8,691.1958**	**0.1666**	**0.1593**	**8,742.8432**

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					
Single Family Housing	55.0053	0.5932	5.0691	2.1571	0.0324		0.4098	0.4098		0.4098	0.4098		6,471.2146	6,471.2146	0.1240	0.1186	6,509.6698
Total		**0.5932**	**5.0691**	**2.1571**	**0.0324**		**0.4098**	**0.4098**		**0.4098**	**0.4098**		**6,471.2146**	**6,471.2146**	**0.1240**	**0.1186**	**6,509.6698**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Summer

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	34.9568	10.5834	66.0898	0.0663		1.1406	1.1406		1.1406	1.1406	0.0000	12,711.4142	12,711.4142	0.3486	0.2310	12,788.9682
Unmitigated	813.1999	15.6788	1,067.1062	1.8964		142.4852	142.4852		142.4852	142.4852	15,283.7539	4,743.7672	20,027.5211	19.0048	1.0785	20,824.0288

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	5.2072					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	28.8900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	777.2381	14.9654	1,005.2165	1.8931		142.1426	142.1426		142.1426	142.1426	15,283.7539	4,632.3529	19,916.1069	18.8977	1.0785	20,709.9362
Landscaping	1.8645	0.7134	61.8898	3.2700e-003		0.3426	0.3426		0.3426	0.3426		111.4142	111.4142	0.1071		114.0927
Total	**813.1999**	**15.6788**	**1,067.1062**	**1.8964**		**142.4852**	**142.4852**		**142.4852**	**142.4852**	**15,283.7539**	**4,743.7672**	**20,027.5211**	**19.0048**	**1.0785**	**20,824.0288**

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	5.2072					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	26.7300					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.1550	9.8700	4.2000	0.0630		0.7980	0.7980		0.7980	0.7980	0.0000	12,600.0000	12,600.0000	0.2415	0.2310	12,674.8755
Landscaping	1.8645	0.7134	61.8898	3.2700e-003		0.3426	0.3426		0.3426	0.3426		111.4142	111.4142	0.1071		114.0927
Total	**34.9568**	**10.5834**	**66.0898**	**0.0663**		**1.1406**	**1.1406**		**1.1406**	**1.1406**	**0.0000**	**12,711.4142**	**12,711.4142**	**0.3486**	**0.2310**	**12,788.9682**

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

Faria Master Plan - 750 Unit Alternative - Operational

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	750.00	Dwelling Unit	373.00	1,350,000.00	2400

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Winter

Project Characteristics - CO2 Intensity Factor adjusted for PG&E progress towards RPS

Land Use - Acreage based on Draft Master Plan developable area

Construction Phase - Construction not modeled

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Construction not modeled

Grading - *

Vehicle Trips - Trip rate adjusted from Kimley-Horn Traffic Report based on reduced unit count

Area Mitigation -

Energy Mitigation - 2016 Title 24 standards (latest standards) is anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

Architectural Coating - Construction not modeled

Energy Use -

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	0.00
tblConstructionPhase	NumDays	440.00	1.00
tblConstructionPhase	PhaseEndDate	10/29/2026	1/3/2023
tblLandUse	LotAcreage	243.51	373.00
tblLandUse	Population	2,145.00	2,400.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	392.1
tblProjectCharacteristics	OperationalYear	2018	2023
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	WorkerTripNumber	54.00	0.00
tblTripsAndVMT	WorkerTripNumber	54.00	0.00
tblVehicleTrips	ST_TR	9.91	8.85
tblVehicleTrips	SU_TR	8.62	8.85
tblVehicleTrips	WD_TR	9.52	8.85

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					
2023	0.1917	1.3030	1.8111	2.9700e-003	0.0000	0.0708	0.0708	0.0000	0.0708	0.0708	0.0000	281.4481	281.4481	0.0168	0.0000	281.8690
Maximum	**0.1917**	**1.3030**	**1.8111**	**2.9700e-003**	**0.0000**	**0.0708**	**0.0708**	**0.0000**	**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**	**0.0000**	**281.8690**

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					
2023	0.1917	1.3030	1.8111	2.9700e-003	0.0000	0.0708	0.0708	0.0000	0.0708	0.0708	0.0000	281.4481	281.4481	0.0168	0.0000	281.8690
Maximum	**0.1917**	**1.3030**	**1.8111**	**2.9700e-003**	**0.0000**	**0.0708**	**0.0708**	**0.0000**	**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**	**0.0000**	**281.8690**

	ROG	NOx	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	813.1999	15.6788	1,067.1062	1.8964		142.4852	142.4852		142.4852	142.4852	15,283.7539	4,743.7672	20,027.5211	19.0048	1.0785	20,824.0288
Energy	0.7967	6.8081	2.8971	0.0435		0.5504	0.5504		0.5504	0.5504		8,691.1958	8,691.1958	0.1666	0.1593	8,742.8432
Mobile	8.2126	37.4395	98.5790	0.3472	32.5665	0.2882	32.8547	8.7124	0.2691	8.9815		35,157.8738	35,157.8738	1.2630		35,189.4484
Total	**822.2091**	**59.9264**	**1,168.5823**	**2.2870**	**32.5665**	**143.3238**	**175.8903**	**8.7124**	**143.3047**	**152.0171**	**15,283.7539**	**48,592.8368**	**63,876.5907**	**20.4344**	**1.2378**	**64,756.3205**

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	34.9568	10.5834	66.0898	0.0663		1.1406	1.1406		1.1406	1.1406	0.0000	12,711.4142	12,711.4142	0.3486	0.2310	12,788.9682
Energy	0.5932	5.0691	2.1571	0.0324		0.4098	0.4098		0.4098	0.4098		6,471.2146	6,471.2146	0.1240	0.1186	6,509.6698
Mobile	8.2126	37.4395	98.5790	0.3472	32.5665	0.2882	32.8547	8.7124	0.2691	8.9815		35,157.8738	35,157.8738	1.2630		35,189.4484
Total	**43.7625**	**53.0920**	**166.8258**	**0.4459**	**32.5665**	**1.8385**	**34.4051**	**8.7124**	**1.8195**	**10.5319**	**0.0000**	**54,340.5026**	**54,340.5026**	**1.7357**	**0.3496**	**54,488.0863**

	ROG	NOx	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	94.68	11.40	85.72	80.50	0.00	98.72	80.44	0.00	98.73	93.07	100.00	-11.83	14.93	91.51	71.75	15.86

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/3/2023	1/3/2023	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,733,750; Residential Outdoor: 911,250; 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
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
Architectural Coating	1	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.1917**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	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**

3.2 Architectural Coating - 2023

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.1917**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	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**

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	8.2126	37.4395	98.5790	0.3472	32.5665	0.2882	32.8547	8.7124	0.2691	8.9815		35,157.8738	35,157.8738	1.2630		35,189.4484
Unmitigated	8.2126	37.4395	98.5790	0.3472	32.5665	0.2882	32.8547	8.7124	0.2691	8.9815		35,157.8738	35,157.8738	1.2630		35,189.4484

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	6,637.50	6,637.50	6637.50	15,330,018	15,330,018
Total	6,637.50	6,637.50	6,637.50	15,330,018	15,330,018

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.5932	5.0691	2.1571	0.0324		0.4098	0.4098		0.4098	0.4098		6,471.2146	6,471.2146	0.1240	0.1186	6,509.6698
NaturalGas Unmitigated	0.7967	6.8081	2.8971	0.0435		0.5504	0.5504		0.5504	0.5504		8,691.1958	8,691.1958	0.1666	0.1593	8,742.8432

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					
Single Family Housing	73875.2	0.7967	6.8081	2.8971	0.0435		0.5504	0.5504		0.5504	0.5504		8,691.1958	8,691.1958	0.1666	0.1593	8,742.8432
Total		**0.7967**	**6.8081**	**2.8971**	**0.0435**		**0.5504**	**0.5504**		**0.5504**	**0.5504**		**8,691.1958**	**8,691.1958**	**0.1666**	**0.1593**	**8,742.8432**

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					
Single Family Housing	55.0053	0.5932	5.0691	2.1571	0.0324		0.4098	0.4098		0.4098	0.4098		6,471.2146	6,471.2146	0.1240	0.1186	6,509.6698
Total		**0.5932**	**5.0691**	**2.1571**	**0.0324**		**0.4098**	**0.4098**		**0.4098**	**0.4098**		**6,471.2146**	**6,471.2146**	**0.1240**	**0.1186**	**6,509.6698**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Winter

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	34.9568	10.5834	66.0898	0.0663		1.1406	1.1406		1.1406	1.1406	0.0000	12,711.4142	12,711.4142	0.3486	0.2310	12,788.9682
Unmitigated	813.1999	15.6788	1,067.1062	1.8964		142.4852	142.4852		142.4852	142.4852	15,283.7539	4,743.7672	20,027.5211	19.0048	1.0785	20,824.0288

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	5.2072					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	28.8900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	777.2381	14.9654	1,005.2165	1.8931		142.1426	142.1426		142.1426	142.1426	15,283.7539	4,632.3529	19,916.1069	18.8977	1.0785	20,709.9362
Landscaping	1.8645	0.7134	61.8898	3.2700e-003		0.3426	0.3426		0.3426	0.3426		111.4142	111.4142	0.1071		114.0927
Total	**813.1999**	**15.6788**	**1,067.1062**	**1.8964**		**142.4852**	**142.4852**		**142.4852**	**142.4852**	**15,283.7539**	**4,743.7672**	**20,027.5211**	**19.0048**	**1.0785**	**20,824.0288**

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	5.2072					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	26.7300					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.1550	9.8700	4.2000	0.0630		0.7980	0.7980		0.7980	0.7980	0.0000	12,600.0000	12,600.0000	0.2415	0.2310	12,674.8755
Landscaping	1.8645	0.7134	61.8898	3.2700e-003		0.3426	0.3426		0.3426	0.3426		111.4142	111.4142	0.1071		114.0927
Total	**34.9568**	**10.5834**	**66.0898**	**0.0663**		**1.1406**	**1.1406**		**1.1406**	**1.1406**	**0.0000**	**12,711.4142**	**12,711.4142**	**0.3486**	**0.2310**	**12,788.9682**

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

Faria Master Plan - 750 Unit Alternative - Operational

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

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

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	1.00000E-004	6.50000E-004	9.10000E-004	0.00000E+000	4.00000E-005	4.00000E-005	0.00000E+000	1.27660E-001	1.27660E-001	1.00000E-005	0.00000E+000	1.27850E-001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	1.00000E-004	6.50000E-004	9.10000E-004	0.00000E+000	4.00000E-005	4.00000E-005	0.00000E+000	1.27660E-001	1.27660E-001	1.00000E-005	0.00000E+000	1.27850E-001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)			
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	7.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19	1.19	1.19	1.19	1.19
Hearth	99.85	43.25	99.64	97.36	99.52	99.52	100.00	-172.00	46.38	99.32	78.53	48.71
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	25.54	25.54	25.54	25.60	25.54	25.54	0.00	25.54	25.54	25.56	25.55	25.54
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
Yes	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	28.00	
No	Install High Efficiency Lighting	0.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Faria Master Plan - 750 Unit Alternative - Operational

Bay Area AQMD, Summary Report

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	750.00	Dwelling Unit	373.00	1,350,000.00	2400

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	392.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments

Only CalEEMod defaults were used.

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Summary Report

Project Characteristics - CO2 Intensity Factor adjusted for PG&E progress towards RPS

Land Use - Acreage based on Draft Master Plan developable area

Construction Phase - Construction not modeled

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Construction not modeled

Grading - *

Vehicle Trips - Trip rate adjusted from Kimley-Horn Traffic Report based on reduced unit count

Area Mitigation -

Energy Mitigation - 2016 Title 24 standards (latest standards) is anticipated to result in 28% improvement from 2013 Title 24 standards for residential buildings

Architectural Coating - Construction not modeled

Energy Use -

2.0 Peak Daily Emissions

Peak Daily Construction Emissions

Peak Daily Construction Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
Year	Phase	lb/day											
2023	Architectural Coating	0.1917 S	1.3030 S	1.8111 S	2.9700e-003 S	0.0708 S	0.0708 S	0.1917 S	1.3030 S	1.8111 S	2.9700e-003 S	0.0708 S	0.0708 S
	Peak Daily Total	0.1917 S	1.3030 S	1.8111 S	2.9700e-003 S	0.0708 S	0.0708 S	0.1917 S	1.3030 S	1.8111 S	2.9700e-003 S	0.0708 S	0.0708 S
	Air District Threshold												
	Exceed Significance?												

Faria Master Plan - 750 Unit Alternative - Operational - Bay Area AQMD Air District, Summary Report

Peak Daily Operational Emissions

Peak Daily Operational Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
	Operational Activity	lb/day											
On-Site	Area	813.1999 S	15.6788 S	1,067.1062 S	1.8964 S	142.4852 S	142.4852 S	34.9568 S	10.5834 S	66.0898 S	0.0663 S	1.1406 S	1.1406 S
On-Site	Energy	0.7967 S	6.8081 S	2.8971 S	0.0435 S	0.5504 S	0.5504 S	0.5932 S	5.0691 S	2.1571 S	0.0324 S	0.4098 S	0.4098 S
Off-Site	Mobile	9.5435 S	37.4395 W	98.5790 W	0.3709 S	32.8547 W	8.9815 W	9.5435 S	37.4395 W	98.5790 W	0.3709 S	32.8547 W	8.9815 W
	Peak Daily Total	823.5401 S	59.9264 W	1,168.5823 W	2.3107 S	175.8903 W	152.0171 W	45.0935 S	53.0920 W	166.8258 W	0.4695 S	34.4051 W	10.5319 W
	Air District Threshold												
	Exceed Significance?												

3.0 Annual GHG Emissions

Annual GHG

Annual GHG

		Unmitigated				Mitigated			
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
GHG Activity	Year	MT/yr							
Construction	2023	0.1277	9.0718e-006	0.0000	0.1279	0.1277	9.0718e-006	0.0000	0.1279
Operational	2023	8,868.0607	14.1949	0.0881	9,249.1921	8,431.6664	14.0080	0.0769	8,804.7770
	Total								
	Significance Threshold								
	Exceed Significance?								

Faria 750-Unit Alternative (2030 Operational)

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	750.00	Dwelling Unit	373.00	1,350,000.00	2400

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	302.08	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity adjusted for PG&E progress towards RPS

Land Use - *

Construction Phase - Construction not modeled

Off-road Equipment -

Off-road Equipment - Construction not modeled

Vehicle Trips - *

Area Mitigation -

Energy Mitigation -

Trips and VMT - Construction not modeled

Faria 750-Unit Alternative (2030 Operational) - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	240.00	1.00
tblConstructionPhase	PhaseEndDate	6/3/2018	6/4/2018
tblLandUse	LotAcreage	243.51	373.00
tblLandUse	Population	2,145.00	2,400.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	302.08
tblProjectCharacteristics	OperationalYear	2018	2030
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	9.91	8.85
tblVehicleTrips	SU_TR	8.62	8.85
tblVehicleTrips	WD_TR	9.52	8.85

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					
2018	0.0000	0.0000	0.0000	0.0000	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					
2018	0.0000	0.0000	0.0000	0.0000	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**

Faria 750-Unit Alternative (2030 Operational) - Bay Area AQMD Air District, Annual

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	10.8094	0.1609	11.9820	0.0135		0.9578	0.9578		0.9578	0.9578	95.3332	32.5040	127.8372	0.1888	5.4500e-003	134.1809
Energy	0.1454	1.2425	0.5287	7.9300e-003		0.1005	0.1005		0.1005	0.1005	0.0000	2,328.6895	2,328.6895	0.1130	0.0441	2,344.6422
Mobile	1.0615	5.5004	11.8032	0.0533	5.7012	0.0354	5.7366	1.5293	0.0330	1.5623	0.0000	4,922.5903	4,922.5903	0.1559	0.0000	4,926.4873
Waste						0.0000	0.0000		0.0000	0.0000	204.6149	0.0000	204.6149	12.0924	0.0000	506.9247
Water						0.0000	0.0000		0.0000	0.0000	15.5028	51.0040	66.5067	1.5972	0.0386	117.9421
Total	**12.0163**	**6.9038**	**24.3139**	**0.0748**	**5.7012**	**1.0937**	**6.7948**	**1.5293**	**1.0912**	**2.6206**	**315.4509**	**7,334.7876**	**7,650.2385**	**14.1472**	**0.0881**	**8,030.1773**

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	6.0011	0.1190	5.5775	6.4000e-004		0.0353	0.0353		0.0353	0.0353	0.0000	72.7646	72.7646	9.8900e-003	1.1700e-003	73.3597
Energy	0.1083	0.9251	0.3937	5.9000e-003		0.0748	0.0748		0.0748	0.0748	0.0000	1,950.5312	1,950.5312	0.1049	0.0371	1,964.2115
Mobile	1.0615	5.5004	11.8032	0.0533	5.7012	0.0354	5.7366	1.5293	0.0330	1.5623	0.0000	4,922.5903	4,922.5903	0.1559	0.0000	4,926.4873
Waste						0.0000	0.0000		0.0000	0.0000	204.6149	0.0000	204.6149	12.0924	0.0000	506.9247
Water						0.0000	0.0000		0.0000	0.0000	15.5028	51.0040	66.5067	1.5972	0.0386	117.9421
Total	**7.1709**	**6.5445**	**17.7744**	**0.0599**	**5.7012**	**0.1455**	**5.8467**	**1.5293**	**0.1431**	**1.6724**	**220.1177**	**6,996.8901**	**7,217.0077**	**13.9603**	**0.0769**	**7,588.9253**

	ROG	NOx	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	**40.32**	**5.20**	**26.90**	**19.96**	**0.00**	**86.69**	**13.95**	**0.00**	**86.89**	**36.18**	**30.22**	**4.61**	**5.66**	**1.32**	**12.75**	**5.49**

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	6/4/2018	6/4/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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	1.0615	5.5004	11.8032	0.0533	5.7012	0.0354	5.7366	1.5293	0.0330	1.5623	0.0000	4,922.5903	4,922.5903	0.1559	0.0000	4,926.4873
Unmitigated	1.0615	5.5004	11.8032	0.0533	5.7012	0.0354	5.7366	1.5293	0.0330	1.5623	0.0000	4,922.5903	4,922.5903	0.1559	0.0000	4,926.4873

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	6,637.50	6,637.50	6637.50	15,330,018	15,330,018
Total	6,637.50	6,637.50	6,637.50	15,330,018	15,330,018

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
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	879.1491	879.1491	0.0844	0.0175	886.4627
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	889.7645	889.7645	0.0854	0.0177	897.1665
NaturalGas Mitigated	0.1083	0.9251	0.3937	5.9000e-003		0.0748	0.0748		0.0748	0.0748	0.0000	1,071.3822	1,071.3822	0.0205	0.0196	1,077.7488
NaturalGas Unmitigated	0.1454	1.2425	0.5287	7.9300e-003		0.1005	0.1005		0.1005	0.1005	0.0000	1,438.9249	1,438.9249	0.0276	0.0264	1,447.4758

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					
Single Family Housing	2.69644e+007	0.1454	1.2425	0.5287	7.9300e-003		0.1005	0.1005		0.1005	0.1005	0.0000	1,438.9249	1,438.9249	0.0276	0.0264	1,447.4758
Total		**0.1454**	**1.2425**	**0.5287**	**7.9300e-003**		**0.1005**	**0.1005**		**0.1005**	**0.1005**	**0.0000**	**1,438.9249**	**1,438.9249**	**0.0276**	**0.0264**	**1,447.4758**

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					
Single Family Housing	2.00769e+007	0.1083	0.9251	0.3937	5.9000e-003		0.0748	0.0748		0.0748	0.0748	0.0000	1,071.3822	1,071.3822	0.0205	0.0196	1,077.7488
Total		**0.1083**	**0.9251**	**0.3937**	**5.9000e-003**		**0.0748**	**0.0748**		**0.0748**	**0.0748**	**0.0000**	**1,071.3822**	**1,071.3822**	**0.0205**	**0.0196**	**1,077.7488**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	6.49363e+006	889.7645	0.0854	0.0177	897.1665
Total		**889.7645**	**0.0854**	**0.0177**	**897.1665**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	6.41615e+006	879.1491	0.0844	0.0175	886.4627
Total		**879.1491**	**0.0844**	**0.0175**	**886.4627**

6.0 Area Detail

6.1 Mitigation Measures Area

Faria 750-Unit Alternative (2030 Operational) - Bay Area AQMD Air District, Annual

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.0011	0.1190	5.5775	6.4000e-004		0.0353	0.0353		0.0353	0.0353	0.0000	72.7646	72.7646	9.8900e-003	1.1700e-003	73.3597
Unmitigated	10.8094	0.1609	11.9820	0.0135		0.9578	0.9578		0.9578	0.9578	95.3332	32.5040	127.8372	0.1888	5.4500e-003	134.1809

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	0.9503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.4205	0.0969	6.4279	0.0133		0.9269	0.9269		0.9269	0.9269	95.3332	23.4074	118.7406	0.1801	5.4500e-003	124.8677
Landscaping	0.1661	0.0640	5.5541	2.9000e-004		0.0309	0.0309		0.0309	0.0309	0.0000	9.0966	9.0966	8.6700e-003	0.0000	9.3133
Total	**10.8094**	**0.1609**	**11.9820**	**0.0135**		**0.9578**	**0.9578**		**0.9578**	**0.9578**	**95.3332**	**32.5040**	**127.8372**	**0.1888**	**5.4500e-003**	**134.1809**

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	0.9503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.8782					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.4300e-003	0.0550	0.0234	3.5000e-004		4.4400e-003	4.4400e-003		4.4400e-003	4.4400e-003	0.0000	63.6680	63.6680	1.2200e-003	1.1700e-003	64.0464
Landscaping	0.1661	0.0640	5.5541	2.9000e-004		0.0309	0.0309		0.0309	0.0309	0.0000	9.0966	9.0966	8.6700e-003	0.0000	9.3133
Total	**6.0011**	**0.1190**	**5.5775**	**6.4000e-004**		**0.0353**	**0.0353**		**0.0353**	**0.0353**	**0.0000**	**72.7646**	**72.7646**	**9.8900e-003**	**1.1700e-003**	**73.3597**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	66.5067	1.5972	0.0386	117.9421
Unmitigated	66.5067	1.5972	0.0386	117.9421

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	48.8655 / 30.8065	66.5067	1.5972	0.0386	117.9421
Total		**66.5067**	**1.5972**	**0.0386**	**117.9421**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	48.8655 / 30.8065	66.5067	1.5972	0.0386	117.9421
Total		**66.5067**	**1.5972**	**0.0386**	**117.9421**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	204.6149	12.0924	0.0000	506.9247
Unmitigated	204.6149	12.0924	0.0000	506.9247

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1008	204.6149	12.0924	0.0000	506.9247
Total		**204.6149**	**12.0924**	**0.0000**	**506.9247**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1008	204.6149	12.0924	0.0000	506.9247
Total		**204.6149**	**12.0924**	**0.0000**	**506.9247**

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

APPENDIX E

PACIFIC BIOLOGY
635 Carmel Avenue, Albany, CA 94706

FARIA/SOUTHWEST HILLS ANNEXATION PROJECT
BIOLOGICAL EVALUATION REPORT

PREPARED FOR:

Raney Planning & Management, Inc.
1501 Sport Drive, Suite A
Sacramento, CA 95834
Contact: Rod Stinson
916/372-6100

PREPARED BY:

Pacific Biology
635 Carmel Avenue
Albany, CA 94706
Contact: Josh Phillips
510/527-1008

and

Vollmar Natural Lands Consulting
1720 Solano Avenue
Berkeley, CA 94707
September 2017
(Updated June 2018)

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Table 3. Special-Status Plants Documented in Project Area

APPENDICES

Appendix A – Representative Photographs of the Project Site

EXECUTIVE SUMMARY

The Draft Faria/Southwest Hills Master Plan (Draft Master Plan) proposes a Land Use Map to govern development of the 606-acre project site. The Land Use Map allocates a total of 339.1 acres for residential development and preserves 267.2 acres of land as open space. Of the 267.2 acres of open space to be preserved, 72.9 acres would be graded and then revegetated.

The project site is primarily vegetated with annual grassland vegetation, with only a few stands of trees surrounding two wetlands and a home site and barn/ranch headquarters. The two wetlands are within a designated wetland mitigation area and would be protected within the proposed open space area. There are drainage swales on the project site, but all are ephemeral and support primarily upland grasses and forbs. No streams (with a defined bed and bank), wetlands, stock ponds, other aquatic features, or sensitive plant communities are present in portions of the project site designated for development.

The project site is in an area covered by the East Contra Costa County HCP/NCCP (HCP/NCCP). The HCP/NCCP is intended to provide a comprehensive framework to protect natural resources in eastern Contra Costa County, while improving and streamlining the environmental permitting process for impacts of new development on Endangered and Threatened species, and other species covered by the HCP/NCCP. The HCP/NCCP describes how to avoid, minimize, and mitigate the impacts on covered species and their habitats. The plan's primary goal is to streamline review of development projects by eliminating costly and time-consuming project-by-project permitting that often results in uncoordinated and biologically ineffective mitigation, while providing ecosystem conservation and contributing to the recovery of Threatened or Endangered species in California.

The proposed project could result in impacts to the following wildlife species covered by the HCP/NCCP: California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), San Joaquin kit fox (*Vulpes macrotis mutica*), western pond turtle (*Actinemys marmorata*), burrowing owl (*Athene cunicularia*), golden eagle (*Aquila chrysaetos*), and tricolored blackbird (*Agelaius tricolor*). The habitat compensation and avoidance measures required by the HCP/NCCP would be implemented to compensate for

potential impacts to these species from habitat loss and/or harm resulting from construction activities. Additional avoidance measures are also recommended to address potential indirect impacts to these and other special-status species.

Several special-status wildlife species may occur on the project site that are not covered by the HCP/NCCP, including California horned lark (*Eremophila alpestris actia*), white-tailed kite (*Elanus leucurus*), loggerhead shrike (*Lanius ludovicianus*), grasshopper sparrow (*Ammodramus savannarum*), ferruginous hawk (*Buteo regalis*), and American badger (*Taxidea taxus*). The implementation of the avoidance measures recommended in this report would prevent harm to these species during construction activities. Even though these are not HCP/NCCP covered species, the on-site grassland habitat potentially used by these species is the same type and acreage of habitat whose loss would be mitigated by payment of the Development Fee pursuant to the HCP/NCCP, or execution of an "in-lieu-of fee" agreement. Therefore, habitat compensation would also be provided for these species.

The project site, as observed during the August 2017 survey, provides only marginal habitat for special-status plant species known from the region. The project site is only lightly grazed, and therefore dominated by tall, dense grass cover. In addition, the grassland is uniform and lacks microhabitats such as unique soils (e.g., alkali or serpentine), rock outcrops, or vernal pools. However, since rare plant surveys have not been conducted since 2014, and because habitat conditions could improve prior to project implementation from a change in grazing practices or fire, special-status plants have some potential to occur. Potential impacts to special-status plant species would be addressed through the habitat compensation and avoidance measures required by the HCP/NCCP and the other measures recommended in this report.

1.0 INTRODUCTION

Pacific Biology conducted a biological habitat evaluation of the Faria/Southwest Hills Annexation Project (project site), located in Pittsburg, Contra Costa County, California. The evaluation was conducted to identify and characterize onsite and surrounding habitats; to assess the potential of these habitats to support special-status plant and wildlife species; to identify any wetlands, riparian areas, or other sensitive habitats present; to evaluate potential project-related impacts to sensitive biological resources; and to identify feasible mitigation and avoidance measures that could be implemented to protect sensitive biological resources.

A separate Biological Resources Assessment was previously prepared for the project site by Moore Biological Consultants in December 2014. As appropriate, information from that report has been incorporated into this report and updated as necessary. In addition, information from a reconnaissance-level survey conducted by Pacific Biology and Vollmar Natural Lands Consulting (VNLC) in August 2017, and from database reviews, the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP), and other sources is incorporated into this report.

2.0 PROJECT LOCATION

The project site encompasses the northwestern slopes of the Los Medanos Hills, in the East Bay Hills, within California's Coastal Ranges geomorphic region. The project site consists of approximately 606 acres of grazing land located immediately southwest of the municipal boundary of the City of Pittsburg and within the Southwest Hills planning subarea of the Pittsburg General Plan. At its closest point, State Route (SR) 4 is situated approximately 0.5 mile to the northwest of the site. The area consists of steeply rolling hills along the southern edge of currently developed portions of the City of Pittsburg. The northern edge of Pittsburg borders tidal marsh vegetation that fringes Honker Bay. The junction of the San Joaquin River and the Sacramento River is just east of Honker Bay. The nearest public and/or preserve lands include the City of Pittsburg's Stoneman Park, approximately 1.5 miles east of the project site, and Black Diamond Minds Regional Preserve, approximately 2 miles southeast of the project site. The project site's regional location is shown in **Figure 1**.

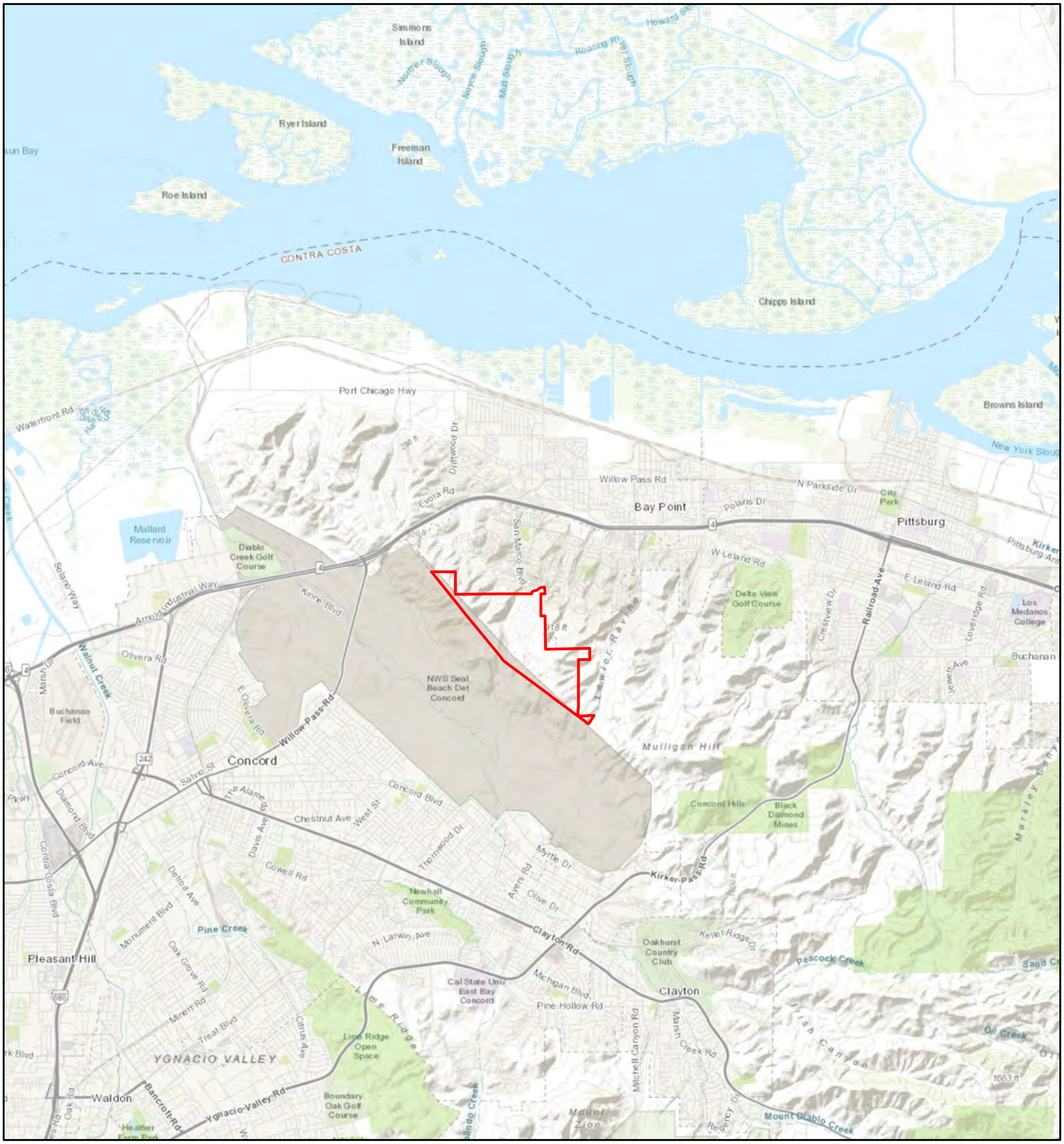
The project site is located immediately to the south of developed areas of the City of Pittsburgh. The site is adjacent to the Concord Naval Weapons Station (CNWS), a portion of which is being transferred to the City of Concord. The hills of the CNWS, along the southwestern edge of the project site, are undeveloped and encompass primarily annual grassland habitat. Former weapons facilities dominate the lower slopes and flat portions of the CNWS, including abandoned munitions storage bunkers, administrative buildings, and associated roads and rail lines. Current land use on the CNWS is limited to cattle grazing. The ranching operation includes maintenance of several stock ponds as well as fencing and other infrastructure. Aside from the CNWS, most lands surrounding the project site are privately owned. Dense residential development associated with the City of Concord abuts the CNWS to the west and southwest. A large regional landfill is located to the southeast of the CNWS and the project site. The northeast portion of the site is bordered by existing residential development (San Marco subdivision and residential neighborhoods associated with the Vista Del Mar mixed-use project). The project site and nearby areas are shown in **Figure 2**.

The project site is mapped on the Honker Bay and Clayton USGS 7.5-minute topographic quadrangles. Site elevation ranges from approximately 390 to 1,010 feet above mean sea level (119 to 308 meters) (USGS 1997). The approximate centroid of the project site is -121º 57' 49.8" longitude and 37º 59' 59.2" latitude.

3.0 PROJECT DESCRIPTION

The proposed project includes approving the Draft Faria/Southwest Hills Master Plan (Draft Master Plan). The Draft Master Plan includes a Land Use Map to govern development of the 606-acre project site. The Land Use Map allocates a total of 339.1 acres for residential development and preserves 267.2 acres of land as open space. Of the 267.2 acres of open space to be preserved, 72.9 acres would be graded and then revegetated. The 373 acres allocated for residential development would be divided into two areas. The first area would be located in the northern portion of the site, and would comprise 207.4 acres, while the second area would be located in the southern portion of the site, and would comprise 131.7 acres. The proposed land use pattern would allow for higher densities of development in

areas closer to the existing San Marco and Vista Del Mar subdivisions, while the low-density land use in the southern area would allow for greater compatibility with the steep, hilly landscape found in areas to the south of the City. The proposed open space areas would include hilltops and ridgelines within the project site, reflecting the City's desire to maintain the natural aesthetic value of such areas. The proposed residential development areas and open space areas are shown in **Figure 2.**



LEGEND

Project Site

FIGURE 1

Faria/Southwest Hills Annexation Project
Regional Location
Pittsburg, Contra Costa County

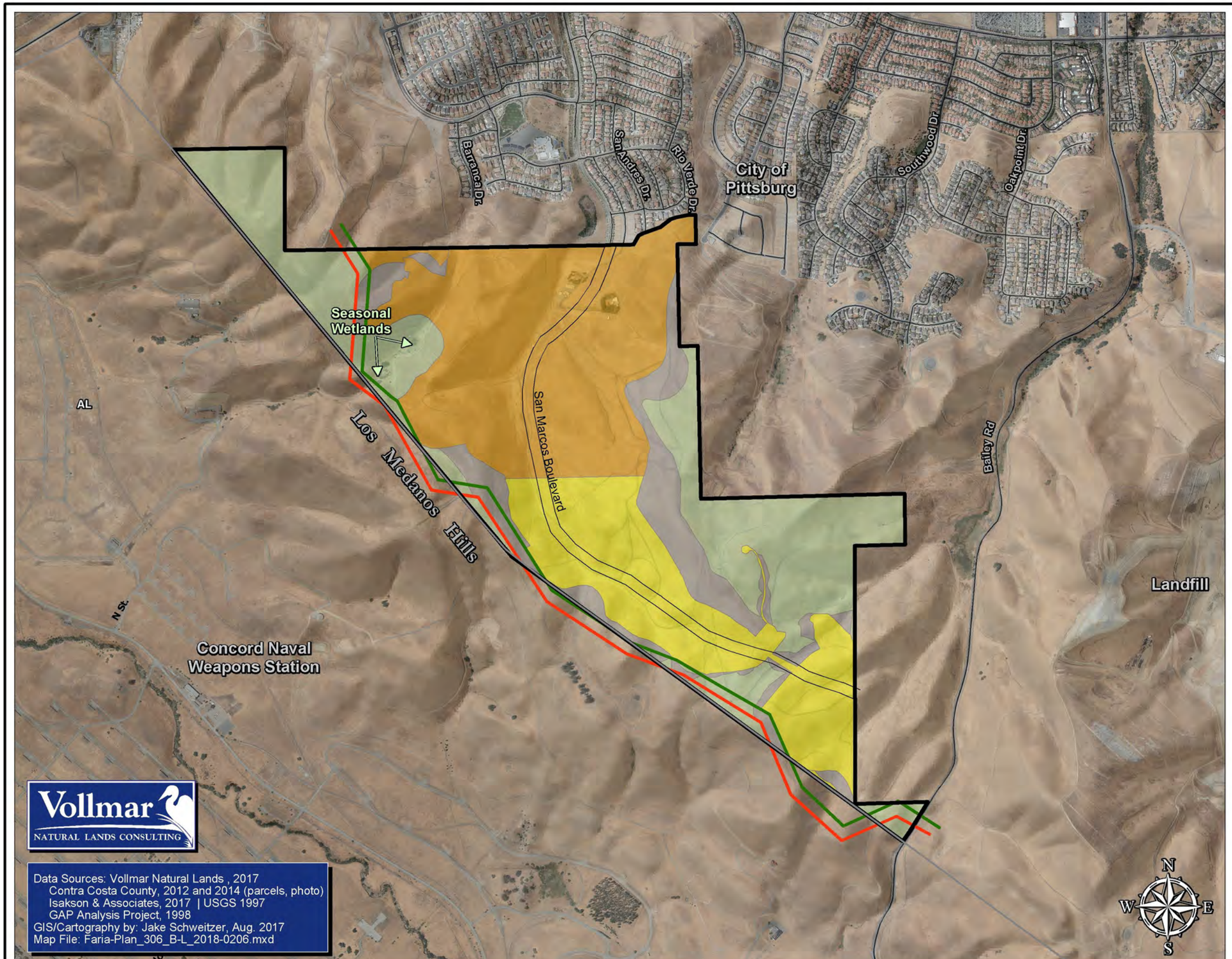
N W E S

0 1.5 3 Miles

Data: ESRI Base Map
Pacific Biology May 2018

FIGURE 2
Project Site and Proposed Land Uses

Faria/Southwest Hills Annexation Project
Contra Costa County, California



Legend

- 150-ft Ridgeline Buffer
- Pittsburg-Concord Ridgeline
- Road
- Area of Development, 3-5 DU/AC (207.4 ac.)
- Area of Development, 1-3 DU/AC (131.7 ac.)
- Undeveloped Area (194.3 ac.)
- Undeveloped Graded Area (72.9 ac.)
- Faria Project Boundary
- CNWS Inland Boundary



Vollmar NATURAL LANDS CONSULTING

Data Sources: Vollmar Natural Lands , 2017
Contra Costa County, 2012 and 2014 (parcels, photo)
Isakson & Associates, 2017 | USGS 1997
GAP Analysis Project, 1998
GIS/Cartography by: Jake Schweitzer, Aug. 2017
Map File: Faria-Plan_306_B-L_2018-0206.mxd

1:15,000
(1-in = 1,250-ft at tabloid layout)

0 312.5 625 Meters

0 625 1,250 2,500 Feet

4.0 METHODS

Information and Database Review

Prior to conducting the field surveys, biologists from Pacific Biology and Vollmar Natural Lands Consulting (VNLC) reviewed all relevant existing documentation pertaining to the project site's habitats and special-status plant taxa and plant communities. This included reviewing the Biological Resources Assessment previously prepared for the project site by Moore Biological Consultants (December 2014). In addition, relevant sections of the HCP/NCCP were reviewed. The biological resources section of the Concord Community Reuse Plan FEIR (City of Concord 2010) was also reviewed.

The California Natural Diversity Database (CNDDB) was reviewed to determine the location of documented special-status plant and wildlife species relative to the project site. Additionally, the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants was reviewed.

Geographic Information Systems (GIS) boundaries for the project site were overlaid with aerial photography and special-status species and habitat data (e.g., CNDDB and critical habitat data), as well as geomorphic and hydrographic data (e.g., geology and soils, topography, hydrography, and public wetlands data).

Field Survey

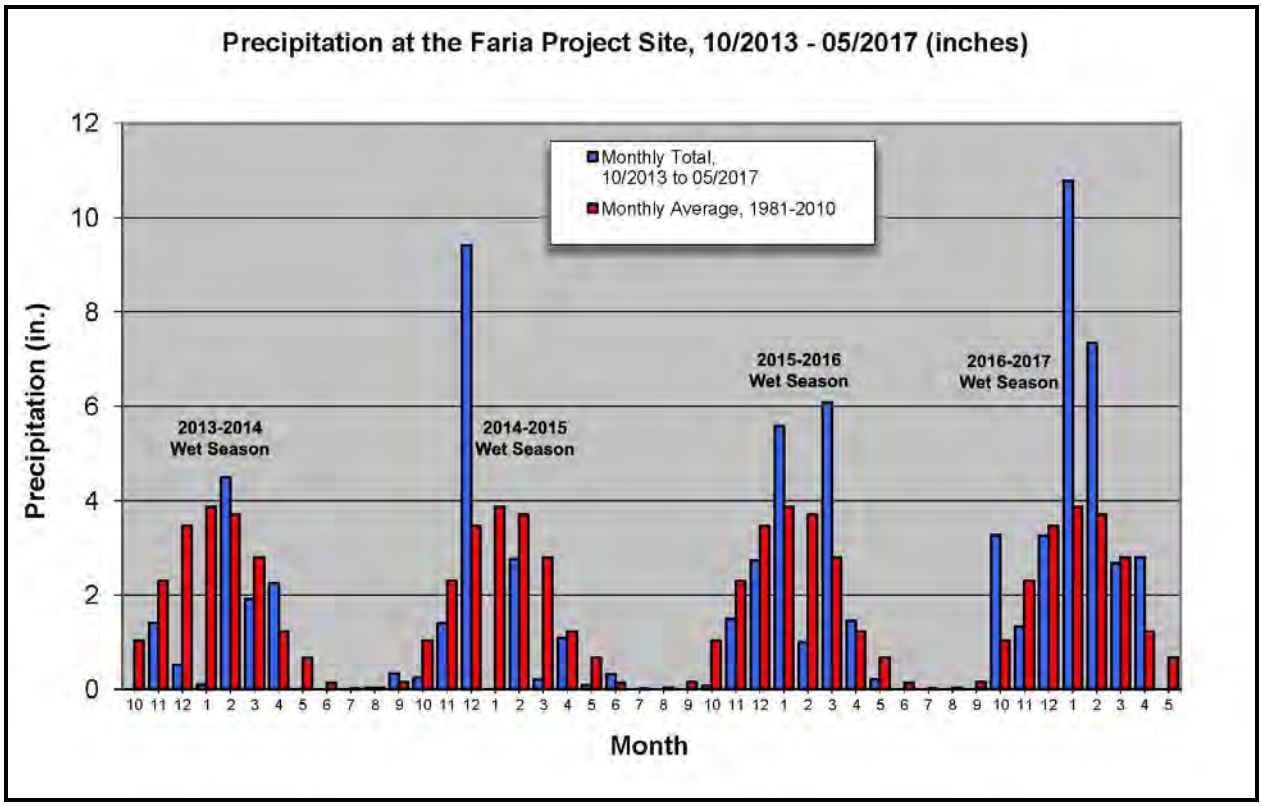
Josh Phillips (Principal Biologist with Pacific Biology) and Jake Schweitzer (VNLC Senior Botanist/Wetland Ecologist) conducted a reconnaissance-level survey of the project site on August 22, 2017. The survey included driving all accessible roads and conducting more focused evaluations of representative habitat locations. The on-site and surrounding habitat types were characterized, and the potential occurrence of special-status plant and wildlife species was evaluated based on an analysis of on-site habitats, known home ranges and/or distribution of target species, and other biological characteristics. A focused search was conducted for streams and wetlands, which focused on areas with appropriate topography to support such features. Representative digital photographs were taken of habitat conditions and features of interest.

It should be emphasized that the survey was conducted during late summer and was reconnaissance in nature. As such, the focus of the survey was to document habitat conditions rather than to document special-status plant taxa (most of which were not identifiable during the surveys). The study area was previously surveyed by Moore Biological Consultants for botanical and jurisdictional resources on December 12, 2013, and April 17, June 23, and September 3, 2014.

5.0 EXISTING BIOLOGICAL CONDITIONS

(i) Climate

The climate is classified as "Mediterranean," with hot, dry summers and cool, moist winters. Mean annual precipitation at the site is 19.42 inches, and the mean temperature is 58.5 degrees Fahrenheit (PRISM 2017). Over 98 percent of all precipitation in the area occurs during the October to May "wet season" (see graph below).



From a biological resources perspective, precipitation is the most important climate variable in the region. As the bar chart above shows, precipitation patterns in the region have been erratic in recent years. The region experienced below average precipitation during the wet seasons from 2013 to 2016. Specifically, the 2013-2014 wet season as experienced in the vicinity of the project site experienced only 56 percent of normal precipitation, while the 2014-2015 and 2015-2016 wet seasons experienced 80 percent and 98 percent of normal, respectively. The 2016-2017 wet season was well above average, at 165 percent of normal. Botanical surveys within the project site were conducted by Moore Biological Consultants during and following the 2013-2014 wet season. It is worth noting that, with the exception of this most recent wet season (2016-2017), every year has seen periods of drought as well as above average rainfall within timeframes of one to several months.

(ii) Soils

Soils in the project site consist of clay and clay loam derived from ancient marine sedimentary materials, primarily sandstone and shale (USDA 2005). As **Table 1** and **Figure 3** show, there are three mapped soil units in the project site, all of which are clay derived from

sandstone and shale. The pH rating for all three is the same, at 7.5, indicating they are neutral to slightly alkaline. Some portions of the project site, particularly ridge tops and more flat locations, feature large, deep cracks in the soil.

From a botanical resources perspective, the soils are derived from common, unspecialized parent material and are generally fertile, and thus tend to support generalist, competitive plant species. There are a few areas where the clay content is more significant, as evidenced by large and deep cracks in the surface. These areas would have moderate potential to support plants associated with heavy clay soils. From a wildlife standpoint, the large soil cracks also provide potential aestivation habitat for special-status animals, such as California tiger salamander.

TABLE 1. Soil Units Mapped within the Project site (see also Figure 3)

Soil Unit	Parent Material	Surface Texture[1]	pH Rating[2]	Percent of Project site
Altamont-Fontana complex, 30-50% slopes	Residuum weathered from sandstone and shale	Clay	7.5	77.9%
Altamont-Fontana complex, 50-75% slopes	Residuum weathered from sandstone and shale	Clay	7.5	18.8%
Capay clay, 2- 9% slopes	Alluvium derived from sedimentary rock	Clay	7.5	3.3%

1. At least 50% clay in top 24 inches. Dominant Condition.
2. Top 24 inches. Dominant Condition.

Source: USDA Web Soil Survey, 2017.

FIGURE 3
Soil Units and Geologic Formations

Faria/Southwest Hills Annexation Project
Contra Costa County, California

Soil Map Units

AbD, AbE – Altamont Clay
AcF, AcG – Altamont-Fontana Complex
AdC – Antioch Loam
CaA, CaC – Capay Clay
Cc – Clear Lake Clay
CkB – Cropley Clay
DbD, DdE, DdF – Diablo Clay
KaC – Kimball Gravelly Clay Loam
Ld - Lodo-Rock Outcrop Complex
RCL – Rincon Clay Loam
SYL – San Ysidro Loam
W – Water
ZaA - Zamora Silty Clay Loam
ZCL – Zamora Silty Clay Loam

Note: Soil type boundaries based on percent slope have been dissolved.

Legend

- Fault Line
- Stream (BAARI, USGS blue line stream)*
- Faria Project Boundary
- CNWS Inland Boundary
- Soil Unit Boundary (see soil unit table)

Geologic Formations

- Late Pleistocene Alluvium
- Undifferentiated, Unmapped Quaternary Deposits
- Upper Sandstone Member of Markley
- Cierbo Sandstone
- Neroly Sandstone
- Lawlor Tuff
- Tehama
- Lower Sandstone Member of Markley
- Basalt

*Non-wetland swale



Vollmar NATURAL LANDS CONSULTING

Data Sources: Vollmar Natural Lands , 2017
Contra Costa County, 2012 and 2014 (parcels, photo)
USDA SSURGO, 1977 | USGS 1997
GAP Analysis Project, 1998
GIS/Cartography by: Jake Schweitzer, Aug. 2017
Map File: Faria-Geo_175_B-L_2017-0808

1:12,000
(1-in = 1,200-ft at tabloid layout)

0 300 600 Meters

0 600 1,200 2,400 Feet

(iii) Onsite Plant Communities and Habitats

The project site is primarily vegetated with annual grassland vegetation, with only a few stands of trees surrounding two wetlands and two home sites. The two wetlands, both of which serve as mitigation wetlands, support the only significant cover of wetland vegetation in the project site; this wetland mitigation area is outside of the area proposed for development and is within a designated open space area. There are a number of drainage swales in the project site, but all are ephemeral and support primarily upland grasses and forbs. No streams (with a defined bed and bank) were observed during surveys conducted by Moore Biological Consultants in 2013/2014, or during the more recent site visit conducted in August 2017. The onsite plant communities and land uses are shown in **Figure 4** and representative photographs of the site are included in **Appendix A**.

"California annual grassland" (CDFW 2003) or "annual grassland" (Mayer and Laudenslayer 1998) (henceforth referred to as "annual grassland" or "grassland") best describe the dominant plant community in the project site. The only other plant community observed in the project site is seasonal and perennial wetland (located in the wetland mitigation area and outside of the proposed development area). Additionally, a small portion of the project site (4 acres), at the northern edge of the property, is developed as a residential and ranch headquarters area. Aside from the wetland mitigation area, which features a few upland trees along its edges, tree and shrub species are limited to cultivated species planted around the residential area.

Annual Grassland

Annual grassland is prevalent on over 99 percent of the project site (**Figure 4**). As a result of the property grazing regime as well as the similarity of soil types and generally uniform topography across the site (i.e., consistently sloping hills that generally lack due northern and southern exposures), the grasslands were relatively homogenous at the time of the August 2017 field survey. Grazing was relatively light, such that annual grasses were notably tall and dense, and the recent above-average wet season precipitation also contributed to the current grass cover. The soils throughout the project site are derived from common sandstone and shale parent material, are relatively thick, clay to clay loam with near neutral pH values. There are no notable rock outcroppings and areas of thin, rocky, or sandy soils are limited or

absent altogether. Such fertile soils in the vicinity of the project site tend to support a predominance of introduced grasses and forbs, which are generally more competitive than native grasses and forbs. Dominant grasses observed during the August 2017 survey include slender wild oat (*Avena barbata*), soft chess brome (*Bromus hordeaceus*), and ripgut brome (*B. diandrus*). The larger swales, including the blue line drainage depicted on **Figure 4**, included foxtail barley (*Hordeum murinum*) and Italian ryegrass (*Festuca perennis*). At the time of the survey, wildflowers were relatively sparse in the project site, and the only native perennial grass species observed is creeping wildrye (*Elymus triticoides*), which occurs as a few small, isolated stands.

Interspersed among the annual grasses throughout the grassland habitat are a variety of annual and perennial forbs. Like the grasses in the habitat, the most common forbs are introduced and often rather weedy. Examples include Mediterranean mustard (*Hirschfeldia incana*), fiddle dock (*Rumex pulcher*), bindweed (*Convolvulus arvensis*), milkthistle (*Silybum marianum*), and Mediterranean linseed (*Bellardia trixago*). Milkthistle, an upland plant, was particularly common within the swales. Scattered among these are a few native forbs, primarily along areas of slightly more shallow soils. These include turkey-mullein (*Croton setigerus*), narrow leaf milkweed (*Asclepias fascicularis*), lupines (*Lupinus* spp.), and naked buckwheat (*Eriogonum nudum* var. *auriculatum*).

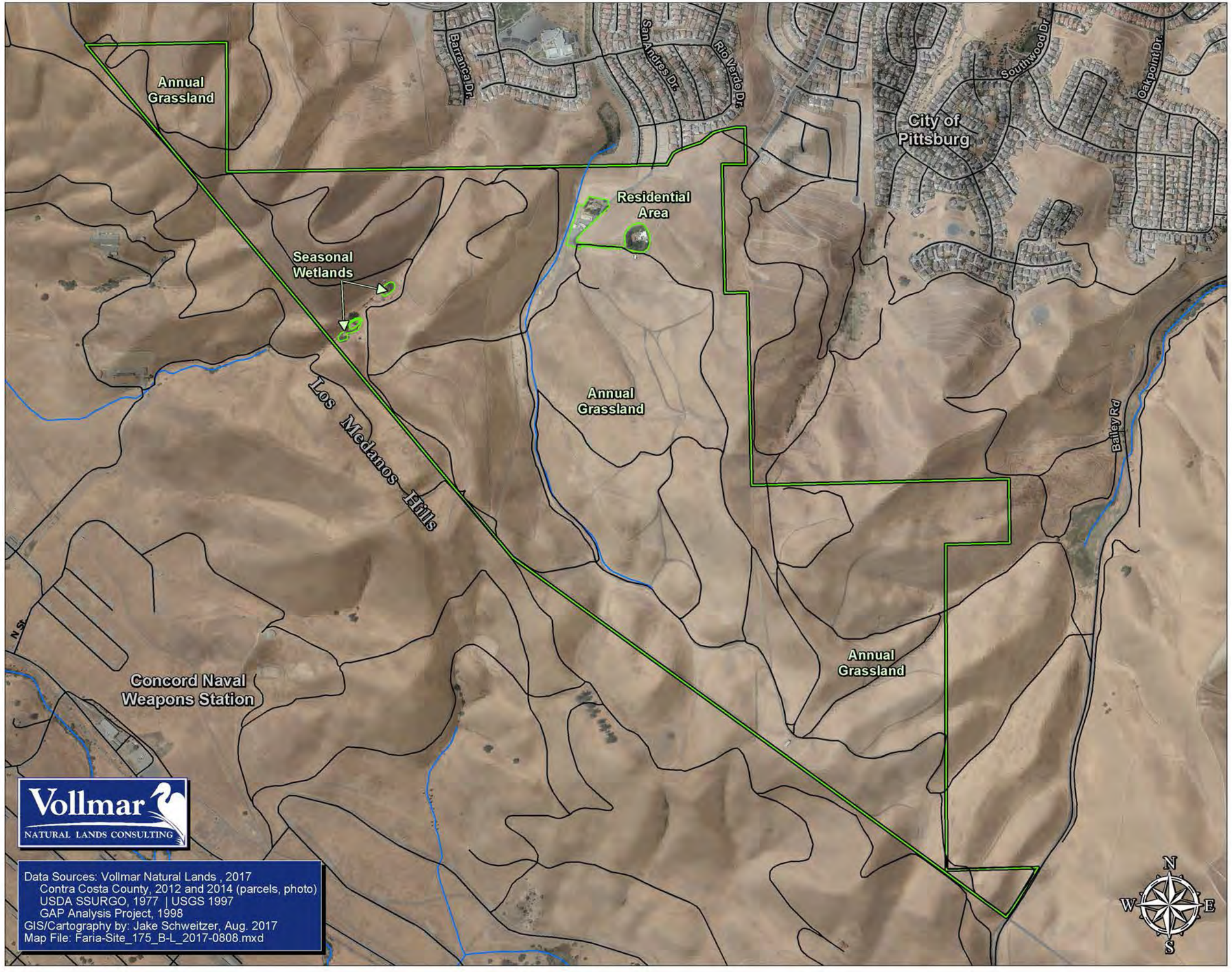
Wetlands

Wetlands in the project site are limited to two man-made wetlands that were created as part of compensatory mitigation for nearby development projects (Moore 2014); these wetlands are outside of the proposed development area. Cumulatively, the wetlands occupy approximately 0.7 acre within a low-lying area in the northwestern portion of the project site (**Figure 4**). The wetlands are situated at the upper reaches of a blue line stream that flows southwest into the CNWS, where it enters the Clayton Canal. A buffer was established around the wetlands in order to maintain habitat quality, such that the preserve area amounts to approximately 17.5 acres (ibid). Both of the wetland features were completely dry during the August 2017 survey, though both supported perennial as well as seasonal wetland vegetation, indicating a topographic gradient where the deeper portions hold water for long

periods of time, and presumably are underlain by saturated soils during the summer. The perennial wetland vegetation in both wetlands is concentrated along the southwestern, lower portions of the features. Based on hydrologic features as well as the spillway locations, both wetlands hold roughly one to two feet of water during the wet season, and rarely flow over the spillways. Wetland plant species observed within the deeper portions of the wetlands are dominated by hardstem bulrush (*Schoenoplectus acutus*) and swamp picklegrass (*Crypsis schoenoides*), with an overstory of arroyo willow (*Salix lasiolepis*) and Fremont's cottonwood (*Populus fremontii*). The more shallow portions were dominated by Baltic rush (*Juncus balticus*), rabbitsfoot grass (*Polypogon monspeliensis*), clustered dock (*Rumex conglomeratus*), and prostrate knotweed (*Polygonum aviculare*). There is no significant cover of wetland species outside of the excavated basins—the two wetlands are separated by upland habitat—though quasi-wetland trees, primarily valley oak (*Quercus lobata*), have been planted along the slopes adjacent to the features. The southwestern wetland surrounds an island of upland habitat, with a windmill and water pump installed at the center of the island.

FIGURE 4
Habitats/Plant Communities and Aerial Photography (2014)

Faria/Southwest Hills Annexation Project
Contra Costa County, California



Legend

- Road
- Stream (BAARI, USGS blue line stream)*
- Habitat Boundary
- Faria Project Boundary
- CNWS Inland Boundary

*Non-wetland swale



Vollmar NATURAL LANDS CONSULTING

Data Sources: Vollmar Natural Lands , 2017
Contra Costa County, 2012 and 2014 (parcels, photo)
USDA SSURGO, 1977 | USGS 1997
GAP Analysis Project, 1998
GIS/Cartography by: Jake Schweitzer, Aug. 2017
Map File: Faria-Site_175_B-L_2017-0808.mxd

1:12,000
(1-in = 1,200-ft at tabloid layout)

0 300 600 Meters

0 600 1,200 2,400 Feet

6.0 SPECIAL-STATUS SPECIES

Figures 5 shows the location of special-status plant and wildlife species documented in the CNDDB within the project area (i.e., within approximately three miles of the project site). The potential of these and other locally occurring special-status species to occur on the project site is discussed below.

(i) Special-Status Wildlife Species

For the purposes of this analysis, special-status wildlife species include the following:

- Animal species listed by the USFWS or CDFW as Threatened or Endangered; proposed for listing as Threatened or Endangered; or as a candidate for listing as Threatened or Endangered.

- Animal species considered as "Endangered, Rare or Threatened" as defined by Section 15380 of the *State CEQA Guidelines*. Section 15380(b) states that a species of animal or plant is "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. A species is "rare" when either "(A) although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become Endangered if its environment worsens; or (B) the species is likely to become Endangered within the foreseeable future throughout all or a portion of its range and may be considered 'Threatened' as that term is used in the Federal Endangered Species Act" (ESA).

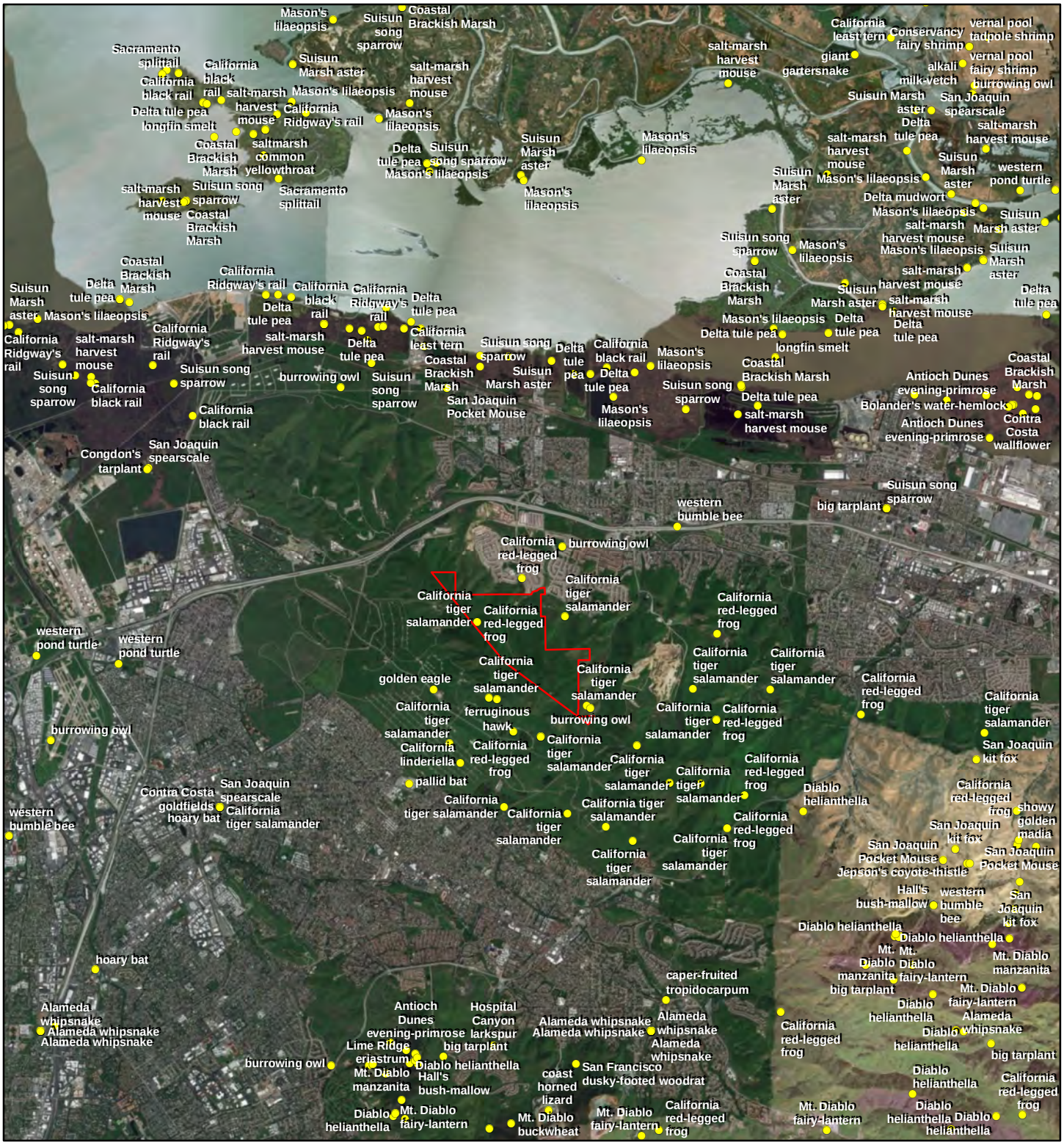
- Animal species designated as "Species of Special Concern" or "Fully Protected" by the CDFW. Although these species have no legal status under the California Endangered Species Act (CESA), the CDFW recommends their protection as their populations are generally declining and they could be listed as Threatened or Endangered (under CESA) in the future. "Fully Protected" species generally may not be taken or possessed at any time. The CDFW may only authorize take for necessary scientific

research and may authorize live capture and relocation of "fully protected" birds to protect livestock.

- Birds designated by the USFWS as "Birds of Conservation Concern." Although these species have no legal status under ESA, the USFWS recommends their protection as their populations are generally declining, and they could be listed as Threatened or Endangered (under ESA) in the future.

The documented occurrences of special-status species on the project site and in surrounding areas are shown in **Figure 5.** These and other special-status wildlife species known from the project region are identified in **Table 2**, which provides a summary of the listing status and habitat requirements of these species, as well as an assessment of the likelihood of occurrence of each of the species on the project site. The evaluation of the potential for occurrence of each species is based on the distribution of regional occurrences (if any), habitat suitability, and field observations. Designated critical habitat does not occur on the project site and the only critical habitat mapped in the area is for Delta smelt, approximately one mile to the northeast.

Additionally, although not recorded in the CNDDB within the search area, the HCP/NCCP also identifies Swainson's hawk (*Buteo swainsoni*), giant garter snake (*Thamnophis gigas*), longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool fairy shrimp (*Branchinecta lynchi*), midvalley fairy shrimp (*Branchinecta mesovallensis*), and vernal pool tadpole shrimp (*Lepidurus packardi*) as species requiring evaluation in annual grassland and seasonal wetland habitats in the greater project vicinity.



LEGEND

Project Site

Special-Status Species (CNDDB)

FIGURE 5

Faria/Southwest Hills Annexation Project
Documented Special-Status Species
Pittsburg, Contra Costa County

N W E S

0 1.5 3 Miles

NOTE: Point data shows centroid of CNDDB polygon

Data: CNDDB May 2018
Data: ESRI Base Map
Pacific Biology May 2018

Table 2
Special-Status Wildlife Species Documented or Potentially Occurring

Common Name	Scientific Name	Federal Status	State Status	Other	Habitat Association	Potential Occurrence on Project Site
Birds						
Tricolored blackbird	*Agelaius tricolor*	BCC	SC	NA	Typically nests in large colonies in dense stands of cattails or tules in freshwater, emergent wetlands.	**Potential:** The wetland mitigation area (which would not be developed) provides suitable nesting habitat. The species was observed foraging near the mitigation area by Moore Biological Consultants in 2014. The site is mapped as primary foraging habitat for the species as modeled in the HCP/NCCP. Suitable nesting habitat is not present in portions of the project site proposed for development.
Grasshopper sparrow	*Ammodramus savannarum*	None	SA	NA	Open grasslands, nests on ground.	**Potential:** Suitable nesting and foraging habitat present.
Short-eared owl	*Asio flammeus*	None	SC	NA	Breeds in extensive marshes and moist grasslands; forages over wetlands, grasslands, and ruderal habitats.	**Not Expected (nesting):** Suitable nesting habitat not present given the absence of moist areas and/or large wetlands. Onsite grasslands do not provide adequate protection from predators. Could infrequently forage on the site.
Burrowing owl	*Athene cunicularia*	None	SC	NA	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	**Potential:** The on-site grasslands provide potential nesting and wintering habitat, but no ground squirrels or associated burrows were observed during the August 2017 survey. Moore Biological Consultants (2014) noted that there were not many ground squirrels or ground squirrel burrows on the project site. The nearest occurrence of nesting burrowing owls is just east of the south tip of the site (CNDDB). The site is mapped as suitable habitat for the species as modeled in the HCP/NCCP.

Common Name	Scientific Name	Federal Status	State Status	Other	Habitat Association	Potential Occurrence on Project Site
Golden eagle	*Aquila chrysaetos*	BCC	FP	NA	Rolling foothills, mountain areas, sage-juniper flats, desert. Nests are constructed on cliffs or in large trees in open areas.	**Potential:** The site provides suitable foraging habitat and the species was observed foraging on the site by Moore Biological Consultants in 2014. The species has also been observed foraging nearby at the CNWS (CNDDB Occurrence #136). The CNDDB does not contain any nesting occurrences in the project area. Potentially suitable nesting habitat is present, but available nesting habitat is considered of lower quality given the small and/or limited number of trees present. The site is mapped as suitable habitat for the species as modeled in the HCP/NCCP.
Swainson's hawk	*Buteo swainsoni*	None	T	NA	Breeds in stands of tall trees in open areas. Requires adjacent suitable foraging habitats such as grasslands or alfalfa fields supporting rodents.	**Not Expected:** There are a few potentially suitable nesting trees on the project site, and suitable foraging habitat is present. However, based on the CNDDB, the closest documented occurrence of the species is approximately 8 miles northeast of the site and the site appears to be along or outside of the extreme west edge of the species' nesting range. Consistent with this finding, the site is not mapped as suitable nesting or foraging habitat for the species as modeled in the HCP/NCCP.
Ferruginous hawk	*Buteo Regalis*	BCC	SA	NA	Wintering - open grasslands, sagebrush flats, desert scrub; does not nest in California	**Potential (Wintering Only):** This species occurs in the project area as an infrequent winter migrant but does not nest in California. Could forage on the site during the winter.
White-tailed kite	*Elanus leucurus*	None	FP	NA	Typically nests in trees surrounded by open foraging habitat.	**Potential:** Suitable nesting and foraging habitat present.
California horned lark	*Eremophila alpestris actia*	None	SA	NA	Nests in open areas that contain relatively barren ground with short grass and scattered bushes.	**Potential:** Suitable nesting and foraging habitat present.
Saltmarsh common yellowthroat	*Geothlypis trichas sinuosa*	None	None	NA	San Francisco Bay fresh and saltwater marshes. Requires thick, continuous cover down to water surface for foraging	**Not Expected**: The project site does not provide suitable habitat given the absence of salt/brackish marsh habitat. Based on the CNDDB, the closest documented occurrence of the species is approximately 5 miles from the site.

Common Name	Scientific Name	Federal Status	State Status	Other	Habitat Association	Potential Occurrence on Project Site
Loggerhead shrike	*Lanius ludovicianus*	BCC	CSC	NA	Habitat consists of open spaces such as grasslands with scattered trees, shrubs, utility lines, and/or fences for perching. Typically nest in densely vegetated trees and shrubs	**Potential:** Suitable nesting and foraging habitat present.
California black rail	*Laterallus jamaicensis coturniculus*	None	T	NA	Mainly inhabits salt marshes bordering larger bays	**Not Expected:** The project site does not provide suitable habitat for this species given the absence of tidal and brackish marshes.
Suisun song sparrow	*Melospiza melodia maxillaris*	None	SC	NA	Resident of brackish water marshes surrounding Suisun Bay. Inhabits cattails, tules, and tangles bordering sloughs	**Not Expected:** The project site does not provide suitable habitat for Suisun song sparrow given the absence of brackish marshes. The nearest occurrence of this species in the CNDDB search area is approximately 2.5 miles north of the project site.
Ridgway's rail	*Rallus obsoletus*	E	E	NA	Salt water and brackish marshes traversed by tidal channels.	**Not Expected:** The project site does not provide suitable habitat for this species given the absence of tidal and brackish marshes.
California least tern	*Sturnula antillarum browni*	E	E	N A	Estuaries and bays; nests on exposed tidal flats or beaches	**Not Expected:** The project site does not provide suitable habitat for this species given its distance from tidal areas.
Mammals						
American badger	*Taxidea taxus*	None	SC	NA	Most abundant in drier, open stages of shrub, forest, and herbaceous habitats with friable soils where they can dig burrows.	**Potential:** No badger dens have been observed on the project site and soils are not particularly friable. However, as the species is known from the area, there is a potential that a badger could dig a den on the site.

Common Name	Scientific Name	Federal Status	State Status	Other	Habitat Association	Potential Occurrence on Project Site
San Joaquin kit fox	*Vulpes macrotis mutica*	E	T	NA	Inhabits open, dry grasslands and scrublands with loose textured soils.	**Potential (low)**: The on-site grassland provides potentially suitable habitat for San Joaquin kit fox. The site is mapped as suitable core habitat for the species as modeled in the HCP/NCCP. However, based on the CNDDB, the closest documented occurrence of the species is approximate 4.5 miles southeast of the project site and there are no recent documented occurrences in the project area. The site is either along the extreme northern edge, or just outside of the range of this species.
San Joaquin pocket mouse	*Perognathus inornatus inornatus*	None	SA	NA	This species inhabits grasslands and blue oak woodlands with friable soils in the foothills and valley bottoms of the Central Valley	**Potential (low):** The project site lacks characteristic friable soils, but there is some potential the species could occur on the site. Based on the CNDDB, the species has been documented approximately 4 miles southeast of the project site.
Pallid bat	*Antrozous pallidus*	None	SC	NA	Open and dry habitats with rocky areas for roosting.	**Not Expected (Roosting):** The site does not contain expected roosting habitat given the absence of large trees with cavities and because the onsite buildings are occupied and actively used. Pallid bat and other species of bats may fly over and forage on the site. Based on the CNDDB, the closest documented occurrence of the species is approximately 1.5 miles southwest of the project site.
Townsend's western big-eared bat	*Corynorhinus townsendii townsendii)*	None	PD	NA	Roosts in caves, mines, lava tubes, and buildings.	**Not Expected (Roosting):** The site does not contain expected roosting habitat given the absence caves, mines, and abandoned buildings. Based on the CNDDB, the species has not been documented in the project area.
Western red bat	*Lasiurus blossevillii*	None	SC	NA	Roosts in trees in a wide variety of habitats between the coast western Sierra Nevada mountains. Strongly associated with riparian habitats, particularly mature stands of cottonwood/sycamore (Pierson et a. 2004).	**Potential:** This species is strongly associated with riparian habitats, particularly mature stands of cottonwood/sycamore (Pierson et a. 2004); such habitat does not occur in the proposed development area, but potential habitat is present in the wetland mitigation area. Based on the CNDDB, the closest documented occurrence of the species is approximately 8 miles east of the project site.

Common Name	Scientific Name	Federal Status	State Status	Other	Habitat Association	Potential Occurrence on Project Site
Hoary bat	*Lasiurus cinereus*	None	SA	NA	Roost alone in the foliage of trees.	**Potential:** This foliage roosting species may fly over, forage, or roost on the project site on occasion. Based on the CNDDB, the closest documented occurrence of the species is approximately 3 miles southwest of the project site.
Salt marsh harvest mouse	*Reithrodontomys raviventris*	E	E	NA	Saline emergent wetlands dominated by pickleweed	**Not Expected:** The project site does not provide suitable tidal marsh habitat. The nearest occurrence of this species in the CNDDB search area is approximately 3 miles northeast of the project site.
Reptiles & Amphibians						
California tiger salamander	*Ambystoma californiense*	T	T	NA	Seasonal water bodies without fish (i.e., vernal pools and stock ponds) and grassland/ woodland habitats with summer refugia (i.e., burrows).	**Potential**: There are numerous documented occurrences of the species in the project area, including multiple breeding ponds at the adjacent CNWS. There are also documented occurrences near the southeast and east site boundaries. The CNDDB (Occurrence #756) also reports that an adult CTS was captured in the vicinity of the wetland mitigation area (which is not proposed for development). The mitigation wetlands within the preserve feature a significant cover of reeds and riparian trees, and thus provide marginal breeding habitat for this species. However, given the proximity of breeding habitat, and the known maximum dispersal distance of the species (1.3 miles), essentially the entire project site provides potential upland/aestivation habitat. There is no potential breeding habitat in portions of the project site proposed for development. The project site is not within designated critical habitat for California tiger salamander. The site is mapped as suitable migration and aestivation habitat for the species as modeled in the HCP/NCCP.
California legless lizard	*Anniella pulchra*	None	SC	NA	Sandy or loose loamy soils under sparse vegetation.	**Not Expected:** The project site does not provide suitable habitat for silvery legless lizard given the absence of sandy and loose soils. The nearest documented occurrence of this species is approximately 8 miles east of the project site (CNDDB). The site is not mapped as suitable habitat for the species as modeled in the HCP/NCCP.

Common Name	Scientific Name	Federal Status	State Status	Other	Habitat Association	Potential Occurrence on Project Site
Western pond turtle	*Actinemys marmorata*	None	SC	NA	Ponds, marshes, streams, and ditches with emergent aquatic vegetation and basking areas.	**Potential:** There is no aquatic habitat in the proposed development areas. The wetland mitigation area (outside of the development area) is seasonal and does not provide year-round habitat; this area is in a proposed open space area and would not be disturbed. Based on the CNDDB, the closest documented occurrence of the species is approximately 4 miles west of the project site. However, the species has been reported from the Cistern Pond on the CNWS (City of Concord 2010); this pond is approximately 3,000 feet from the project site. There are other closer ponds on the CNWS; if pond turtles occur in those ponds they could potentially occur on the site during egg laying/nesting. Two areas on the site are mapped as potential movement habitat for pond turtles as modeled in the HCP/NCCP, but streams or aquatic features do not occur at these locations.
Alameda whipsnake	*Masticophis lateralis euryxanthus*	T	T	NA	Scrub, chaparral, grassland, and woodland habitat mosaics. South-facing slopes and ravines.	**Not Expected:** The project site does not provide expected habitat for Alameda whipsnake given the absence of chaparral and scrub habitats on and near the project site. In addition, the project site is not located between or near areas of suitable core habitat. The CNDDB does not provide specific location information for documented Alameda whipsnake occurrences in the region. The site is not mapped as suitable core or movement habitat for the species as modeled in the HCP/NCCP.
Coast horned lizard	*Phrynosoma coronatum frontale*	None	SC	NA	Sandy soils, usually in dry creek channels or coastal dunes.	**Not Expected:** The project site does not provide suitable habitat for the species given the absence of sandy and loose soils. The nearest documented occurrence of this species is approximately 4 miles south of the project site (CNDDB).

Common Name	Scientific Name	Federal Status	State Status	Other	Habitat Association	Potential Occurrence on Project Site
California red-legged frog	*Rana draytonii*	T	SC	NA	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	**Potential:** Three adult CRLF were observed in the wetland mitigation area (outside of the proposed development area) in 2003 (CNDDB Occurrence #675). The CNDDB notes that there was insufficient water levels for breeding. The species has also been documented at or near two ponds at the adjacent CNWS (CNDDB Occurrences #1289 and #1023). The species was also documented north of the project site (CNDDB Occurrence #42); the habitat feature is reported to no longer exist, but there is currently a detention basin nearby. There is no aquatic habitat present in portions of the site proposed for development, but California red-legged frogs could make overland movements across the site, occur near water troughs, or otherwise use habitat features on the site for refuge habitat. The project site is not within designated critical habitat for CRLF. The site is mapped as potential migration and aestivation habitat for CRLF as modeled in the HCP/NCCP; two areas of "potential breeding habitat" are modeled on the property, but these areas do not physically exist.
Giant garter snake	*Thamnophis gigas*	T	T	NA	Freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches, primarily for dispersal or migration.	**Not Expected:** The project site does not provide suitable aquatic habitat for giant garter snake. There are no documented occurrences of this species within 7 miles of the project site (CNDDB). The project site is not modeled as habitat for the species in the HCP/NCCP.
Invertebrates						
Vernal pool fairy shrimp	*Branchinecta lynchi*	T	None	NA	Seasonal pools; tends to occur in smaller pools and is most commonly found in pools that are less than 0.05 acre in grass- or mud-bottomed swales or basalt flow depression pools in unplowed grasslands (Eriksen and Belk 1999).	**Not Expected:** There are no vernal pools or other potentially suitable habitat in the proposed development area. The wetland mitigation area (which would not be developed) provides marginal habitat for the species. Based on the CNDDB, the closest documented occurrence of the species is approximately 6 miles northeast of the project site. The site is not within designated critical habitat for vernal pool fairy shrimp or other listed branchiopods.

Common Name	Scientific Name	Federal Status	State Status	Other	Habitat Association	Potential Occurrence on Project Site
Longhorn fairy shrimp	*Branchinecta longiantenna*	E	None	NA	Vernal pools and other seasonally ponded areas	**Not Expected:** There are no vernal pools or other potentially suitable habitat in the proposed development area. The wetland mitigation area (which would not be developed) provides marginal habitat for the species. Based on the CNDDB, the closest documented occurrence of the species is approximately 15 miles southeast of the project site. The site is not within designated critical habitat for vernal pool fairy shrimp or other listed branchiopods.
Midvalley fairy shrimp	*Branchinecta mesovallenis*	None	SA	NA	Vernal pools and other seasonally ponded areas	**Not Expected:** There are no vernal pools or other potentially suitable habitat in the proposed development area. The wetland mitigation area (which would not be developed) provides marginal habitat for the species. Based on the CNDDB, the closest documented occurrence of the species is approximately 11 miles northeast of the project site.
Vernal pool tadpole shrimp	*Lepidurus packardi*	E	None	NA	Seasonal pools; the species has been collected in vernal pools ranging from 2 to 356,253 square meters (6.5 square feet to 88 acres) in surface area (Helm 1998).	**Not Expected:** There are no vernal pools or other potentially suitable habitat in the proposed development area. The wetland mitigation area (which would not be developed) provides marginal habitat for the species. Based on the CNDDB, the closest documented occurrence of the species is approximately 7 miles northeast of the project site. The site is not within designated critical habitat for vernal pool fairy shrimp or other listed branchiopods.
California fairy shrimp	*Linderiella occidentalis*	None	SA	NA	Seasonal pools	**Not Expected:** There are no vernal pools or other potentially suitable habitat in the proposed development area. The wetland mitigation area (which would not be developed) provides potential habitat for the species. Based on the CNDDB, the species was documented in the vicinity of the CNWS.
Molestan blister beetle	*Lyta molesta*	None	SA	NA	Dried vernal pools and associated flowers	**Not Expected:** There are no vernal pools or other potentially suitable habitat in the proposed development area. The wetland mitigation area (which would not be developed) provides marginal habitat for the species. Based on the CNDDB, the closest documented occurrence of the species is approximately 12 miles from the project site.
Western bumble bee	*Bombus occidentalis*	None	SA	NA	Open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows.	**Potential:** Based on the CNDDB, there are several documented occurrences of the species from the project region, with the most recent being from 1974. Potentially suitable grassland habitat is present on the site, but low number of potential nest sites (i.e., suitable abandoned mammal burrows) limits potential to occur.

Common Name	Scientific Name	Federal Status	State Status	Other	Habitat Association	Potential Occurrence on Project Site

[1] *T=Threatened; E = Endangered*

[2] *T=Threatened; E = Endangered; SC=State of California Species of Special Concern*
PD=Proposed for listing as Threatened or Endangered
SA= CDFW Special Animals List (2018)
NA-Not Applicable

As noted in **Table 2** , the following special-status wildlife species have some potential to occur on the project site: tricolored blackbird, grasshopper sparrow, burrowing owl, golden eagle, ferruginous hawk, white-tailed kite, California horned lark, loggerhead shrike, American badger, San Joaquin kit fox, San Joaquin pocket mouse, western red bat, hoary bat, western pond turtle, California red-legged frog, California tiger salamander, and western bumble bee. The manner in which these species may occur on the project site, and potential impacts to these species from the construction of the proposed project, are discussed below. Potential indirect impacts to these species within the proposed open space areas and the nearby areas (e.g., the CNWS) are discussed later in this report (see **(iii) Indirect Impacts to Special-Status Species**). The species identified in **Table 2** as being not expected to occur are not further discussed in this document because they would not be affected by the proposed project.

FEDRALLY AND/OR STATE LISTED SPECIES

California red-legged frog

California red-legged frog (CRLF) is a federally listed threatened species and is designated as a state species of special concern. This species is covered by the East Contra Costa County HCP/NCCP.

Background Information

Breeding takes place in streams, deep pools, backwaters within streams and creeks, ponds, marshes, and stock ponds. CRLF can occur in ephemeral ponds or permanent streams and ponds; however, populations probably cannot persist in ephemeral streams (Jennings and Hayes 1985). Breeding ponds are typically deep (greater than 2 feet) with still or slow-moving water and dense, shrubby riparian or emergent vegetation (Hayes and Jennings 1988), although CRLF have also been observed in shallow sections of streams and ponds that are devoid of vegetative cover. Habitats with the highest densities of CRLF are deep-water ponds with dense stands of overhanging willows and a fringe of cattails (Jennings 1988; Rathbun et al. 1993).

CRLF breeds during the winter and early spring, from as early as late November through April and May. From late November to late April, adult CRLF are typically found in or near the breeding ponds (Hayes and Jennings 1989, 1994; Jennings 1988). On rainy nights during this time, however, they may leave the ponds and move up to 300 feet away (Zeiner et al. 1988). Starting in late spring, CRLF often move out of the breeding ponds, at first staying nearby but often moving farther away into nearby moist locations, grasslands with squirrel burrows, or similar habitats (under logs, debris, etc.). Generally, these dispersal areas or corridors have mesic (moist) cover, such as would be found in a riparian zone, but CRLF have also been documented dispersing through areas with sparse vegetative cover. Dispersal patterns are dependent on habitat availability and environmental conditions (Scott and Rathbun 1998). CRLF are likely to remain near the breeding ponds if sufficient moist habitat and cover are available, but may also move significant distances if this habitat is not available or if they are dispersing to other ponds. If water is not available, summer habitat could include spaces under boulders or rocks and organic debris, such as downed trees or logs; industrial debris; and agricultural features, such as drains, watering troughs, abandoned sheds, or hay-ricks. California red-legged frogs also use small mammal burrows and moist leaf litter for refuge habitat (Jennings and Hayes 1994). When the rains begin in late fall, CRLF move back into the breeding ponds.

Occurrence in Project Vicinity

As shown in **Figures 5** and **6**, CRLF have been documented at multiple locations in the project vicinity, including the wetland mitigation area on the project site. Three adult CRLF were observed in the wetland mitigation area (outside of the proposed development area) in 2003 (CNDDB Occurrence #675); the CNDDB notes that there was insufficient water levels for breeding. The species has also been documented at or near two ponds at the adjacent CNWS (CNDDB Occurrences #1289 and #1023). There are other ponds on the CNWS that provide potential habitat for the species, including ponds located approximately 150 and 450 feet south of the project site. The species was also documented north of the project site (CNDDB Occurrence #42); the habitat feature associated with this occurrence no longer

exists, but there is currently a detention basin nearby. The project site is not within designated critical habitat for California red-legged frog.

Occurrence on Project Site

There is no aquatic habitat present in portions of the site proposed for development. The species has been documented on the site within the wetland mitigation areas (which is outside of the proposed development area); the CNDDB notes the wetland as having insufficient water levels for breeding, which is consistent with observations made by Moore Biological Consultants (2014). However, given that CRLF have been documented at this location and water is present during the wet season, at a minimum the wetland mitigation area provides non-breeding habitat that may be used by adult and/or juvenile frogs.

CRLF have been documented breeding on the adjacent CNWS property. Based on the CNDDB, the closest breeding location on the CNWS property is approximately 2,000 feet south of the project site, but there are ponds that provide potential breeding habitat approximately 150 and 450 feet south of the project site. There is also a large detention basin to the north of the project site, and CRLF have been historically documented in that general area. The site is mapped as potential migration and aestivation habitat for CRLF as modeled in the HCP/NCCP; two areas of "potential breeding habitat" are modeled on the project site, but these areas do not physically exist.

Given known breeding locations near the project site, that non-breeding frogs have been documented on the site (in the wetland mitigation area), and the presence of potential habitat north of project site, the species could make overland movements across the site, occur near water troughs, use soil cracks or small mammal burrows for refuge habitat, and/or forage on portions of the site.

Project Impacts

As discussed above, the project site does not provide suitable breeding habitat for CRLF. Therefore, the proposed project would not result in the loss of suitable breeding habitat for the species. Non-breeding CRLF have been documented in the

wetland mitigation area and that area at a minimum provides aquatic non-breeding habitat for CRLF. The wetland mitigation area is outside of the area proposed for development and therefore would not be directly disturbed. However, for the reasons previously discussed, the project site may be used by dispersing, aestivating, and/or foraging CRLF, and the proposed project would remove this habitat. Should construction activities occur when frogs are present on the project site, individual CRLF could be harmed by construction activities. The impact on CRLF would be significant.

The HCP/NCCP anticipates and compensates for the loss of some individual CRLF and their aestivation, foraging, and dispersal habitat due to construction associated with new development projects by including a regional strategy for preserving core habitat for the species and protecting a viable population of the species in the project region. For this species, the HCP/NCCP does not include or recommend any avoidance or minimization measures to be implemented before, during or after construction activities. Instead it only requires the payment of the Development Fee so that the HCP/NCCP Implementing Entity can use the collected monies to preserve and protect viable populations and their habitats in accordance with the regional strategy discussed above or execution of an "in-lieu-of fee" agreement as described under **Mitigation Measure BIO-1a** below.

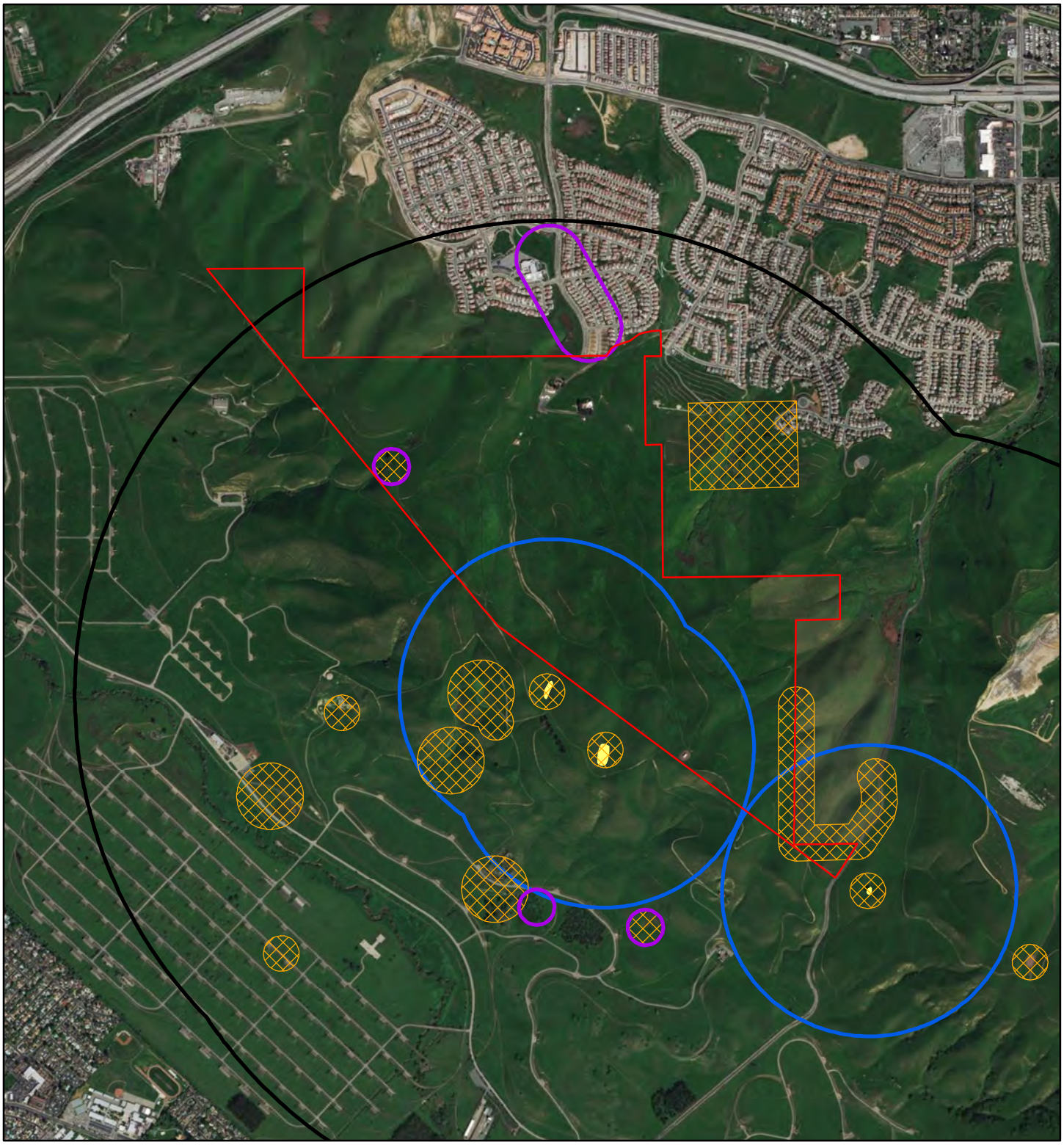
Recommended Mitigation Measures

MM BIO-1 In order to receive coverage under the HCP/NCCP, the project applicant shall pay a Development Fee. This fee will cover the development of approximately 339.1 acres of upland annual grassland habitat. At the discretion of the HCP Implementing Entity, the fee may also be required for the 72.9 acres of Open Space that would be temporarily disturbed by grading. Payment of the Development Fee would address the loss of upland habitat potentially used by CRLF

and other special-status species and contribute towards the regional strategy for preserving viable populations.

Alternately, the project applicant may, in accordance with the terms of PMC Chapter 15.108, offer to dedicate land in lieu of some or all of the mitigation fees.

All applicable mitigation fees shall be paid, or an "in-lieu-of fee" agreement executed, prior to the issuance of a grading permit for the project.



LEGEND

- Project Site
- California red-legged frog
- California tiger salamander
- Closest CTS Breeding Ponds
- CTS Pond 1.3 Mile Buffer
- CTS Pond 0.4 Mile Buffer

FIGURE 6

Faria/Southwest Hills Annexation Project
Nearby CTS and CRLF Occurrences
Pittsburg, Contra Costa County

N
W E
S

0 0.5 1 Miles

Data: CNDDB May 2018
Data: ESRI Base Map
Data: NWI Wetland Data
Pacific Biology May 2018

California tiger salamander

California tiger salamander (CTS) is a federally and state listed threatened species. This species is covered by the East Contra Costa County HCP/NCCP.

Background Information

CTS is a relatively large, mostly terrestrial salamander. CTS is restricted to relatively deep vernal pools, stock ponds, or similar habitats. Compared to other amphibians, its larvae take a long amount of time to transform into juvenile adults and thus require relatively lengthy hydroperiods (typically around three months). CTS is relatively secretive and difficult to find outside of the breeding ponds or during its nocturnal breeding migrations, which begin with the first rains of the season in November or December. From late November to early March, sexually mature adults move at night from underground refugia (such as squirrel burrows) to breeding ponds, and individuals may move significant distances—as much as 1.3 miles from a breeding pool (USFWS 2015). Breeding occurs from late winter into early spring.

After breeding, the adults return to their underground burrows or other refugia. The eggs then hatch and the resulting gilled aquatic larvae metamorphose into juveniles that also move at night into terrestrial habitats (Zeiner et al. 1988). Beginning in late spring and early summer, juveniles migrate from the ponds into refugia where they aestivate (similar to hibernation). Juveniles can travel up to 1 mile from their breeding site to upland refugia (Austin and Shaffer 1992). Juvenile CTS typically spend up to four to five years in their upland burrows before they reach sexual maturity and migrate to breeding ponds for the first time (Trenham et al. 2000).

While the maximum documented dispersal distance of CTS is 1.3 miles (USFWS 2015), this distance is normally less when there are large numbers of refugia sites in close proximity to breeding sites. Trenham and Shaffer (2005) found that 50–95% of adult CTS were trapped between 150 (0.1 mile) to 620 m (0.4 mile) from a breeding pond, respectively. A more recent study (Orloff 2011), which was conducted in the project vicinity, found that the majority of salamanders were captured at least 800 m (0.5 mile) from the nearest breeding

pond while a smaller number of salamanders were captured as far as 2.2 km (1.4 miles) from the nearest breeding pond.

Occurrence in Project Vicinity

As shown in **Figures 5** and **6**, CTS have been documented at numerous locations in the project vicinity. These occurrences are primarily south of the project site on the CNWS and to the east of the project site. Orloff (2011) notes that there are 5 ponds on the CNWS that are the primary CTS breeding ponds on that property. The two closest breeding locations to the project site are on the CNWS and are referred to as the North and South Hilltop Ponds; the North Hilltop Pond is approximately 150 feet south of the project site and the South Hilltop Pond is approximately 450 feet south of the project site. It appears that these two ponds correspond with CNDDB Occurrence #121. There is also a documented occurrence north and southeast of the project site.

Occurrence on Project Site

The CNDDB (Occurrence #756) reports that an adult CTS was captured in the vicinity of the wetland mitigation area (which is not proposed for development). The lower mitigation pond appears to be the deeper of the two ponds, but the surrounding trees (which provide cover and roosts for predators) may limit the suitability of the habitat. Additionally, the presence of tules and other marsh vegetation in the pond tend to support predators of CTS.

Given the proximity of breeding ponds on the CNWS and other nearby locations, and the known maximum dispersal distance of the species (1.3 miles), essentially the entire project site provides potential upland/aestivation habitat (**Figure 6**). However, given that 50–95% of adult CTS were trapped between 150 (0.1 mile) to 620 m (0.4 mile) from a breeding pond (Trenham and Shaffer 2005), higher numbers of CTS would likely occur on portions of the project site within 0.1 mile and 0.4 mile of the closest breeding ponds (**Figure 6**). Moore Biological Consultants (2014) noted that a small number of ground squirrel burrows were observed on the site, and there are also large soil cracks and pocket gopher burrows that provide potential upland refuge habitat. Given the above, CTS could use large portions of the project as upland refuge and dispersal habitat, but with higher usage areas likely occurring

closer to the off-site breeding ponds. The project site is not within designated critical habitat for California tiger salamander. The site is mapped as suitable migration and aestivation habitat for the species as modeled in the HCP/NCCP.

Project Impacts

As discussed above, potential CTS breeding habitat on the project site is limited to the wetland mitigation area; this area provides marginal habitat because it supports marsh vegetation and there are surrounding trees. Additionally, the wetland mitigation area is outside of the area proposed for development and would not be directly disturbed. Therefore, the proposed project would not result in the loss of CTS breeding habitat.

For the reasons previously discussed, essentially the entire project site provides potential upland refuge/aestivation and dispersal habitat. Therefore, the proposed project would result in the development of approximately 339.1 acres and the temporary disturbance of 72.9 acres of annual grassland habitat that provides accessible upland refuge/aestivation and dispersal habitat, with the grasslands closer to the breeding ponds expected to be used more heavily by CTS. This would reduce upland habitat available to CTS breeding nearby on the CNWS and at other nearby breeding locations. Individual CTS are expected to be present in subterranean refuge habitat on portions of the project site and would be harmed by construction activities. Following construction of the project, CTS could still move on or off the site during breeding migrations and could be subject to harm or mortality while crossing roads. The impact on CTS would be significant.

The HCP/NCCP anticipates and compensates for the loss of some individual CTS and their aestivation and dispersal habitat due to construction associated with new development projects by including a regional strategy for preserving core habitat for the species and protecting a viable population of the species in the project region. For this species, the HCP/NCCP does not include or recommend any avoidance or minimization measures to be implemented before, during or after construction activities. Instead it only requires the payment of the Development Fee so that the

HCP/NCCP Implementing Entity can use the collected monies to preserve and protect viable populations and their habitats in accordance with the regional strategy discussed above or execution of an "in-lieu-of fee" agreement as described under **Mitigation Measure BIO-1**, above.

Recommended Mitigation Measures

Implement **Mitigation Measure MM BIO-1** to mitigate for the potential loss of individual CTS through construction activities and the loss of potential dispersal and aestivation habitat.

San Joaquin kit fox

San Joaquin kit fox (SJKF) is a federally listed endangered species and state listed threatened species. This species is covered by the East Contra Costa County HCP/NCCP.

Background Information

SJKF is known for its use of and dependence upon dens, which are typically found in enlarged ground squirrel or other species' dens (O'Farrell 1980). However, SJKF may also be found in manmade structures, including abandoned pipelines, banks in roadbeds or sumps, and culverts (USFWS 1998). Dens are critical for protection from predators, but also provide shelter from inclement weather and thermal regulation. SJKF typically occupies a number of dens at any one time and may change dens often throughout the year. This species forages primarily for small mammals and insects in annual grasslands, pasturelands, cultivated fields, and along the edges of orchards.

Occurrence in Project Vicinity

The project site is located just north of the known range of the San Joaquin kit fox. However, the HCP/NCCP identifies the project site and vicinity as being suitable core habitat for the species. The closest documented occurrence of this species to the project site (CNDDB Occurrence #555) is from approximately 4 miles east of the project site; this occurrence was documented in 1992 at Black Diamond Mines Regional Preserve. As discussed in the

Conservation of San Joaquin Kit Foxes in Western Merced County, California prepared by the California State University Stanislaus Endangered Species Recovery Program (May 2009), the current status of SJKF in the northern range (which is south of project site) is unclear.

"The status of kit foxes from Santa Nella northward is unclear. This region is commonly referred to as the "northern range", and even the historical distribution and abundance of kit foxes in this region is uncertain. Grinnell et al. (1937) found little evidence of kit foxes north of Merced County. They speculated that the historic range may have extended further to the north along the west side of the San Joaquin Valley, but offered no information to support this other than the location for the type specimen near Tracy in San Joaquin County (Merriam 1902)."

"An extensive survey was conducted throughout the northern range during May 2001-February 2003. This effort likely constitutes the most comprehensive survey conducted to date in the northern range. Trained scat-detection dogs were used to survey 213 km of transects on 24 different properties. Of 17 fox scats found and genetically identified to species, all were from red foxes (Smith et al. 2006). No kit fox scats were located."

"Available data offers little support for the presence of resident kit fox populations in the northern range. Currently, kit fox presence in the northern range may consist primarily of occasional dispersing animals from populations to the south of Santa Nella. It is conceivable that such animals might even persist for multiple years resulting in reports of sightings. However, there have been no recent and indeed only two historical records of documented reproduction by kit foxes in the northern range. If self-supporting kit fox populations are not present in the northern range, then this region could be functioning as a dispersal sink, as suggested by Smith et al. (2006)."

Occurrence on Project Site

The project site is located to the north of the commonly accepted range of the species and there have been no recent documented occurrences in the project area. Additionally, there are few ground squirrels, which are the primary prey of the species and provide burrows that can be enlarged into dens. Therefore, it is considered unlikely that the species would occur

on the project site. However, the potential of a kit fox to occasionally wander outside of its expected range and to occur on the project site cannot be completely ruled out.

Project Impacts

The available evidence indicates that a resident or breeding SJKF population does not occur on or near the project site, and that potential use of the project site and surrounding area by the species would be limited to very occasional dispersal. Should an individual SJKF move through the project area during the construction period, the animal could be harmed. Additionally, while considered unlikely, an individual SJKF could also temporarily occupy a den on the project site. In addition to the potential loss of habitat, if the species is present construction activities could result in the loss of one or more kit foxes. Given the rarity of this species in this region, the loss of an individual San Joaquin kit fox and associated grassland habitat would be a significant impact.

Recommended Mitigation Measures

Implement **MM BIO-1a** to mitigate for potential loss of dispersal, denning, and foraging habitat.

MM BIO-2 As required by the HCP/NCCP, the project shall implement the following avoidance measures for potential effects on San Joaquin kit fox during construction:

1) Prior to any ground disturbance, a USFWS/CDFW-qualified biologist shall conduct a pre-construction survey within the proposed disturbance footprint and a surrounding 250-foot radius. The survey shall establish the presence or absence of San Joaquin kit foxes and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines (US Fish and Wildlife Service 1999). The pre-construction survey shall be conducted no more than 30 days prior to ground disturbance. On the parcel

where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the proposed footprint to identify San Joaquin kit foxes and/or suitable dens. Adjacent parcels under different land ownership are not required to be surveyed. The status of all surveyed dens shall be determined and mapped. Written results of pre-construction surveys shall be submitted to USFWS within 5 working days after survey completion and before the start of ground disturbance. Concurrence is not required prior to ground disturbance.

2) If San Joaquin kit foxes and/or suitable dens are identified in the survey area, the measures described below shall be implemented.

- If a San Joaquin kit fox den is discovered in the proposed development footprint, the den shall be monitored for 3 days by a USFWS/CDFW–qualified biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used.

- Unoccupied dens shall be destroyed immediately to prevent subsequent use.

- If a natal or pupping den is found, USFWS and CDFW shall be notified immediately. The den shall not be destroyed until the pups and adults have vacated and then only after further consultation with USFWS and CDFW.

- If kit fox activity is observed at the den during the initial 3-day monitoring period, the den shall be monitored for an additional 5 consecutive days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged. For dens other than natal or pupping

dens, use of the den can be discouraged by partially plugging the entrance with soil such that any resident animal can easily escape. Once the den is determined to be unoccupied it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after 5 or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of the biologist, it is temporarily vacant (i.e., during the animal's normal foraging activities).

3) If dens are identified in the survey area outside the proposed disturbance footprint, exclusion zones around each den entrance or cluster of entrances shall be demarcated. The configuration of exclusion zones should be circular, with a radius measured outward from the den entrance(s). No ground disturbance activities shall occur within the exclusion zones. Exclusion zone radii for potential dens shall be at least 50 feet and shall be demarcated with four to five flagged stakes. Exclusion zone radii for known dens shall be at least 100 feet and shall be demarcated with staking and flagging that encircles each den or cluster of dens but does not prevent access to the den by kit fox.

OTHER SPECIAL-STATUS SPECIES COVERED BY HCP/NCCP

Western Pond Turtle

Western pond turtle is state species of special concern. This species is covered by the East Contra Costa County HCP/NCCP.

This turtle primarily inhabits aquatic habitats, including ponds, slow moving streams, lakes, marshes, and canals. The species frequently basks on logs or other objects out of the water. Western pond turtles also require upland oviposition (i.e., egg-laying) sites in the vicinity (typically within 200 meters, but as far as 400 meters) of the aquatic site. Mating typically occurs in late April or early May and most oviposition occurs during May and June, although

some individuals may deposit eggs as early as late April and as late as early August (Rathbun et al. 1992). Nest sites are most often situated on south or west-facing slopes, are sparsely vegetated with short grasses or forbs, and are scraped in sands or hard-packed, dry, silt or clay soils (Rathbun et al. 1992, Holland 1994, Reese and Welsh 1997).

There is no aquatic habitat in the proposed development areas. The wetland mitigation area (outside of the development area) is seasonal and does not provide year-round habitat; this area is in a proposed open space area and would not be disturbed. Based on the CNDDB, the closest documented occurrence of the species is approximately 4 miles west of the project site. However, the species has been reported from the Cistern Pond on the CNWS (City of Concord 2010); this pond is approximately 3,000 feet from the project site. There are other closer ponds on the CNWS; if pond turtles occur in those ponds they could potentially occur on the site during egg laying/nesting. If present, the species could be harmed by construction activities and the project could result in the loss of upland breeding habitat, which would be considered a significant impact.

Recommended Mitigation Measures

Implement **Mitigation Measure BIO-1** to mitigate for loss of upland breeding and movement habitat.

Burrowing Owl

Burrowing owl is a federal bird of conservation concern and a state species of special concern. This species is covered by the East Contra Costa County HCP/NCCP.

Burrowing owl is a small, ground-dwelling owl that lives in open, dry grasslands, agricultural and range lands, and desert habitats associated with burrowing mammals. Burrowing owls nest and shelter in ground squirrel and other suitable small mammal burrows or artificial structures. The species prefers areas of short grass or bare ground and few trees to reduce the potential for predators to hide near the nest or foraging grounds.

The species is known from the project area and the project site provides potential habitat for the species. While potential burrow sites are scarce on the site, Moore Biological Consultants

(2014) noted that some ground squirrel burrows are present. No evidence of burrowing owls was observed on the project site during site surveys conducted by Moore Biological Consultants. However, given the time that has elapsed since those surveys, and given the presence of some suitable habitat and known occurrences in the area, this species could occur on the project site. If present, the species could be harmed by construction activities, which would be considered a significant impact.

Recommended Mitigation Measures

Implement **Mitigation Measure BIO-1** to mitigate for loss of grassland habitat potentially used by burrowing owl.

MM BIO-3 As required by the HCP/NCCP, the project shall implement the following avoidance measures for potential effects on burrowing owl during construction:

1. Prior to any ground disturbance, a USFWS/CDFW qualified biologist shall conduct a pre-construction survey of the project site for burrowing owls. The pre-construction survey shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1993).

   On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership shall not be required to be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. Surveys shall take place no more than 30 days prior to construction. During the breeding season (February 1–August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to

disturbance areas. During the nonbreeding season (September 1–January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

2. If burrowing owls are found during the breeding season (February 1–August 31), the project applicant shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1–January 31), the project applicant shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a buffer zone (described below).

3. If occupied burrows for burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Golden eagle

Golden eagle is a federal bird of conservation concern and a state fully protected species. This species is covered by the East Contra Costa County HCP/NCCP.

Golden eagle is a resident and migrant throughout California, except for the Central Valley. Its habitat typically includes foothills, mountain areas, sage-juniper flats, and desert, and the species utilizes secluded cliffs with overhanging ledges and large trees for cover. Nests are constructed on cliffs and in large trees in open areas. The site provides suitable foraging habitat and the species was observed foraging on the site by Moore Biological Consultants in 2014. The species has also been observed foraging nearby at the CNWS (CNDDB Occurrence #136). The CNDDB does not contain any nesting occurrences in the project area. Potentially suitable nesting habitat is present, but available nesting habitat is considered lower quality given the small and limited number of trees present, and that the larger trees are near an existing home. The site is mapped as suitable habitat for the species as modeled in the HCP/NCCP.

For the reasons discussed above, it is considered unlikely that golden eagles nest on the site. However, the species is known to forage in the area and the proposed project would result in the loss of approximately 339.1 acres and the temporary disturbance of 72.9 acres of foraging habitat. Therefore, impacts to golden eagle are potentially significant.

Recommended Mitigation Measures

Implement **Mitigation Measure BIO-1** to mitigate for loss of grassland habitat potentially used by golden eagles.

MM BIO-4 As required by the HCP/NCCP, the project shall implement the following avoidance measures for potential effects on golden eagles during construction:

1. Prior to implementation of construction activities, a qualified biologist shall conduct a pre-construction survey to establish whether an active golden eagle nest is present on the project site. If

an occupied nest is present, minimization requirements and construction monitoring shall be required, as detailed below.

2. Construction activities shall be prohibited within 0.5 mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs late January through August, with peak activity in March through July. If site-specific conditions or the nature of the construction activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the Implementing Entity shall coordinate with CDFW/USFWS to determine the appropriate buffer size.

3. Construction monitoring shall ensure that no construction activities occur within the buffer zone established around an active nest. Construction monitoring shall ensure that direct effects to golden eagles are avoided.

Tricolored Blackbird

Tricolored blackbird is a federal bird of conservation concern and a state species of special concern. This species is covered by the East Contra Costa County HCP/NCCP.

This species typically nests in large colonies in dense stands of cattails or tules in freshwater, emergent wetlands. Tricolored blackbird has also been observed nesting in dense stands of willows, blackberry, wild rose, and tall herbs (Zeiner et al. 1990). It is found throughout the Central Valley and along the coast south of Sonoma, and forages on grasslands, cropland, and along edges of ponds for insects, seeds, and grains. Tricolored blackbirds have three basic requirements for selecting their breeding colony sites: open accessible water; a protected nesting substrate, including either flooded or thorny or spiny vegetation; and a suitable foraging space providing adequate insect prey within a few miles of the nesting colony (Hamilton et al. 1995; Beedy and Hamilton 1997, 1999).

The wetland mitigation area (which would not be developed) provides suitable nesting habitat. The species was observed foraging near the mitigation area by Moore Biological Consultants in 2014. The project site is mapped as primary foraging habitat for the species as modeled in the HCP/NCCP. Suitable nesting habitat is not present in portions of the project site proposed for development.

The proposed project does not include the development of any potential tricolored blackbird nesting habitat. The wetland mitigation area (which provides suitable tricolored blackbird habitat) would be preserved within a proposed open space area; there would be approximately 200 feet of open space surrounding the wetland mitigation area and associated nesting habitat. Given the above, there would be no loss of tricolored blackbird nesting habitat. However, should construction equipment be operated near active tricolored blackbird nests, nesting activities could be disrupted. Therefore, impacts to tricolored blackbird are potentially significant.

Recommended Mitigation Measures

The HCP/NCCP does not include a specific measure to protect nesting tricolored blackbirds, but rather indicates that activities with the potential to take tricolored blackbird nests will be avoided during the nesting season (April 1 to July 1). **Mitigation Measure BIO-5**, described below (under Special-Status Bird Species) would serve to protect tricolored blackbird nests from direct and noise-related disturbance.

SPECIAL-STATUS SPECIES NOT PROTECTED BY THE HCP/NCCP

Special-Status Birds

The following special-status bird species (which are not covered by the HCP/NCCP) could nest and/or forage on the project site:

- **California horned lark** is included on the state special animals list. The species typically nests in open country, tundra, grassland, and agricultural areas that contain relatively barren ground with short grass and scattered bushes. This subspecies lives

year-round throughout most of California, except in the Sierra Nevada and some parts of northwestern California, where it is only a migrant. In the winter, it can be found in large flocks that often include other species of birds. This species could nest and forage in the on-site grasslands.

- **White-tailed kite** is a state fully protected species. White-tailed kite typically nests in trees, often in isolated stands, surrounded by open foraging habitat. Nests are built on top of oaks, willows, or other dense, broad-leaved deciduous trees within partially cleared or cultivated fields, grasslands, marsh, riparian, woodland, and savanna habitats. This species could nest and forage on the project site.

- **Loggerhead shrike** is a federal bird of conservation concern and a state species of special concern. Loggerhead shrike is a predatory passerine bird species. It is a resident in the lowlands and foothills throughout California, where its habitat consists of open spaces such as grasslands with scattered trees, shrubs, utility lines, and/or fences for perching. Loggerhead shrikes typically nest in densely vegetated trees and shrubs. This species could nest and forage on the project site.

- **Grasshopper sparrow** is included on the state special animals list. The species inhabits grasslands and nests on the ground. The nest is a well-concealed open cup on the ground under vegetation. They forage on the ground in vegetation, mainly eating insects, especially grasshoppers, and seeds. This species could nest and forage on the project site.

- **Ferruginous hawk** is a federal bird of conservation concern and is included on the state special animals list. The ferruginous hawk is a large, narrow-winged hawk. It winters in open habitats, including deserts and grasslands, between September and April in the Modoc Plateau, Central Valley, and Coast Ranges (Zeiner et al. 1990), but it does not nest in California. This hawk prefers low elevations and avoids canyons and forests (Bechard and Schmutz 1995) and forages over open areas for birds, reptiles, amphibians, mice, and ground squirrels. It is an uncommon winter resident and migrant in northern California, and a more common winter resident in

southwestern California (Garrett and Dunn 1981). The species does not nest in the project region, but could occasionally forage on the project site in the winter.

Should an active nest of these species be present, construction activities could result in the loss or abandonment of the nest. In addition, the proposed project would result in the loss of grassland foraging habitat potentially used by these species. Therefore, the loss of a nest of a special-status bird species and associated foraging habitat is considered a potentially significant impact. In addition, the active nests of most native bird species are protected by the Migratory Bird Treaty Act (16 U.S.C. 704) and the California Fish and Game Code (Section 3503). The trees, grasslands, and shrubs on the project site provide nesting habitat for numerous bird species.

Recommended Mitigation Measures

Implement **MM BIO-1** to mitigate for loss of grassland foraging habitat potentially used by special-status and common bird species. Even though these are not HCP/NCCP covered species, the on-site grassland habitat potentially used by these species is the same type and acreage of habitat whose loss would be mitigated by payment of the Development Fee pursuant to the HCP/NCCP, or execution of an "in-lieu-of fee" agreement.

MM BIO-5 If construction activities commence anytime during the nesting/breeding season of native bird species potentially nesting on or near the project site (typically February through August in the project region), a pre-construction survey for nesting birds shall be conducted by a qualified biologist within two weeks of the commencement of construction activities.

If active nests are found in areas that could be directly affected or are within 300 feet of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of

the buffer zones and types of construction activities restricted within them shall be a minimum of 50 feet, and may be enlarged by taking into account factors such as the following:

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;
- Distance and amount of vegetation or other screening between the construction site and the nest; and
- Sensitivity of individual nesting species and behaviors of the nesting birds.

American Badger

American badger is a state species of special concern. This species is not covered by the East Contra Costa County HCP/NCCP.

American badgers range throughout California but are most abundant in drier, open stages of shrub, forest, and herbaceous habitats with friable soils where the badgers can dig burrows. No badger dens have been observed on the project site and soils are not particularly friable. However, as the species is known from the area, there is a potential that a badger could dig a den on the site. If present in a den, the species could be harmed by construction activities. In addition, the proposed project would result in the loss of grassland habitat potentially used by the species. Therefore, the impact to this species would be potentially significant.

Recommended Mitigation Measures

Implement **Mitigation Measure BIO-1** to mitigate for loss of grassland habitat potentially used by American badger. Even though this is not an HCP/NCCP covered species, the on-site grassland foraging habitat potentially used by this species is the same type and acreage of habitat whose loss would be mitigated by payment of the

Development Fee pursuant to the HCP/NCCP, or execution of an "in-lieu-of fee" agreement.

MM BIO-6 A pre-construction survey for potential den sites shall be conducted by a qualified biologist no more than four weeks before commencement of initial ground disturbance activities. If an occupied den is found (and if young are not present), then any badgers present shall be removed from the den either by trapping or the use of exclusionary devices. Prior to implementation, the removal method shall be approved by CDFW. If trapped, the badgers shall be moved to other suitable habitat. Once any badgers are trapped or excluded, the dens shall be excavated by hand and refilled to prevent reoccupation. Exclusion shall continue until the badgers are successfully excluded from the site, as determined by a qualified biologist. Badgers shall not be relocated if it is determined by the biologists that young are or may be present.

San Joaquin Pocket Mouse

San Joaquin pocket mouse (*Perognathus inornatus inornatus*) is included on the CDFW Special Animals List. This species is not covered by the East Contra Costa County HCP/NCCP.

This species inhabits grasslands and blue oak woodlands with friable soils in the foothills and valley bottoms of the Central Valley. The project site does not contain the characteristic friable soils, and therefore, onsite habitat is considered of lower quality. Based on the CNDDB, this species has been documented approximately 4 miles southeast of the project site. Given that the specie is known from areas with habitat connectivity to the project site, the species has some potential to occur on the site. Therefore, the impact to this species would be potentially significant.

Recommended Mitigation Measures

Implement **Mitigation Measure BIO-1** to mitigate for loss of grassland habitat potentially used by San Joaquin pocket mouse. Even though this is not an HCP/NCCP covered species, the on-site grassland habitat potentially used by this species is the same type and acreage of habitat whose loss would be mitigated by payment of the Development Fee pursuant to the HCP/NCCP, or execution of an "in-lieu-of fee" agreement.

MM BIO-7 Grading and vegetation clearing activities shall be conducted in a uniform direction to allow mobile animals, such as San Joaquin pocket mouse, the ability to escape the disturbance area into adjacent undisturbed habitat, and to prevent creating fragmented islands of habitat that would eventually be cleared/graded.

Western bumble bee (*Bombus occidentalis*) is included on the CDFW Special Animals List, but has no formal listing status. This species is not covered by the East Contra Costa County HCP/NCCP.

Like most other species of bumble bees, the western bumble bee typically nests underground in abandoned rodent burrows or other cavities (Hobbs 1968, MacFarlane et al. 1994, Plath 1922, Thorp et al. 1983 – as cited in Hatfield 2015). Most reports of B. occidentalis nests are from underground cavities such as old squirrel or other animal nests and in open west-southwest slopes bordered by trees, although a few nests have been reported from above-ground locations such as in logs among railroad ties (Hobbs 1968, MacFarlane et al. 1994, Plath 1922, Thorp et al. 1983 – as cited in Hatfield 2015). Availability of nests sites for B. occidentalis may depend on rodent abundance (Evans et al. 2008 – as cited in Hatfield 2015). Moore Biological Consultants (2014) noted that a small number of ground squirrel burrows were observed on the site. Therefore, potential nest sites on the project site are limited. Additionally, most reports of nests are from areas bordered by trees, which are generally absent from the development area. Therefore, optimal habitat does not appear to be present for the species. However, conservatively, as there is some potential for the species to occur,

and because the project would result in the loss of potential habitat, impacts are potentially significant.

Recommended Mitigation Measures

Implement Mitigation Measure BIO-1 to mitigate for loss of grassland habitat potentially used by western bumble bee. Even though this is not an HCP/NCCP covered species, the on-site grassland habitat potentially used by this species is the same type and acreage of habitat whose loss would be mitigated by payment of the Development Fee pursuant to the HCP/NCCP, or execution of an "in-lieu-of fee" agreement.

Special-Status Bats

Hoary bat could roost on the project site within trees that could be removed. Hoary bat is of relatively low sensitivity status - it is not state or federally listed as threatened or endangered, is not a California Species of Special Concern, but is included on the state special animals list and on this basis could be considered to be of special-status under CEQA. The hoary bat is a solitary rooster and it roosts exclusively in trees. If the species was to occur on the site, it is likely that it would abandon its tree roost at the onset of construction and/or tree removal and relocate to another tree in the area. Western red bat also roosts primarily in trees, but this species does form nursery colonies. The western red bat is strongly associated with riparian habitats, particularly mature stands of cottonwood/sycamore (Pierson et al. 2004). Potential roosting habitat for this species is present in the wetland mitigation area, but no tree removal or construction activities are proposed in that area; it is within a proposed open space area. A large colonial bat roost of another species is not expected to occur on the project site given the absence of large trees with cavities and because the onsite buildings are occupied and used. The wetland mitigation area and the ponds on the CNWS provide suitable bat foraging habitat, but these areas would not be disturbed by the proposed project. Given the above, potential impacts to roosting bats are considered less than significant.

(ii) Special-Status Plant Species

Special-status plants include species that are designated Rare, Threatened, or Endangered as well as candidate species for listing by the USFWS. Special-status plants also include species considered Rare or Endangered under the conditions of Section 15380 of the California Environmental Quality Act (CEQA) Guidelines, such as those plant species identified on Lists 1A, 1B, and 2 in the Inventory of Rare and Endangered Vascular Plants of California by the California Native Plant Society. Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on List 3 or 4 in the CNPS Inventory.

Table 3, Special-Status Plant Species Documented in the Vicinity of the Project site, provides a summary of the listing status and habitat requirements of special-status plant species that have been documented in the greater project vicinity and/or for which there is potentially suitable habitat in the project site. This table also includes an assessment of the likelihood of occurrence of each of these species in the project site. The evaluation of the potential for occurrence of each species is based on the distribution of regional occurrences (if any), habitat suitability, and field observations.

Table 3. Special-status Plants Documented in the Vicinity of the Project Site. Compiled by Vollmar Natural Lands Consulting in 2017 from a CNPS 9-Quad Search.

Scientific Name Common Name Plant Family Name (scientific name)	Life Form	Listing Status[1]	Preferred Habitat Elevation Range Blooming Period (parentheses = occasional bloom time)	Potential for Occurrence on Project site[2]
Amsinckia grandiflora large-flowered fiddleneck (Boraginaceae)	annual herb	E/E/1B.1	Cismontane woodland, Valley and foothill grassland 275-550 meters; Apr-May	Not Expected: All natural populations in Contra Costa County have been extirpated (Table 3-7 HCP/NCCP). Hill slopes are likely not steep enough and feature tall, dense grass cover.
Amsinckia lunaris bent-flowered fiddleneck (Boraginaceae)	annual herb	-/-/1B.2	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland 3-500 meters; Mar-Jun	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. Not observed during 2014 surveys by Moore Biological Consultants.
Anomobryum julaceum slender silver moss (Bryaceae)	moss	-/-/4.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest/damp rock and soil on outcrops, usually on roadcuts 100-1000 meters	Not Expected. No suitable habitat occurs on project site.
Arctostaphylos auriculata Mt. Diablo manzanita (Ericaceae)	perennial evergreen shrub	-/-/1B.3	Chaparral (sandstone), Cismontane woodland 135-650 meters; Jan- Mar	Not Expected. No suitable habitat occurs on project site.
Arctostaphylos manzanita ssp. *laevigata* Contra Costa manzanita (Ericaceae)	perennial evergreen shrub	-/-/1B.2	Chaparral (rocky) 500-1100 meters; Jan-Mar (Apr)	Not Expected. No suitable habitat occurs on project site.
Astragalus tener var. *tener* alkali milk-vetch (Fabaceae)	annual herb	-/-/1B.2	Playas, Valley and foothill grassland (adobe clay), Vernal pools/alkaline 1-60 meters; Mar-Jun	Not Expected. Very marginal suitable habitat occurs on project site (clay, but not adobe and not alkaline), but area is above elevation range. Not observed during 2014 surveys by Moore Biological Consultants.
Atriplex cordulata var. *cordulata* heartscale (Chenopodiaceae)	annual herb	-/-/1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland (sandy)/saline or alkaline 0-560 meters; Apr-Oct	Not Expected. No suitable habitat occurs on project site. No saline or alkaline soils. Not observed during 2014 surveys by Moore Biological Consultants.
Atriplex depressa brittlescale (Chenopodiaceae)	annual herb	-/-/1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools/alkaline, clay 1-320 meters; Apr-Oct	Not Expected. No suitable habitat occurs on project site. No saline or alkaline soils. Not observed during 2014 surveys by Moore Biological Consultants.
Atriplex joaquinana San Joaquin spearscale	annual herb	-/-/1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland/alkaline	Not Expected. No suitable habitat occurs on project site. No saline or alkaline soils. Not observed during 2014

Scientific Name **Common Name** **Plant Family Name (scientific name)**	**Life Form**	**Listing Status[1]**	**Preferred Habitat** **Elevation Range** **Blooming Period (parentheses = occasional bloom time)**	**Potential for Occurrence on Project site[2]**
(Chenopodiaceae)			1-835 meters; Apr-Oct	surveys by Moore Biological Consultants.
Blepharizonia plumosa big tarplant **(**Asteraceae**)**	annual herb	-/-/1B.1	Valley and foothill grassland/Usually clay. 30-505 meters; Jul-Oct	Marginal habitat occurs on the Property. No heavy clay soils and the site is dominated by tall, dense grass cover. Not observed during 2014 surveys by Moore Biological Consultants.
California macrophylla round-leaved filaree (Geraniaceae)	annual herb	-/-/CBR	Cismontane woodland, Valley and foothill grassland/clay 15-1200 meters Mar-May	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. Not observed during 2014 surveys by Moore Biological Consultants.
Calochortus pulchellus Mt. Diablo fairy-lantern (Liliaceae)	perennial bulbiferous herb	-/-/1B.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland 30-840 meters; Apr-Jun	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. Not observed during 2014 surveys by Moore Biological Consultants.
Campanula exigua chaparral harebell (Campanulaceae)	annual herb	-/-/1B.2	Chaparral (rocky, usually serpentinite) 275-1250 meters; May-Jun	Not Expected. No suitable habitat occurs on project site.
Centromadia parryi ssp. *congdonii* Congdon's tarplant (Asteraceae)	annual herb	-/-/1B.1	Valley and foothill grassland (alkaline) 0-230 meters; May-Oct (Nov)	Not Expected: No suitable habitat due to absence of alkaline soils. In addition, the site is dominated by tall, dense grass cover. No alkaline soils. Not observed during 2014 surveys by Moore Biological Consultants. Based on the CNDDB, the closest documented occurrence is greater than 25 miles from project site.
Chloropyron molle ssp. *molle* soft bird's-beak (Orobanchaceae)	annual herb	E/R/1B.2	Marshes and swamps (coastal salt) 0-3 meters; Jul-Nov	Not Expected. No suitable habitat occurs on project site.
Cicuta maculata var. *bolanderi* Bolander's water-hemlock (Apiaceae)	perennial herb	-/-/2B.1	Marshes and swamps Coastal, fresh or brackish water 0-200 meters; Jul-Sep	Not Expected. No suitable habitat occurs on project site.
Cordylanthus nidularius Mt. Diablo bird's-beak (Orobanchaceae)	annual herb	-/R/1B.1	Chaparral (serpentinite) 600-800 meters; Jun-Aug	Not Expected. No suitable habitat occurs on project site.
Cryptantha hooveri Hoover's cryptantha (Boraginaceae)	annual herb	-/-/1A	Inland dunes, Valley and foothill grassland (sandy) 9-150 meters; Apr-May	Not Expected. Marginal suitable habitat occurs on project site (valley and foothill grassland is not sandy).

Scientific Name **Common Name** **Plant Family Name (scientific name)**	**Life Form**	**Listing Status[1]**	**Preferred Habitat** **Elevation Range** **Blooming Period (parentheses = occasional bloom time)**	**Potential for Occurrence on Project site[2]**
Delphinium californicum ssp. *interius* Hospital Canyon larkspur (Ranunculaceae)	perennial herb	-/-/1B.2	Chaparral (openings), Cismontane woodland (mesic), Coastal scrub 195-1095 meters; Apr-Jun	Not Expected. No suitable habitat occurs on project site. Most typically occurs in more wooded habitats.
Didymodon norrisii Norris' beard moss (Pottiaceae)	moss	-/-/2B.2	Cismontane woodland, Lower montane coniferous forest/intermittently mesic, rock 600-1973 meters	Not Expected. No suitable habitat occurs on project site.
Dirca occidentalis western leatherwood (Thymelaeaceae)	perennial deciduous shrub	-/-/1B.2	Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, North Coast coniferous forest, Riparian forest, Riparian woodland/mesic; 25-425 meter; Jan-Mar (Apr)	Not Expected. No suitable habitat occurs on project site.
Downingia pusilla dwarf downingia (Campanulaceae)	annual herb	-/-/2B.2	Valley and foothill grassland (mesic), Vernal pools 1-445 meters; Mar-May	Not Expected. No suitable habitat occurs on project site. No mesic grassland or vernal pools.
Eriastrum ertterae Lime Ridge eriastrum (Polemoniaceae)	annual herb	-/-/1B.1	Chaparral (openings or edges)/Alkaline or semi-alkaline, sandy. 200-290 meters; Jun-Jul	Not Expected. No suitable habitat occurs on project site.
Eriogonum nudum var. *psychicola* Antioch Dunes buckwheat (Polygonaceae)	perennial herb	-/-/1B.1	Inland dunes 0-20 meters; Jul-Oct	Not Expected. No suitable habitat occurs on project site.
Eriogonum truncatum Mt. Diablo buckwheat (Polygonaceae)	annual herb	-/-/1B.1	Chaparral, Coastal scrub, Valley and foothill grassland/sandy 3-350 meters; Apr-Sep (Nov)	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. Not observed during 2014 surveys by Moore Biological Consultants.
Erysimum capitatum var. *angustatum* Contra Costa wallflower (Brassicaceae)	perennial herb	E/E/1B.1	Inland dunes 3-20 meters; Mar-Jul	Not Expected. No suitable habitat occurs on project site.
Eschscholzia rhombipetala diamond-petaled California poppy (Papaveraceae)	annual herb	-/-/1B.1	Valley and foothill grassland (alkaline, clay) 0-975 meters; Mar-Apr	Not Expected: Marginal habitat occurs on the Property due to absence of alkaline and heavy clay soil conditions, and because the site is dominated by tall, dense grass cover. Not observed during 2014 surveys by Moore Biological Consultants. The species is presumed extirpated from Contra Costa County (CNPS 2018).

Scientific Name **Common Name** **Plant Family Name (scientific name)**	**Life Form**	**Listing Status[1]**	**Preferred Habitat** **Elevation Range** **Blooming Period (parentheses = occasional bloom time)**	**Potential for Occurrence on Project site[2]**
Fritillaria liliacea fragrant fritillary (Liliaceae)	perennial bulbiferous herb	-/-/1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland/Often serpentinite 3-410 meters; Mar-Apr	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. No serpentinite. Not observed during 2014 surveys by Moore Biological Consultants.
Grimmia torenii Toren's grimmia (Grimmiaceae)	moss	-/-/1B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest/Openings, rocky, boulder and rock walls, carbonate, volcanic 325-1160 meters	Not Expected. No suitable habitat occurs on project site.
Helianthella castanea Diablo helianthella (Asteraceae)	perennial herb	-/-/1B.2	Diablo helianthella associated with thin, rocky, well-drained soils. It is generally found in grassy openings in woodlands, chaparral, and coastal scrub, often at the transition zone between woodland and chaparral. Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland 60-1300 meters; Mar-Jun	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover and no woodlands/chaparral and associated openings. Not observed during 2014 surveys by Moore Biological Consultants.
Hesperolinon breweri Brewer's western flax (Linaceae)	annual herb	-/-/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland/usually serpentinite 30-945 meters; May-Jul	Marginal habitat occurs on project site (no serpentinite). Not observed during 2014 surveys by Moore Biological Consultants.
Isocoma arguta Carquinez goldenbush (Asteraceae)	perennial shrub	-/-/1B.1	Valley and foothill grassland (alkaline) 1-20 meters; Aug-Dec	Not Expected. Marginal suitable habitat occurs on project site. Not alkaline and area is above elevation range.
Juglans hindsii Northern California black walnut (Juglandaceae)	perennial deciduous tree	-/-/1B.1	Riparian forest, Riparian woodland 0-440 meters; Apr-May	Not Expected. No suitable habitat occurs on project site.
Lasthenia conjugens Contra Costa goldfields (Asteraceae)	annual herb	E/-/1B.1	Cismontane woodland, Playas (alkaline), Valley and foothill grassland, Vernal pools/mesic 0-470 meters; Mar-Jun	Not Expected. All HCP/NCCP inventory areas are extirpated (HCP/NCCP Table 3-7). Mesic habitat is limited to two seasonal wetlands, which are man-made and isolated. Not observed during 2014 surveys by Moore Biological Consultants.
Lathyrus jepsonii var. *jepsonii* Delta tule pea (Fabaceae)	perennial herb	-/-/1B.2	Marshes and swamps (freshwater and brackish) 0-5 meters; May-Jul (Aug)	Not Expected. No suitable habitat occurs on project site.
Lilaeopsis masonii Mason's lilaeopsis	perennial rhizomatous	-/R/1B.1	Marshes and swamps (brackish or freshwater), Riparian scrub	Not Expected. No suitable habitat occurs on project site.

Scientific Name Common Name Plant Family Name (scientific name)	Life Form	Listing Status[1]	Preferred Habitat Elevation Range Blooming Period (parentheses = occasional bloom time)	Potential for Occurrence on Project site[2]
(Apiaceae)	herb		0-10 meters; Apr-Nov	
Limosella australis Delta mudwort (Scrophulariaceae)	perennial stoloniferous herb	-/-/2B.1	Marshes and swamps (freshwater or brackish), Riparian scrub/Usually mud banks 0-3 meters; May-Aug	Not Expected. No suitable habitat occurs on project site.
Madia radiata showy golden madia (Asteraceae)	annual herb	-/-/1B.1	Cismontane woodland, Valley and foothill grassland 25-1215 meters; Mar-May	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. Not observed during 2014 surveys by Moore Biological Consultants.
Malacothamnus hallii Hall's bush-mallow (Malvaceae)	perennial evergreen shrub	-/-/1B.2	Chaparral, Coastal scrub 10-760 meters; May-Sep (Oct)	Not Expected. No suitable habitat occurs on project site.
Micropus amphibolus Mt. Diablo cottonweed (Asteraceae)	annual herb	-/-/3.2	Broadleafed upland forest, Chaparral, Cismontane woodland, Valley and foothill grassland/rocky 45-825 meters; Mar-May	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. No rocky soils. Not observed during 2014 surveys by Moore Biological Consultants.
Monardella antonina ssp. *antonina* San Antonio Hills monardella (Lamiaceae)	perennial rhizomatous herb	-/-/3	Chaparral, Cismontane woodland 320 -1000 meters; Jun-Aug	Not Expected. No suitable habitat occurs on project site.
Monolopia gracilens woodland woolythreads (Asteraceae)	annual herb	-/-/1B.2	Broadleafed upland forest (openings), Chaparral (openings), Cismontane woodland, North Coast coniferous forest (openings), Valley and foothill grassland/Serpentine; 100-1200 meters; (Feb), Mar-Jul	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. No serpentinite and no burned habitat. Not observed during 2014 surveys by Moore Biological Consultants.
Navarretia gowenii Lime Ridge navarretia (Polemoniaceae)	annual herb	-/-/1B.1	Chaparral 180-305 meters; May-Jun	Not Expected. No suitable habitat occurs on project site.
Navarretia nigelliformis ssp. *nigelliformis* adobe navarretia (Polemoniaceae)	annual herb	-/-/4.2	Valley and foothill grassland vernally mesic, Vernal pools sometimes clay, sometimes serpentinite 1,000 meters; Apr-Jun	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. Mesic habitat is limited to two seasonal wetlands, which are man-made and isolated. No serpentinite. Not observed during 2014 surveys by Moore Biological Consultants.
Navarretia nigelliformis ssp. *radians* shining navarretia (Polemoniaceae)	annual herb	-/-/1B.2	Cismontane woodland, Valley and foothill grassland, Vernal pools/Sometimes clay 76-1000 meters; Apr-Jul	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. No vernal pools. Not observed during 2014 surveys by Moore Biological Consultants.

Scientific Name Common Name Plant Family Name (scientific name)	Life Form	Listing Status[1]	Preferred Habitat Elevation Range Blooming Period (parentheses = occasional bloom time)	Potential for Occurrence on Project site[2]
Neostapfia colusana Colusa grass (Poaceae)	annual herb	T/E/1B.1	Vernal pools (adobe, large) 5-200 meters; May-Aug	Not Expected. No suitable habitat occurs on project site.
Oenothera deltoides ssp. *howellii* Antioch Dunes evening-primrose (Onagraceae)	perennial herb	E/E/1B.1	Inland dunes 0-30 meters; Mar-Sep	Not Expected. No suitable habitat occurs on project site.
Phacelia phacelioides Mt. Diablo phacelia (Boraginaceae)	annual herb	-/-/1B.2	Chaparral, Cismontane woodland/rocky 500-1370 meters; Apr-May	Not Expected. No suitable habitat occurs on project site.
Plagiobothrys hystriculus bearded popcorn-flower (Boraginaceae)	annual herb	-/-/1B.1	Valley and foothill grassland (mesic), Vernal pools margins/often vernal swales 0-274 meters; Apr-May	Not Expected. No mesic grasslands, vernal pools, or vernal swales.
Sanicula saxatilis rock sanicle (Apiaceae)	perennial herb	-/-/1B.2	Broadleafed upland forest, Chaparral, Valley and foothill grassland/rocky, scree, talus 620-1175 meters; Apr-May	Marginal habitat occurs on the Property. Dominated by tall, dense grass cover. No rocky soils. Not observed during 2014 surveys by Moore Biological Consultants.
Senecio aphanactis chaparral ragwort (Asteraceae)	annual herb	-/-/2B.2	Chaparral, Cismontane woodland, Coastal scrub/sometimes alkaline 15-800 meters; Jan-Apr	Not Expected. Not known from local vicinity.

1. Federal/State/CRPR Listing. Federal or State listing: E = endangered; T = threatened; R = rare (State only); FC = Federal species of Concern
   California Rare Plant Rank (CRPR). Table includes only ranks 1 and 2, except for adobe navarretia which is covered by the HCP/NCCP (but otherwise excludes ranks 3 and 4)
   CRPR: 'List 1B' = Plants rare, threatened or endangered in CA and elsewhere; 'List 2A' = Plants presumed extirpated in California, but more common elsewhere; 'List 2B' = Plants rare, threatened, or endangered in California, but more common elsewhere.
   CRPR: 'List 4' = Limited distribution (Watch List); CBR = Considered But Rejected
   CRPR: '0.1 = Seriously threatened in California; '0.2' = Fairly threatened in CA; '0.3' = Not very threatened in CA.
2. Taxa with potential to occur on the Property are shaded gray.

Habitat modifiers in parentheses apply only to immediately preceding habitat, whereas those following a slash (/) apply to all preceding habitats.
Unless otherwise indicated, taxa listed as having potential to occur on the Property have been documented in the vicinity of the Property.
Blooming months listed in parentheses are occasional (atypical)

As indicated in **Table 3**, the project site provides no habitat or only marginal habitat for special-status plant species known from the region. The project site encompasses only annual grassland habitat, along with two small seasonal wetlands (which are located outside of the proposed development area). The annual grasslands, as observed during the August 2017 survey, are only lightly grazed, and therefore dominated by tall, dense grass cover. In addition, the grassland is uniform and lacks microhabitats such as unique soils (e.g., alkali or serpentine), rock outcrops, or vernal pools. Even mammal burrows were quite limited and localized. It is possible that, given an even, moderate grazing regime, the grasslands could provide suitable habitat for species associated with common grassland habitat or grassland habitat with clay soils. These include the following species: bent-flowered fiddleneck, big tarplant, round-leaved filaree, Mt. Diablo fairy-lantern, Mt. Diablo buckwheat, fragrant fritillary, Diablo helianthella, Brewer's western flax, showy golden madia, Mt. Diablo cottonweed, woodland wollythreads, adobe navarretia, shining navarretia, and rock sanicle. These species were not observed in the project site during rare plant surveys conducted by Moore Biological Consultants during 2013-2014 field surveys, which were conducted on December 12, April 17, June 23, and September 3. All of these species are considered rare by the California Native Plant Society (CNPS), but none are state or federally listed as threatened or endangered. Based on the CNDDB, no special-status plant species have been documented in the project vicinity (i.e., within two miles of the project site) and no special-status plant species were documented on the adjacent CNWS during focused botanical surveys conducted by VNLC in 2008 (City of Concord 2010). The potential of each special-status species (for which marginal habitat is present) to occur in the project site, taking into consideration factors such as regional distribution, habitat quality, and other factors, is further discussed below:

Bent-flowered fiddleneck (CNPS 1B.2): The onsite grasslands provides marginal habitat for this species because they are dominated by tall, dense grass cover. In addition, the grassland is uniform and lacks microhabitats. Acording to the CNDDB, the nearest occurrence of the species is over 9 miles from the project site. The species was not observed during the surveys conducted by Moore Biological Consulting. Given the negative survey findings, the marginal

nature of onsite habitat, and the fact that it has not been documented in the vicinity of the project site, this species has a low potential to occur on the site.

Big tarplant (CNPS 1B.1): This species is covered by the HCP/NCCP. The onsite grasslands provide marginal habitat for this species, due to the lack of heavy clay. The species has been documented at a location approximately 3 miles northeast of the project site. This species was not observed during appropriately timed surveys conducted by Moore Biological Consultants. Given the negative survey findings and the marginal nature of onsite habitat, this species has a low potential to occur on the site.

Round-leaved filaree (CNPS Considered But Rejected): This species is covered by the HCP/NCCP. The onsite grasslands with clay soils provide marginal habitat for this species because they are dominated by tall, dense grass cover. Based on the CNDDB, the species has been documented approximately 2 miles away from the project site. This species was not observed during surveys conducted by Moore Biological Consultants. Given the negative survey findings and the marginal nature of onsite habitat, this species has a low potential to occur on the site.

Mt. Diablo fairy-lantern (CNPS 1B.2): This species is covered by the HCP/NCCP. The onsite grasslands provide marginal habitat for the species due to the tall, dense grass cover. The closest documented occurrence of the species is approximately 4 miles from the project site. Given that this species was not observed during surveys conducted by Moore Biological Consultants, that the species has not been documented in the vicinity of the project site, and because the site provides only marginal habitat, this species has a low potential to occur on the project site.

Mt. Diablo buckwheat (CNPS 1B.1). The onsite grasslands provide marginal habitat for this species because of the tall, dense grass cover. This species is extremely rare and was believed to be extirpated until 2005 and is currently only known from one extant occurrence (CNPS 2018). Based on the CNDDB, this species has been documented at a location approximately 4 miles south of the project site. Given that this species was not observed during surveys conducted by Moore Biological Consultants, because the species is believed to be associated with sandy soils (which were not observed or mapped on the site), and because the site is

dominated by dense, tall grass cover, this species has a low potential to occur. This species is designated by the HCP/NCCP as a "no take" species.

Fragrant fritillary (CNPS 1B.2): The onsite grasslands provide marginal habitat for this species due to the lack of open clay soils. There are no records from the HCP/NCCP Inventory Area (HCP/NCCP Table 3-7) and the HCP indicates that the Inventory Area is not within the range of the species. Based on the CNDDB, the species has not been documented within approximately 8 miles of the project site. Additionally, this species was not observed during the surveys conducted by Moore Biological Consulting. Given the negative survey findings, the marginal grassland habitat, and because this species is not known from the surrounding project area, it has a low potential to occur.

Diablo helianthella (CNPS 1B.2): This species is covered by HCP/NCCP. As described in the HCP/NCCP, Diablo helianthella is associated with thin, rocky, well-drained soils, and is found in grassy openings in woodlands, chaparral, and coastal scrub, often at the transition zone between woodland and chaparral. The types of habitat transition zones and openings this species is associated with do not occur in the project site given the dominance of grassland habitat. The nearest CNDDB occurrence is approximately 2.5 miles southeast of the project site. The species was not observed during the surveys conducted by Moore Biological Consulting. Given the negative survey findings and because of marginal habitat conditions, this species has a low potential to occur.

Brewer's western flax (1.B.2). This species is covered by the HCP/NCCP. The onsite grasslands provide marginal habitat given the tall, dense grass cover and the absence of serpentinite. Based on the CNDDB, the closest documented occurrence of the species is approximately 5 miles from the project site. The species was not observed during the surveys conducted by Moore Biological Consulting. Given the negative survey findings and because of marginal habitat conditions, this species has a low potential to occur.

Showy golden madia (CNPS 1B.1): This species is covered by the HCP/NCCP. The onsite grasslands provide marginal habitat for this species due to the lack of open clay soils. As described in the HCP/NCCP, showy madia grows in grasslands and oak woodlands on heavy clay soils and is typically found in openings rather than under closed canopy. Based on the

CNDDB, the documented historic location of the species is more than 4 miles from the project site, and importantly, the species was last observed in Contra Costa County in 1941. According to the CNPS Rare and Endangered Plant Inventory, this species is presumed extirpated from Contra Costa County. Further, this species was not observed during the surveys conducted by Moore Biological Consulting. Given the negative survey findings, the marginal onsite habitat, and that the species is presumed extirpated from Contra Costa County, the species has a low potential to occur.

Mt. Diablo cottonweed (CNPS 3.2). The onsite grasslands provide marginal habitat for this species because of the tall, dense grass cover and because of the apparent absence of rocky soils. The species was not observed during the surveys conducted by Moore Biological Consulting. Given the negative survey findings and because of marginal habitat conditions, this species has a low potential to occur.

Woodland woolythreads (1B.2). The onsite grasslands provide marginal habitat for this species due to the tall, dense grass cover, and because of the absence of serpentine (which the species is generally associated). Based on the CNDDB, the closest documented occurrence of the species is approximately 5 miles to the south of the site. Given that the species was not observed on the site during surveys conducted by Moore Biological Consulting, the absence of serpentine, and the tall, dense grass cover, this species has a low potential to occur on the site.

Adobe navarretia (CNPS 4.2): This species is covered by the HCP/NCCP. Adobe navarretia occurs in heavy clay soils of vernal pools and other low, usually seasonally moist areas in grasslands (Baldwin et al. 2012). The species does occasionally occur along clay slopes within grasslands (author's observation). Five occurrences of this species have been documented in HCP/NCCP inventory area. Given that this species was not observed during surveys conducted by Moore Biological Consultants, and because of the marginal nature of the onsite grassland habitat, this species has a low potential to occur on the site.

Shining navarretia (CNPS 1B.2): Shining navarretia occurs in heavy clay soils of vernal pools and other low, usually seasonally moist areas in grasslands (Baldwin et al. 2012). Like the adobe navarretia, the species does occasionally occur along clay slopes within grasslands.

Based on the CNDDB, this species has been documented at a location approximately 7 miles from the project site. This species was not observed during appropriately surveys conducted by Moore Biological Consultants. As the species was not observed during the surveys, along with the marginal nature of the grassland habitats, and that the species is not known from the project vicinity, it has a low potential to occur on the project site.

Rock sanicle (CNPS 1B.2). The onsite grasslands provide marginal habitat for this species given the absence of rocky, scree, and talus areas, and because of the tall, dense grass cover. All documented occurrences of this species are located in Mt. Diablo State Park, with the closest occurrence being approximately 5 miles south of the project site. The HCP concluded that this species would not be impacted by its implementation since all known occurrences are in Mt. Diablo State Park. Given the marginal habitat conditions, and that all known occurrences are south of the project site and within Mt. Diablo State Park, this species has a low potential to occur.

For the reasons discussed above, the project site does not provide expected habitat for locally occurring special-status species and no special-status plants have been documented on the site. However, since rare plant surveys have not been conducted since 2014, and because habitat conditions could improve prior to project implementation from a change in grazing practices or fire, the species discussed above are considered to have a low potential to occur. Of those species, bent-flowered fiddleneck, Mt. Diablo buckwheat, fragrant fritillary, Mt. Diablo cottonweed, woodland woolythreads, shining navarretia, and rock sanicle are not covered by the HCP/NCCP. In the event that any special-status plant species occur on the project site, related impacts are potentially significant.

Recommended Mitigation Measures

Implement **Mitigation Measure BIO-1** to mitigate for the potential loss of grassland associated special-status plant species covered by the HCP/NCCP that could occur on the project site (i.e., big tarplant, round-leaved filaree, Mt. Diablo fairy lantern, Diablo helianthella, Brewer's western flax, showy golden madia, and adobe navarretia). While bent-flowered fiddleneck, Mt. Diablo buckwheat, fragrant fritillary, Mt. Diablo cottonweed, woodland woolythreads, shining navarretia, and

rock sanicle are not covered by the HCP/NCCP, they may occur in similar grassland habitats and their populations could also benefit.

MM BIO-8 Prior to issuance of a grading permit for the site, an updated rare plant survey shall be conducted. The surveys shall be appropriately timed to correspond with the blooming periods of the target species and shall cover all potentially suitable onsite habitats. If no special-status plant species are documented during the survey in the project development area, no further mitigation is required.

MM BIO-9 If any of the above HCP covered species occurs in the project development area, the project applicant shall notify the Implementing Entity of the construction schedule so as to allow the Implementing Entity the option to salvage the population(s) in accordance with HCP/NCCP Conservation Measure 3.10 (Plant Salvage when Impacts are Unavoidable).

If special-status species not covered by the HCP are observed, then future development plans shall be designed to avoid such species, to the maximum extent feasible. If special-status plants not covered by the HCP cannot be avoided, then a plant salvage and mitigation plan shall be prepared and implemented. However, under no circumstance may any Mt. Diablo buckwheat plants be harmed, in the unlikely event that the species is found on the site. The plant salvage techniques to be implemented shall follow those outlined in HCP/NCCP Conservation Measure 3.10 (Plant Salvage when Impacts are Unavoidable), or equivalent. The plan shall also, at a minimum, include the following:

- Location of the mitigation site(s) (extent of the plants within and adjacent to project areas).

- Procedures for procuring plants, such as transplanting or collecting seed from plants to be impacted, including storage locations and methods to preserve the plants.
- Procedures for propagating collected seed, including storage methods.
- Quantity and species of plants to be planted or transplanted.
- Planting procedures, including the use of soil preparation and irrigation.
- Schedule and action plan to maintain and monitor the mitigation site for a minimum 3-year period.
- Reporting procedures, including the contents of annual progress reports.
- List of criteria (e.g., growth, plant cover, survivorship) by which to measure success of the plantings.
- Contingency measures to implement if the plantings are not successful (i.e., weed removal, supplemental plantings, etc.).

(iii) Indirect Impacts to Special-Status Resources

Following construction and occupancy of the proposed project, large expanses of undeveloped land would occur to the south and east, with smaller areas of undeveloped land occurring to the north and west (**Figure 2**). Importantly, the East Bay Regional Park District (EBRPD) has plans to open the Concord Hills Regional Park, which will border the project site to the south. There are populations of CRLF and CTS on the CNWS (and future site of the Concord Hills Regional Park). The open space areas bordering the project site primarily consist of grassland habitat (similar to the on-site grasslands), with scattered stock ponds. These habitats support special-status species and are used for movements by numerous wildlife species. Potential indirect impacts on these adjacent lands may include the following: (1) increased lighting and glare effects on wildlife species; (2) an increase in non-native plant

species (that have escaped from landscaped areas), which can out-compete native species for available resources and reduce the distribution and population of native species; and (3) increased human activity and domestic animal presence that could disturb natural habitat areas and displace wildlife populations. These indirect impacts are discussed in more detail below.

Increased Light and Glare

The development of a residential community would increase the number of nighttime light and glare sources on the project site over current levels, which are nonexistent in the most portions of the project site. Nighttime lighting can disturb the resting and foraging behavior of a number of wildlife species and can potentially alter breeding cycles and nesting behavior. Additionally, nighttime light and glare and can increase the predation risk for certain animals.

There are no creeks, riparian areas, or sensitive plant communities on or adjacent to the project site. Therefore, increased nighttime light and glare would not affect such areas. The existing wetland mitigation area (which provides aquatic habitat potentially used by special-status species) is within a proposed open space area and no homes or other developed uses would occur within approximately 200 feet of that area. However, depending on the intensity of lighting in surrounding areas, light spillage into the wetland area could occur, which could have adverse effects on wildlife use of that area. Also of primary concern would be light spillage into the CNWS (and future site of the Concord Hills Regional Park); there are known CTS breeding ponds on CNWS lands approximately 150 feet and 450 feet south of the project site. If uncontrolled, light spillage into these ponds could result in increased predation or other adverse effects to wildlife use of the ponds. Similarly, the habitat value of the 267.2 acres of the project site proposed as open space could be diminished should excessive light and glare be introduced into those areas. Therefore, impacts on wildlife (including special-status species) from increased nighttime light and glare are potentially significant.

Increased Non-native Plant Species

The project site and nearby areas currently contain a high density of non-native plant species. Because of the ability of non-natives to compete more effectively for resources, some of these non-native plant species (which are more adapted to urban environments) could increase in population and potentially displace native species. This current problem of displacement by non-native plant species could be exacerbated after project completion, but the degree of the potential increase is not known. However, because non-native and exotic plants are commonly incorporated into the landscaping plans for both common areas and private lots within new developments, it can be reasonably concluded that the project could result in identifiable increases in non-native and/or invasive plant populations.

In particular, these plant species are often adapted to a wider variety of growing conditions and can out-compete native plant populations for available nutrients, prime growing locations, and other resources. Because these plants reproduce so quickly and in such large amounts, they can quickly replace many native plant populations, resulting in lower species diversity, loss of suitable breeding and/or nesting habitat for common and special-status wildlife species, and overall reductions in habitat values. Therefore, the impact on native biological resources as a result of increased non-native plant species on the project site is considered potentially significant.

Increased Human Activity and Domestic Animal Presence

The proposed project would expand the urban limit and introduce residential development into currently undeveloped land. This increase in human activity would create the potential for increased human disturbances to and degradation of nearby habitats. These disturbances may include increased noise disturbances to wildlife, an increase in the amount of refuse and pollutants in the area, and polluted runoff. Of potential concern would be related impacts to the nearby offsite ponds on the CNWW. There are known CTS breeding ponds on CNWS lands approximately 150 feet and 450 feet south of the project site, CRLF could also occur in these ponds, and CRLF are known from other ponds on the CNWS. Given the small number of homes (1-3 dwelling units per acre) proposed in areas closest to the offsite ponds, and the distance of those homes from the off-site ponds, it is not expected that noise levels at the off-site pond would be substantially elevated. However, homes in that area (and associated

trash) may attract urban adapted wildlife species (e.g., raccoon) that may prey on CRLF and CTS occupying the off-site ponds. Further, in the absence of appropriate water quality and drainage design, runoff from the site could impact ponds and creeks on the CNWS.

The urban development on the project site would result in a corresponding increase in the presence of domestic animals on the project site. Dogs and cats, as well as urban adapted wildlife species (e.g., raccoons) can disturb nesting or roosting sites and disrupt the normal foraging or movement activities of wildlife, such as CRLF and CTS. Feral cats and house cats can cause substantial damage to the species composition of natural areas, including the populations of special-status species, through predation. However, it has been found that most protected areas that had high levels of coyote activity, had few or no domestic cats (Kays 2015). The Conservation Biology Institute (2000) suggested that the movement range of domestic cats depends on the health of the coyote population in the surrounding area and that, where coyotes are present, cats are still likely to cause impacts on wildlife within 100 to 200 feet of the urban/wildland edge. Cats that range farther than 100 to 200 feet from the urban edge are more likely to be killed by coyotes than those that stay close to residential yards. Thus, given the healthy coyote population in the project area, it is likely that coyotes would largely control feral cat populations. However, it is still possible, even in the presence of coyotes, that domestic and feral cats could have some effects on habitats bordering the urban/wildland edge.

Given the above, increased human activity, increased domestic animal presence, and increased urban adapted wildlife species presence could result in potentially significant impacts on special-status species and associated habitat.

Mitigation Measures

The following measures shall be implemented to reduce potential indirect impacts on nearby sensitive biological resources.

MM BIO-10a All public lighting shall be directed and shielded so as to minimize light spillage into off-site areas and designated open space.

MM BIO-10b As part of the CC&R applicable to the housing development, future occupants of lots within approximately 200 feet of the CNWS or open space areas shall be informed through deed disclosures that any outdoor lighting to be installed shall not be allowed to result in light spillage over the fence line (in the direction of the CNWS or other open space).

MM BIO-10c Prior to the issuance of a grading permit, the project applicant shall prepare a list of recommended and prohibited landscaping plants for homes and common areas in the project, which list shall be subject to review and approval by the City of Pittsburg. The list shall include a plant palette composed of non-invasive species and shall list invasive plant species that residents may not plant on the project site. The list of prohibited plants shall be compiled in cooperation with a qualified restoration specialist and distributed to future occupants of the project site as part of the CC&R applicable to the housing development.

MM BIO-10d In deed disclosures the project applicant shall notify all property owners/buyers of the potential interactions that may occur between pets and native wildlife. The disclosures shall discuss the presence of native animals (e.g., coyote, bobcat, mountain lion) that could prey on pets, and state that the property owners and/or residents shall not take any actions against native animals should they prey on pets that are allowed outdoors (unless there is danger of attacks on humans). The property owners should be informed the importance of keeping pets inside or within fenced yards for the pet's protection, as well as to protect nearby sensitive biological resources. The property owners shall also be informed of the importance of properly storing trash, and not feeding wildlife, as to not attract non-native wildlife that could prey on native species.

MM BIO-10e Prior to the issuance of a grading permit, the City of Pittsburgh shall review and approve the proposed drainage plan. The drainage plan shall demonstrate that site runoff and altered drainage patterns will not adversely affect the wetland mitigation area (within the proposed open space) or ponds and drainages on the CNWS or other nearby locations.

7.0 JURISDICTIONAL RESOURCES

Wetlands, streams, and permanent and intermittent drainages are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under Section 404 of the Federal Clean Water Act (CWA). The CDFW also generally has jurisdiction over these resources, together with other aquatic features that provide an existing fish and wildlife resource pursuant to Sections 1602-1603 of the California Fish and Game Code. The CDFW asserts jurisdiction to the outer edge of vegetation associated with a riparian corridor. The Regional Water Quality Control Board also generally has jurisdiction over streams and wetlands.

Wetlands are generally considered to be areas that are periodically or permanently inundated by surface or groundwater, and support vegetation adapted to life in saturated soil. Jurisdictional wetlands are vegetated areas that meet specific vegetation, soil, and hydrologic criteria defined by the USACE Wetlands Delineation Manual and Regional Supplement. Waters of the US are drainage features or water bodies as described in 33 CFR 328.4. Currently, USACE and the US Environmental Protection Agency (EPA) share authority to determine the jurisdictional status of waters of the US, including wetlands.

No wetland delineation has been conducted within the project site. Outside of the two created mitigation wetlands depicted on **Figure 4**, no potential Waters of the U.S. or State of California were observed during the 2013/2014 surveys conducted by Moore Biological Consultants or during the August 2017 survey conducted by Pacific Biology and VNLC. At the time of the August 2017 survey, the onsite drainages did not support a clear dominance of wetland vegetation, did not feature defined bed/bank topography, and lacked indicators of wetland hydrology. Given the lack of bed/bank topography, the drainages are best described as swales. It should be noted that there are two topographically low areas on the project site

that are shown on the USGS 7.5-minute topographic maps as containing intermittent "blue-line" streams. These low-lying areas were inspected during the site visits conducted in 2013/2014 and 2017, and there are no streams at these locations. These low areas do not contain creeks with defined beds or banks, nor is there evidence of ordinary high water marks, or any evidence of scour, sediment deposits, or surface flow (Moore Biological Consultants 2014). No evidence of hydric soils was detected in these areas and these areas are vegetated with a majority of upland-associated vegetation.

The only two wetlands on the project site were created and are located within the wetland mitigation area; this area is within a proposed open space and would not be directly disturbed by the proposed project. There are no other wetlands or jurisdiction features (i.e., streams) on the project site. Therefore, impacts to jurisdictional resources would be less than significant.

8.0 SENSITIVE PLANT COMMUNITIES

Sensitive plant communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special-status species or their habitat. The most current version of the CDFW's *List of California Terrestrial Natural Communities* as well as the MCV indicate which natural communities are of special-status given the current state of the California classification. As previously discussed, all portions of the project site proposed for development consist of annual grasslands, which are dominated by non-native grasses. There are no sensitive plant communities on or adjacent to the project site. Therefore, impacts to sensitive plant communities would be less than significant.

9.0 WILDLIFE MOVEMENT CORRIDORS

Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or manmade obstacles such as urbanization. The project site is located in an undeveloped area and is surrounded by large expanses of open space. The CNWS is located to the south and a large area of undeveloped land occurs to the east. Residential

development and SR 4 occurs to the north, and SR 4 also occurs a short distance to the northwest of the project site. While the project site does not contain features such as a riparian corridor that are generally associated with wildlife movement corridors, wildlife is expected to currently use the onsite grasslands for local and regional movements. Given the presence of SR 4 a short distance to the north and northwest, the project site is located at the northwestern end of largely undeveloped land (and movement corridor) that extends into the central valley. Likely due to its location at the outer edge of this potential movement corridor, the HCP/NCCP identifies the project site as being within the "lower" level of acquisition effort area in regards to "Needed Regional Connections with HCP/NCCP System under the Maximum Urban Development Area".

The proposed project would restrict wildlife movement across much of the project site. However, the portion of the CNWS bordering the site to the south is proposed to be maintained as a park (and open space) by the East Bay Regional Park District; this would provide opportunities for continued northwest-southeast wildlife movement in the area. Given that open space would be maintained south of the site, because the project site is located at the western end of the movement corridor, and because the site is identified by the HCP/NCCP as being with the "lower" level of acquisition effort area in regards to "Needed Regional Connections with HCP/NCCP System under the Maximum Urban Development Area", the proposed project would not substantially interfere with the regional movement of wildlife species and related impacts would be less than significant.

10.0 LITERATURE CITED

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APPENDIX A - REPRESENTATIVE PHOTOGRAPHS OF THE PROJECT SITE

Representative Photographs of the Study Area



View of Annual Grassland Habitat, Southern Portion of Study Area



View of Clay Soils within Annual Grassland, Southwestern Edge of Study Area

Representative Photographs of the Study Area



View of Non-wetland Swale, Facing Ranch Headquarters
Central-eastern Portion of Study Area



View of Pole Barn, Annual Grassland, and CNWS Stock Pond (at left)
Southwestern Edge of Study Area

Representative Photographs of the Study Area



View of Non-wetland Swale, Northwestern Portion of Study Area



View of Non-wetland Swale (USGS blue line stream)
Central Portion of Study Area

Representative Photographs of the Study Area



View of Southwestern-most Wetland Area



View of Northeastern-most Wetland

APPENDIX F

MOORE BIOLOGICAL CONSULTANTS

December 23, 2014

Ms. Noelle Ortland
Faria Land Investors LLC
4061 Port Chicago Highway, Ste. H
Concord, CA 94520

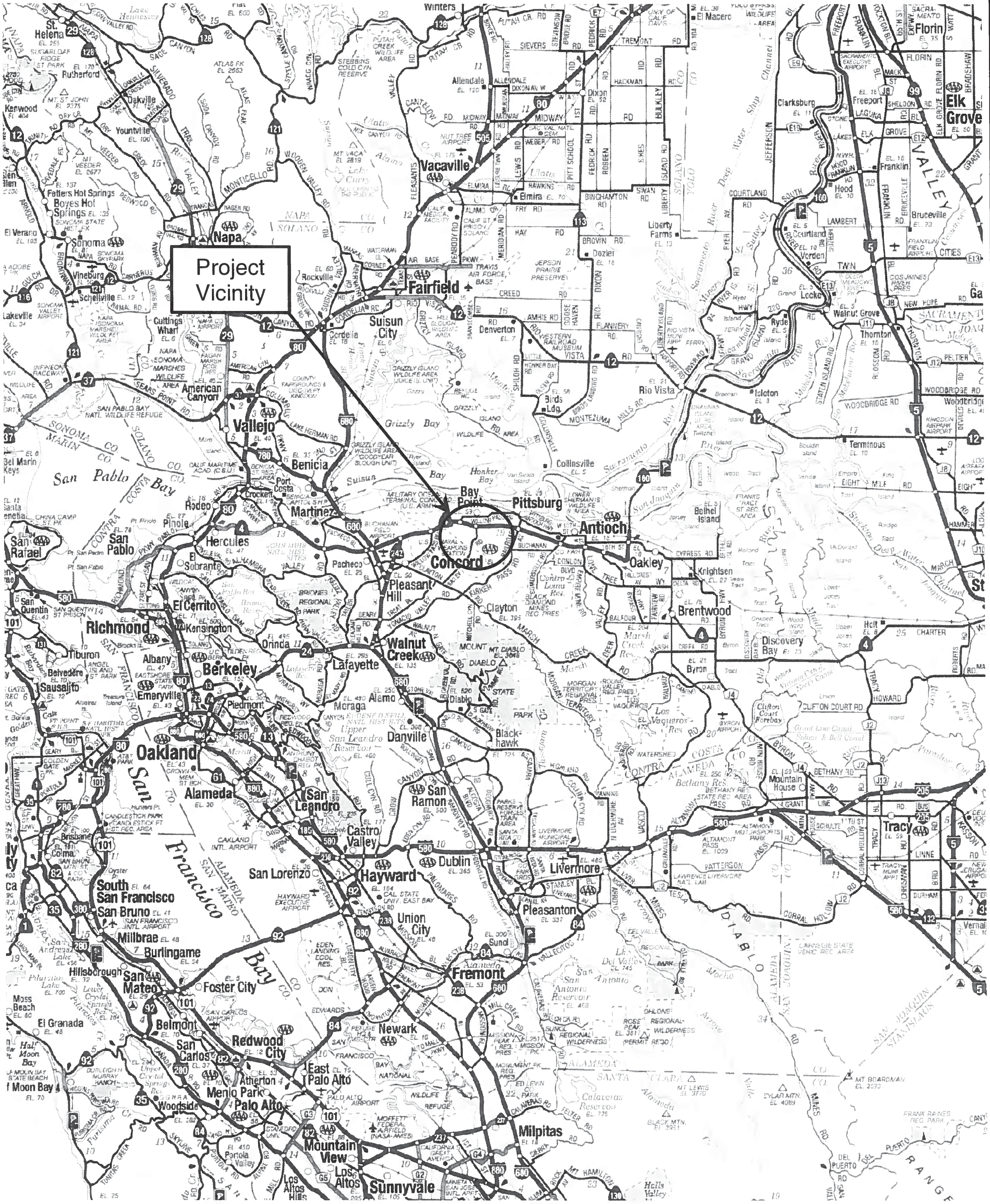
Subject: BIOLOGICAL RESOURCES ASSESSMENT AT THE 606+/- ACRE "FARIA" SITE, PITTSBURG, CONTRA COSTA COUNTY, CALIFORNIA

Dear Noelle:

Thank you for asking Moore Biological Consultants to prepare this Biological Assessment for the "Faria" site along the southwest edge of the City of Pittsburg, in Contra Costa County, California (Figures 1 and 2). Our work involved documenting biological resources, evaluating potentially jurisdictional Waters of the U.S. and wetlands, searching for suitable habitat for or presence of special-status species, assessing potential project impacts to these resources, and identifying appropriate mitigation measures. This report describes the methodology and results of our assessment.

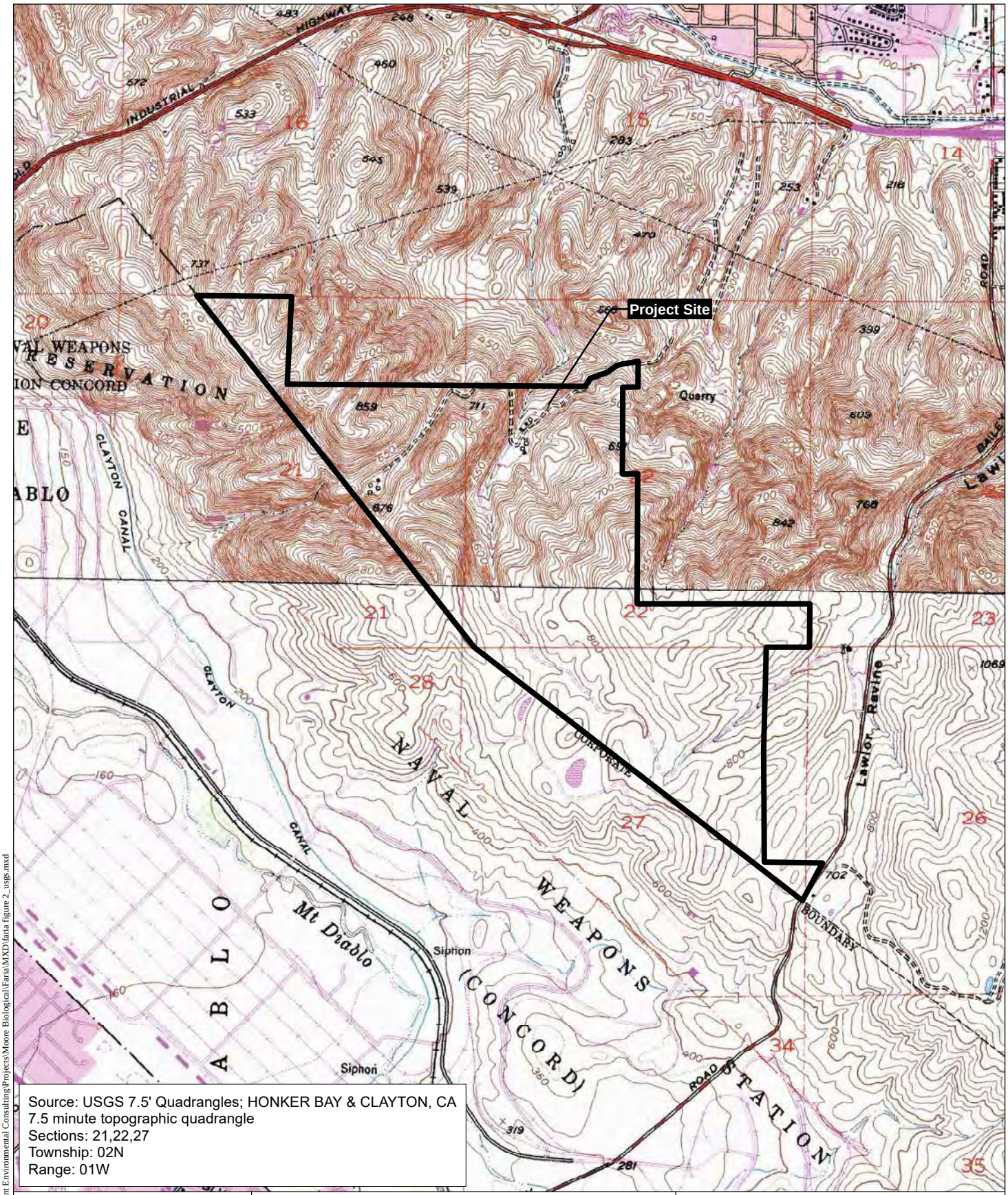
This Biological Assessment was prepared in support of the City of Pittsburg's California Environmental Quality Act (CEQA) review of the project. As the project is expected to participate in the East Contra Costa County Habitat Conservation Plan (ECCCHCP), this Biological Assessment includes an analysis of potential project impacts to special-status species covered under the ECCCHCP, and a summary of the treatment of those species under the ECCCHCP.

10330 Twin Cities Rd., Ste. 30 • Galt, CA 95632
(209) 745-1159 • Fax (209) 745-7513
e-mail: moorebio@softcom.net



Source: Calif. State Automobile Association

Moore Biological Consultants	0 — 18 Miles (N, S, E, W)	FIGURE 1 PROJECT VICINITY



Source: USGS 7.5' Quadrangles; HONKER BAY & CLAYTON, CA
7.5 minute topographic quadrangle
Sections: 21,22,27
Township: 02N
Range: 01W

Figure 2

Moore Biological Consultants

0 1,000 2,000

1 inch = 2,000 feet

N W E S

PROJECT LOCATION

FARIA

Contra Costa County, CA

Map Date: September 2014

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Methods

Prior to the field surveys, we conducted a search of California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database; an updated search was conducted in August 2014 (CNDDB, 2014). As the site is located along the boundary of the 7.5-minute USGS Clayton and Honker Bay topographic quadrangles, the CNDDB search included both quadrangles. This CNDDB search area is approximately 120 square miles surrounding the project site. The United States Fish and Wildlife Service (USFWS) list of Federally Threatened and Endangered species that may occur in or be affected by projects in these same topographic quadrangles was also reviewed. This information was used to identify special-status species that have been previously documented in the greater project vicinity or have the potential to occur based on presence of suitable habitat and geographical distribution.

Field surveys were conducted on December 12, 2013, and April 17, June 23, and September 3, 2014. The surveys were accomplished by driving and walking throughout the site and consisted of making observations of habitat conditions, and noting surrounding land uses, general habitat types, and plant and wildlife species. We conducted an assessment of potentially jurisdictional Waters of the U.S. and wetlands as defined by the U.S. Army Corps of Engineers (ACOE, 1987; 2008), and a search for special-status species, and potentially suitable habitat for special-status species. Additionally, trees in the site were assessed for the potential use by nesting raptors, especially Swainson's hawk (*Buteo swainsoni*) and golden eagle (*Aquila chrysaetos*). The site was also searched for burrowing owls (*Athene cunicularia*) or ground squirrel burrows that could be used by burrowing owls.

Results

LOCATION: The 606+/- acre site is just southwest of Pittsburg, in Contra Costa County, California (Figure 1). The site is within Sections 21, 22, 26, and 27, in

Township 2 North, Range 1 West of the USGS 7.5-minute Clayton and Honker Bay topographic quadrangles (Figure 2). The site is designated for Low Density Residential Development and Open Space in the Southwest Hills Planning Area (Attachment A).

SURROUNDING LAND USES: Surrounding land uses in this portion of Contra Costa County are primarily agriculture and open space, interspersed with areas of relatively new residential and commercial development (Figure 3). There are subdivisions to the north and northeast of the site, and relatively steep and rolling hills of annual grassland to the east, south, and west of the site. The west edge of the site abuts the Concord Naval Weapons Station and Bailey Road bounds the southeast tip of the site.

TOPOGRAPHY AND GENERAL SETTING: The property consists of relatively steep degraded rolling hills; site elevations range from approximately 480 to 860 feet above mean sea level. There are two topographically low areas in the north-central and southeast parts of the site and a man-made compensatory wetland mitigation area along the west edge of the site (Figure 3). The site is primarily vegetated with annual grassland vegetation and there are only a few trees and shrubs in the site, almost all of which are in at the existing home site and wetland mitigation area (see photographs in Attachment B).

The on-site grasslands are unremarkable and are moderately to highly disturbed by cattle grazing and other agricultural activities. The highest levels of disturbance are in a low area in the north-central part of the site where there are livestock corrals near the home site and outbuildings. There is also a considerable network of dirt roads that dissect the site; these roads are re-graded two times per year to provide access throughout the site for grazing management purposes, access for utilities, and as firebreaks.

VEGETATION: California annual grassland series (Sawyer and Keeler-Wolf, 1995) best describes the upland grasslands in the site. Grasses including oats (*Avena*

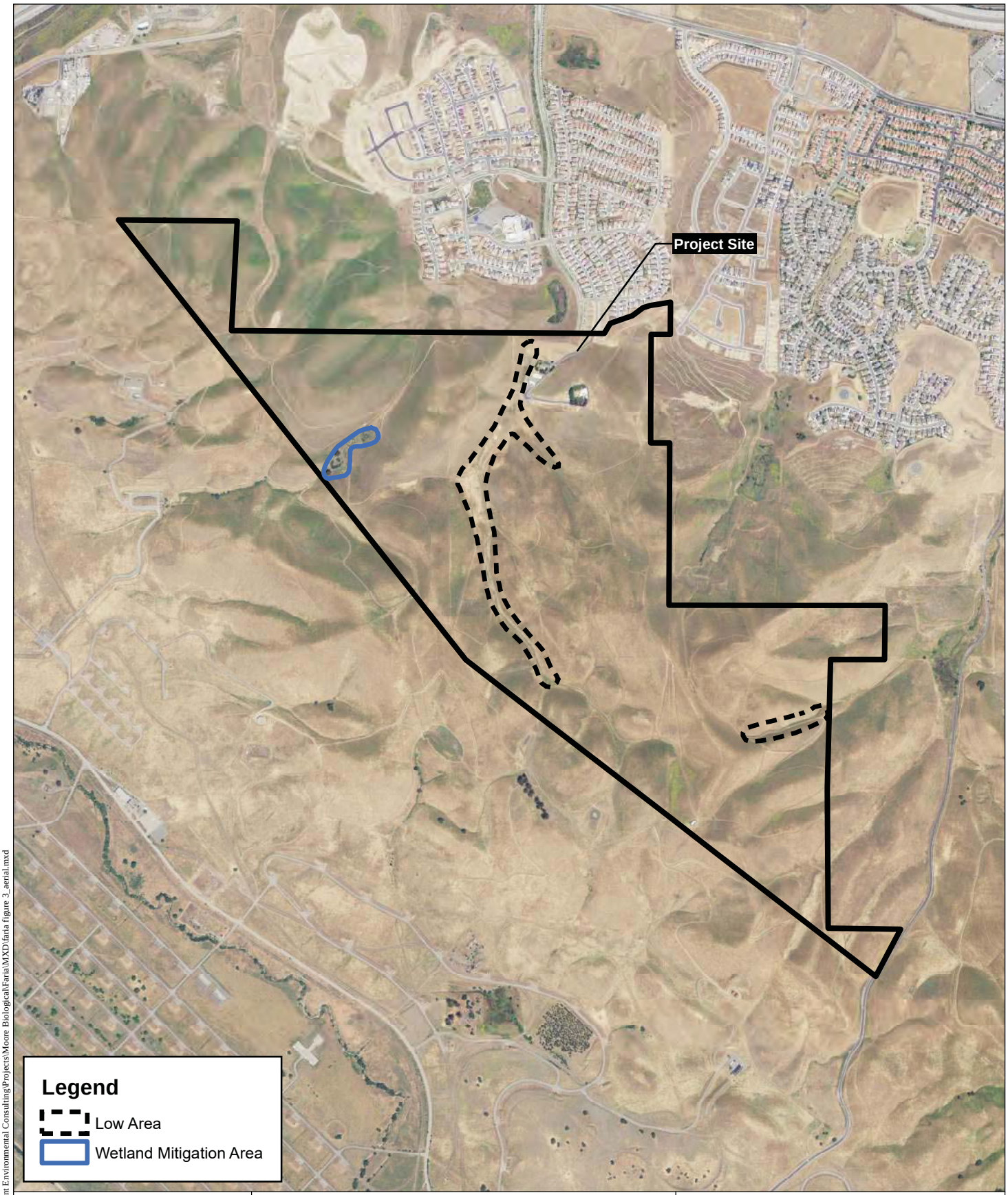


Figure 3

Moore Biological Consultants

0 800 1,600

1 inch = 1,600 feet

N
W E
S

AERIAL

FARIA

Contra Costa County, CA

Map Date: September 2014
Aerial Photo: NAIP, 2012

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sp.), soft chess brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), and Medusa head grass (*Taeniatherum caput-medusae*) are dominant grass species on-site. Other grassland species such as fiddleneck (*Amsinckia menziesii*), black mustard (*Brassica nigra*), purple star-thistle (*Centaurea calcitrapa*), yellow star-thistle (*Centaurea solstitialis*), miniature lupine (*Lupinus bicolor*), rose clover (*Trifolium hirtum*), bull thistle (*Cirsium vulgare*), prickly lettuce (*Lactuca serriola*), and filaree (*Erodium* spp.) are intermixed with the grasses. Table 1 is a list of plant species observed in the site

Dominant vegetation in the wetlands in the wetland mitigation area includes Mediterranean barley (*Hordeum marinum*), rabbit's foot grass (*Polypogon monspeliensis*), spikerush (*Eleocharis macrostachya*), perennial ryegrass (*Lolium perenne*), and Bermuda grass (*Cynodon dactylon*).

All of the trees in the site are associated with an existing home site and outbuildings in the north-central part of the site and in a wetland mitigation area along the west fence line in the north part of the site. There are blue gums (*Eucalyptus* sp.) and California pepper trees (*Schinus molle*) around the outbuildings and corrals in the north-central part of the site and a variety of ornamentals around the home site. Trees in the wetland mitigation area include valley oaks (*Quercus lobata*), Fremont cottonwood (*Populus fremontii*), willows (*Salix* spp.), blue gum, date palm (*Phoenix* sp.), California fan palm (*Washingtonia filifera*), and black walnut (*Juglans californicus*).

Almost all of the shrubs in the site are also associated with the existing home site and outbuildings or in the designated wetland mitigation area. The shrubs are primarily willows (*Salix* sp.) in the wetland mitigation area; there is also a single blue elderberry shrub (*Sambucus mexicana*) in this area. The shrubs associated with the home site and outbuildings are primarily ornamentals. The only other shrubs in the site are two isolated blue elderberries; one of these shrubs is along the west fence line and the other is on a hillside, just south of the home site.

TABLE 1

PLANT SPECIES OBSERVED IN THE SITE

Achillea millefolium	yarrow
Amsinckia menziesii	fiddleneck
Achyrachaena mollis	blow-wives
Avena fatua	oat
Brassica nigra	black mustard
Bromus diandrus	ripgut brome
Bromus hordeaceus	soft chess brome
Calandrinia ciliata	red maids
Carduus pycnocephalus	Italian thistle
Castilleja exserta	purple owls clover
Centaurea calcitrapa	purple star-thistle
Centaurea solstitialis	yellow star-thistle
Chamomilla suaveolens	pineapple weed
Cirsium vulgare	bull thistle
Cynodon dactylon	Bermuda grass
Convolvulus arvensis	morning glory
Datura innoxia	datura
Dichelostemma capitatum	blue dicks
Eleocharis macrostachya	creeping spikerush
Erodium botrys	filaree
Erodium circutarium	red-stem filaree
Eschscholzia californica	California poppy
Eucalyptus sp.	blue gum
Foeniculum vulgare	fennel
Grindelia camporum	gumplant
Heterotheca grandiflora	telegraph weed
Holocarpha virgata	tarweed
Hordeum marinum	Mediterranean barley
Hordeum murinum	foxtail barley

TABLE 1 (Continued)
PLANT SPECIES OBSERVED IN THE SITE

Juglans californicus	black walnut
Lactuca serriola	prickly lettuce
Lepidium latifolium	perennial pepperweed
Lolium perenne	perennial ryegrass
Lupinus bicolor	miniature lupine
Lupinus sp.	lupine
Malva neglecta	common mallow
Medicago polymorpha	California bur clover
Phoenix sp.	date palm
Picris echioides	bristly ox-tongue
Polypogon monspeliensis	rabbit's foot grass
Populus fremontii	Fremont cottonwood
Quercus lobata	valley oak
Raphanus sativus	wild radish
Rumex crispus	curly dock
Rumex pulcher	fiddle dock
Salix sp.	willow
Sambucus mexicana	blue elderberry
Schinus molle	California pepper tree
Scirpus acutus	tule
Taeniatherum caput-medusae	Medusa head grass
Trifolium hirtum	rose clover
Triteleia laxa	Ithuriel's spear
Typha sp.	cattail
Vicia sp.	vetch
Washingtonia filifera	California fan palm
Wyethia angustifolia	narrow-leaved mules ear
Xanthium spinosum	spiny cocklebur

WILDLIFE: A variety of bird species were observed during the field surveys; most of these are common species found in agricultural and urban areas in the project vicinity (Table 2). Several birds were flying around and over the site and perching on the ground and in the trees. Turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), golden eagle (*Aquila chrysaetos*), American kestrel (*Falco sparverius*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), western kingbird (*Tyrannus verticalis*), western meadowlark (*Sturnella neglecta*), and Brewer's blackbird (*Euphagus cyanocephalus*) are representative of the avian species observed in the site. The relatively larger trees in the mitigation site may be suitable for nesting raptors and the trees and grasslands in the site may be used for nesting by a variety of songbirds. Birds such as burrowing owl, western meadowlark (*Sturnella neglecta*), mourning dove, red-winged blackbird (*Agelaius phoeniceus*), and grasshopper sparrow (*Ammodramus savannarum*) may nest in the on-site grasslands.

A variety of mammals common to agricultural and semi-rural areas are expected to use habitats in the site. Coyote (*Canis latrans*), black-tailed hare (*Lepus californicus*), and striped skunk (*Mephitis mephitis*) were observed in the site. Raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), California ground squirrel (*Spermophilus beecheyi*) and mule (black-tail) deer (*Odocoileus hemionus*) are expected to occur in the area. A number of species of small rodents including Botta's pocket gopher (*Thomomys bottae*), mice (*Mus musculus, Reithrodontomys megalotis,* and *Peromyscus maniculatus*) and voles (*Microtus californicus*) also may occur. A number of bat species may fly over, forage, or roost in the on-site trees on occasion. However, the site does not contain any caves that are required by many bat species for maternity roosts.

No amphibians or reptiles were observed in the site. Based on habitat types present and the lack of creeks, ponds, or other water sources throughout most of the site, a limited variety of amphibians and reptiles are expected to use on-site habitats. Although none was observed, the site and surrounding lands provide

TABLE 2

WILDLIFE SPECIES OBSERVED IN THE SITE

Birds	
Turkey vulture	*Cathartes aura*
Golden eagle	*Aquila chrysaetos*
Northern harrier	*Circus cyaneus*
Red-tailed hawk	*Buteo jamaicensis*
American kestrel	*Falco sparverius*
Rock dove	*Columba livia*
Mourning dove	*Zenaida macroura*
Barn owl	*Tyto alba*
Great-horned owl	*Bubo virginianus*
Black phoebe	*Sayornis nigricans*
Acorn woodpecker	*Melanerpes formicivorus*
Western kingbird	*Tyrannus verticalis*
American crow	*Corvus brachyrhynchos*
Red-winged blackbird	*Agelaius phoeniceus*
Western meadowlark	*Sturnella neglecta*
Brewer's blackbird	*Euphagus cyanocephalus*
Tricolored blackbird	*Agelaius tricolor*
House finch	*Carpodacus mexicanus*
Mammals	
Coyote	*Canis latrans*
Black-tailed hare	*Lepus californicus*
Striped skunk	*Mephitis mephitis*

suitable habitat for species including western rattlesnake (*Crotalis viridis*), Pacific chorus frog (*Pseudacris regilla*), western fence lizard (*Sceloporus occidentalis*), western skink (*Eumeces skiltonianus*), western toad (*Bufo boreas*), gopher snake (*Pituophis melanoleucus*), and common garter snake (*Thamnophis sirtalis*).

WATERS OF THE U.S. AND WETLANDS: Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, many of their tributaries, and adjacent wetlands. State and federal agencies regulate these habitats and Section 404 of the Clean Water Act requires that a permit be secured prior to the discharge of dredged or fill materials into waters of the U.S. Both CDFW and ACOE have jurisdiction over modifications to riverbanks, lakes, stream channels and other wetland features.

Wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted to life in saturated soil. Jurisdictional wetlands are vegetated areas that meet specific vegetation, soil, and hydrologic criteria defined by the ACOE *Wetlands Delineation Manual* and Regional Supplement (ACOE, 1987; 2008). Waters of the U.S. are drainage features or water bodies as described in 33 CFR 328.4. Currently, ACOE and the U.S. Environmental Protection Agency (EPA) share authority to determine the jurisdictional status of waters of the U.S., including wetlands.

There are two man-made created seasonal wetlands in the created wetland mitigation area along a portion of the west edge of the site (Figure 3 and photographs in Attachment B). The wetlands were created as part of compensatory mitigation for nearby development projects and are located in a 17.5+/- acre protected area to assure the protection of the created wetlands.

The created wetlands are shallow basins in a fenced-off area, each of which appear to be between 0.25 and 0.5 acres. The wetlands capture water from a relatively small watershed. The upper created wetland also receives some water from the overflow of a cattle trough, and the lower created wetland also receives some water from a windmill. The wetlands were dry or nearly dry during all of the surveys. Under very wet conditions, these wetlands appear to have the potential to pond water to depths of up to a foot. Dominant vegetation in the wetlands in the wetland mitigation area includes Mediterranean barley rabbit's foot grass,

spikerush, perennial ryegrass, and Bermuda grass. There are also some small patches of tules (*Sciprus acutus*) and cattails (*Typha* sp.) in the upper created wetland, which exist only due to the overflow from the cattle trough.

No other potentially jurisdictional wetlands or Waters of the U.S. were observed in the site.

Interestingly, there are two topographically low areas in the site that are mapped on the USGS 7.5-minute topographic maps as containing intermittent "blue-line" streams (Figures 2 and 3). These USGS maps were published in 1980 and do not accurately depict current conditions: there are no streams on the site. These low areas do not contain creeks with defined beds or banks, nor is there evidence of ordinary high water marks, or any evidence of scour, sediment deposits, or surface flows. The central and deepest parts of these low areas lack hydric soils and are uniformly vegetated with upland annual grassland and weeds (see photographs in Attachment B).

The low area in the north-central part of the site is in the upper part of the watershed of an off-site creek to the north of the site; most of this off-site creek was filled and piped with subdrains when the subdivisions to the north of the site were constructed about 15 years ago. There are roads, corrals, and outbuildings in the lowest part of the low area near the north edge of the site, all of which were constructed years ago. It is unlikely any of these facilities would have been constructed in an area that is subject to flows, as there are expansive open areas just a few feet higher in elevation just east of the roads, corrals, and outbuildings in the low area.

The other topographically low area in the site mapped as an intermittent "blue-line" stream is in the southeast corner of the site (Figures 2 and 3 and photograph in Attachment B). This low area is the upper part of a small watershed that drains in to Lawlor Ravine east of the site. There is no evidence of an ordinary high water mark, scour, sediment deposits, or surface flows in this

low area which is vegetated with upland annual grassland and weeds. A few other small topographically low areas between hills in the site that drain even smaller watersheds similarly lack any indicators of Waters of the U.S. or wetlands.

SPECIAL-STATUS SPECIES: Special-status species are plants and animals that are legally protected under the state and/or federal Endangered Species Act or other regulations. The Federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species. Both FESA and CESA prohibit unauthorized "take" (i.e., killing) of listed species, with take broadly defined in both acts to include activities such as harassment, pursuit and possession. Special-status wildlife species also includes species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. The federal Migratory Bird Treaty Act and Fish and Game Code of California protect special-status bird species year-round, as well as their eggs and nests during the nesting season. Fish and Game Code of California also provides protection for mammals and fish.

Special-status plants include species which are designated rare, threatened, or endangered and candidate species for listing by the USFWS. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the California Environmental Quality Act (CEQA) Guidelines, such as those plant species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California by the California Native Plant Society (CNPS, 2010). Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or

lack of adequate information to permit listing or rejection for state or federal status, such as those included on List 3 in the CNPS Inventory.

Table 3 provides a summary of the listing status and habitat requirements of special-status plant and wildlife species that have been documented in the greater project vicinity or for which there is potentially suitable habitat within the site. This table also includes an assessment of the likelihood of occurrence of each of these species within the site. The evaluation of the potential for occurrence of each species is based on the distribution of regional occurrences (if any), habitat suitability, and field observations.

SPECIAL-STATUS PLANTS: Special-status plants identified in the CNDDB (2014) query include Mt. Diablo manzanita (*Arctostaphylos auriculata*), Contra Costa manzanita (*Arctostaphylos manzanita spp. laevigata*), alkali milkvetch (*Astragalus tener* ssp. *tener*), big tarplant (*Blepharizonia plumosa ssp. plumosa*), round-leaved filaree (*California macrophyllum*), Mt. Diablo fairy-lantern (*Calochortus pulchellus*), chaparral harebell (*Campanula exigua*), soft bird's-beak (*Cordylanthus mollis ssp. molllis*), Bolander's water hemlock (*Cicuta maculata var. bolanderi*), Mount Diablo bird's-beak (*Cordylanthus nidularius*), Hospital Canyon larkspur (*Delphinium californicum ssp. interius*), Lime Ridge eriastrum (*Eriastrum ertterae*), Mt. Diablo buckwheat (*Eriogonum truncatum*), Contra Costa wallflower (*Erysimum capitatum var. angustatum*), fragrant frittialry (*Fritillaria liliacea*), Torren's grimmia (*Grimmia torenii*), Diablo helianthella (*Helianthella castanea*), Brewers western flax (*Hesperolinon breweri)*, Delta tule pea (*Lathyrus jepsonii var. jepsonii*), Mason's lilaeopsis (*Lilaeopsis masonii*), delta mudwort (*Limosella australis*), showy golden madia (*Madia radiata*), Halls bush mallow (*Malacothamnus hallii*), woodland woolythreads (*Monolopia gracilens*), Lime Ridge navarretia (*Navarretia gowenii*), Antioch dunes evening primrose (*Oenothera deltoides ssp. howellii*), Mt. Diablo phacelia (*Phacelia phacelioides*), rock sanicle (*Sanicula saxatilis*), chaparral ragwort (*Senecio aphanactis*), most beautiful jewelflower (*Streptanthus albidus spp. peramoenus*), Mt. Diablo jewelflower (*Streptanthus hispidus spp. peramoenis*), slender-leaved pondweed

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
PLANTS						
Large-flowered fiddleneck	*Amsinckia grandiflora*	E	E	1B	Cismontane woodland, valley and foothill grassland; elevations 902-1,805 feet; blooms April - May.	Unlikely: the heavily grazed ruderal grasslands in the site do not provide suitable habitat for large-flowered fiddleneck and the site is just below the elevation range of this species (CNPS, 2010). There are no occurrences of this species in the CNDDB (2014) search area.
Mt. Diablo manzanita	*Arctostaphylos auriculata*	None	None	1B	Chaparral, only on the Mt. Diablo area of Contra Costa County; elevations 443-2,133 feet; blooms January - March.	Unlikely: there is no suitable habitat in the site for Mt. Diablo manzanita and the site is at the low end of the elevation range of this species (CNPS, 2010). While there is no chaparral habitat in the site, the site is mapped suitable habitat for Mt. Diablo manzanita This evergreen shrub was not observed. The nearest occurrence of Mt. Diablo manzanita in the CNDDB (2014) search area is approximately 5 miles southeast of the site.
Contra Costa manzanita	*Arctostaphylos manzanita spp. laevigata*	None	None	1B	Rocky areas in chaparral; only known from Contra Costa County; elevations 1,640-3,609 feet; blooms January - April.	Unlikely: there is no suitable habitat in the site for Contra Costa manzanita and this evergreen shrub was not observed. The site is also below the elevation range of this species (CNPS, 2010). The nearest occurrence of Contra Costa manzanita in the CNDDB (2014) search area is approximately 8 miles south of the site.
Alkali milk-vetch	*Astragalus tener var. tener*	None	None	1B	Alkali playas and vernal pools; elevations 3-197 feet; blooms March – June.	Unlikely: there are no vernal pools in the site and the site is above the elevation range of this species (CNPS, 2010). The nearest occurrence of alkali milk vetch in the CNDDB (2014) search area is approximately 8 miles northeast of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Big tarplant	*Blepharizonia plumosa ssp. plumosa*	None	None	1B	Valley and foothill grassland; elevations 98-1,657 feet; blooms July - October.	Unlikely: the on-site grasslands are heavily grazed and do not provide suitable habitat for big tarplant; this showy species was not observed in the site and no clay soils were observed in the site. The low area in the north-central part of the site is mapped in the ECCCHCP (Jones & Stokes, 2006) as suitable low potential habitat for big tarplant, and the relatively higher elevation parts of the site are mapped as suitable habitat. The nearest occurrence of big tarplant in the CNDDB (2014) search area is approximately 4 miles northeast of the site.
Round-leaved filaree	*California macrophyllum*	None	None	2	Cismontane woodland and valley and foothill grassland; elevations 49-3,937 feet; blooms March - May.	Unlikely: the heavily grazed ruderal grasslands in the site provide marginally suitable habitat for round-leaved filaree. There is a small area in the central part of the site that is mapped in the ECCCHCP (Jones & Stokes, 2006) as suitable habitat for this species. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 2 miles southeast of the site.
Mt. Diablo fairy-lantern	*Calochortus pulchellus*	None	None	1B	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland; elevations 98-2,756 feet; blooms April - June.	Unlikely: the heavily grazed ruderal grasslands in the site provide marginally suitable habitat for Mt. Diablo fairy-lantern. The relatively higher elevation parts of the site are mapped in the ECCCHCP (Jones & Stokes, 2006) as suitable habitat for this species. The nearest occurrence of Mt. Diablo fairy-lantern in the CNDDB (2014) search area is approximately 5 miles southeast of the site.
Chaparral harebell	*Campanula exigua*	None	None	1B	Chaparral, usually rocky serpentine soils; elevations 902-4,101 feet; blooms May - June.	Unlikely: the site does not contain suitable habitat for chaparral harebell; no areas of serpentine soils were observed in the site. The site is also below the elevation range of this species (CNPS, 2010). The nearest occurrence of chaparral harebell in the CNDDB (2014) search area is approximately 6.5 miles southeast of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Soft bird's-beak	*Cordylanthus mollis ssp. mollis*	E	Rare	1B	Coastal salt marsh; elevations 0-10 feet; blooms July – November.	Unlikely: the site does not contain suitable habitat for this species. The nearest occurrence of soft bird's-beak in the CNDDB (2014) search area is approximately 2 miles northwest of the site.
Bolander's water hemlock	*Cicuta maculata var. bolanderi*	None	None	2	Fresh or brackish water marshes; elevations 0-656 feet; blooms July – September.	Unlikely: there is no suitable marsh habitat for Bolander's water hemlock in the site. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 4 miles northeast of the site.
Mount Diablo bird's-beak	*Cordylanthus nidularius*	None	Rare	1B	Chaparral with serpentine soils; elevations 1,969-2,625 feet; blooms June – August.	Unlikely: the site does not contain suitable habitat for Mount Diablo bird's-beak; no areas of serpentine soils were observed in the site. The site is also below the elevation range of this species (CNPS, 2010). The nearest occurrence of Mount Diablo bird's-beak in the CNDDB (2014) search area is approximately 6 miles southeast of the site.
Hospital Canyon larkspur	*Delphinium californicum ssp. interius*	None	None	1B	Cismontane woodland, chaparral; elevations 639-3,593 feet; blooms April - June.	Unlikely: the site does not contain suitable habitat for Hospital Canyon larkspur; the site is also at the low end of the elevation range of this species (CNPS, 2010). The nearest occurrence of Hospital Canyon larkspur in the CNDDB (2014) search area is approximately 4 miles south of the site.
Lime Ridge eriastrum	*Eriastrum ertterae*	None	None	1B	Chaparral edges and openings; usually alkaline or sandy soils; elevations 656-951 feet; blooms June - July.	Unlikely: the site does not contain suitable habitat for Lime Ridge eriastrum; the site is also at the very low end of the elevation range of this species (CNPS, 2010). The nearest occurrence of Lime Ridge eriastrum in the CNDDB (2014) search area is approximately 4 miles south of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Mt. Diablo buckwheat	*Eriogonum truncatum*	None	None	1B	Coastal scrub, valley and foothill grassland and coastal scrub; usually on sandy soils; elevations 10-1,148 feet; blooms April - December.	Unlikely: the ruderal grasslands in the site do not provide suitable habitat for Mt. Diablo buckwheat. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 5 miles south of the site.
Contra Costa wallflower	*Erysimum capitatum var. angustatum*	E	E	1B	Inland dunes; elevations 10-66 feet; blooms March – July.	Unlikely: the site does not provide suitable dune habitat for Contra Costa wallflower. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 6 miles northeast of the site. The site is not in designated critical habitat for Contra Costa wallflower (CFR, 1990a).
Diamond-petaled California poppy	*Eschscholzia rhombipetala*	None	None	1B	Valley and foothill grasslands in alkaline, clay soils; elevations 0-3,200 feet; blooms March - April.	Unlikely: the on-site grasslands are heavily grazed and do not provide suitable habitat for diamond-petaled California poppy; no alkaline or clay soils were observed in the site. This showy species was not observed in the site. There are no occurrences of this species in the CNDDB (2014) search area. The CNPS Inventory (2010) describes this species as extirpated in Contra Costa County.
Fragrant fritillary	*Fritillaria liliacea*	None	None	1B	Coastal scrub, valley and foothill grassland and coastal prairie; often on serpentine soils; elevations 10-1,345 feet; blooms February - April.	Unlikely: the heavily grazed ruderal grasslands in the site do not provide suitable habitat for this species; no areas of serpentine soils were observed in the site. The nearest occurrence of fragrant fritillary in the CNDDB (2014) search area is approximately 8 miles southwest of the site.
Toren's grimmia	*Grimmia torenii*	None	None	1B	Chaparral, cismontane woodland, lower montane coniferous forest; within openings and rocky areas; elevations 1,066-3,806 feet; no defined blooming period.	Unlikely: the site does not provide suitable habitat for Toren's grimmia; the site is also below the elevation range of this species (CNPS, 2010). The nearest occurrence of this moss in the CNDDB (2014) search area is approximately 7 miles southeast of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Diablo helianthella	*Helianthella castanea*	None	None	1B	Broad-leaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland; elevations 197-4,265 feet; blooms March – June.	Unlikely: the heavily grazed ruderal grasslands in the site provide marginally suitable habitat for Diablo helianthella. This showy species was not observed in the site and is more commonly associated with oak woodland and savannah habitats. The site is also at the very low end of the elevation range of this species (CNPS, 2010) and below the elevation range of the potential habitat for Diablo helianthella as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of this species in the CNDDB (2014) search area is approximately 4 miles southeast of the site.
Brewers western flax	*Hesperolinon breweri*	None	None	1B	Chaparral, cismontane woodland, valley and foothill grassland; usually serpentine soils; elevations 98-3,100 feet; blooms May - July.	Unlikely: the heavily grazed ruderal grasslands in the site do not provide suitable habitat for Brewers western flax. The site is outside the area of potential habitat for this species as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of this species in the CNDDB (2014) search area is approximately 6.5 miles southeast of the site.
Contra Costa goldfields	*Lasthenia conjugens*	E	None	1B	Valley and foothill grassland within vernal pools and swales; elevations 0-1,542 feet; blooms March - June.	Unlikely: the site does not provide suitable habitat for Contra Costa goldfields. There are no occurrences of this species in the CNDDB (2014) search area. The site is not in designated critical habitat for Contra Costa goldfields (USFWS 2005a).
Delta tule pea	*Lathyrus jepsonii var. jepsonii*	None	None	1B	Marshes and swamps; elevations 0-16 feet; blooms May - September.	Unlikely: the site does not contain suitable habitat for this species. The nearest occurrence of Delta tule pea in the CNDDB (2014) search area is approximately 3.5 miles northeast of the site.
Mason's lilaeopsis	*Lilaeopsis masonii*	None	R	1B	Marshes, swamps and riparian scrub; elevations 0-33 feet; blooms April – November.	Unlikely: the site does not contain suitable habitat for this species. The nearest occurrence of Mason's lilaeopsis in the CNDDB (2013) search area is approximately 2 miles north of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Delta mudwort	*Limosella australis*	None	None	2	Marshes and swamps; elevations 0-10 feet; blooms May – August.	Unlikely: the site does not contain suitable habitat for this species. The nearest occurrence of Delta mudwort in the CNDDB (2013) search area is approximately 6 miles northeast of the site.
Showy golden madia	*Madia radiata*	None	None	1B	Cismontane woodland, valley and foothill grassland; elevations 82-3,986 feet; blooms March – May.	Unlikely: the heavily grazed grasslands in the site do not provide suitable habitat for showy golden madia; this species is also considered extirpated in Contra Costa County (CNPS, 2010). The nearest occurrence of showy golden madia in the CNDDB (2014) search area is approximately 5 miles southeast of the site.
Halls bush mallow	*Malacothamnus hallii*	None	None	1B	Chaparral; elevations 33-2,493 feet; blooms May - October.	Unlikely: the site does not contain suitable habitat for this species. The nearest occurrence of Halls bush mallow in the CNDDB (2014) search area is approximately 5 miles southeast of the site.
Woodland woolythreads	*Monolopia gracilens*	None	None	1B	Mixed evergreen forest, redwood forest, Chaparral; elevations 328-3,937 feet; blooms February – July.	Unlikely: the site does not contain suitable habitat for this species. The nearest occurrence of woodland woolythreads in the CNDDB (2014) search area is approximately 6 miles southeast of the site.
Lime Ridge narvarretia	*Navarretia gowenii*	None	None	1B	Chaparral; elevations 591-1,001 feet; blooms May – June.	Unlikely: the site does not provide suitable habitat for Lime Ridge narvarretia this species. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 5 miles southwest of the site.
Adobe narvarretia	*Navarretia nigelliformis* ssp. *nigelliformis*	None	None	4	Vernal pools, vernally mesic areas within cismontane woodland and valley and foothill grassland, usually in clay or serpentine soils; elevations 328-3,281 feet; blooms April - June.	Unlikely: the on-site grasslands are heavily grazed and do not provide suitable habitat for adobe narvarretia; no areas of clay or serpentine soils were observed in the site. The site is also at the low end of the known elevation range of this species (CNPS, 2010). Adobe narvarretia requires evaluation in the ECCCHCP (Jones & Stokes, 2006) as it may occur in seasonal wetland habitats in the project vicinity. There are no occurrences of this species in the CNDDB (2014) search area.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Antioch dunes evening primrose	*Oenothera deltoides ssp. howellii*	E	E	1B	Interior dunes in the Delta region; elevations 0-98 feet; blooms March – September.	Unlikely: the site does not contain suitable habitat for Antioch dunes evening primrose and is also above the known elevation range of this species (CNPS, 2010). The nearest occurrence of Antioch dunes evening primrose in the CNDDB (2014) search area is approximately 4.5 miles northeast of the site.
Mt. Diablo phacelia	*Phacelia phacelioides*	None	None	1B	Chaparral, cismontane woodland; usually rocky soils; elevations 1,640-4,494 feet; blooms April – May.	Unlikely: the heavily grazed ruderal grasslands in the site do not provide suitable habitat for Mt. Diablo phacelia. The site is below the known elevation range of this species (CNPS, 2010). The nearest occurrence of Mt. Diablo phacelia in the CNDDB (2014) search area is approximately 6 miles southeast of the site.
Rock sanicle	*Sanicula saxatilis*	None	Rare	1B	Broad-leaved upland forest, chaparral, cismontane woodland, valley and foothill grassland; rocky soils; elevations 2,034-3,854 feet; blooms April – May.	Unlikely: the ruderal grasslands in the site do not provide suitable habitat for rock sanicle and the site is well below the known elevation range of this species (CNPS, 2010). The nearest occurrence of rock sanicle in the CNDDB (2014) search area is approximately 7 miles southeast of the site.
Chaparral ragwort	*Senecio aphanactis*	None	None	2	Cismontane woodland, coastal scrub, within drying alkaline flats; elevations 49-2,625 feet; blooms January – April.	Unlikely: the site does not contain suitable habitat for chaparral ragwort. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 4 miles southeast of the site.
Most beautiful jewelflower	*Streptanthus albidus spp. peramoenus*	None	None	1B	Chaparral, cismontane woodland, valley and foothill grassland; usually serpentine soils; elevations 311-3,281 feet; blooms March – October.	Unlikely: the heavily grazed ruderal grasslands in the site do not provide suitable habitat for most beautiful jewelflower. The nearest occurrence of most beautiful jewelflower in the CNDDB (2014) search area is approximately 6 miles south of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Mt. Diablo jewelflower	*Streptanthus hispidus*	None	None	1B	Chaparral, valley and foothill grassland; usually rocky soils; elevations 1,198-3,937 feet; blooms March – June.	Unlikely: the heavily grazed ruderal grasslands in the site do not provide suitable habitat for Mt. Diablo jewelflower. The site is also well below the known elevation range of this species (CNPS, 2010). The nearest occurrence of Mt. Diablo jewelflower in the CNDDB (2014) search area is approximately 8 miles southeast of the site.
Slender-leaved pondweed	*Stuckenia filiformis*	None	E	2	Marshes and swamps; elevations 98-7,054 feet; blooms May – July.	Unlikely: there is no suitable marsh habitat for slender-leaved pondweed in the site. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 7.5 miles south of the site.
Suisun marsh aster	*Symphotrichum lentum*	None	None	1B	Marshes and swamps; elevations 0-10 feet; blooms May – November.	Unlikely: the site does not contain suitable habitat for this species and is also well above the elevation range of Suisun marsh aster (CNPS, 2010). The nearest occurrence of this species in the CNDDB (2014) search area is approximately 5 miles northeast of the site.
Coastal triquetrella	*Triquetrella californica*	None	None	1B	Coastal scrub, coastal bluff scrub; usually on sandy soils; elevations 33-328 feet; no defined blooming period.	Unlikely: the site does not provide suitable habitat for coastal triquetrella. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 7 miles southeast of the site.
Caper-fruited tropidocarpum	*Tropidocarpum capparideum*	None	None	1B	Valley and foothill grassland, alkaline soils; elevations 3-1,493 feet; blooms March – April.	Unlikely: the heavily grazed ruderal grasslands in the site do not provide suitable habitat for this species; no alkaline or clay soils were observed in the site. The nearest occurrence of caper-fruited tropidocarpum in the CNDDB (2014) search area is approximately 3 miles southeast of the site.
Oval-leaved viburnum	*Viburnum ellipticum*	None	None	2	Chaparral, cismontane woodland, and lower montane coniferous forest; elevations 705-4,593 feet; blooms May – June.	Unlikely: the site does not provide suitable habitat for oval-leaved viburnum and is below the known elevation range of this species (CNPS, 2010). The nearest occurrence of this species in the CNDDB (2014) search area is approximately 9 miles southeast of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
WILDLIFE						
Birds						
Golden eagle	*Aquila chrysaetos*	None	FP	N/A	Nesting areas are associated with cliff-walled canyons and large trees. Forages in rolling hills and mountain areas	Moderate: the trees within the site provide poor quality nesting habitat for golden eagles, as they prefer ledges on cliff walls or very large trees and isolated from any type of disturbance. Golden eagles were observed foraging in the site. The site is mapped as suitable habitat for golden eagle as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of golden eagle in the CNDDB (2014) search area is approximately 1 mile west of the site.
Swainson's hawk	*Buteo swainsoni*	None	T	N/A	Breeds in stands of tall trees in open areas. Foraging habitats include cropland, grasslands or alfalfa fields supporting rodents.	Unlikely: there are a few potentially suitable nesting trees in the site and Swainson's hawks could use the on-site grasslands for foraging. However, the site is along the extreme west edge of the nesting range of this species. The site is not within an area mapped as potential breeding or foraging habitat for this species as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of nesting Swainson's hawks in the CNDDB (2014) search area is approximately 8 miles northeast of the site.
Burrowing owl	*Athene cunicularia*	None	SC	N/A	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation.	Low: burrowing owl could use the on-site grasslands for foraging, but there are not many ground squirrels or ground squirrel burrows within the site. No burrowing owls or evidence of occupancy were found in the site. The site is mapped as suitable habitat for burrowing owl as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of nesting burrowing owls in the CNDDB (2014) search area is just east of the south tip of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
California black rail	*Laterallus jamaicensis coturniculus*	None	T	N/A	Mainly inhabits salt marshes bordering larger bays	Unlikely: the site does not provide suitable habitat for California black rail. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 3 miles northwest of the site.
California clapper rail	*Rallus longirostris obsoletus*	E	E	N/A	Salt water and brackish marshes traversed by tidal sloughs in the San Francisco Bay, associated with abundant growths of pickleweed.	Unlikely: there is no suitable marsh habitat for California clapper rail in the site. The nearest occurrence of California clapper rail in the CNDDB (2014) search area is approximately 4 miles northwest of the site.
California least tern	*Sturnula antillarum browni*	E	E	N/A	Estuaries and bays; nests on exposed tidal flats or beaches	Unlikely: the site does not provide suitable habitat for this species. The nearest occurrence of California least tern in the CNDDB (2014) search area is approximately 3 miles northwest of the site.
Saltmarsh common yellowthroat	*Geothlypis trichas sinuosa*	None	None	N/A	San Francisco Bay fresh and saltwater marshes. Requires thick, continuous cover down to water surface for foraging.	Unlikely: the site does not provide suitable habitat for saltmarsh common yellowthroat. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 5 miles northeast of the site.
Suisun song sparrow	*Melospiza melodia maxillaris*	None	SC	N/A	Brackish water marshes in and near Suisun Bay. Inhabits cattails, tules, and tangles bordering sloughs.	Unlikely: the site does not provide suitable habitat for Suisun song sparrow. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 3 miles northeast of the site.
Tricolored blackbird	*Agelaius tricolor*	None	SC	N/A	Open water and protected nesting substrate, usually cattails and riparian scrub.	Moderate: the wetland mitigation area provides suitable nesting habitat for this species and tricolored blackbirds were observed foraging near the mitigation area. The site is mapped as primary foraging habitat for tricolored blackbirds as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of tricolored blackbirds in the CNDDB (2014) search area is approximately 10 miles northeast of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Short-eared owl	*Asio flammeus*	None	None	N/A	Winters in the Central Valley and utilizes annual grassland habitat and agricultural lands for foraging.	Unlikely: the site does not provide suitable nesting habitat for this species, but may be used for occasional foraging by wintering short-eared owls. The nearest occurrence of this species documented in the CNDDB (2014) search area is approximately 9 miles north of the site.
Mammals						
San Joaquin kit fox	*Vulpes macrotis mutica*	E	T	N/A	Inhabits open, dry grasslands and scrublands with loose textured soils.	Unlikely: while the on-site grassland provide potentially suitable habitat for San Joaquin kit fox, the site is just outside (i.e., northwest) of the range of San Joaquin kit fox. The site is mapped as suitable core habitat for San Joaquin kit fox as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of San Joaquin kit fox in the CNDDB (2014) search area is approximately 5 miles southeast of the site.
Townsend's big-eared bat	*Corynorhinus townsendii*	None	C	N/A	Wide variety of habitats, most common in desert scrub, mixed conifer forest, and pinyon-juniper or pine forest. Primarily roosts in caves, mines, and buildings.	Unlikely: Townsend's big-eared bat may fly over or forage in the site on occasion, but the site does not contain suitable roosting habitat for this species. While this species is covered by the ECCCHCP, roosting habitat is not mapped (Jones & Stokes, 2006). The nearest occurrence of Townsend's big-eared bat in the CNDDB (2014) search area is approximately 7 miles southeast of the site.
Pallid bat	*Antrozous pallidus*	None	SC	N/A	Open and dry habitats with rocky areas for roosting.	Low: pallid bat and other species of bats may fly over or forage in the site on occasion, but would not be expected to roost on-site. The nearest occurrence of pallid bat in the CNDDB (2014) search area is approximately 2 miles southwest of the site.
Salt-marsh harvest mouse	*Reithrodontomys raviventris*	E	E	N/A	Saline emergent wetlands dominated by pickleweed	Unlikely: the site does not provide suitable habitat for salt-marsh harvest mouse. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 2 miles northwest of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Reptiles & Amphibians						
California red-legged frog	*Rana aurora draytonii*	T	SC	N/A	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Moderate: there is no suitable breeding habitat for California red-legged frog in the site. The site is mapped as potential migration and aestivation habitat for California red-legged frog as modeled in the ECCCHCP (Jones & Stokes, 2006). Although there are no creeks, ponds, or aquatic habitat of any type present, a low area in the north-central part of the site and a low area in the southeast corner of the site are also mapped as potential breeding habitat as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of this species in the CNDDB (2014) search area is in the wetland mitigation area along the west edge of the site where 3 adults were detected in 2003. The CNDDB record describes the wetland as having insufficient water levels for breeding, which is consistent with observations of potential ponding depth. This species is also reported in the CNDDB just north of the site in 2001 in a pond that no longer exists, and in 2008 breeding in a pond approximately 0.5 miles southwest of the site. The site is not within designated critical habitat for California red-legged frog (USFWS, 2006a).
Western pond turtle	*Emys marmorata*	None	SC	N/A	Ponds, marshes, streams, and ditches with emergent aquatic vegetation and basking areas.	Unlikely: there is no potentially suitable breeding habitat in the site for western pond turtle. The low area in the north-central part of the site and a low area in the southeast corner of the site are mapped as movement habitat for this species as modeled in the ECCCHCP (Jones & Stokes, 2006); there is also a small area in the low area in the north-central part of the site that is mapped as core habitat. There are no occurrences of western pond turtle recorded in the CNDDB (2014) in the search area.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
California tiger salamander	*Ambystoma californiense*	T	T	N/A	Seasonal water bodies without fish (i.e., vernal pools and stock ponds) and grassland/ woodland habitats with summer refugia (i.e., burrows).	Unlikely: no potentially suitable breeding habitat for California tiger salamander was observed in the site; the wetlands in the wetland mitigation area along the west edge of the site are too small and shallow to support successful reproduction. The site is mapped as potential migration and aestivation habitat for this species as modeled in the ECCCHCP (Jones & Stokes, 2006). Although there are no creeks, ponds, or aquatic habitat of any type present, the low area in the north-central part of the site is mapped as potential breeding habitat for California tiger salamander in the ECCCHCP. The nearest occurrence of California tiger salamander in the CNDDB (2014) search area is near the wetland mitigation where an adult was detected in a drift net in 2003. This species is also reported in the CNDDB in several locations within one mile southwest, south, and east of the site. The site is not within designated critical habitat for California tiger salamander (USFWS, 2005b).
Alameda whipsnake	*Masticophis lateralis euryxanthus*	T	T	N/A	Scrub, chaparral, grassland, and woodland habitat mosaics. South-facing slopes and ravines.	Unlikely: the site does not provide suitable habitat for Alameda whipsnake. The site is not mapped as suitable habitat for this species as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of this species in the CNDDB (2014) search area is approximately 3.5 miles south of the site. The site is not in designated critical habitat for Alameda whipsnake (USFWS, 2006b).
Coast horned lizard	*Phrynosoma blainvillii*	None	SC	N/A	Coniferous forest, deciduous forest, scrub, and grassland habitats, usually in sandy soils.	Unlikely: the ruderal grasslands in the site do not provide suitable habitat for coast horned lizard; on-site soils are not sandy. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 5 miles south of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Fish						
Delta smelt	*Hypomesus transpacificus*	T	T	N/A	Shallow lower delta waterways with submersed aquatic plants and other suitable refugia.	None: there is no aquatic habitat in the site. There are no occurrences of delta smelt recorded in the CNDDB (2014) within the search area. The site is not within designated critical habitat for delta smelt (USFWS, 1994).
Central Valley steelhead	*Oncorhynchus mykiss*	T	None	N/A	Riffle and pool complexes with adequate spawning substrates within Central Valley drainages.	None: there is no aquatic habitat in the site. The nearest occurrence of Central Valley steelhead in the CNDDB (2014) search area is approximately 3 miles north of the site. The site is not within designated critical habitat for Central Valley steelhead (NOAA, 2005).
Winter-run Chinook salmon	*Oncorhynchus tshawytscha*	E	E	N/A	Deep flowing pools and riffle complexes with adequate spawning substrates; currently known only from the Sacramento River system.	None: there is no aquatic habitat in the site. There are no occurrences of winter-run Chinook salmon recorded in the CNDDB (2014) within the search area.
Spring-run Chinook salmon	*Oncorhynchus tshawytscha*	T	T	N/A	Deep flowing pools and riffle complexes with adequate spawning substrates; currently known only from the Sacramento River system.	None: there is no aquatic habitat in the site. There are no occurrences of spring-run Chinook salmon recorded in the CNDDB (2014) within the search area.
Green sturgeon	*Acipenser medirostris*	T	None	N/A	San Francisco Bay and delta; moves upstream to spawn.	None: there is no aquatic habitat in the site. There are no occurrences of green sturgeon recorded in the CNDDB (2014) within the search area.
Longfin smelt	*Spirinchus thaleichthys*	None	SC	N/A	Brackish estuarine habitats.	None: there is no aquatic habitat in the site. The closest occurrence of longfin smelt in the CNDDB (2014) search area is approximately 3 miles north of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Invertebrates						
Vernal pool fairy shrimp	*Branchinecta lynchi*	T	None	N/A	Vernal pools	Unlikely: there are no vernal pools or seasonal wetlands in the developable parts of the site; the wetlands in the wetland mitigation area along the west edge of the site provide poor quality yet potentially suitable habitat for vernal pool fairy shrimp. These wetlands are in an area that will remain Open Space. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 8 miles northeast of the site. The site is not within designated critical habitat for vernal pool fairy shrimp (USFWS 2005a).
Conservancy fairy shrimp	*Branchinecta conservatio*	E	None	N/A	Vernal pools	Unlikely: there are no vernal pools or seasonal wetlands in the developable parts of the site; the wetlands in the wetland mitigation area along the west edge of the site provide poor quality yet potentially suitable habitat for Conservancy fairy shrimp in the CNDDB (2014) search area is approximately 8 miles northeast of the site. The site is not within designated critical habitat for Conservancy fairy shrimp (USFWS 2005a).
Longhorn fairy shrimp	*Branchinecta longiantenna*	T	None	N/A	Vernal pools	Unlikely: there are no vernal pools or seasonal wetlands in the developable parts of the site; the wetlands in the wetland mitigation area along the west edge of the site provide poor quality yet potentially suitable habitat for longhorn fairy shrimp. There are no documented occurrences of this species in the CNDDB (2014) search area. The site is not within designated critical habitat for longhorn fairy shrimp (USFWS 2005a).

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Vernal pool tadpole shrimp	*Lepidurus packardi*	E	None	N/A	Vernal pools.	Unlikely: there are no vernal pools or seasonal wetlands in the developable parts of the site; the wetlands in the wetland mitigation area along the west edge of the site provide poor quality yet potentially suitable habitat for vernal pool tadpole shrimp. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 8 miles northeast of the site. The site is not within designated critical habitat for vernal pool tadpole shrimp (USFWS 2005a).
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	T	None	N/A	Elderberry shrubs in the Central Valley and surrounding foothills	Unlikely: there are a few blue elderberry shrubs in the site. However, the site is well outside (i.e., west) of the range of this species. There are no records of valley elderberry longhorn beetle in the CNDDB (2014) search area.
San Bruno elfin butterfly	*Callophrys mossii bayensis*	E	None	N/A	Rocky outcrops and cliffs in coastal scrub habitats.	Unlikely: the site does not provide suitable habitat for this species. The nearest occurrence of San Bruno elfin butterfly in the CNDDB (2014) search area is approximately 7.5 miles southeast of the site.
Delta green ground beetle (*Elaphrus viridis*)	*Elaphrus viridis*	T	None	N/A	Margins of vernal pools in grasslands.	Unlikely: there are no vernal pools or seasonal wetlands in the developable parts of the site; the wetlands in the wetland mitigation area along the west edge of the site provide poor quality yet potentially suitable habitat for delta green ground beetle. There are no occurrences of this species recorded in the CNDDB (2014) in the search area. The site is not within designated critical habitat for Delta green ground beetle (USFWS 1980b).

1 T= Threatened; E = Endangered.

2 T = Threatened; E = Endangered; R = Rare; SC=State of California Species of Special Concern

3 CNPS List 1B includes species that are rare, threatened, or endangered in California and elsewhere; List 2 includes plants that are rare, threatened or endangered in California but are more common elsewhere; List 4 is a "watch list".

(*Stuckenia filiformis*), Suisun marsh aster (*Symphotrichum lentum*), coastal triquetrella (*Triquetrella californica*), caper-fruited tropidocarpum (*Tropidocarpum capparideum*), and oval-leaved viburnum (*Viburnum ellipticum*) (Table 3 and Attachment C). The USFWS species list contains a few of these same species and also contains large-flowered fiddleneck (*Amsinckia grandiflora*). Additionally, although not recorded in the CNDDB (2014) within the search area, the ECCCHCP (Jones & Stokes, 2006) identifies Contra Costa goldfields (*Lasthenia conjugens*) and diamond-petaled California poppy (*Eschscholzia rhombipetala*) as species requiring evaluation in annual grassland habitats in the greater project vicinity, and adobe navarretia (*Navarretia nigelliformis* ssp. *nigelliformis*) as a species requiring evaluation in seasonal wetland habitats in the greater project vicinity.

Most of the special-status plants found in the greater project vicinity generally occur in relatively undisturbed areas within vegetation communities such as marshes and swamps, chaparral, coastal scrub, cismontane woodland, chenopod scrub, inland dunes, and areas with unique soils (e.g., serpentine, alkaline, clay). None of these habitat types occur within the site. For example, Bolander's water hemlock, delta tule pea, Mason's lilaeopsis, delta mudwort, slender-leaved pondweed, and Suisun marsh aster are restricted to marsh and swamp habitats. Antioch dunes evening primrose and Contra Costa wallflower occur only in inland dunes. Other species including Mt. Diablo manzanita, Contra Costa manzanita, and chaparral harebell, Mount Diablo bird's-beak, Lime Ridge eriastrum, Halls bush mallow, and Lime Ridge navarretia occur in chaparral habitats. Several of the species in Table 3 are known only from elevations above or below those at the site. For example, rock sanicle, and Mt. Diablo jewelflower can occur in upland grassland habitats, but only in much higher elevations than those on-site.

The site was systematically searched for special-status plant species and potentially suitable habitat for special-status plant species by driving and walking throughout the site on December 12, 2013, and April 17, June 23, and

September 3, 2014. These survey dates coincide with the blooming periods of the special status plant species in Table 3 for which there is potentially suitable habitat in the project site. Upland annual grassland is the only vegetation community in the body of the site. There are two seasonal wetlands in the wetland mitigation area along the west edge of the site that do not provide suitable habitat for special-status plants and are also not in an area proposed for development. The body of the site has been heavily grazed and on-site grasslands are moderately to highly disturbed and unremarkable. No special-status plants or highly suitable habitat for special-status plant species were observed or in the project site. Due to lack of suitable habitat, no special-status plant species are expected to occur in the site.

The project will likely participate in the ECCCHCP. The ECCCHCP manages and preserves equivalent or greater acreages lands to mitigate for the loss of habitat and potential take of special-status species associated with development for residential, commercial, industrial, or other uses. The ECCCHCP provides compensatory habitat within a system of preserves at a ratio of 1:1 or greater for habitats that are developed on-site. Grasslands preserved under the ECCCHCP to benefit numerous special-status species are managed and enhanced with techniques including grazing, prescribed burning, seeding, and other measures. The conservation goals for managed grasslands under the ECCCHCP are to increase the relative cover of native species, reduce non-native and/or invasive plants, and provide increased structural diversity. Wetlands preserved under the ECCCHCP are managed with techniques including restoration of degraded areas, excavation, bank stabilization, grazing, fencing, vegetative plantings, and other measures. The conservation goals for managed wetlands and ponds under the ECCCHCP are to increase native vegetation, reduce sedimentation, improve hydrologic capacity, functions, and connectivity between wetlands, management of predatory and/or non-native species, and maintenance or enhancement of adjacent uplands.

Although not expected to occur in the site, each of the plant species identified in the ECCCHCP as potentially occurring in annual grassland and seasonal wetland habitats is briefly discussed below.

Alkali Milkvetch: The California Native Plant Society (CNPS) on-line *Inventory of Rare and Endangered Plants* (2010) describes alkali milkvetch as occurring in annual grasslands in adobe clay soils, and alkaline vernal pools, at elevations between 1 and 60 meters (3-197 feet) above sea level. There is no suitable habitat in the site for this species. The site is also above the elevation range of this species, and the CNPS Inventory describes this species as extirpated (i.e., no longer existent) in Contra Costa County. The nearest occurrence of alkali milk vetch in the CNDDB (2014) search area is approximately 8 miles northeast of the site.

Big Tarplant: The CNPS Inventory describes big tarplant as occurring in annual grassland habitats at elevations between 30 and 505 meters (98-1,657 feet) above sea level. This showy plant was not observed in the site. The nearest occurrence of big tarplant in the CNDDB (2014) search area is approximately 4 miles northeast of the site. The low area in the north-central part of the site is mapped in the ECCCHCP (Jones & Stokes, 2006) as suitable low potential habitat" for big tarplant, and the relatively higher elevation parts of the site are mapped as suitable habitat. The ECCCHCP will provide an equivalent area of compensatory habitat within their Preserve System for habitats that are developed on-site. Grasslands preserved under the ECCCHCP benefit numerous special-status plant species, including big tarplant. The objective for big tarplant under the ECCCHCP is protecting at least five occurrences outside of currently protected public lands.

Brewer's Dwarf Flax: The CNPS Inventory describes Brewer's western flax (referred to in the ECCCHCP as Brewer's dwarf flax) as occurring in annual grasslands, usually in serpentinite soils, at elevations between 30 and 900 meters (98-3,100 feet) above sea level. This plant was not observed in the site.

The nearest occurrence of Brewers western flax in the CNDDB (2014) search area is approximately 6.5 miles southeast of the site. While the site is not mapped in the ECCCHCP as suitable habitat for Brewer's western flax, the ECCCHCP will provide an equivalent area of compensatory habitat for grasslands that are developed on-site. Grasslands preserved under the ECCCHCP will benefit numerous species numerous special-status plant species, including Brewer's western flax. The objective for Brewer's western flax under the ECCCHCP is protecting at least three occurrences outside of currently protected public lands.

Contra Costa Goldfields: The CNPS Inventory describes Contra Costa goldfields as occurring in annual grassland habitats and vernal pools at elevations between 0 and 470 meters (0-1,542 feet) above sea level. There are no vernal pools in the site. This showy plant was not observed in the annual grassland habitats in the site. There are no occurrences of this species in the CNDDB (2014) search area. The site is not in designated critical habitat for Contra Costa goldfields (USFWS 2005a). The ECCCHCP does not contain specific goals and objectives for the conservation of Contra Costa goldfields. However, annual grasslands and seasonal wetlands preserved under the ECCCHCP will benefit numerous special-status plant species, including Contra Costa goldfields.

Diamond-petaled Poppy: The CNPS Inventory describes diamond-petaled poppy as occurring in annual grassland habitats with alkaline or clay soils, at elevations between 0 and 975 meters (0-3,200 feet) above sea level. No areas of alkaline or clay soils were observed in the site. There are no occurrences of this species in the CNDDB (2014) search area. The CNPS Inventory describes this species as extirpated in Contra Costa County. While this species is unlikely to occur on-site, the ECCCHCP will provide an equivalent area of compensatory habitat for grasslands that are developed on-site. The ECCCHCP does not contain specific goals and objectives for the conservation of diamond-petaled California poppy. However, grasslands preserved under the ECCCHCP will

benefit numerous special-status plant species, including diamond-petaled California poppy.

Large-flowered Fiddleneck: The CNPS Inventory describes large-flowered fiddleneck as occurring in annual grassland habitats at elevations between 275 and 550 meters (902-1,805 feet) above sea level. The site is just below the elevation range of this species. This plant was not observed in the site. There are no occurrences of this species in the CNDDB (2014) search area. While this species is unlikely to occur on-site, the ECCCHCP will provide an equivalent area of compensatory habitat for grasslands that are developed on-site. The ECCCHCP does not contain specific goals and objectives for the conservation of large-flowered fiddleneck. However, grasslands preserved under the ECCCHCP will benefit numerous special-status plant species, including large-flowered fiddleneck.

Mount Diablo Buckwheat: The CNPS Inventory describes Mount Diablo buckwheat as occurring in coastal scrub, valley and foothill grassland, and coastal scrub habitats with sandy soils, at elevations between 3 and 350 meters (10-1,148 feet) above sea level. No areas of sandy soils were observed in the site. This plant was not observed in the site. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 5 miles south of the site. While this species is unlikely to occur on-site, the ECCCHCP will provide an equivalent area of compensatory habitat for grasslands that are developed on-site. The ECCCHCP does not contain specific goals and objectives for the conservation of Mt. Diablo buckwheat. However, grasslands preserved under the ECCCHCP will benefit numerous species, including Mt. Diablo buckwheat.

Mount Diablo Fairy-lantern: The CNPS Inventory describes Mount Diablo fairy-lantern as occurring in annual grassland habitats with sandy soils, at elevations between 30 and 840 meters (98-2,756 feet) above sea level. In contrast, the ECCCHCP describes this species as occurring at elevations between 650 and 2,600 feet above sea level. This showy plant was not observed in the annual

grassland habitats on-site. The nearest occurrence of Mt. Diablo fairy-lantern in the CNDDB (2014) search area is approximately 5 miles southeast of the site. The relatively higher elevation parts of the site are mapped in the ECCCHCP (Jones & Stokes, 2006) as suitable habitat for this species. While this species is unlikely to occur on-site, the ECCCHCP will provide an equivalent area of compensatory habitat for grasslands that are developed on-site. The biological objective Mt. Diablo fairy-lantern under the ECCCHCP is protecting at least one occurrence outside of currently protected public lands. Grasslands preserved under the ECCCHCP will also benefit numerous species, including Mt. Diablo fairy-lantern.

Round-leaved Filaree: The CNPS Inventory describes round-leaved filaree as occurring in annual grassland habitats with clay soils, at elevations between 15 and 1,200 meters (49-3,937 feet) above sea level. This species blooms from March through May and should have been detectable in mid-June 2010, if present, due to the extended spring rains which delayed the blooming periods of most Central Valley annuals. Round-leaved filaree was not observed in the annual grassland habitats on-site in June 2010 or during the March 2013 survey. The nearest occurrence of this species in the CNDDB (2014) search area is approximately 2 miles southeast of the site. There is a small area in the central part of the site that is mapped in the ECCCHCP (Jones & Stokes, 2006) as suitable habitat for this species. While this species is unlikely to occur on-site, the ECCCHCP will provide an equivalent area of compensatory habitat for grasslands that are developed on-site. The biological objective for round-leaved filaree under the ECCCHCP is protecting at least two occurrences outside of currently protected public lands. Grasslands preserved under the ECCCHCP will also benefit numerous species, including round-leaved filaree.

Showy Madia: The CNPS Inventory describes showy madia as occurring in annual grassland habitats at elevations between 25 and 900 meters (82-3,986 feet) above sea level. The CNPS Inventory describes this species as extirpated in Contra Costa County. The nearest occurrence of showy golden madia in the

CNDDB (2014) search area is approximately 5 miles southeast of the site. While this species is unlikely to occur on-site, the ECCCHCP will provide an equivalent area of compensatory habitat for grasslands that are developed on-site. The biological goals and objectives for showy madia under the ECCCHCP are to protect populations within oak woodland and grasslands, and to identify and maintain or increase population levels of showy madia within the plan area. Grasslands preserved under the ECCCHCP will also benefit numerous species, including showy madia.

Adobe Navarretia: The CNPS Inventory describes adobe navarretia as occurring in mesic (i.e., wet) areas within annual grassland habitats and vernal pools, at elevations between 100 and 1,000 meters (328-3,281 feet) above sea level. There are no vernal pools in the site and no mesic areas were observed in the annual grassland habitats in the site. This plant was not observed in the site. There are no occurrences of in the CNDDB (2014) search area and this species is unlikely to occur on-site. Seasonal wetlands preserved under the ECCCHCP will benefit numerous special-status plant species, including adobe navarretia. The conservation goals and objectives for adobe navarretia under the ECCCHCP is to identify, protect, and maintain populations of this species within wetlands.

SPECIAL-STATUS WILDLIFE: Special-status wildlife species recorded in the project area in the CNDDB (2014) search area include golden eagle (*Aquila chrysaetos*), Swainson's hawk, burrowing owl, California black rail (*Laterallus jamaicensis coturniculus*), California clapper rail (*Rallus longirostris obsoletus*), California least tern (*Sturnula antillarum browni*), saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), Suisun song sparrow (*Melospiza melodia maxillaris*), tricolored blackbird (*Agelaius tricolor*), short-eared owl (*Asio flammeus*), San Joaquin kit fox (*Vulpes macrotis mutica*), Townsend's big-eared bat (*Corynorhinus townsendii*), pallid bat (*Antrozous pallidus*), salt-marsh harvest mouse (*Reithrodontomys raviventris*), California red-legged frog (*Rana auroura draytonii*), California tiger salamander (*Ambystoma californiense*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), coast horned lizard (*Phrynosoma blainvillii*), Central Valley steelhead (*Oncorhynchus mykiss*), longfin smelt

(*Spirinchus thaleichthys*), vernal pool fairy shrimp (*Branchinecta lynchi*), Conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool tadpole shrimp (*Lepidurus packardi*), and San Bruno elfin butterfly (*Callophrys mossii bayensis*). Delta smelt (*Hypomesus transpacificus*), winter-run Chinook salmon (*Oncorhynchus tshawytscha*), spring-run Chinook salmon (*Oncorhynchus tshawytscha*), green sturgeon (*Acipenser medirostris*), longhorn fairy shrimp (*Branchinecta longiantenna*), and Delta green ground beetle (*Elaphrus viridis*) are not recorded in the CNDDB within the search area, but are on the USFWS Species List (Attachment C). Additionally, although not recorded in the CNDDB (2014) within the search area, the ECCCHCP (Jones & Stokes, 2006) also identifies western pond turtle (*Emys marmorata*) as a species potentially occurring in the low areas of the site.

The site is upland annual grassland, with two small seasonal wetlands in the wetland mitigation area. There are only a few trees in the site, no perennial sources of water, and no forest, woodland, scrub, or chaparral habitats. The site has been heavily grazed and on-site grasslands are moderately to highly disturbed. The site was systematically searched for potentially suitable habitat for special-status wildlife species by driving and walking throughout the site and making observations of species observed and habitat types present. Golden eagle and tricolored blackbird were the only special-status wildlife species observed in the site. There are known breeding ponds of California red-legged frog and California tiger salamander adjacent to the site. These species have been documented in the site, but are not expected to breed on-site. No other special-status wildlife species are expected to occur in the project site on more than a very occasional or transitory basis. Each of the wildlife species identified in the ECCCHCP (Jones & Stokes, 2006) as potentially occurring in annual grassland and seasonal wetland habitats is discussed below.

BURROWING OWL: The Migratory Bird Treaty Act and Fish and Game Code of California protect burrowing owls year-round, as well as their nests during the nesting season (February 1 through August 31). Burrowing owls are a year-long

resident in a variety of grasslands as well as scrub lands that have a low density of trees and shrubs with low growing vegetation; burrowing owls that nest in the Central Valley may winter elsewhere.

The primary habitat requirement of the burrowing owl is small mammal burrows for nesting. The owl usually nests in abandoned ground squirrel burrows, although they have been known to dig their own burrows in softer soils. In urban areas, burrowing owls often utilize artificial burrows including pipes, culverts, and piles of concrete pieces. This semi-colonial owl breeds from March through August, and is most active while hunting during dawn and dusk.

The nearest occurrence of nesting burrowing owls in the CNDDB (2014) search area is just east of the south tip of the site. The CNDDB also contains numerous occurrences of burrowing owls throughout search area. The site is mapped as suitable habitat for burrowing owl as modeled in the ECCCHCP (Jones & Stokes, 2006) and species presence is assumed in the site. The ECCCHCP will provide an equivalent area of compensatory habitat for burrowing owl for grasslands developed on-site. The biological goals and objectives for burrowing owl under the ECCCHCP include maintaining or increasing the population size and distribution, and installing artificial burrows and perches as temporary attractants, where appropriate. Grasslands preserved under the ECCCHCP to benefit numerous species, including burrowing owl, are also managed with grazing, prescribed burning, seeding, and other measures to increase the relative cover of native species, reduce non-native and/or invasive plants, and provide increased structural diversity.

No burrowing owls were observed during the field surveys. A small number of ground squirrel burrows were observed on-site; however, none of these burrows showed any evidence of current or past occupancy by burrowing owls (i.e., whitewash, pellets, feathers). Based on the presence of potentially suitable habitat in the site and distribution of burrowing owls in the project vicinity, it is possible owls could move on-site in the future.

Golden Eagle: The golden eagle is not listed under either the state or federal endangered species acts, but is a State of California Fully Protected Species and is also protected by the federal Migratory Bird Treaty Act. Golden eagles forage in grasslands in coastal foothills, including the rolling hillsides around the base of Mt. Diablo. Golden eagles prefer to nest on ledges on cliff walls, but can also use very large trees that are isolated from any disturbance.

The nearest occurrence of golden eagle in the CNDDB (2014) search area is approximately 1 mile west of the site. The site is mapped as suitable habitat for golden eagle as modeled in the ECCCHCP (Jones & Stokes, 2006); golden eagles are assumed to forage in the site. The ECCCHCP will provide an equivalent area of compensatory habitat for golden eagle for grasslands developed on-site. The biological goals and objectives for golden eagle under the ECCCHCP are to maintain or increasing the population size and distribution by acquiring land in the Preserve System containing occupied nests and suitable nests sites, and retiring wind turbine leases when feasible on lands in the Preserve System.

The site is annual grassland with widely scattered trees is within the range of golden eagle. Golden eagles were observed foraging in the site. The on-site trees and other relatively large trees visible from the site were inspected for raptor stick nests. These trees provide poor quality nesting habitat for golden eagles, as they prefer ledges on cliff walls or very large trees and isolated from any type of disturbance. A few raptor stick nests were observed in the trees in the wetland mitigation area, but these nests were being utilized by red-tailed hawks and great-horned owls.

Swainson's Hawk: The Swainson's hawk is a migratory hawk listed by the State of California as a Threatened species. The Migratory Bird Treaty Act and Fish and Game Code of California protect Swainson's hawks year-round, as well as their nests during the nesting season (March 1 through September 15).

Swainson's hawk are found in the Central Valley primarily during their breeding season, a population is known to winter in the San Joaquin Valley.

Swainson's hawks prefer nesting sites that provide sweeping views of nearby foraging grounds consisting of grasslands, irrigated pasture, hay, and wheat crops. Most Swainson's hawks are migratory, wintering in Mexico and breeding in California and elsewhere in the western United States. This raptor generally arrives in the Central Valley in mid-March, and begins courtship and nest construction immediately upon arrival at the breeding sites. The young fledge in early July, and most Swainson's hawks leave their nest territories by late August.

The site is along the extreme west edge of the nesting range of this species and is not within an area mapped as potential breeding or foraging habitat for this species as modeled in the ECCCHCP (Jones & Stokes, 2006). The nearest occurrence of nesting Swainson's hawks in the CNDDB (2014) search area is approximately 8 miles northeast of the site. Despite not being within an area mapped as potential breeding or foraging habitat for this species as modeled in the ECCCHCP, the ECCCHCP will provide an equivalent area of compensatory habitat for the grasslands developed on-site, which will also provide suitable foraging habitat for Swainson's hawks. The biological goals and objectives for Swainson's hawks under the ECCCHCP include acquiring and managing lands with known or suitable nest sites and acquiring and managing modeled suitable foraging habitat for Swainson's hawks.

No Swainson's hawks were observed during the field surveys. The larger trees within the site are suitable for nesting Swainson's hawks and Swainson's hawks could use the on-site grasslands for foraging, although they provide marginal foraging habitat. It is unlikely Swainson's hawks forage in the site on more than an occasional basis or will nest in on-site trees in future years.

Tricolored Blackbird: The tricolored blackbird is a State of California Species of Concern and is also protected by the federal Migratory Bird

Treaty Act. Tricolors are colonial nesters requiring very dense stands of emergent wetland vegetation and/or dense thickets of wild rose or blackberries adjacent to open water for nesting. This species is endemic to California.

The nearest occurrence of tricolored blackbirds in the CNDDB (2014) search area is approximately 10 miles northeast of the site. The site is mapped as primary foraging habitat for tricolored blackbirds as modeled in the ECCCHCP (Jones & Stokes, 2006) and tricolored blackbirds are assumed to forage in the site. The ECCCHCP will provide an equivalent area of compensatory habitat for tricolored blackbird for grasslands developed on-site. The biological goals and objectives for tricolored blackbird under the ECCCHCP are to enhance habitat within the preserve system by restoring perennial wetlands to provide breeding habitat.

The wetland mitigation area provides suitable nesting habitat for this species and tricolored blackbirds were observed foraging near the mitigation area during the June 2014 survey.

San Joaquin Kit Fox: The project site is located just north of the perceived range of the federally endangered and State of California threatened San Joaquin kit fox (CNDDB, 2014). This species dens in subterranean burrows and forages primarily for small mammals and insects in annual grasslands, pasturelands, cultivated fields, and along the edges of orchards.

Based on the distribution of occurrences within the CNDDB (2014), the site is just outside (i.e., northwest) of the range of San Joaquin kit fox. The nearest occurrence of San Joaquin kit fox in the CNDDB (2014) search area is approximately 5 miles southeast of the site. The site is mapped as suitable core habitat for San Joaquin kit fox as modeled in the ECCCHCP (Jones & Stokes, 2006), species presence is assumed under the ECCCHCP, and the ECCCHCP will provide compensatory habitat for that developed on-site. The biological

goals and objectives for San Joaquin kit fox under the ECCCHCP include preservation of the most important movement routes and core habitat, as well as increasing the prey base of California ground squirrels and other small mammals.

No San Joaquin kit fox were observed in or adjacent to the site during the field surveys. No on-site burrows showed signs of kit fox occupancy. While kit fox may have migrated through or foraged in the site in the past, it is considered a remote possibility that this species uses burrows in the site for denning, due to a lack of sign and location of the site at the outer edge of the currently published species range. It is also considered highly unlikely that migrating or wandering kit foxes ever use these burrows for occasional cover due to a lack of kit fox sightings in this area during fairly intensive survey efforts during the past decade. However, since kit fox have been known to occasionally wander several miles outside of the published species range, future use of the site by kit fox is possible.

California Tiger Salamander*:* In 2004, the California tiger salamander was listed as threatened under FESA (USFWS, 2004), and in 2010, it was also listed as threatened under CESA. In August 2005, USFWS designated critical habitat for the Central Valley population of California tiger salamander (USFWS, 2005b). For breeding, California tiger salamanders require stock ponds without game fish, or deep, large vernal pools, which hold water well into the spring (i.e., April or May) (Jennings and Hayes, 1994). Following breeding, the young disperse to nearby grasslands and woodlands and spend the summer months in subterranean refugia such as small mammal burrows. While most salamanders aestivate in burrows within several hundred feet of their breeding ponds, they have been documented over-summering up to a mile or more from their breeding ponds.

The nearest occurrence of California tiger salamander in the CNDDB (2014) search area is near the wetland mitigation where an adult was detected in a drift net in 2003. This species is also reported in the CNDDB in several locations

within one mile southwest, south, and east of the site. There are a few known breeding ponds of California tiger salamander on the Concord Naval Weapons Station, just southwest of the site, and a few other breeding ponds south, southeast, and north of the site. California tiger salamander are not expected to breed on-site due to a lack of suitable breeding habitat; the wetlands in the wetland mitigation area along the west edge of the site are too small and shallow to support successful reproduction. The individual located in 2003 near the wetland mitigation likely moved on to the site from the Concord Naval Weapons Station; California tiger salamanders may aestivate in some of the on-site grasslands. The site is not within designated critical habitat for California tiger salamander (USFWS, 2005b).

The site is mapped as potential migration and aestivation habitat for California tiger salamander as modeled in the ECCCHCP (Jones & Stokes, 2006). Although there are no creeks, ponds, or aquatic habitat of any type present, the low area in the north-central part of the site is mapped as potential breeding habitat for California tiger salamander in the ECCCHCP. Species presence is assumed under the ECCCHCP, and the ECCCHCP will provide compensatory aestivation habitat for that developed on-site. The conservation objective for California tiger salamander under the ECCCHCP is to preserve large areas of contiguous habitat. Several preserve management and conservation measures for grasslands, woodlands, wetlands, and ponds will enhance the habitat quality for California tiger salamander.

There is no suitable breeding habitat within or adjacent to the site for California tiger salamander. However, ground squirrel burrows, pocket gopher burrows, or other holes or cracks in annual grasslands in the site could be used by aestivating salamanders if nearby seasonal ponds, vernal pools, or seasonal wetlands currently support breeding populations. The USFWS *Interim Guidance on Site Assessment and Field Surveys* (USFWS, 2003) describes how adult tiger salamanders may migrate over long distances (in excess of one mile) from underground refuges to breeding ponds. In light of these migratory abilities and

the known breeding ponds adjacent to the site, USFWS would likely assume part of the site may be used by California tiger salamanders for aestivation.

California Red-legged Frog: California red-legged frog was listed by the USFWS as a threatened species in May 1996. Red-legged frog is also classified by CDFG as a Species of Special Concern. Once abundant in low-elevation Sierra Nevada and Coastal foothills streams, this species now occurs in a patchy distribution throughout a fraction of its' historic rage. The California red-legged frog typically breeds in perennial or nearly perennial well-shaded woodland ponds or the deeper plunge-pools of well-shaded streams.

The nearest occurrence of this species in the CNDDB (2014) search area is in the wetland mitigation area along the west edge of the site where 3 adults were detected in 2003. The CNDDB record describes the wetland as having insufficient water levels for breeding, which is consistent with observations of potential ponding depth. This species is also reported in the CNDDB just north of the site in 2001 in a pond that no longer exists, and in 2008 breeding in a pond approximately 0.5 miles southwest of the site. The site is not within designated critical habitat for California red-legged frog (USFWS, 2006a).

The site is mapped as potential migration and aestivation habitat for California red-legged frog as modeled in the ECCCHCP (Jones & Stokes, 2006). Although there are no creeks, ponds, or aquatic habitat of any type present, a low area in the north-central part of the site and a low area in the southeast corner of the site are also mapped as potential breeding habitat as modeled in the ECCCHCP (Jones & Stokes, 2006). While California red-legged frog is not expected to occur on-site on more than a very occasional or transitory basis, species presence is assumed under the ECCCHCP and the ECCCHCP will conserve compensatory aestivation habitat for that developed on-site. The conservation objective for California red-legged frog under the ECCCHCP is to preserve large areas of contiguous habitats containing breeding and aestivation habitats.

Several preserve management and conservation measures for grasslands, woodlands, wetlands, and ponds will enhance the habitat quality for this species.

There is no suitable aquatic habitat for breeding California red-legged frogs in the project site. However, ground squirrel burrows, pocket gopher burrows, or other holes or cracks in annual grasslands in the site could be used by aestivating frogs if nearby seasonal ponds or creeks currently support breeding populations.

Western Pond Turtle: The western pond turtle is a State of California Species of Concern, but is not listed under FESA or CESA. Western pond turtles are associated with permanent or nearly permanent bodies of water with adequate basking sites such as logs, rocks or open mud banks (Zeiner, et. al., 1988). Pond turtles construct nests in sandy banks along slow moving streams and ponds in the spring and the young usually hatch in 2 to 3 months.

There are no occurrences of western pond turtle recorded in the CNDDB (2014) in the search area. The low area in the north-central part of the site and a low area in the southeast corner of the site are mapped as movement habitat for this species as modeled in the ECCCHCP (Jones & Stokes, 2006); there is also a small area in the low area in the north-central part of the site that is mapped as core habitat. While western pond turtle is not expected to occur on-site on more than a very occasional basis, species presence is assumed under the ECCCHCP and the ECCCHCP will conserve compensatory potential movement habitat for that developed on-site. The conservation goals and objectives for western pond turtle under the ECCCHCP are to maintain or increase the population and distribution of the species, primarily by increasing basking sites and underwater refugia in ponds.

Vernal Pool Invertebrates: In 1994, the USFWS listed three species of Central Valley fairy shrimp and one species of tadpole shrimp as threatened or endangered species under the Federal Endangered Species Act. Vernal pool fairy shrimp was listed as threatened, while Conservancy fairy shrimp, longhorn

fairy shrimp (*Branchinecta longiantenna*), and vernal pool tadpole shrimp were listed as endangered. All of these species occur in vernal pools and other seasonal wetland habitats throughout much of the Central Valley. Each year, shrimp eggs that lay on the floor of the dry wetlands during the summer hatch after the onset of cold winter rains. The shrimp grow for a few weeks to a couple months, and then lay eggs and die.

The nearest occurrences of vernal pool fairy shrimp, Conservancy fairy shrimp, and vernal pool tadpole shrimp in the CNDDB (2014) search area are each approximately 8 miles northeast of the site; there are no recorded occurrences of longhorn fairy shrimp in the CNDDB (2014) search area. The site is not within an area designated by USFWS as critical habitat for vernal pool species (USFWS, 2005a).

There are no vernal pools or seasonal wetlands in the developable parts of the site. The wetlands in the wetland mitigation area along the west edge of the site provide poor quality yet potentially suitable habitat for vernal pool fairy shrimp, Conservancy fairy shrimp, vernal pool tadpole shrimp, and longhorn fairy shrimp. These wetlands are in an area that will remain Open Space.

CRITICAL HABITAT: The site does not contain any areas designated as critical habitat for California red-legged frog (USFWS, 2006a), Alamada whipsnake (USFWS, 2006b), California tiger salamander (USFWS, 2005b), listed vernal pool shrimp or listed vernal pool plants (USFWS, 2005a), Contra Costa wallflower (CFR, 1990a), Contra Costa goldfields (USFWS, 2005a), Antioch dunes evening primrose (CFR, 1990b), delta smelt (USFWS, 1994), Central Valley steelhead (NOAA, 2005), or other federally listed plant or wildlife species (Attachment D). Delta smelt Critical Habitat is located a few miles north and northeast of the site and there is designated critical habitat for Alamada whipsnake approximately 4 miles south of the site.

WILDLIFE MIGRATION: While the entire site is mapped as potential migration habitat for California red-legged frog and California tiger salamander. The levels of use of the site by migrating individuals of these species if any is not known, but is expected to be low as the site itself does not contain breeding aquatic habitat for either California red-legged frog and California tiger salamander. Individuals dispersing from off-site breeding areas in search of other aquatic features or aestivation habitat may migrate through parts of the site.

The site does not contain any notable wildlife migration corridors such as well developed riparian corridors vegetated with trees and shrubs. A low area in the north-central part of the site and a low area in the southeast corner of the site are mapped as movement habitat for western pond turtle as modeled in the ECCCHCP (Jones & Stokes, 2006). Parts of these low areas are also mapped as breeding habitat for California red-legged frog, potential breeding habitat for California tiger salamander, and core habitat for western pond turtle as modeled in the ECCCHCP (Jones & Stokes, 2006). Despite being mapped as providing potential habitat for these species, the low area in the north-central part of the site and a low area in the southeast corner of the site do not contain creeks, ponds, or aquatic habitats of any type.

Conclusions and Recommendations

- The site consists of rolling hills of annual grassland that are unremarkable and are moderately to highly disturbed by grazing and other activities

- There are two seasonal wetlands in the wetland mitigation area along the west edge of the site. These wetlands are in an area that will remain Open Space. No other potentially jurisdictional wetlands or Waters of the U.S. were observed in the site.

- Due to lack of suitable habitat, the likelihood of occurrence of listed, candidate, and other special-status plants within the site is low. No special-status plants or highly suitable habitat for special-status plants was observed in the site. All or parts of the site are mapped as potentially suitable habitat for big traplant, round-leaved filaree, and Mt. Diablo fairy-lantern as modeled in the ECCCHCP. While special-status plants are unlikely to occur on-site, the ECCCHCP will provide compensatory habitat for annual grasslands that are developed on-site at a ratio of 1:1.

- Golden eagle and tricolored blackbird were the only special-status wildlife species observed in the site. No burrowing owls, Swainson's hawks, or any other special-status birds were observed on-site. Other than burrowing owl, none of these birds are expected to nest on site due to lack of suitable nesting habitat. No other special-status birds were observed on-site. The site is mapped as suitable habitat for golden eagle, suitable habitat for burrowing owl, and primary foraging habitat for tricolored blackbirds as modeled in the ECCCHCP. The site is not within an area mapped as potential breeding or foraging habitat for Swainson's hawk as modeled in the ECCCHCP. The ECCCHCP will provide an equivalent area of compensatory habitat for burrowing owl, golden eagle, and tricolored blackbird for grasslands developed on-site; these conservation lands may also be used on occasion by foraging Swainson's hawks. Participation in the ECCCHCP will also require implementation of avoidance and minimization measures, including focused pre-construction surveys for surveys for burrowing owl, Swainson's hawk, and golden eagle, and avoidance of project impacts to active nests by construction setbacks, modifications in construction scheduling, and may also involve passive relocation of burrowing owls.

- Based on the distribution of occurrences within the CNDDB (2014), the site is just outside (i.e., northwest) of the range of San Joaquin kit fox. San Joaquin kit fox are not currently utilizing the project site for denning and it is considered highly unlikely that kit foxes will occupy the project site or adjacent

areas in the future. While this species is not expected to occur on-site on more than a very occasional basis, the site is mapped as suitable core habitat for San Joaquin kit fox as modeled in the ECCCHCP (Jones & Stokes, 2006), and the ECCCHCP will provide compensatory habitat for that developed on-site and authorize incidental take of San Joaquin kit fox. Participation in the ECCCHCP will also require implementation of avoidance and minimization measures, including focused pre-construction surveys for San Joaquin kit fox and avoidance of project impacts to natal dens by construction setbacks, modifications in construction scheduling.

- The site does not contain breeding habitat for California tiger salamander, but some of the on-site grasslands may be used by aestivating California tiger salamanders. The levels of use of the site by aestivating California tiger salamanders is not known but is not expected to be extensive due to the absence of breeding ponds on the site. California tiger salamander has been documented near the wetland mitigation area along the west edge of the site that will remain Open Space. The site is mapped as potential migration and aestivation habitat for California tiger salamander as modeled in the ECCCHCP (Jones & Stokes, 2006) and a small area, species presence is assumed under the ECCCHCP, and the ECCCHCP will provide compensatory aestivation habitat for that developed on-site, and authorize incidental take of California tiger salamander.

- California red-legged frog may occur in the site on an occasional basis. This species has been documented near the wetland mitigation area along the west edge of the site that will remain Open Space. The site is mapped as potential migration and aestivation habitat for California red-legged frog as modeled in the ECCCHCP (Jones & Stokes, 2006). Although there are no creeks, ponds, or aquatic habitat of any type present, a low area in the north-central part of the site and a low area in the southeast corner of the site are mapped as potential breeding habitat for California red-legged frog as modeled in the ECCCHCP (Jones & Stokes, 2006). The ECCCHCP will

provide compensatory habitat for California red-legged frog for that developed on-site, and authorize incidental take of California red-legged frogs.

- Western pond turtle may occur in the site on an occasional basis. The low area in the north-central part of the site and a low area in the southeast corner of the site are mapped as movement habitat for western pond turtle as modeled in the ECCCHCP (Jones & Stokes, 2006). Although there are no creeks, ponds, or aquatic habitat of any type present, there is also a small area in the low area in the north-central part of the site that is mapped as core habitat for this species. The ECCCHCP will provide compensatory habitat for western pond turtle for that developed on-site.

- The wetlands in the wetland mitigation area along the west edge of the site provide poor quality yet potentially suitable habitat for vernal pool fairy shrimp, Conservancy fairy shrimp, vernal pool tadpole shrimp, and longhorn fairy shrimp. These wetlands are in an area that will remain Open Space.

- Trees, shrubs, and grasslands in the site could be used by birds protected by the Migratory Bird Treaty Act of 1918. Vegetation clearing, including grading grasslands, should be scheduled outside of the avian nesting season (February 1 through August 31) or a survey should be conducted immediately prior to vegetation removal. If active nests are found, vegetation removal should be delayed until the young fledge.

- The site is not within designated critical habitat for any plant or wildlife species.

- The site does not contain any notable wildlife migration corridors such as well developed riparian corridors vegetated with trees and shrubs. Individual California red-legged frogs and California tiger salamanders dispersing from off-site breeding areas in search of other aquatic features or aestivation habitat may migrate through parts of the site on occasion.

Thank you for contracting with Moore Biological Consultants to conduct this survey. Please call me at (209) 745-1159 with any questions.

Sincerely,



Diane S. Moore, M.S.
Principal Biologist

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Attachment A

Southwest Hills Planning Area Map

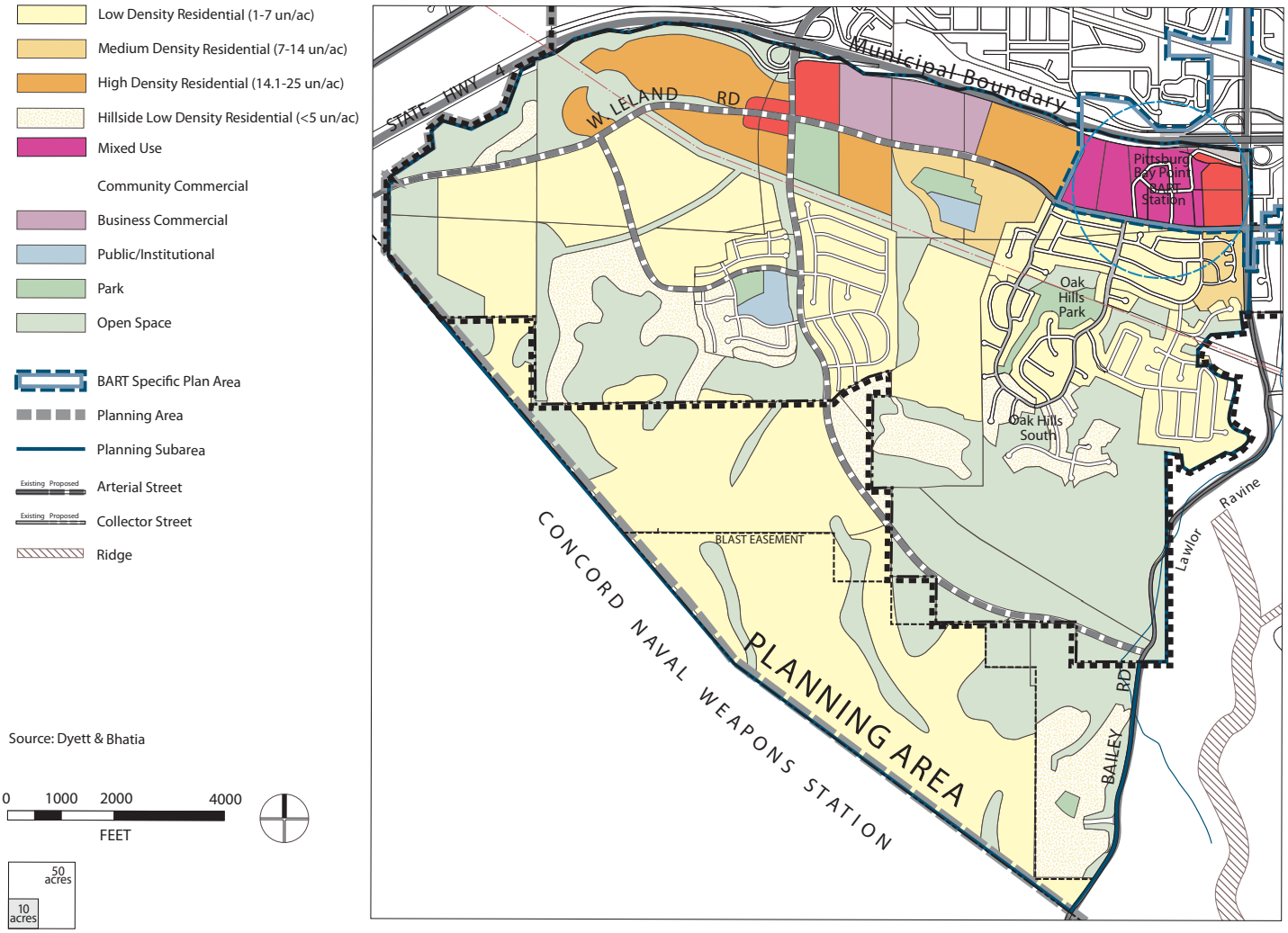


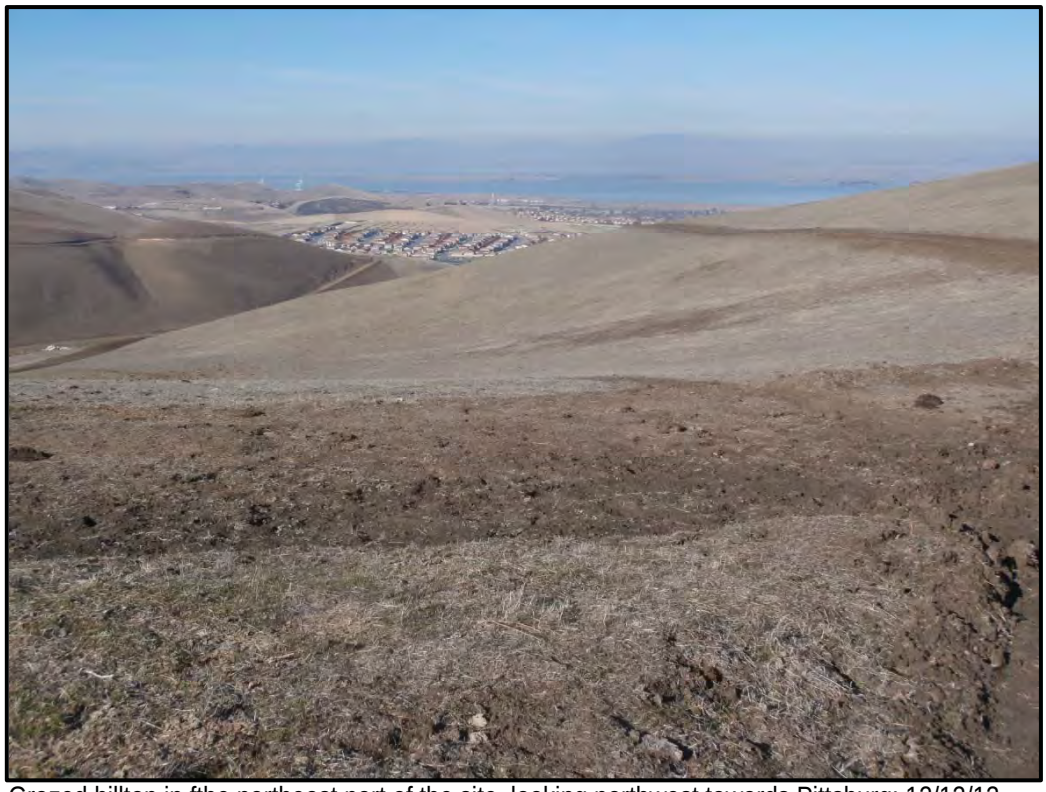
Figure 2-4k
Southwest Hills

Attachment B

Photographs



Heavily grazed hillside in the southeast part of the site, looking southwest; 12/12/13.



Grazed hilltop in fthe northeast part of the site, looking northwest towards Pittsburg; 12/12/13.



Heavily grazed grassland in the west-central part of the site, looking northwest along the fence bounding the Concord Naval Weapons Station property; 12/12/13.



Heavily grazed grassland in the northwest tip of the site, looking southeast; 12/12/13.



Annual grassland in the east-central part of the site, looking southwest; 04/17/14.



Heavily grazed ruderal grassland in the south part of the site, looking southeast; 06/23/14.



Lower part of the wetland mitigation area along the west edge of the site, looking southwest; 12/12/13.



Upper part of the wetland mitigation area, looking southwest; 12/12/13.



Compensatory wetland mitigation area along the west edge of the site, looking southwest; 06/23/14.



Upland grassland in the low area in the north part of the site, looking northeast; 06/23/14. This low area lacks a channel and contains only upland grasses and weeds.



Farm road, animal corrals, and outbuildings in the low area in the north-central part of the site, looking southwest; 12/12/13.



Low area in the southeast part of the site, looking northeast; 12/12/13. There is no channel in this low area which is vegetated with upland grasses and weeds.

Attachment C

CNDDB Query List and Exhibits, USFWS Species List

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad is (Clayton (3712188) or Honker Bay (3812118))

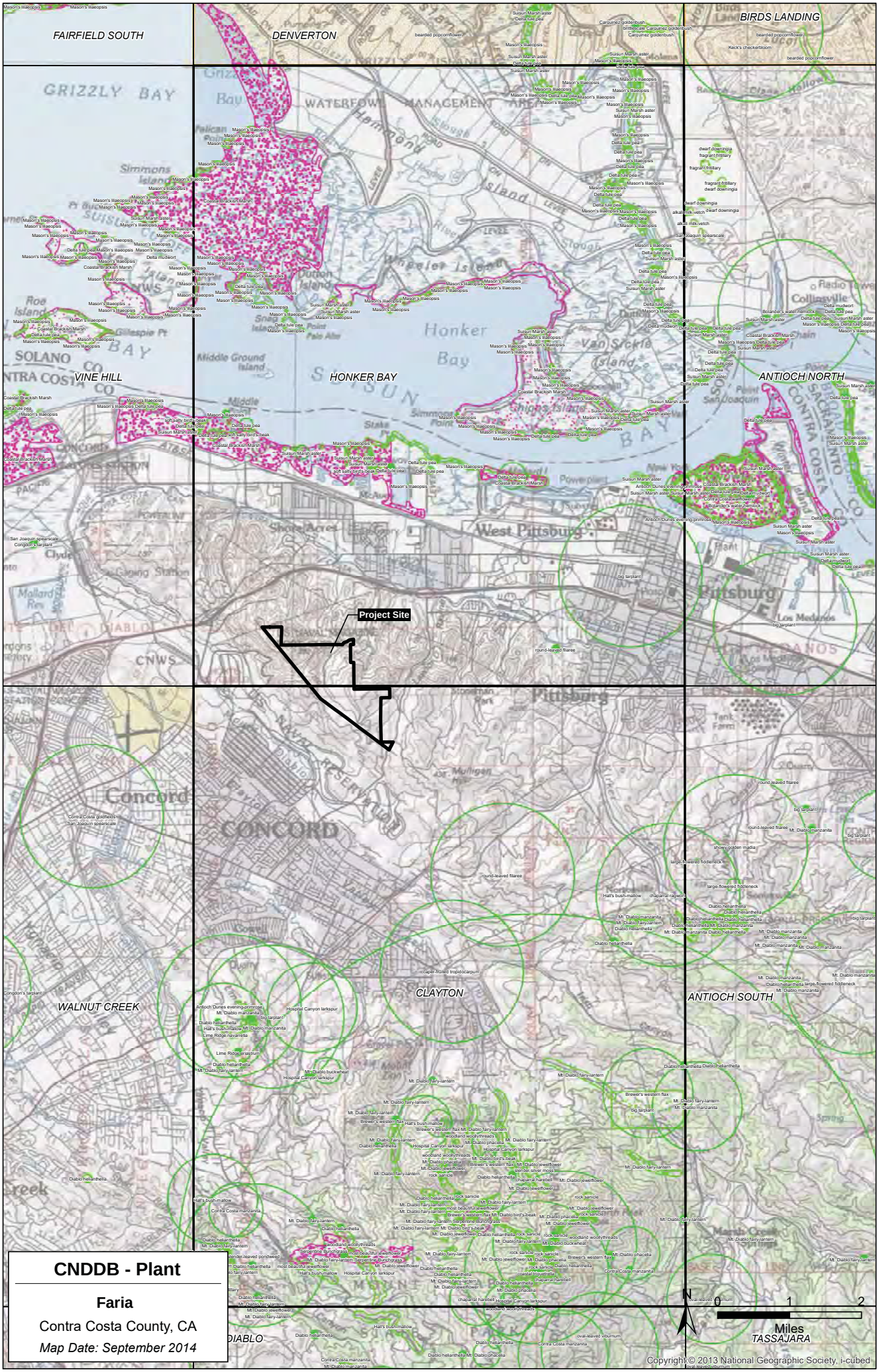
Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	None	G2G3	S1S2	SSC
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SSC
Anomobryum julaceum slender silver moss	NBMUS80010	None	None	G4G5	S2	4.2
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos auriculata Mt. Diablo manzanita	PDERI04040	None	None	G2	S2	1B.3
Arctostaphylos manzanita ssp. laevigata Contra Costa manzanita	PDERI04273	None	None	G5T2	S2	1B.2
Asio flammeus short-eared owl	ABNSB13040	None	None	G5	S3	SSC
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Blepharizonia plumosa big tarplant	PDAST1C011	None	None	G2	S2	1B.1
Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered	None	G1	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S2S3	
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
California macrophylla round-leaved filaree	PDGER01070	None	None	G2	S2	1B.1
Callophrys mossii bayensis San Bruno elfin butterfly	IILEPE2202	Endangered	None	G4T1	S1	
Calochortus pulchellus Mt. Diablo fairy-lantern	PMLIL0D160	None	None	G2	S2	1B.2
Campanula exigua chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
Chloropyron molle ssp. molle soft salty bird's-beak	PDSCR0J0D2	Endangered	Rare	G2T1	S1	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Cicuta maculata var. bolanderi Bolander's water-hemlock	PDAPI0M051	None	None	G5T3T4	S2	2B.1
Coastal Brackish Marsh Coastal Brackish Marsh	CTT52200CA	None	None	G2	S2.1	
Cordylanthus nidularius Mt. Diablo bird's-beak	PDSCR0J0F0	None	Rare	G1	S1	1B.1
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	Candidate Threatened	G3G4	S2S3	SSC
Delphinium californicum ssp. interius Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
Dipodomys heermanni berkeleyensis Berkeley kangaroo rat	AMAFD03061	None	None	G3G4T1	S1	
Eriastrum ertterae Lime Ridge eriastrum	PDPLM030F0	None	None	G1	S1	1B.1
Eriogonum truncatum Mt. Diablo buckwheat	PDPGN085Z0	None	None	G2	S2	1B.1
Erysimum capitatum var. angustatum Contra Costa wallflower	PDBRA16052	Endangered	Endangered	G5T1	S1	1B.1
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T2	S2	SSC
Grimmia torenii Toren's grimmia	NBMUS32330	None	None	G2	S2	1B.3
Helianthella castanea Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
Helminthoglypta nickliniana bridgesi Bridges' coast range shoulderband	IMGASC2362	None	None	G3T1	S1	
Hesperolinon breweri Brewer's western flax	PDLIN01030	None	None	G2	S2	1B.2
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G4T1	S1	FP
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S2S3	
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Limosella australis Delta mudwort	PDSCR10050	None	None	G4G5	S2	2B.1
Madia radiata showy golden madia	PDAST650E0	None	None	G2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Malacothamnus hallii Hall's bush-mallow	PDMAL0Q0F0	None	None	G2Q	S2	1B.2
Masticophis lateralis euryxanthus Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
Melospiza melodia maxillaris Suisun song sparrow	ABPBXA301K	None	None	G5T2	S2	SSC
Monolopia gracilens woodland woollythreads	PDAST6G010	None	None	G2G3	S2S3	1B.2
Navarretia gowenii Lime Ridge navarretia	PDPLM0C120	None	None	G1	S1	1B.1
Oenothera deltoides ssp. howellii Antioch Dunes evening-primrose	PDONA0C0B4	Endangered	Endangered	G5T1	S1	1B.1
Oncorhynchus mykiss irideus steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2	S2	
Perognathus inornatus inornatus San Joaquin pocket mouse	AMAFD01061	None	None	G4T2T3	S2S3	
Phacelia phacelioides Mt. Diablo phacelia	PDHYD0C3Q0	None	None	G1	S1	1B.2
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Rallus longirostris obsoletus California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1	FP
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Reithrodontomys raviventris salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
Sanicula saxatilis rock sanicle	PDAPI1Z0H0	None	Rare	G2	S2	1B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3?	S2	2B.2
Serpentine Bunchgrass Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	SSC
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2S3	FP
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
Streptanthus hispidus Mt. Diablo jewelflower	PDBRA2G0M0	None	None	G1	S1	1B.3
Stuckenia filiformis ssp. alpina slender-leaved pondweed	PMPOT03091	None	None	G5T5	S3	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Triquetrella californica coastal triquetrella	NBMUS7S010	None	None	G1	S1	1B.2
Tropidocarpum capparideum caper-fruited tropidocarpum	PDBRA2R010	None	None	G1	S1	1B.1
Viburnum ellipticum oval-leaved viburnum	PDCPR07080	None	None	G5	S3	2B.3
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2T3	S2S3	

Record Count: 67



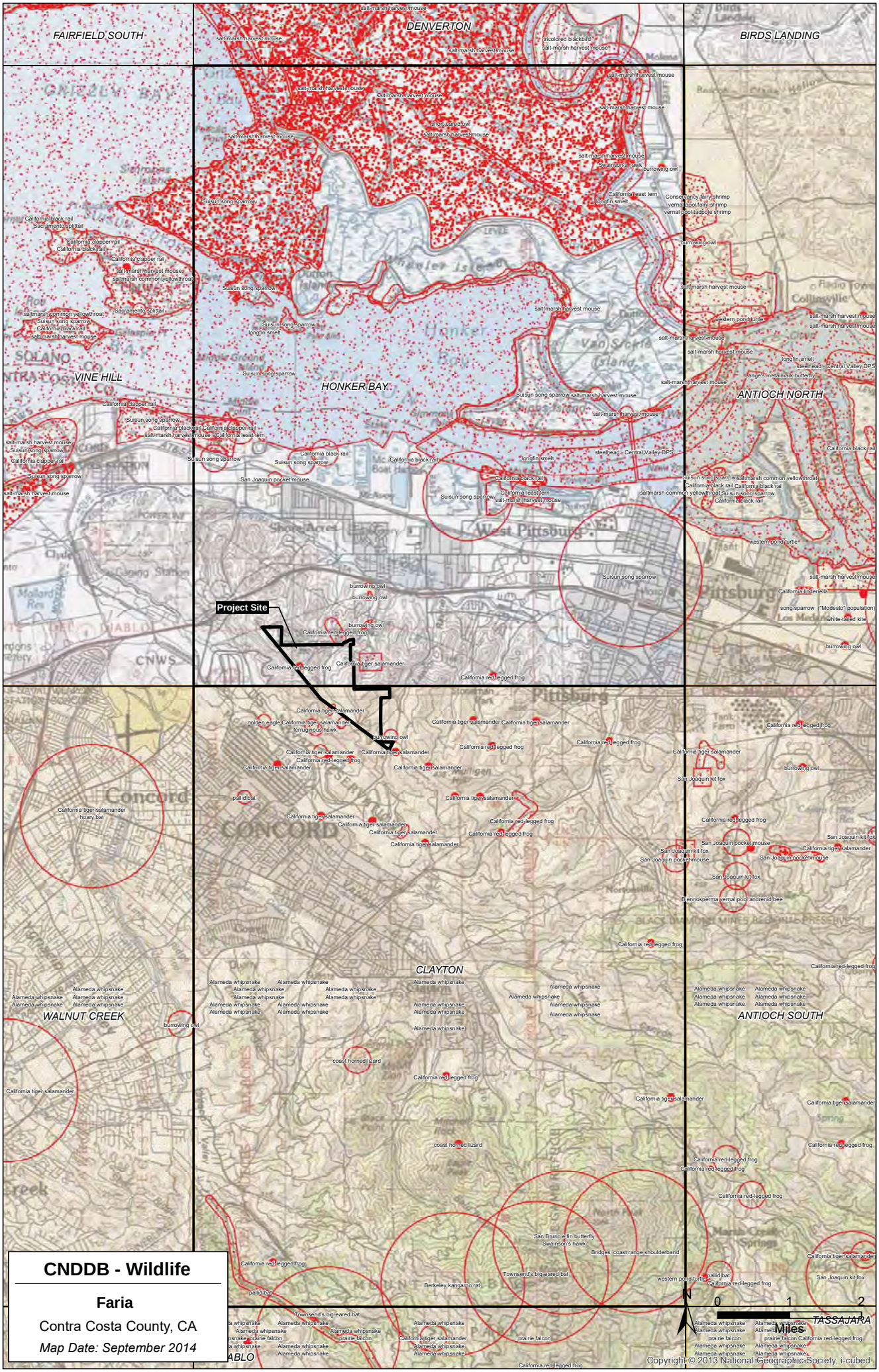
CNDDB - Plant

Faria

Contra Costa County, CA

Map Date: September 2014

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CNDDB - Wildlife

Faria

Contra Costa County, CA

Map Date: September 2014

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U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 140830123232

Current as of: August 30, 2014

Quad Lists

Listed Species

Invertebrates

Branchinecta longiantenna
longhorn fairy shrimp (E)

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Elaphrus viridis
delta green ground beetle (T)

Lepidurus packardi
vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris
green sturgeon (T) (NMFS)

Hypomesus transpacificus
Critical habitat, delta smelt (X)
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
Critical habitat, winter-run chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)

Rana draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Reptiles

Masticophis lateralis euryxanthus
Alameda whipsnake [=striped racer] (T)
Critical habitat, Alameda whipsnake (X)

Thamnophis gigas
giant garter snake (T)

Birds

Rallus longirostris obsoletus
California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni

California least tern (E)

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Amsinckia grandiflora
large-flowered fiddleneck (E)

Cordylanthus mollis ssp. mollis
soft bird's-beak (E)

Oenothera deltoides ssp. howellii
Antioch Dunes evening-primrose (E)

Quads Containing Listed, Proposed or Candidate Species:

CLAYTON (464B)

HONKER BAY (481C)

County Lists

Contra Costa County

Listed Species

Invertebrates

Apodemia mormo langei
Lange's metalmark butterfly (E)

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta longiantenna
Critical habitat, longhorn fairy shrimp (X)
longhorn fairy shrimp (E)

Branchinecta lynchi
Critical habitat, vernal pool fairy shrimp (X)
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Elaphrus viridis
delta green ground beetle (T)

Lepidurus packardi
vernal pool tadpole shrimp (E)

Speyeria callippe callippe
callippe silverspot butterfly (E)

Syncaris pacifica
California freshwater shrimp (E)

Fish

Acipenser medirostris
green sturgeon (T) (NMFS)

Eucyclogobius newberryi
tidewater goby (E)

Hypomesus transpacificus
Critical habitat, delta smelt (X)
delta smelt (T)

Oncorhynchus kisutch
coho salmon - central CA coast (E) (NMFS)
Critical habitat, coho salmon - central CA coast (X) (NMFS)

Oncorhynchus mykiss
Central California Coastal steelhead (T) (NMFS)
Central Valley steelhead (T) (NMFS)
Critical habitat, Central California coastal steelhead (X) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
Critical Habitat, Central Valley spring-run chinook (X) (NMFS)
Critical habitat, winter-run chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)
Critical habitat, CA tiger salamander, central population (X)

Rana draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Reptiles

Masticophis lateralis euryxanthus
Alameda whipsnake [=striped racer] (T)
Critical habitat, Alameda whipsnake (X)

Thamnophis gigas
giant garter snake (T)

Birds

Charadrius alexandrinus nivosus
western snowy plover (T)

Pelecanus occidentalis californicus
California brown pelican (E)

Rallus longirostris obsoletus
California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Strix occidentalis caurina
northern spotted owl (T)

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Amsinckia grandiflora
large-flowered fiddleneck (E)

Arctostaphylos pallida
pallid manzanita (=Alameda or Oakland Hills manzanita) (T)

Calochortus tiburonensis
Tiburon mariposa lily (T)

Castilleja affinis ssp. neglecta
Tiburon paintbrush (E)

Chorizanthe robusta var. robusta
robust spineflower (E)

Clarkia franciscana
Presidio clarkia (E)

Cordylanthus mollis ssp. mollis
soft bird's-beak (E)

Cordylanthus palmatus
palmate-bracted bird's-beak (E)

Erysimum capitatum ssp. angustatum
Contra Costa wallflower (E)
Critical Habitat, Contra Costa wallflower (X)

Hesperolinon congestum
Marin dwarf-flax (=western flax) (T)

Holocarpha macradenia
Critical habitat, Santa Cruz tarplant (X)
Santa Cruz tarplant (T)

Lasthenia conjugens
Contra Costa goldfields (E)

Critical habitat, Contra Costa goldfields (X)

Neostapfia colusana
Colusa grass (T)

Oenothera deltoides ssp. howellii
Antioch Dunes evening-primrose (E)
Critical habitat, Antioch Dunes evening-primrose (X)

Pentachaeta bellidiflora
white-rayed pentachaeta (E)

Sidalcea keckii
Keck's checker-mallow (=checkerbloom) (E)

Streptanthus niger
Tiburon jewelflower (E)

Suaeda californica
California sea blite (E)

Trifolium amoenum
showy Indian clover (E)

Proposed Species

Plants

Cordylanthus mollis ssp. mollis
Critical habitat, soft bird's-beak (PX)

Key:

(E) *Endangered* - Listed as being in danger of extinction.
(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
Critical Habitat - Area essential to the conservation of a species.
(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
(C) *Candidate* - Candidate to become a proposed species.
(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.

- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and

normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

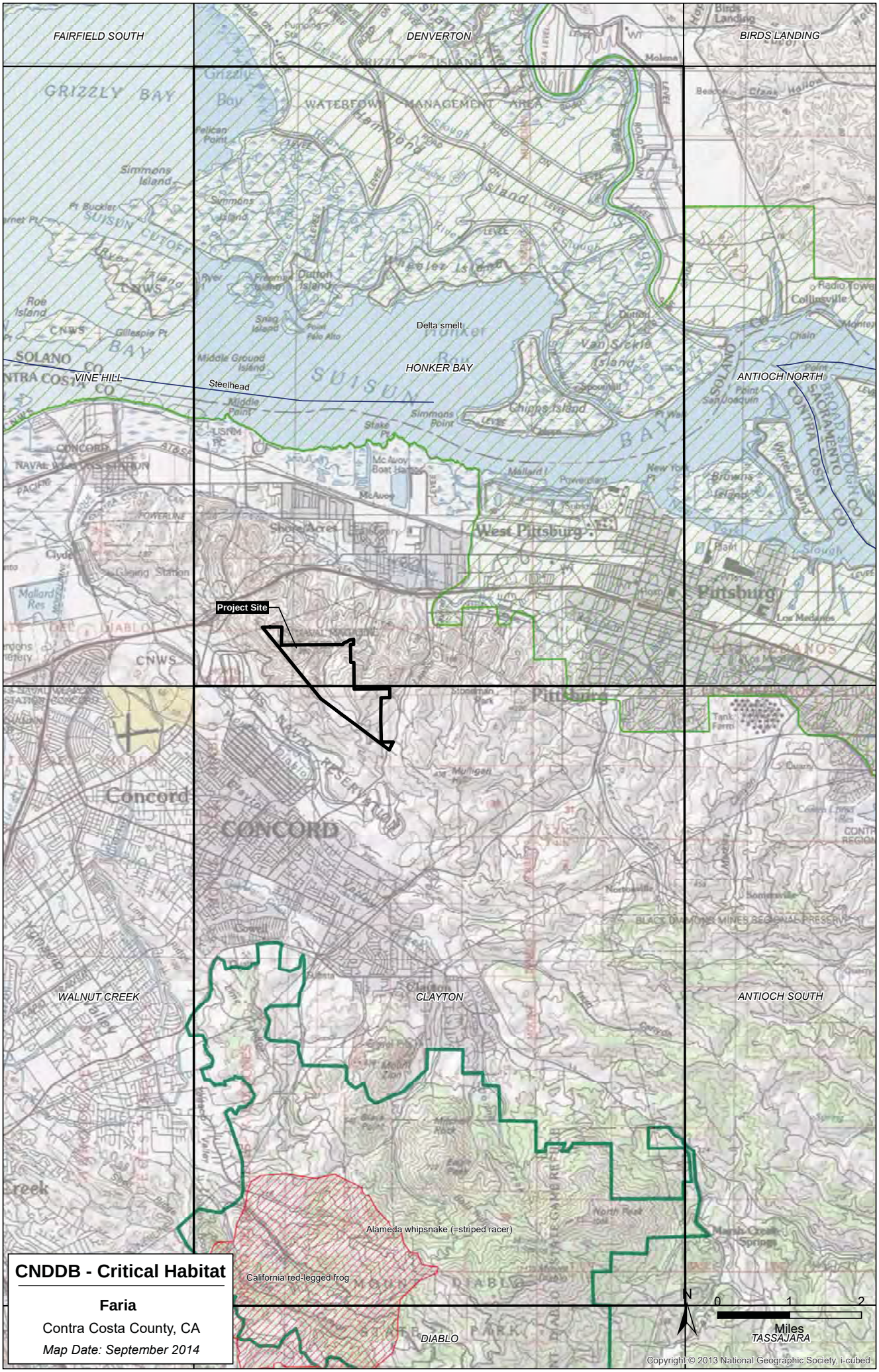
If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be November 28, 2014.

Attachment D

Federally Designated Critical Habitat


FAIRFIELD SOUTH
DENVERTON
BIRDS LANDING
GRIZZLY BAY
WATERFOWL MANAGEMENT AREA
Simmons Island
Pelican Point
Ft Buckler
SUISUN CUTOFF
Roe Island
CNWS
Gillespie Pt
SOLANO CO
CONTRA COSTA CO
Middle Ground Island
Delta smelt
HONKER BAY
SUISUN BAY
VINE HILL
Steelhead
Middle Point
Simmons Point
Chipps Island
Van Sickle Island
Collinsville
ANTIOCH NORTH
CONCORD
NAVAL WEAPONS STATION
McAvoy
West Pittsburg
Browns Island
Pittsburg
Project Site
Concord
CONCORD
Pittsburg
WALNUT CREEK
CLAYTON
ANTIOCH SOUTH
Alameda whipsnake (=striped racer)
California red-legged frog
DIABLO
TASSAJARA
N
0
1
2
Miles
CNDDB - Critical Habitat
Faria
Contra Costa County, CA
Map Date: September 2014
Copyright © 2013 National Geographic Society, i-cubed

APPENDIX G

Cultural Resource Assessment Report
Faria/Southwest Hills Annexation Project
Pittsburg, Contra Costa County, California



Prepared for:
Raney Planning and Management, Inc.
1501 Sports Drive, Suite A
Sacramento, California 95834

Prepared by:

William Self Associates, Inc.
Orinda, CA

September 2017

Cultural Resource Assessment Report
Faria/Southwest Hills Annexation Project
Pittsburg, Contra Costa County, California

Prepared for:
Raney Planning and Management, Inc.
1501 Sports Drive, Suite A
Sacramento, California 95834

Project No. 17-265

Prepared by:

Jennifer Wildt Ph.D., Oliver Hegge, David Buckley, and Nazih Fino M.A.
William Self Associates, Inc.
P.O. Box 2192
Orinda, CA 94563
(925) 253-9070

September 2017

Cover photo: Faria/Southwest Hills property

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Appendix A: Figures
Appendix B: Native American Heritage Commission Correspondence
Appendix C: Photographs
Appendix D: DPR Forms

Management Summary

William Self Associates, Inc. (WSA) was contracted by Raney Planning and Management, Inc. (Raney) to conduct a cultural resource assessment of Faria/Southwest Hills Annexation Project (Project). The proposed project is located in Contra Costa County, in the City of Pittsburg in Township 2 North, Range 1 West, Sections 21, 22, and 27 as depicted on the USGS Honker Bay topographic quadrangle map. The Project comprises the construction of fewer than 1500 dwellings within 373 acres of land, while maintaining 233 acres as open space.

A record search at the Northwest Information Center at Sonoma State University (NWIC) indicated that no previously recorded prehistoric sites are within ¼-mile of the project area. Two historic sites (P-07-000436 and -437) were found within the project area that were relocated and their Department of Parks and Recreation (DPR) forms updated.

The Native American Heritage Commission (NAHC) was contacted in April 2017 with a request for information on any sacred sites or traditional cultural properties within the project area, and for a list of interested Native American representatives. No additional information on sacred sites or traditional cultural properties was obtained from either the NAHC or from any of the interested Native American representatives, who were contacted by letter, with subsequent follow-up attempts at contact by phone (Appendix B).

A field survey of the project area was conducted on September 22 and 25-26, 2017, but no new archaeological sites were identified. Both relocated sites were assessed as not eligible for the National Register for Historic Places (NRHP) or California Register of Historic Resources (CRHR) due to lack of integrity. Analysis of the soils matrix indicates a very unlikely possibility that buried cultural resources will be encountered during project excavations. No adverse impacts are anticipated during the construction of the neighborhood and no mitigation is required.

1.0 Introduction

Raney proposes building a residential development of not more than 1500 dwellings within the Faria/Southwest Hills Annexation Project site in the City of Pittsburg, Contra Costa County (Figures 1 and 2). The Faria property, on which the project will be built, has been divided into 373 acres for development and 233 acres that will be preserved as open land. The City of Pittsburg is the Lead Agency for the project. The project area is located in Township 2 North, Range 1 West, Sections 21, 22, and 27 as depicted on the USGS Honker Bay topographic quadrangle map. The proposed development lies between Willow Pass Road to the west and Bailey Road to the east.

WSA was contracted by Raney to conduct a cultural resources database review (records search) and an archaeological field survey of the project area in order to identify cultural resources within the project area and to assess the potential impacts to historical or archaeological resources that might occur through project implementation. A record search of the Contra Costa County study area was conducted by personnel at the California Historical Resources Information System, Northwest Information Center (NWIC) at Sonoma State University on behalf of Raney on August 24, 2017. The scope of the current archaeological assessment report includes the entire 607-acre Faria property.

In accordance with California Environmental Quality Act (CEQA) Sections 15064.5 and 15126.4 and National Historic Preservation Act (NHPA) Section 106, as a means of evaluating the potential impacts to cultural resources, WSA archaeologists meeting federal criteria under 36 CFR 61 conducted a pedestrian archaeological survey of the project area. This intensive survey of the project area meets the requirements of CEQA and the National Environmental Policy Act (NEPA). The pedestrian survey of the project area was conducted to evaluate potential project impacts to cultural resources.

2.0 Setting

2.1 Environmental Setting

The project area lies within the Sacramento-San Joaquin River Delta region in Contra Costa County. This area is characterized by moderate elevations and alluvial soils. The elevation of the project area ranges from 400 to 850 feet above sea level. Precipitation occurs mostly during the winter months, promoting widespread grasslands. The average annual precipitation is less than 20 inches (Schoenherr 1995). Vegetation consists mainly of grasses and shrubs, with few trees.

Although the area once contained the diverse plant and animal communities of Valley Grassland, massive alteration by human activity has significantly impacted or destroyed the majority of these habitats (Schoenherr 1995). Various species of birds, rodents, as well

as mammals such as coyotes, foxes, black-tailed deer (*Odocoileus hemionus columbianus*) and mountain lions still inhabit the area. Pronghorn (*Antilocapra Americana*), Tule Elk (*Cervis slaphus nannodes*), Grizzly bears, and Gray Wolves (*Canis lupus*) once thrived in the region, but have been eradicated due to human influence (Schoenherr 1995). To the southeast, a corridor of open land connects the Project area to Mount Diablo and wilderness areas beyond.

In prehistory, the abundance of natural resources in the delta supported large groups of native peoples along Honker Bay. Native Americans may have ventured inland on a seasonal basis to exploit available resources.

Beginning with the Spanish missionaries in the 1700s, the influx of European and other immigrants into the area resulted in drastic changes to the natural environment. Overgrazing by domesticated livestock, introduction of non-native species, large-scale farming, and water diversions have contributed to degradation in the area.

2.2 Geomorphology

In 2013, EnGeo, Inc. carried out a geotechnical appraisal of the project area for Discovery Builders, Inc. They evaluated the geological and geotechnical conditions, stability and grading, soil drainage, and drainage systems for the entire site. The discussion of geomorphology below is based on their report.

The Project area is located approximately 3 miles south of Honker Bay, a shallow tidal estuary located at the confluence of the Sacramento and San Joaquin Rivers that forms the entrance to the Sacramento Delta. To the west, Honker Bay leads into Suisun Bay which is drained by the Carquinez Strait, and then connects to San Pablo Bay, a northern extension of San Francisco Bay. The paths of the river channels may have varied in prehistory, but since historic times they have been stabilized (USDA 1977).

The site is in the Los Medanos Hills, within the eastern part of the Coast Ranges province. The Coast Ranges consist of northwest-trending ranges and valleys that are geologically active within the San Andreas Fault System. The Project area is made up of rounded hills, low-lying valleys, and swales (EnGeo 2013:2). Most of the site consists of the Eocene Markley formation sandstone and siltstone. In low-lying areas and stream beds there is Quaternary colluvium consisting of sand with clay (EnGeo 2013:4). In the San Marco Meadows area of the site, there is the Miocene San Pablo Formation, made up of fine- to medium-grained, marine sandstone with local fossil beds and tuffaceous lenses (Engeo 2013:4). Bedrock consists of sedimentary and minor volcanic rocks and is covered with 2-5 feet of silty or sandy clay. Currently, the area is covered in seasonal grasses and is used for grazing animals (EnGeo 2013:2).

Over the past century, since the founding of the City of Pittsburg, significant commercial and residential development has occurred to the northeast of the project area. Bay Point, an unincorporated settlement of recent developments, lies due north of the site. Several residential developments have been built just northeast of the project area and the Keller Canyon Landfill is due east. To the southwest is the Concord Naval Weapons Station, a former military base that consists of mostly open land covered in grasses.

2.3 Cultural Setting

2.3.1 Ethnographic Background

At the time of initial contact between European explorers and the native inhabitants of California, the area that is now the southern edge of the Carquinez Strait was inhabited by a people who were of Penutian linguistic stock and who spoke the Karkin language (Levy 1978; Shipley 1978). Belonging to a larger San Francisco Bay Area ethnic group referred to as Costanoan, these people reaped the benefit of living in a bountiful, temperate environment. Abundant marine and terrestrial resources made both agriculture and animal husbandry unnecessary. Evidence of the success of their hunter-gatherer subsistence strategy may be seen in the number of flourishing village sites known to have existed at the time of contact with the Spanish (Levy 1978). The detritus of these sites was found in numerous locations around the shoreline of San Francisco Bay in the form of shellmounds – large accumulations of shell, ash, human artifacts, and occasionally human remains. With the influx of European settlers in the mid-19th century, most of these sites were destroyed or covered by buildings and roads.

Modern descendants of the Costanoan prefer to be known as Ohlone; they formed a corporate entity in 1971, the Ohlone Indian Tribe. On the basis of linguistic evidence, it has been suggested that the ancestors of the Ohlone arrived in the San Francisco Bay area about A.D. 500 from the Sacramento-San Joaquin Delta region.

Shellfish were an important staple in the Costanoan diet as were acorns of the coast, live oak, valley oak, tanbark oak and California black oak. Seeds and berries, roots, grasses, and the meat of deer, elk, grizzly, sea lion, rabbit, and squirrel also contributed to the Costanoan diet. The development of a taxonomic framework for Central California archaeology began when Nels C. Nelson of the University of California at Berkeley conducted the first intensive survey of the San Francisco Bay region between 1906 and 1908. Nelson recognized the Bay Area as a discrete archaeological entity and argued that the intensive use of shellfish, a subsistence strategy reflected in both coastal and bay shore midden deposits, was an indication of a general economic unity in the prehistoric region (Moratto 1984). Further analysis of various cultural interrelationships can be found in Hughes (1994), and Fredrickson (1993).

The arrival of the Spanish in the San Francisco Bay Area in 1775 led to the rapid demise of native California populations. Diseases, declining birth rates, and the effects of the mission system served to eradicate the aboriginal ways of life (which are currently experiencing resurgence among Ohlone descendants). Brought into the missions, the surviving Costanoan along with former neighboring groups of Esselen, Yokuts, and Miwok were transformed from hunters and gatherers into agricultural laborers (Cambra, et al. 1996; Levy 1978; Garaventa 1983; Shoup and Milliken with Brown 1995). With abandonment of the mission system and Mexican takeover in the 1840s, numerous ranchos were established. Generally, the few Native Californians who remained were then forced, by necessity, to work on the ranchos.

2.3.2 Prehistoric Background

Investigation into the prehistory of Central California did not begin in earnest until the 1920s. Stockton-area amateur archaeologists J. A. Barr and E. J. Dawson excavated numerous sites and made substantial collections in the area from 1893 to the 1930s. Their work provided the basis for later development of a three-phased chronological sequence for the region (Ragir 1972). On the basis of artifact comparisons, Barr identified what he felt were two distinct cultural traditions; Dawson later refined the concept into a series of "Early," "Middle," and "Late" sites (Ragir 1972; Schenck and Dawson 1929). In addition, P. M. Jones, working as a representative of the University of California at Berkeley, conducted systematic excavations of sites in the Central Valley in 1900 (Jones 1923).

In the 1930s and 1940s, J. Lillard and W. Purves of Sacramento Junior College developed a three-phase cultural sequence. Similar to Barr and Dawson's, this sequence was based on artifact and burial data and defined as "Early," "Intermediate," and "Recent" (Lillard and Purves 1936). This system was refined over the next two decades and was expanded into what is now known as the Central California Taxonomic System (CCTS) (Lilliard, Heizer and Fenenga 1939).

Much of the subsequent archeological investigation in the Central Valley focused on refinement of the CCTS through analysis of such factors as environmental change, settlement and subsistence strategy, exchange, population movement, and other topics. These studies led to the establishment of sub-sequences for many regions of Central California, the best-received of which has been Fredrickson's (1973) concept of cultural "patterns" (see also Moratto 1984:201-214). The concept centers on the understanding that there were local variations to a widespread culture-horizon. As stated by the author:

> A pattern is an adaptive mode extending across one or more regions, characterized by particular technological skills and devices, particular economic modes, including participation in trade networks and practices

surrounding wealth, and by particular mortuary and ceremonial practices (Fredrickson 1973:7-8).

The chronological sequence for the greater Sacramento River Valley region begins with the Windmiller Pattern (encompassing what was referred to earlier as the Early and Middle Horizons). Sites from this period date from about 4,500 to 2,500 years ago. Although earlier sites no doubt exist, sites from the "Paleoindian Period" and dating from about 10,000 to 4,500 years ago are thought to be buried under Holocene alluvial deposits and are not well documented in this part of California (Ragir 1972). Various scholars have suggested Windmiller Pattern sites are associated with an influx of peoples from outside of California who brought with them an adaptation to river-wetland environments (Moratto 1984:207).

Windmiller Pattern sites are often situated in riverine, marshland, and valley floor settings, and atop small knolls above prehistoric seasonal floodplains. The variety of plant and animal resources within the immediate area would have attracted populations who were intent on making efficient use of such resources. Most Windmiller Pattern sites have contained burials in what may be cemeteries. Typically, the remains are extended ventrally, oriented to the west, and contain copious amounts of grave goods. Grave artifacts often include large projectile points (spear or dart points) and a variety of fishing paraphernalia such as net weights, bone hooks, and spear points, as well as the faunal remains of large and small mammals. Seed-grinding implements at the sites show that gathering and processing of seed resources was also common, and other artifacts (e.g. charmstones, quartz crystals, abalone and Haliotis shell beads) suggest trade and a degree of ceremonialism were practiced.

The subsequent Berkeley Pattern (previously the Middle Horizon) covers a period from about 2,500 to 1,500 years ago. This pattern overlaps somewhat with Windmiller Pattern attributes at the beginning and Late Prehistoric artifacts at the end. Berkeley Pattern sites are much more common and well documented, and therefore better understood, than Windmiller Pattern sites. The sites are distributed in more diverse environmental settings, although a riparian focus is common.

Deeply stratified midden deposits (resulting from generations of occupation) are common to Berkeley Pattern sites, as are an abundance of milling and grinding stones for the processing of vegetal resources. Projectile points are progressively smaller and lighter over time, culminating in the introduction of the bow and arrow during the late prehistoric period. As mentioned above, although there are shared traits with Windmiller Pattern manifestations, artifacts unique to Berkeley Pattern sites include slate pendants, steatite beads, stone tubes and ear ornaments, and, most importantly, burial techniques utilizing variable directional orientation, flexed body positioning, and a general reduction of mortuary goods (Fredrickson 1973; Moratto 1984).

Characterized as the Augustine Pattern (Fredrickson 1973), the late prehistoric period (formerly the Late Horizon) ranges from about 1,500 to 150 years ago. This pattern is typified by intensive fishing, hunting and gathering, the latter focusing on acorns, a large population increase, increased trade and exchange networks, increases in ceremonial and social attributes, and the practice of cremation (in addition to flexed burials). Certain artifact types also typify the pattern: bone awls for use in basketry manufacture, small notched and serrated projectile points indicative of introduction of the bow and arrow, occasional pottery, clay effigies, bone whistles, and stone pipes. The presence of certain types of artifacts suggests a southward-moving influx of Wintuan populations into the Sacramento Valley, providing an important stimulus to this pattern (Moratto 1984). Evidence from several sites (e.g., mutilation of skeletons and Wintuan-type barbed points imbedded in human remains) suggests the expansion was not altogether friendly (Moratto 1984; Ragir 1972). The Augustine Pattern and the late prehistoric period can be characterized as the apex of Native American cultural development in this part of California.

2.3.3 Historic Background

In 1839, the Mexican government granted almost 10,000 acres, known as Rancho Los Medanos, to Jose Antone Mesa and Miguel Jose Garcia. The rancho encompassed modern-day Pittsburg and the current project area. The future site of Pittsburg was soon named New York of the Pacific. The gentleman who laid out the town, J. D. Stevenson, was a native of New York, and may have named it for his home town. The area soon became known as New York Landing, and fishing and canning operations were established there. When coal was discovered in the nearby hills at the turn of the century the name of the town was changed to Black Diamond. Finally, on February 11, 1911, five years after Columbia Geneva Steel opened, the town was renamed Pittsburg, after the famous birthplace of the steel industry in Pennsylvania. In 1942, the U. S. Army built Camp Stoneman. For thousands of GIs who went to fight in the Asiatic-Pacific Theater operations during World War II, Camp Stoneman was their last contact with the United States. In 1954, the Camp was closed and the property became part of the growing City of Pittsburg. The city and surrounding area have seen significant commercial and residential development in the last half of the 20th-century.

2.4 Record Search

On behalf of WSA, the staff at NWIC conducted a records search for the project vicinity on August 24, 2017 (File No. 17-0239). Information was gathered on previous archaeological surveys and recorded sites within ¼ mile of the proposed project alignment. Records were also accessed and reviewed from the Directory of Properties in the Historic Property Data File for Pittsburg, the California Inventory of Historic Resources (1976), the NRHP, the CRHR, and the California Points of Historical Interest (1992).

Two previously recorded sites are located within the project area (P-07-000436, and P-07-000437). P-07000436, the Faria Ranch Headquarters Site, and P-07-000437, the Antone Faria House, were recorded in 1988 by California Archaeological Consultants (Table 1). No additional sites were located within the ¼ records search buffer.

Table 1: Cultural Resources within the Project Area

Primary Number	Trinomial	Resource	Recorded
P-07-000436	CA-CCO-000570H	Faria Ranch Headquarters Site	1988 (Cindy Desgrandchamp, CA Archaeological Consultants)
P-07-000437	CA-CCO-000571H	Antone Faria House	1988 (Cindy Desgrandchamp, California Archaeological Consultants, Inc.)

Six cultural resource studies have been completed that include the project area (Table 2). These include S-016216, S-025094, S-025121, S-031966a, S-031966b, and S-035036. Twelve cultural resource studies have been completed within ¼ mile of the project area. Sixteen other reports with little to no field work or missing maps, these

Table 2: Cultural Resource Reports within the Project Area

Report Number	Authors	Year	Title	Publisher
S-016216	Cindy Desgrandchamp and Robert I. Orlins	1988	An Archaeological Assessment for the Proposed Bay Pointe Landfill, Contra Costa County, California	California Archaeological Consultants, Inc.
S-025094	Ric Windmiller	2002	Phase I Archaeological Resources Inventory, San Marco Meadows, Pittsburg, Contra Costa County, California	
S-025121	William Self, Kimberley Popetz, and Monica Schmidt	2001	Bailey Estates Cultural Resources Survey (letter report)	William Self Associates, Inc.
S-031966a	Matthew R. Clark	2006	Cultural Resources Inventory and Impacts Assessment for the Bailey Estates Project and Adjunct Facilities, City of Pittsburg, Contra Costa County, California	Holman & Associates
S-031966b	Milford Wayne Donaldson and Victor Stokmanis	2006	Inclusion for the Delivery of Federal Water to the Bailey Estates Project in the Contra Costa Water District, Contra Costa County, California (BUR0607731A); National Historic Preservation Act, Section 106 Compliance (36 CFR Part 800) for an Inclusion in the Contra Costa Water District, Contra Costa County, California	OHP; BUR
S-035036	Arleen Garcia-Herbst and Micah Hale	2008	Final Report for Concord Inland BRAC Disposal Archaeological Survey, Naval Weapons Station, Seal Beach, Detachment Concord, Contra Costa County, California, Contract No. N68711-04-D-3620, Task Order 0015	ASM Affiliates, Inc.

Table 3: Cultural Resource Reports within 1/4 mile of the Project Area

Report Number	Authors	Year	Title	Publisher
S-011048	Suzanne Baker and Laurence H. Shoup	1989	Cultural Resources Inventory of the Highway 4 Project, near West Pittsburg, Contra Costa County, California	Archaeological/Historical Consultants
S-011355	Rand F. Herbert and Stephen D. Mikesell	1989	Historic Resources Report: Keller Landfill Project, Contra Costa County, California	
S-013660	William E. Soule	1988	Archaeological Survey Report, Application 29113, de Bonneville Property, Contra Costa County	California Water Resources Control Board, Division of Water Rights
S-015500	William Self, Greg Mattson, Carrie Wills, Norm Dyer, and Ann Samuelson	1993	Cultural Resources Overview, Naval Weapons Station, Concord, Contra Costa County, California	William Self Associates. Inc.
S-019172	Richard D. Ambro and Miley Paul Holman	1992	Results of Surface Reconnaissance and an Inventory of Cultural Resources on the San Marco Project Parcel, Near West Pittsburg, Contra Costa County, California	Holman & Associates
S-019324	Ric Windmiller, Donald S. Napoli, Daniel J. Osanna, and Jane Russell	1997	Archaeological Test Excavations, Historical Research and Historic Architectural Evaluation, San Marco Project, Pittsburg, Contra Costa County, California	
S-031600	Matthew R. Clark	2006	Cultural Resources Inventory and Impacts Assessment for the Vista Del Mar Project and Adjunct Facilities, City of Pittsburg, Contra Costa County, California	Holman & Associates
S-031600	Kathryn Entriken and Ward Hill	2005	Historic Architecture Evaluation Report of the Alves Ranch, Pittsburg, CA 94588, Contra Costa County, California	Holman & Associates
S-046155	Rand F. Herbert, Polly s. Allen, Karen Clementi, Jama Jones, and Rebecca Flores	2009	Historic Building Inventory and Evaluation Update Report, Concord Naval Weapons Station, Contra Costa County, California	JRP Historical Consulting Services
S-046155	N/A	1998	DRAFT - Inventory and Evaluation of National Register Eligibility of Cold War Era And Selected Other Buildings and Structures, Naval Weapons Support Facility, Seal Beach, Detachment Concord, Contra Costa County, California	JRP Historical Consulting Services
S-046155	Louis S. Wall and Daniel Abeyta	1999	USN990510A; Re: Inventory and Evaluation of National Register Eligibility of Cold War Era and Selected Other Buildings and	Department of the Army, Office of the Historic Preservation

Report Number	Authors	Year	Title	Publisher
			Structures, Weapons Station Seal Beach Detachment Concord	
S-046207	Arleen Garcia-Herbst and Micah Hale	2008	Final Report for Concord Inland Brac Disposal, Archaeological Survey, Naval Weapons Station, Seal Beach, Detachment Concord, Contra Costa County, California	ASM Affiliates, Inc.

2.5 Native American Consultation

The City of Pittsburg contacted the Native American Heritage Commission (NAHC) in April 2017, requesting information on sacred lands and a contact list of local tribal representatives or most likely descendants (MLD). A response was received from the NAHC on April 27, 2017 that provided a list of Contra Costa County Native American Contacts. Due to the potentially sensitive nature of previously unrecorded prehistoric cultural resources that could be encountered in the project area, WSA contacted the local Native American representatives to solicit comment on the project's environmental documentation. On August 7, 2017, WSA contacted each of the listed Native American Contacts by letter, explaining the nature of the project and soliciting comments and any additional information the individuals might have regarding cultural resources in the project area. No response to the letter solicitations was received. On September 22, 2017, and again on September 29, 2017, WSA placed follow-up telephone calls to all of the individuals on the contact list. Messages were left when possible or emails according to the preference of the NAHC contact. To date the only response has been from Michelle Zimmer, Irenne Zwierlein's daughter, of the Amah Mutsin Tribal Band of Mission San Juan Bautista, requesting that construction crews be given archaeology sensitivity training (see Appendix B).

3.0 Survey Methods

In accordance with Section 106 of the NHPA and CEQA Sections 15064.5 and 15126.4, as a means of identifying both previously recorded and unrecorded archaeological sites, WSA archaeological field researchers under the supervision of WSA's Principal Investigator, all of whom meet federal criteria under 36 CFR 61, conducted a pedestrian survey of a total of six parcels (totaling approximately 607 acres that may or may not be subject to future ground disturbing activity. A total of up to 1500 homes is proposed for development in the survey area.

The WSA pedestrian reconnaissance was conducted by a two-person crew using survey transects of not more than 30 m intervals (except where steep terrain and dense vegetation did not allow for these intervals). The survey area was recorded with digital photographs

for use in this report. Photographs included general views of the topography, vegetation density, and other relevant images. A sample of survey photographs is included in Appendix C.

Survey area maps, depicting the parcel boundaries, were provided to WSA by Raney. WSA staff used these maps, along with Trimble GeoXT handheld GPS receiver, to locate the survey areas while in the field.

Exposed ground surface within the project area was examined for the presence of historical or prehistoric site indicators. Historical site indicators include, but are not limited to foundations, fence lines, ditches, standing buildings, objects or structures such as sheds, or concentrations of materials at least 50 years in age, such as domestic refuse (glass bottles, ceramics, toys, buttons or leather shoes), or refuse from other pursuits such as agriculture (e.g., metal tanks, farm machinery parts, horse shoes) or structural materials (e.g., nails, glass window panes, corrugated metal, wood posts or planks, metal pipes and fittings, etc.). Prehistoric site indicators include, but are not limited to areas of darker soil with concentrations of ash, charcoal, bits of animal bone (burned or unburned), shell, flaked stone, ground stone, or even human bone. Large outcrops of bedrock were also investigated for the presence of bedrock mortars or habitation debris.

4.0 Results of the Field Survey

WSA Staff Archaeologists David Buckley and Oliver Hegge conducted a field reconnaissance of the proposed project property on September 22, 25-26, 2017. The team conducted a pedestrian survey in each of the seven parcels. Survey locations varied in size and area and encompassed the entire parcel, whether or not there were plans to develop a part, or all of it. The discussion and results of the survey are organized by APN Number. All photographs mentioned in the text are found in Appendix C. No new archaeological resources were observed during the survey and two previously recorded resources within the property boundaries were resurveyed (P-07-000436 and P-07-000437).

APN# 097190002

This parcel extends from the northwest terminus of the proposed development area, and is bounded to the east by APN# 097180006 and to the south by APN# 097200002 (Photos 1 & 2). It is 115.24 acres in size. WSA's survey covered the entire acreage of the parcel. Various dirt access roads cut through the parcel.

The survey area is composed of moderately to steeply sloped hills, with a max slope of 78% and a mean slope of 26.2%. Seasonal drainages are present in many valleys between hills. The land is currently used as grazing land for cattle, and is predominantly covered by long grasses. As a result, ground visibility is very poor with surface visibility ranging from

0-5 percent. The ground is highly disturbed due to trampling by cattle and rodent bioturbation. The soil is a sandy silt loam with some clay, resulting in a clumpy texture that easily crumbles. Soil color was mottled, consisting of 10YR3/2 Very Dark Grayish Brown and 10YR4/2 Dark Grayish Brown. The bedrock, which can occasionally be seen in road cuts, is sandstone (Photo 3). There were no previously recorded or newly recorded archaeological resources located within this property.

APN# 097200002

Bounded by APN# 097190002 to the north, APN# 097200003 to the east and the Faria property line to the west, this parcel is one of two parcels containing a previously recorded historical site. The parcel covers 52.52 acres with max and mean slopes of 89% and 27.9%, respectively (Photo 4). Seasonal drainages are present throughout the parcel. Aside from the historical site, the vegetation and soil of the parcel is consistent with Parcel 097190002 and the rest of the Faria property, with long grasses obscuring most of the ground and visibility at 0-5 percent. Longhorn cattle graze throughout the parcel, trampling the ground and disturbing the topsoil. Sandstone bedrock was also observed here and dirt access roads run throughout the parcel.

P-07-000437

P-07-000437, also known as the Antone Faria House, was last recorded in 1988. Originally comprising a house, barn/shed structure, trash dump, windmill, and water tank, little of the site remains today. Only the windmill and water tank are present, while a newer, modern windmill with a solar panel has been constructed on the site (Photo 5). Two palm trees and one walnut tree, recorded in 1988, are present. One cold cream jar was found half buried on the surface next to the water tank, and a rusted metal drum lay beneath the walnut tree. A large quantity of rusted scrap metal and rotting wood is present to the southwest of the site in a ravine lined with cobbles and boulders (Photo 6). This terminates at the property line.

APN# 097200003

Parcel 097200003 is located in the center of the Faria property. It is bounded by APN# 097200002 to the west, APN# 097180006 to the north, APN# 097240002 to the south, the property line to the east and northeast, and APN# 097230008 to the southeast (Photos 7 & 8). Parcel 097200003 is 158.52 acres. Consistent with the rest of the Faria property, the terrain is made up of moderately to steeply sloping hills with a max slope of 70% and a mean of 24.6%. Ground coverage is poor, with 0-10 percent visibility due to tall grasses. The soils are mainly a sandy silty loam, varying in proportions of sand and silt, with some clay. Cattle graze throughout this parcel, trampling the ground underneath and disturbing

the topsoil. Sandstone bedrock was observed in road cuts. There were no previously recorded or newly recorded archaeological resources located within this parcel.

APN# 097240002

This parcel is bounded by APN# 097200003 to the north, APN #097230008 to the east, and the Faria property line to the southwest (Photos 9 & 10). Moderate to steeply sloped hills with a max slope of54% and mean slope of 21.8% make up the topography, and ground visibility is poor, from 0-5 percent. Vegetation here is composed of long grasses. Extended cattle grazing has resulted in heavy trampling of the topsoil, which is a sandy silty loam with a low percentage of clay. Soil color was mottled, consisting of 10YR3/2 Very Dark Grayish Brown and 10YR4/2 Dark Grayish Brown. Exposed bedrock is sandstone and dirt access roads run throughout the area. No previously recorded or newly recorded archaeological resources were located within the parcel.

APN# 097180002

Parcel #097180002 is accessible through the main gate entrance of the property on Rosa Blanca Dr. It is bordered by Parcel #097180006 to the south, and residential suburbs on all other sides (Photo 11). The terrain here is generally flat with a max slope of 38% and a mean slope of 15.6%. One paved road and dirt roads traverse the parcel. Ground visibility ranges from 10-15%. The top soil is consistent with other regions of the property, although visible cracks in the ground indicate a lower water content compared to other parcels. Bedrock was not visible. Vegetation was characterized by long grasses. No previously recorded or newly recorded archaeological resources were located within the parcel.

APN# 097180006

Parcel #097180006 is also accessible through the main gate entrance of the property on Rosa Blanca Dr. It is bordered by Parcel #097190002 to the west, APN #097200003 to the south, and the property line to the north and to the east. On the northern side of the northeast corner, the property is bordered by houses (Photo 12).

The terrain in this property is hilly, ranging from moderate to steeply sloped hills with a max slope of 89% and mean slope of 27.9%. Vegetation is consistent with the rest of the property, with long grasses dominating the landscape. The soil and bedrock is similar to the rest of the site, characterized by a sandy silt with clay topsoil over sandstone bedrock. While no cattle graze in this parcel, there are seven llamas, eight ponies, and one zebra inhabiting the area. One paved asphalt road and several dirt roads wind through the parcel.

P-07-000436

This parcel contains the other historic site on the property, P-07-000436. Also known as the Faria Ranch Headquarters Site, the ranching complex originally contained 14 structures. Last recorded in 1988, the site now has eight remaining structures. The hay barn (Photo 13), pump house (Photo 14), Shed No. 5, horse barn and associated corral (Photos 15 & 16), cow barn (Photo 17), machine shed (Photo 18), Alvin Faria House (built 1951, Photo 19), and Elwin Faria House (built 1984, Photo 20) still exist on site. The original Faria Ranch House (built 1908), Shed No. 1, Shed No. 2, Shed No. 3, Shed No. 4, blacksmith shop, bridge, and trash dump no longer exist. The hay barn appears to have no structural modifications aside from a recent coat of white paint and mounted deer antlers. The pump house seems to be in its original location, though it may have been rebuilt or refurbished and it may have slightly different dimensions. Shed No. 5 has been extended approximately 2 feet on an east-west axis. An antler has and a piece of corrugated sheet metal painted as an American flag have been mounted on the shed and directly to the north there is a large modern gasoline tank. The Elwin Faria house appears to have undergone no renovations since the original recording. Across the street from the house, a circular corral, small shed, and a shade structure covering tanks have been erected. The Alvin Faria House now has a sheep corral to the west and several unused, rusty farming machines around the site. Additionally, three modern Conex containers and a shelter structure have been built adjacent and to the west of the machine shed.

APN# 097230008

Parcel #097230008 is the southeast terminus of the Faria property. It is bounded by APN# 097240002 to the west, APN# 097200003 to the north-west, and the property boundary in all other directions (Photos 21 & 22). Hills here range from moderate to steep, with a max slope of 74% and a mean slope of 23.5%. Like the rest of the property, grasslands cover the ground, resulting in 0-5 percent visibility. Seasonal drainages are present in many of the valleys between hills, although heavily overgrown. Cattle grazing tramples the topsoil resulting in a disturbed, clumpy sandy silt with clay. Soil color was mottled, consisting of 10YR3/2 Very Dark Grayish Brown and 10YR4/2 Dark Grayish Brown. No previously recorded or newly recorded archaeological resources were located in the parcel; however, one modern corral structure is present in the southwest corner of the parcel.

5.0 Management Considerations

CEQA and NEPA guidelines require that a project consider the significance of an undertaking's impacts to historic remains and archaeological sites determined to be historical resources under CEQA Section 15064.5 and NEPA Section 106. To properly evaluate the significance of impacts to such resources it is necessary to evaluate each resource in terms of the site significance criteria contained in the CEQA/NEPA Guidelines. Generally, a resource shall be considered to be "historically significant" by the lead agency if the resource meets the criteria for listing on the National Register for Historic Places or

California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852). All significant resources must meet at least one of these basic criteria (NRHP letters in parentheses):

1. (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. (B) Is associated with the lives of persons important in our past;
3. (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. (D) Has yielded, or may be likely to yield, information important in prehistory or history.

Archaeological site evaluation assesses the potential of each site to meet one or more of the criteria for CRHR/NRHP eligibility based upon visual surface and subsurface evidence (if available) at each site location, information gathered during the literature and record searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site.

Integrity

In addition to meeting one or more of the four specific criteria listed above, a historic property must possess "integrity" to qualify for listing in the CRHR. Integrity is generally evaluated with reference to qualities including location, design (i.e., site structure), materials, workmanship, setting, feeling, and association. A potentially eligible site must retain the integrity of the values that would make it significant. Typically, integrity is indicated by evidence of the preservation of the contextual association of artifacts, ecofacts, and features within the archaeological matrix (as would be required under Criterion 4(D)) or the retention of the features that maintain contextual association with historical developments or personages that render them significant (Criteria 1(A), 2(B), or 3(C)). Evidence of the preservation of this context is typically determined by stratigraphic analysis and analysis of diagnostic artifacts and other temporal data (e.g., obsidian hydration, radiocarbon assay) to ascertain depositional integrity or by the level of preservation of historic and architectural features that associate a property with significant events, personages, or styles.

Integrity refers both to the authenticity of a property's historic identity, as shown by the survival of physical characteristics that existed during its historic period, and to the ability of the property to convey its significance. This is often not an all-or-nothing scenario (determinations can be subjective); however, the final judgment must be based on the relationship between a property's features and its significance.

6.0 Assessment and Recommendations

WSA conducted the archaeological survey of six project parcels on September 22 and 25-26, 2017. The records search results indicated that two previously recorded archaeological resources were potentially located in the survey areas (P-07-000436, -000437), both of which WSA revisited. The previously recorded sites were found in Parcels #097180006 and 097190002. Neither of the site records for the previously recorded sites contained assessments of the sites' integrity. Upon revisit, both sites were evaluated according to the criteria established for listing in the CRHR. Neither one of these sites was deemed to be significant.

Previously Recorded Sites

P-07-000436

An Archaeological Site Record was filled out for the Department of Parks and Recreation in 1988. No evaluation of the property's significance was given, but the recorder noted, "The ranch complex was a working cattle ranch until the last few years. All the buildings have been modified through the years and some are in very poor condition." In 1988, this site consisted of fourteen structures including: the original 1908 house, a hay barn, a cow barn, a horse barn, an equipment/machine shed, a garage, a blacksmith shop, five sheds, Alvin Faria's House (built 1951) and Elwin Faria's House (1984). This revisit only located eight structures: the hay barn, Shed No. 5, horse barn and associated corral, cow barn, machine shed, Alvin Faria House (built 1951), Elwin Faria House (built 1984), and a pump house (noted in 1988, but not included in count of 14 structures). While the site regains its integrity of location, the oldest and most important structure, the 1908 house, has been demolished along with several other structures. In the absence of any previous recommendations of the potential eligibility of this site as a historic property based on the criteria for inclusion in the CRHR, WSA recommends site P-07-00436 is not eligible for the CRHR on the basis of a lack of integrity.

P-07-000437

This site was also recorded in 1988 and no evaluation of the property's significance was given. The recorder noted, "The ranch complex was a working cattle ranch until the last few years. All the buildings have been modified through the years and some are in very poor condition." At that time, there were three structures: a 1923 house, a "collapsing" barn/shed, and a recent water tank and windmill. It was noted that the water tank and windmill may have been installed as recently as 1980. During this visit, only the water tank and windmill were relocated, and a modern windmill with a solar panel had been added to the site. While the site regains its integrity of location, the oldest and most important structure, the 1923 house, has been demolished along with the barn/shed. In the absence of any previous recommendations of the potential eligibility of this site as a historic property based on the criteria for inclusion in the CRHR, WSA recommends site P-07-00437 is not eligible for the CRHR on the basis of a lack of integrity.

7.0 Impact Assessment and Recommendations Regarding Discoveries during Construction

Although considered unlikely, excavation and grading may expose evidence of prehistoric or historic sites. Indicators of prehistoric site activity include shell fragments, charcoal, obsidian or chert flakes, grinding bowls, bone, and pockets of dark, friable soils. Historic resources include glass, metal, ceramics, wood and similar debris. Should any previously undiscovered historic or prehistoric resources be found during construction, work should stop, in accordance with CEQA/NEPA regulations, until such time that the resource can be evaluated by a qualified archaeologist and appropriate mitigative action taken as determined necessary by the City or County Lead Agency.

In the event that Native American human remains or funerary objects are discovered, the provisions of the California Health and Safety Code should be followed. Section 7050.5(b) of the California Health and Safety Code states:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission within 24 hours. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." A combination of preconstruction worker training and intermittent construction monitoring by a qualified archaeologist will serve to achieve compliance with this requirement for protection of human remains. Worker training typically instructs workers as to the potential for discovery of cultural or human remains, and both the need for proper and timely reporting of such finds, and the consequences of failure thereof.

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Appendix A

Figures



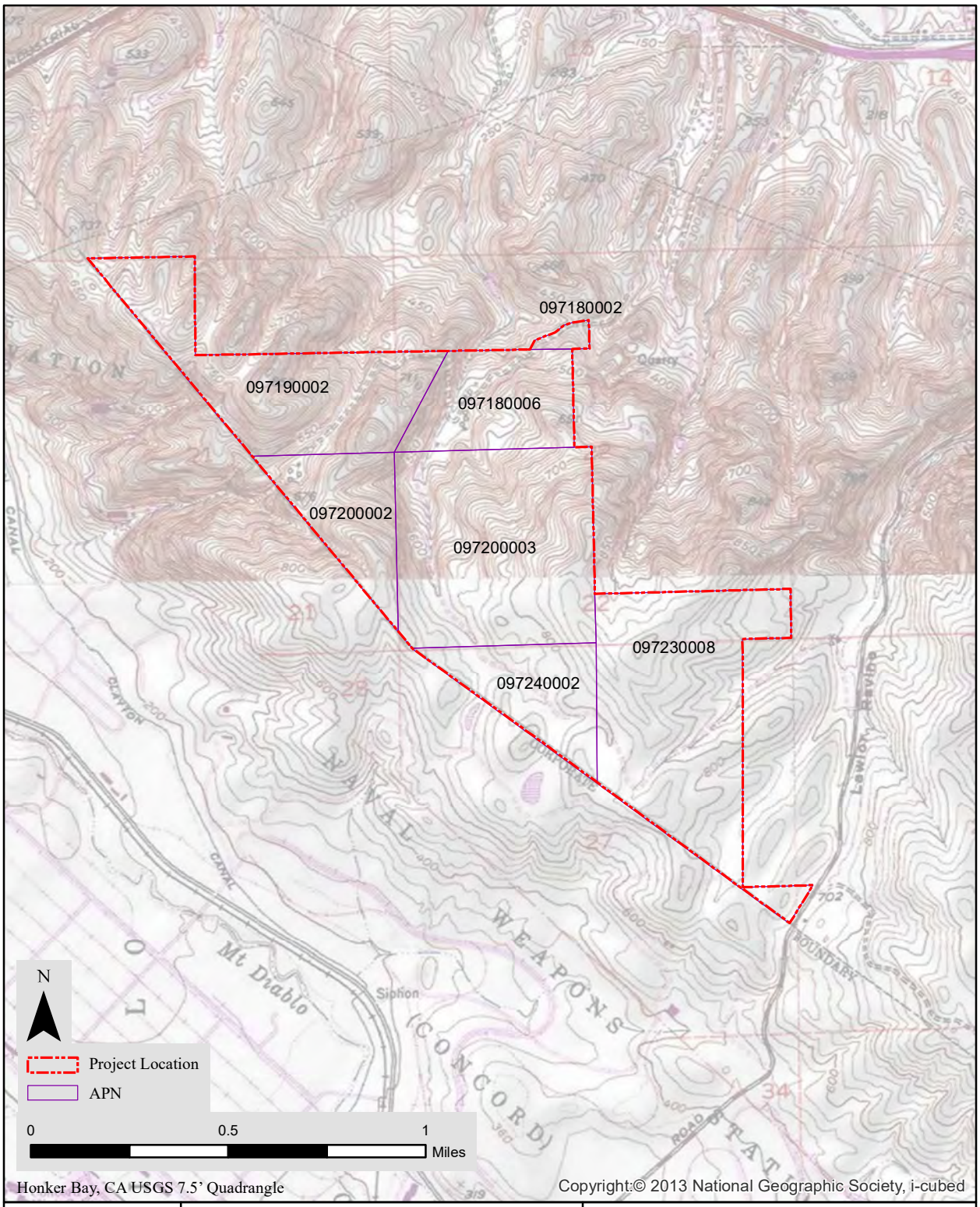
WSA

Project Vicinity Map

Figure 1
Raney Planning and Management
Faria/Southwest Hills Annexation Project
Contra Costa County, CA



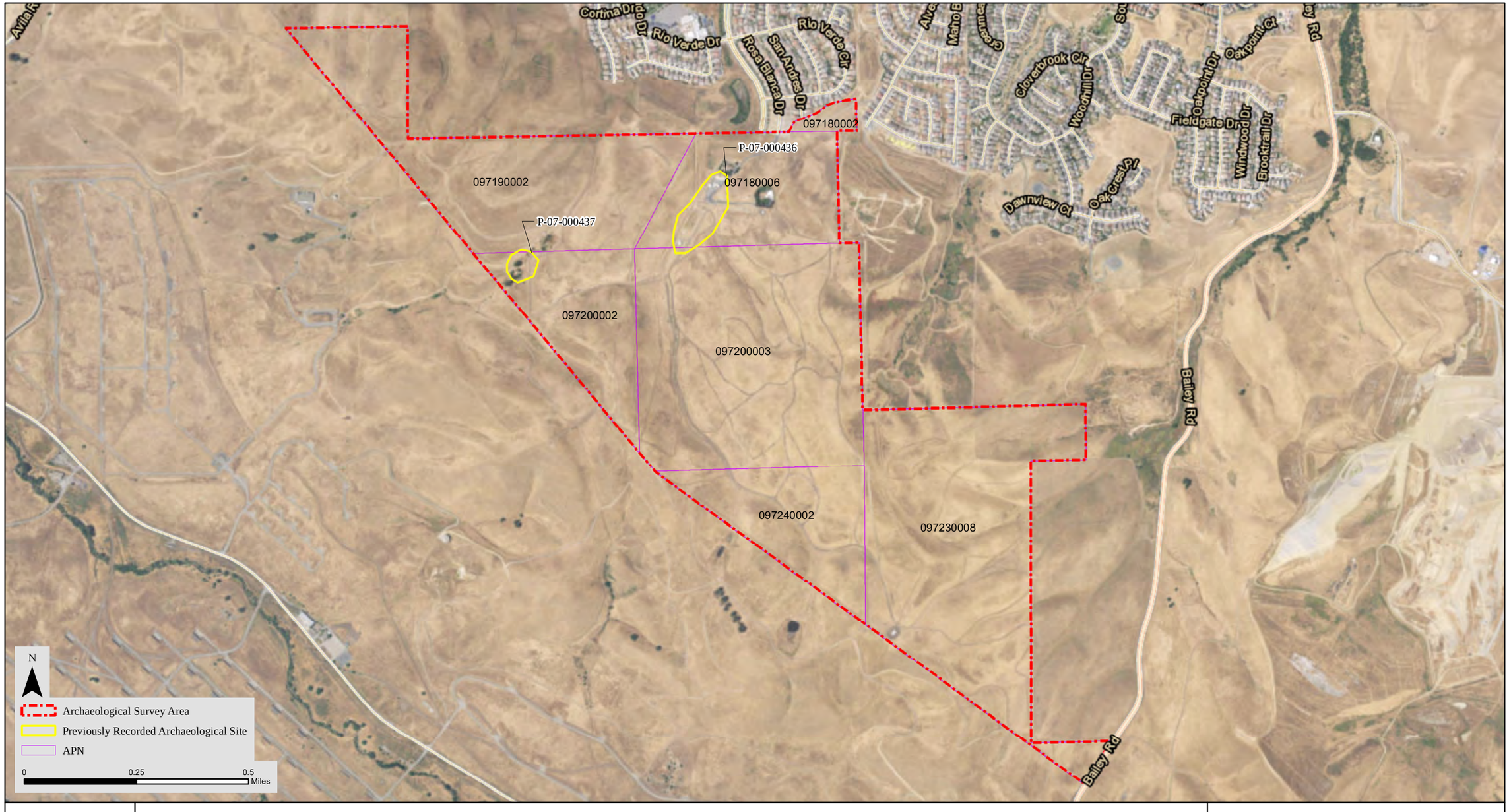
WSA	Project Area Map	Figure 2 Raney Planning and Management Faria/Southwest Hills Annexation Project Contra Costa County, CA



WSA

Project Location Map

Figure 3
Raney Planning and Management
Faria/Southwest Hills Annexation Project
Contra Costa County, CA



WSA

Archaeological Survey Results

Figure 4
Raney Planning and Management
Faria/Southwest Hills Annexation Project
Contra Costa County, CA

Appendix B

Native American Heritage Commission Correspondence

Faria/Southwest Hills Annexation Project
City of Pittsburg, CA

Table 1. Record of Native American Contacts and Comments.

Native American Contact	Date of Notification Letter (certified)	Date of Phone Contact	Comments	Date of Follow-Up Phone Contact	Comments
Mr. Raymond Hitchcock Wilton Rancheria 9728 Kent Street Elk Grove, CA 95624 (916) 683-6000	8/7/17	9/22/17	Left message	9/29/17	Left message
Irenne Zwierlein Amah Mutsin Tribal Band of Mission San Juan Bautista 789 Canada Road Woodside, CA 94602 (650) 851-7747 (650) 851-7489	8/7/17	9/22/17	Spoke to Michelle Zimmer (Irene's daughter), please give the crew archaeological sensitivity training and provide Native and archaeological monitors as needed	----------	----------
Katherine Erolinda Perez North Valley Yokuts Tribe P.O. Box 717 Linden, CA 95263 (209) 887-3415	8/7/17	9/22/17	No answer, no machine	9/29/17	No answer, no machine
Rosemary Cambra Muwekma Ohlone Indian Tribe of the SF Bay Area P.O. Box 360791 Milpitas, CA 95036 (408) 314-1898 (510) 581-5194	8/7/17	9/22/17	No answer, mailbox is full	9/29/17	No answer, mailbox is full (first number), tried second number, it is not in service
Andrew Galvan The Ohlone Indian Tribe P.O. Box 3152 Fremont, CA 94539 (510) 882-0527	8/7/17	9/22/17	Sent email per request	9/29/17	Sent email per request
Anne Marie Sayers Indian Canyon Mutsun Band of Costanoan P.O. Box 28 Hollister, CA 95024 (831) 637-4238	8/7/17	9/22/17	Left message	9/29/17	No answer, left message

Appendix C

Photographs



Photo 1: Overview NW, APN# 097190002.



Photo 2: Overview E, APN# 097190002.



Photo 3: Example of a soil profile as seen in a road cut.



Photo 4: Overview NE, APN# 097200002.



Photo 5: View SE, Windmill and water tank at site P-07-000437, modern windmill in background.



Photo 6: View SE, rock filled ravine SW of site P-07-000437.



Photo 7: Overview N, APN# 097200003 in foreground, APN# 097190002 in background.



Photo 8: Overview SE, APN# 097200003.



Photo 9: Overview SW, APN# 097240002.



Photo 10: Overview SE, APN# 097240002.



Photo 11: Overview NE, APN #097180002.



Photo 12: Overview W, APN# 097180006, SW half of Site P-07-000436 in middleground.



Photo 13: View SW, Hay barn at Site P-07-000436.



Photo 14: View NW, Pump house at Site P-07-000436.



Photo 15: View NE, Horse barn w/corral (left), Con-x containers (middle), Shed #5 (right), Machine Shed (behind Shed #5), Cow barn (background), Site P-07-000436.



Photo 16: View NW, corral between Hay barn and Cow barn, Site P-07-000436.



Photo 17: View NW, Cow barn, Site P-07-000436.



Photo 18: View SW, Machine Shed (middle), Shed #5 (background), Site P-07-000436.



Photo 19: View W, Alvin Faria House, Site P-07-000436.



Photo 20: View N, Elwin Faria House, Site P-07-000436.



Photo 21: Overview South, APN# 097230008, modern corral structure in middle background.



Photo 22: Overview S, APN# 097230008.

APPENDIX H

PRELIMINARY GEOLOGIC HAZARD AND GEOTECHNICAL REPORT

FARIA PROPERTY - 607 ACRES
PITTSBURG, CALIFORNIA



Submitted to:
Mr. Albert Seeno III
Discovery Builders, Inc.
4061 Port Chicago Highway, Suite H
Concord, CA 94520

Prepared by:
ENGEO Incorporated

May 20, 2013

Project No:
2705.280.005

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- Expect Excellence -

Project No.
2705.280.005

May 20, 2013

Mr. Albert Seeno III
Discovery Builders, Inc.
4061 Port Chicago Highway, Suite H
Concord, CA 94520

Subject: Faria Property (607 Acres)
Pittsburg, California

PRELIMINARY GEOLOGIC HAZARDS AND GEOTECHNICAL ENGINEERING REPORT

Dear Mr. Seeno:

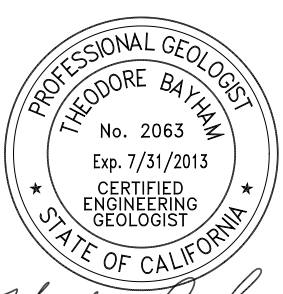
We prepared this preliminary geologic hazards and geotechnical report for the Faria Property (607 Acres), identified as Assessor's Parcel Numbers (APN) 097-180-002, 097-180-006, 097-190-002, 097-200-002, 097-200-003, 097-230-008, 097-240-002 and a portion of 097-210-012 on the Contra Costa County Assessor's Parcel Map, as outlined in our agreement dated March 21, 2013.

It is our opinion, from a geologic and geotechnical engineering standpoint, that future planned residential development at the 607-acre Faria Property is feasible provided, that geotechnical considerations are incorporated into planning and design. In some areas of the property, design level geotechnical studies have already been prepared, and these are considered suitable to use for planning and design provided that appropriate updates included. In other areas of the property where design level geotechnical studies have not previously completed, it is recommended that these be performed to provide data to develop, site-specific conclusions and recommendations related to grading, foundations, pavements, underground utilities, drainage, etc.

If you have any questions or comments regarding this report, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated





Siobhan O'Reilly-Shah
Project Engineer

Theodore P. Bayham, GE, CEG
Principal

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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this report is to provide a preliminary characterization of geologic and geotechnical engineering hazards at the property to be considered for future planned of development within the 607-acre Faria Property. This report presents preliminary conclusions and recommendations related to existing geologic and geotechnical conditions, site preparation and grading, stability of slopes, surface and subsurface drainage, preliminary foundations, preliminary pavements, etc. for land planning.

This report was prepared for the exclusive use of Discovery Builders, Inc. and this document shall not be reproduced in whole or in part, nor may it be quoted or excerpted without our express written consent.

1.2 SCOPE

Discovery Builders authorized us to conduct the proposed scope of services, which included the following:

- Geologic reconnaissance and preliminary mapping
- Review of aerial photographs
- Review of available reports
- Analysis and conclusions
- Report preparation

1.3 PROJECT LOCATION AND DESCRIPTION

The project site is located in Pittsburg, California, and is identified by Assessor's Parcel Numbers (APN) 097-180-002, 097-180-006, 097-190-002, 097-200-002, 097-200-003, 097-230-008, 097-240-002, and a portion of 097-210-012 on the Contra Costa County Assessor's Parcel Map. Figure 1 displays a Site Vicinity Map.

The project site is generally undeveloped and comprised of rounded hills, valleys and swales and is located about one mile south of State Highway 4, in Pittsburg, California. Site elevations range from approximately 400 to 850 feet above mean sea level (msl). The natural gradients of the existing slopes range from as steep as about 1½:1 (horizontal:vertical) to 5:1 or flatter. This site is currently undeveloped and used for open-grazing land, with several residential and farming buildings. The property is covered with grass and shrub vegetation.

We understand that the majority of this property is to be developed in the future with residential subdivision(s) including associated streets, underground utilities, and landscaping. Based on the existing topographic relief at the site, it is anticipated that site grading may include cuts and fills on the order of 50 feet or greater.

2.0 FINDINGS

2.1 AERIAL PHOTOGRAPH REVIEW

Black and white, stereo-paired, aerial photographs were examined for the purpose of observing natural landforms on the site. These photographs were of high resolution and good contrast so that geomorphic features could be studied. Aerial photographs were used in this exploration to aid in interpreting the relationships between landforms and the underlying bedrock, soil and geologic structures and to discern recent changes that may have occurred at the site. The photographs were also studied for the presence of terrain features characteristic of landslides and fault zones, such as linear discontinuities in rock or soil, offset water courses, scarps, topographic lows, lobate bulges or breaks in slope. Some evidence of landslides and no indications of faulting were seen on the photographs within this property.

2.2 PREVIOUS STUDIES

Design level geotechnical explorations have been previously performed by ENGEO Incorporated at portions of this property, namely San Marco Meadows, Bailey Estates and Ridge Farms. The previous study areas are identified on Figure 2. It is not anticipated that additional design level geotechnical explorations will be necessary in these areas, provided that development plans are consistent with those at the time of our exploration and also that necessary design updates related to time (such as building code updates, advances in geotechnical practice, etc.).

In addition to ENGEO's work, previous subsurface exploration was performed by Levine Fricke and Geomatrix for Geologic/Hydro-geologic characterization for previously contemplated Bay Pointe Sanitary Landfill project (October 1988). The scope of their study included subsurface borings, trenches, test pits, and seismic refraction surveys.

For this current study, we have reviewed in-house geotechnical reports and reports by others related to the site, as referenced. We have incorporated our findings into this preliminary geologic and geotechnical report as deemed appropriate.

2.3 SITE RECONNAISSANCE

The site topography consists of natural slopes surrounding low-lying valleys. The topographic information shows that elevations at the site range from approximately 400 feet above mean sea level (msl) to around 850 feet above msl. We observed the following site features during our reconnaissance on April 16, 2013.

- Numerous existing "dirt" fire trail roads extend throughout the undeveloped portions of the site.
- The site is covered by seasonal grasses and animal grazing was observed.
- Very few trees were observed on the site.

2.4 REGIONAL GEOLOGY

The Faria Property is situated regionally within the eastern part of the Coast Ranges Province. Regional Geology Maps are provided as Figures 3, 4 and 5 (Dibblee, 2006; Crane, 1995; Graymer, et al., 1994). The Coast Ranges Province is characterized by complex folding and faulting that has resulted in a series of northwest-trending mountain ranges and intervening valleys. Active faulting found in the Coast Ranges has developed in response to the relative motion between the North American and Pacific Tectonic Plates. Along the plate boundary, currently defined as the San Andreas Fault System, the Pacific Plate is moving northwestward relative to the North American Plate at a rate of approximately 1 to 3 cm/yr. Local faults such as the Concord and Greenville faults, which are located to the west and south, respectively, currently accommodate a portion of this motion within the crust adjacent to the plate boundary.

The project site is more locally located in the Los Medanos Hills, and the geology of this area has been strongly affected by the uplift of nearby Mt. Diablo. The bedrock units in this area consist of a sequence of sedimentary and minor volcanic rocks that have been tilted northward on the northern flank of the uplift.

2.5 LOCAL GEOLOGY

- *Residual Soil* – In the upland areas of the site, bedrock is capped with a relatively thin layer of residual soil, which develops essentially in-place from weathering of the underlying parent material. The residual soils consisted of dark brown to brown sandy clay. The residual soil cover ranges from about 2 to 5 feet thick over bedrock. Residual soils have moderate to high plasticity and these materials are considered moderately to highly expansive. Residual soils at the study area appear to consist predominately of dark brown to dark gray, silty or sandy clay.

- *Qaf* – Existing artificial fill is present as shown on Figure 2. The existing fills appear to be derived from on-site soils and bedrock materials. The depth of fill is not known but may range up to about 10 feet in thickness.

- *Qc* – Quaternary colluvium has been mapped along the base of slopes and within hollows or ravines as a result of soil creep and transportation by erosion. Colluvial deposits are typically compressible and weak. These deposits consist of dark grayish brown and mottled reddish brown and dark grayish brown sand with clay.

- *Qal* – Quaternary alluvium consists of relatively young sediments that are deposited by flowing water such as rivers or streams. Alluvium (Qal) has been mapped in the more prominent drainage courses on site. The alluvium at the project site consists of silty clay, sandy clay and clayey sand. These units varied from soft or loose to stiff and medium dense.

- *Qls* – Quaternary landslides were mapped by Dibblee (2006), Graymer (1994), and Nilsen (1975) in various areas of the project site (Figures 3, 5 and 6). Based on review of the published map, interpretation of aerial photographs and the findings of our exploration, we

identified several deep-seated bedrock block slides and shallow surficial slides as shown in Figure 2. Further exploration should be conducted to determine the extents of landsliding in this area.

- *Tmk* – The Eocene Markley Formation is the predominant bedrock unit encountered on the project site. This formation has been uplifted and tilted, and the beds generally dip northward at an approximate inclination ranging from 20 to 40 degrees. Rock types of this geologic unit consist predominantly of sandstone and siltstone beds with a distinctive component of mica; minor interbedded claystone and shale are present within the sandstone.

- *Tsp* – The Miocene San Pablo Formation was encountered in the northeastern area of the San Marco Meadows portion of the project site. The San Pablo consists of fine- to medium-grained, marine sandstone with local fossil beds and tuffaceous lenses

2.6 FAULTING

No active faults are mapped at the project site. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. Crane (1988) and Graymer (1994) map several small, local faults mapped within the bedrock units at the site. These smaller, local faults and fault related shears are not generally considered capable of generating an earthquake. An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 11,000 years) (Hart, 1997). Numerous small earthquakes occur every year in the San Francisco Bay Region and larger earthquakes have been recorded and can be expected to occur in the future. The nearest active fault to the site is the Concord fault, located about 5 miles to the west and the Hayward fault is located about 17 miles to the west. Small, local faults mapped within the site bedrock

The United States Geologic Survey evaluated the Bay Area seismicity through a study by the Working Group on California Earthquake Probabilities (WGCEP, 2007). WGCEP estimated that there is a 31 percent probability that a moment magnitude (M_w) of 6.7 or greater earthquake will occur on the Hayward fault within 30 years of the publish date (2007 – 2037). Likewise, WGCEP estimates a 63 percent probability of a similarly sized earthquake in the San Francisco Bay Area, as a whole, in this same timeframe.

3.0 FINDINGS

Based upon our findings, it is our opinion, from a geotechnical standpoint, that the proposed development is feasible. It is our preliminary assessment that the main geotechnical considerations for the proposed development include geologic hazards, cut and fill slope stability, compressible soils, expansive soils, existing undocumented fills, excavation characteristics of bedrock formations, site preparation and grading, suitable foundation types, potential seismic hazards, and site drainage.

Where previous design level studies have not been performed, we recommend that site specific geotechnical explorations be performed. The site specific studies shall include borings,

exploratory test pits, laboratory soil, etc. in order to provide data for preparation of specific recommendations regarding lot grading, foundation design, pavement, underground utilities, and drainage for the proposed development. The detailed evaluations of the geotechnical issues should consider design measures and mitigation of potential geotechnical/geological hazards.

3.1 LANDSLIDES AND SLOPE STABILITY

The risk of instability of the identified landslides at the site is generally considered high and will need to be considered in the design documents. Based on our preliminary reconnaissance and geologic mapping, Figure 2 summarizes areas believe to be underlain by potential landslides (both shallow and deep-seated bedrock slides).

Shallower, surficial landslides typically consist of rock fragments and soil, and may be approximately 10 to 20 feet deep throughout the surrounding hills of the project site. Within the project site and affecting the southern portion of the site, deep-seated bedrock landslides typically consist of large rock masses or blocks that displaced along an irregular shear surface, and may be approximately 20 to 100 feet deep.

To mitigate landslide and other areas of slope instability, many factors should be considered in planning, including the size and type of landsliding and risk to planned development. In areas where significant portions of these deposits lie beyond the anticipated planned areas of development, an alternate approach is to construct a toe buttress fill and debris bench. In this case, the debris bench should be of sufficient width to act as a run-out or catchment area for potential upslope debris.

Colluvial soil deposits mapped along the side slopes may be subject to instability in slopes. Although slope instability can be a potential hazard, it can also generally be mitigated by proper grading. Recommendations for maximum slope gradients, slope rebuilding and construction of debris benches between rear property lines and open space slopes are provided in the recommendations section of this report. Subsurface exploration should be performed during future geotechnical exploration to characterize the site and define landslides at the project site.

3.2 COMPRESSIBLE SOIL

Colluvial, residual soil and soft alluvial deposits are susceptibility to excessive total and differential settlement. To reduce settlement resulting from these deposits, it is recommended that the soft, compressible portions of these deposits be overexcavated, removed and replaced with engineered fill material. It is anticipated that these deposits may be reused as fill material.

3.3 BEDROCK SUITABILITY AND RIPPABILITY

Based on the previous explorations at the project site, it is our preliminary opinion that bedrock should be rippable with conventional heavy equipment, such as a Bulldozer D-9 or larger. Because of the bedded nature of the rock, some harder layers are expected to be encountered

within the bedrock formations. Trenching for utilities should also be possible for most of the site with conventional equipment, again with localized areas of harder bedrock.

In general, all soil and bedrock materials observed on the site appear suitable for use as engineered fill, if properly processed. The placement requirements of the rocks are discussed in the "Selection of Materials" section.

3.4 EXISTING UNDOCUMENTED FILLS

Undocumented fills are susceptible to excessive total and differential settlement. If existing fills are encountered the risk of settlement can be reduced if these are completely removed and replaced with engineered fill. If undocumented fills do not contain debris or deleterious materials, it may be acceptable to leave a portion of the existing fills in place; however, for those areas not deemed suitable, the fill should be removed to expose native soils and replaced as engineered fill free of deleterious debris and organics. Subsurface exploration should be performed during design level studies to further characterize the site and define extent and depth of existing undocumented fills.

3.5 EXPANSIVE SOILS

Expansive soils will shrink and swell as a result of moisture changes. This can cause heaving and cracking of slabs-on-grade, pavements, and structures. Building damage due to volume changes associated with expansive soils can be reduced by deepening the foundations to below the zone of moisture fluctuation with deep foundations, or by using mat foundations that are designed to resist the deflections associated with the expansive soil. Preliminary recommendations that address the potentially expansive nature of the site soils are provided in subsequent sections of this report. Actual sampling and testing of the site soils to determine their expansion potential will occur during design-level studies.

3.6 CORROSIVITY

Existing soils and bedrock materials should be characterized for corrosivity characteristics. Such characterization should include sulfate testing, which is used to determine if sulfate-resistant concrete is needed for foundation construction, based on the criteria presented in Table 4.3.2 of the 2010 California Building Code (CBC). Sulfate testing should be performed in the future prior to utility installation and foundation construction and may be performed during our detailed exploration(s).

3.7 SEISMIC HAZARDS

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking and ground lurching. The following sections present a discussion of these hazards as they apply to the site. Based on

topographic and lithologic data, the risk of regional subsidence or uplift, soil liquefaction, lateral spreading, tsunamis, flooding or seiches is considered low to negligible at the site.

3.7.1 Ground Surface Rupture

Since there are no known active faults crossing the property and the site is not located within an Earthquake Fault Special Study Zone, it is our opinion that ground rupture is unlikely at the subject property; however, Crane (1995) and Graymer (1994) map several faults crossing the project site (Figures 4 and 5). Further exploration may be necessary to characterize the existence and activity of these faults at the site.

3.7.2 Ground Shaking

An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the site, similar to that which has occurred in the past. To mitigate the shaking effects, all structures should be designed using sound engineering judgment and the 2010 California Building Code (CBC) requirements, as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

3.7.3 Liquefaction

Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, fine-grained sands. Based on the USGS Liquefaction Susceptibility Map (2006), the site is mapped within an area classified as having a “low” susceptibility to liquefaction. This liquefaction susceptibility mapping is based on regional geologic mapping of soil and rock deposits and is not based on site-specific exploration or analyses, subsurface exploration of the soils at the site should be conducted in the design-level study.

3.7.4 Lateral Spreading

Lateral spreading is a failure within a nearly horizontal soil zone (possibly due to liquefaction) that causes the overlying soil mass to move toward a free face or down a gentle slope. Lateral spreading at the site is unlikely since the site soils are not considered to be susceptible to

liquefaction. Design-level exploration should perform soil borings and/or cone penetration test soundings to evaluate potential for liquefaction and lateral spreading.

3.7.5 Ground Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form in weaker soils. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Such an occurrence is possible at the site as in other locations in the Bay Area region, but based on the site location, it is our opinion that the offset is expected to be nominal.

3.7.6 Flooding

Based on site elevation and distance from water sources, flooding is not expected at the subject site; however, the Civil Engineer should review pertinent information relating to possible flood levels for the subject site based on final pad elevations and provide appropriate design measures for development of the project, if necessary.

3.7.7 Seismically Induced Landsliding

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of this hazard is greatest in the late winter when groundwater levels are highest and hillside colluvium is saturated. As with all slopes in the region, this risk is also present at the site to varying degrees depending on the slope conditions and time of year. The hazard of seismically-induced landslides to the proposed structures can be best mitigated by properly engineered stabilization of landslides and removal of colluvial deposits. As noted above, we recommend further exploration of these areas of potential instability. With corrective grading, the risks associated with seismically induced landsliding affecting the proposed development are low.

4.0 PRELIMINARY RECOMMENDATIONS

The following recommendations are for initial land planning and preliminary estimating purposes. Design-level recommendations regarding site grading and foundation construction for residential will be provided once final land plans are available and site-specific design level geotechnical studies undertaken.

4.1 SITE PREPARATION AND GRADING

Site grading should comply with the recommendations presented herein, recommendations in design level geotechnical reports and the specifications of the City of Pittsburg Grading Code.

4.1.1 Clearing and Stripping

Site development should commence with the removal of the existing structures, vegetation, pavements and any other improvements, as well as excavation and removal of buried structures including utilities and foundations. Tree roots, as applicable, should be removed to a depth of at least 3 feet below original grades.

With the exception of construction debris (wood, brick, asphalt, concrete, metal, etc.), trees, organically contaminated materials (soil which contains more than 3 percent organic content by weight), and environmentally-impacted soils (if any), we anticipate the site soils are suitable for use as engineered fill. Other materials and debris, including trees with their root balls, should be removed from the project site. The organically contaminated materials should not be used in proposed building pads or pavement areas. The organics should be stripped and stockpiled and may be used in landscape areas or off hauled. Any debris found within any areas to be graded should be removed.

4.1.2 Swell/Settlement Related to Deep Fill

Deep fills are anticipated in the valley areas at the project site. As the fills eventually become wetted from irrigation and rainfall, which may occur over a long period of time, additional movements of the fill may result due to the effects of hydro-expansion/compression. Selective grading techniques will likely be necessary during mass grading to reduce the impact of swell/settlement for the proposed development. The magnitude and depth of swell is dependent on many factors including the clay component of the fill, in-place fill density, moisture content, surcharge loads, etc. We recommend that these factors be investigated during the design level study.

4.1.3 Oversized Rock Placement

The following specifications for oversized rock materials within the fill should be considered in planning for site grading.

1. The rock should be placed in the deeper fills. No rock fragments larger than 6 inches in diameter shall be placed in the upper 10 feet of finished grade.

2. The rock size to be placed in the engineered fill below 10 feet should not exceed 18 inches in any dimension. Larger rock sizes should be broken mechanically either by the heavy bulldozers rolling on them or by a pneumatic hammer mounted on a backhoe.

3. The rock should be spread and mixed with fines and should not be allowed to nest. Engineered fills consisting of rock fragments only are not allowed. The rock should be mixed with fines at a ratio of 1 to 10, or one load of rock fragments to 10 loads of fines.

4. If it is desired to place the rock as an engineered fill in the upper 10 feet of finished grade, the rock fragments must be broken to 6 inches in size.

4.1.4 Import Materials

The Geotechnical Engineer should be informed if any importation of soil is contemplated. Import materials should meet requirements defined in design-level geotechnical studies for this project.

4.1.5 Toe Keyways

Mass grading should begin with construction of toe keys and subdrains. All fills should be adequately keyed into firm natural materials unaffected by shrinkage cracks. Recommended keyway sizes and locations will be determined by the Geotechnical Engineer and will be approximately shown in the final grading plans. Additionally, where fills are placed along slopes, subexcavated benches should be planned above toe keys as filling progresses. The actual size of the keyways will be determined by the Geotechnical Engineer during plan review and supplemental recommendations provided during grading. Toe keyways should also be used along where debris benches are recommended in design-level geotechnical studies.

4.1.6 Subsurface Drainage Facilities

For planning, the use of subsurface drainage systems should be considered within keyways and along swales or natural drainage ways that are to be filled. The approximate locations of the recommended subdrains should be included on the final 40-scale grading plans. Additional subdrains should be added where seepage or wet conditions are encountered during excavations.

4.1.7 Graded Slopes

For preliminary planning, graded cut and fill slopes over 15 feet in vertical height should be no steeper than 3:1 (horizontal:vertical). Cut and fill slopes up to 15 feet in vertical height may be constructed at slope gradients no steeper than 2:1.

Graded cut and fill slopes exceeding 30 feet in height may be provided with intermediate benches on the slope surface spaced no greater than 30 feet vertically. Benches should be at least at 8 feet wide with a concrete-lined J or V-ditch to intercept surface runoff.

All cut slopes should be viewed by the Engineering Geologist for unsuspected slope conditions that might be detrimental to slope stability. Such conditions may include adverse rock and seepage conditions. If such conditions are encountered, additional recommendations for mitigation will be provided. All cut slopes should be viewed by the Engineering Geologist for adverse bedding, seepage, or bedrock conditions that may affect slope stability. In the event that adverse geologic conditions are detected during grading of the cut slopes, overexcavation and reconstruction of these slopes may be necessary.

4.1.8 Debris Benches

For planning purposes, major cut or natural slopes immediately adjacent to the development may require construction of debris benches. These should consist of a drained keyway excavated into firm bedrock and a buttress fill with a debris bench. The outboard side of the debris bench should be provided with a concrete V-ditch discharging to an approved outlet. A minimum debris bench width of 20 feet should be planned between the toe of cut slopes and the future structures. It should be noted, however, that if this stabilization scheme is employed, slope debris is likely to encroach at times onto catchment areas. All debris benches will require periodic maintenance, consisting of the removal and disposal of accumulated slope detritus. Proper access should be provided for the heavy equipment that may be required for removal of slide debris from benches.

4.1.9 Differential Fill Thickness

Depending upon planned cuts, differential fill thickness conditions could possibly arise, such as where localized subexcavations may be required. Due to the age of the structures present at the site, it is our experience that septic systems may be present and possibly other underground facilities. Where subexcavation activities create a differential fill thickness across a building footprint, mitigation to achieve a similar fill thickness across the pad is beneficial for the performance of the foundation. From a preliminary standpoint, we recommend that a differential fill thickness of up to 10 feet be maintained across a building pad. For a differential fill thickness exceeding 10 feet across an individual pad, we recommend performing subexcavation activities to bring this vertical distance to within the 5-foot tolerance and that the material be replaced as engineered fill.

4.1.10 Cut-Fill Transition Lots, and Cut Lots

Some lots for the project will likely be entirely in cut or traversed by a cut-fill transition. It should be considered that significant variations in material properties may occur in areas of cut or cut-and-fill daylighting if not mitigated during site grading. Such situations may have deleterious effects on building performance if not mitigated. This condition may be mitigated by performing “transition” cut/fill lot treatment, such as subexcavating the cut portion of the lots and replacing the subexcavated area with engineered fill. For preliminary planning, the depth of subexcavation and reworking should consider 3 feet for cut-to-fill lots, and 2 feet for cut lots.

4.2 PRELIMINARY FOUNDATION CONSIDERATIONS

In general, foundations should be sufficiently stiff to move as rigid units with minimum differential movements. This may be accomplished by construction of relatively rigid mat foundations, such as post-tensioned or conventionally reinforced structural mats.

4.3 SLABS-ON-GRADE CONSTRUCTION

Secondary slabs include exterior porch and patio slabs, walkways, driveways and steps. Secondary slabs-on-grade should have a minimum thickness of 4 inches and should be underlain by a 4-inch-thick layer of clean crushed rock or gravel. The actual slab reinforcement should be designed by the Structural Engineer. In our experience, welded wire mesh may not be sufficient to control slab cracking.

Where slab-on-grade construction is anticipated, care must be exercised in attaining a near-saturation condition of the subgrade soil before concrete placement. Secondary slabs-on-grade should be designed specifically for their intended use and loading requirements. Some of the site soils may have high expansion potential; therefore, cracking of the slabs should be expected. Frequent control joints should be provided during slab construction for control of cracking.

4.4 PRELIMINARY PAVEMENT DESIGN

Based on the soil conditions observed, we have assumed a Resistance Value (R-value) of 5 in calculating pavement sections based on assumed Traffic Indices utilizing the methods contained in Topic 608 of Highway Design Manual by CALTRANS.

TABLE 4.4-1
Preliminary Asphalt Concrete Pavement Sections

	Section	
Traffic Index	**Asphalt Concrete (inches)**	**Class 2 Aggregate Base (inches)**
5	3	10
6	3½	13
7	4	16
8	5	18
9	5.5	21

The appropriate traffic indices should be determined by the Civil Engineer or appropriate public agency. These sections are for estimating purposes only. Actual sections to be used should be based on R-value tests performed on samples of actual subgrade materials recovered at the time of grading. Pavement construction and all materials should comply with the requirements of the Standard Specifications of the State of California Division of Highways, and the City of Pittsburg requirements.

4.5 SURFACE AND FOUNDATION DRAINAGE

Building pads must be positively graded at all times to provide for rapid removal of surface water runoff from the foundation systems, and to prevent ponding of water under floors or seepage toward the foundation systems at any time during or after construction. Ponded water will cause undesirable soil swell and loss of strength. As a minimum requirement, finished grades should

have slopes of at least 5 percent within 10 feet from building exteriors and at right angles to allow surface water to drain positively away from the structures. For paved areas, the slope gradient can be reduced to 2 percent.

All surface water should be collected and discharged into outlets approved by the civil engineer. Landscape mounds must not interfere with this requirement. In addition, each building should drain individually by providing positive drainage or sufficient area drains around the buildings to remove excessive surface water. All roof stormwater should be collected and directed to downspouts. Unless an engineered system is designed, the site soils encountered are not expected to have adequate permeability values to handle storm water infiltration.

5.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This letter presents our preliminary geotechnical findings for planning for the Faria property in Pittsburg, California. Design-level geotechnical studies should be performed to determine design parameters associated with development of the site. This report is issued with the understanding that it is the responsibility of the owner to transmit the information and recommendations of this report to developers, owners, buyers, architects, engineers, and designers for the project so that the necessary steps can be taken by the contractors and subcontractors to carry out such recommendations in the field. The conclusions and recommendations contained in this report are solely professional opinions.

The professional staff of ENGEO Incorporated strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. There are risks of earth movement and property damages inherent in land development. We are unable to eliminate all risks or provide insurance; therefore, we are unable to guarantee or warrant the results of our work.

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FIGURES

Figure 1 - Vicinity Map
Figure 2 - Preliminary Geologic Map
Figure 3 - Regional Geologic Map - Dibblee
Figure 4 - Regional Geologic Map - Crane
Figure 5 - Regional Geologic Map - Graymer
Figure 6 – Regional Landslide Map - Nilsen

FIGURES



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N

0 MILES 1
0 KILOMETERS 2

BASE MAP SOURCE: GOOGLE EARTH PRO

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VICINITY MAP
FARIA PROPERTY
PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 1
SCALE: AS SHOWN		
DRAWN BY: DLB	CHECKED BY: TB	

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ORIGINAL FIGURE PRINTED IN COLOR

PREVIOUS REPORT
RIDGE FARMS 2
5453.2.001.02
JUNE 10, 2002

PREVIOUS REPORT
SAN MARCO MEADOWS
2705.1.600.01
JANUARY 31, 2002

PREVIOUS REPORT
BAILEY ESTATES
5206.1.003.01
NOVEMBER 8, 2004

PREVIOUS REPORT
BAILEY ESTATES
5206.1.003.01
NOVEMBER 8, 2004

N

0 FEET 400
0 METERS 200

EXPLANATION

Qaf	ARTIFICIAL FILL
Qc	COLLUVIUM
Tkm	MARKLEY FORMATION
Tsp	SAN PABLO GROUP
Qls	LANDSLIDE, SHALLOW, SHOWING DIRECTION OF FLOW
Qlsa	LANDSLIDE, DEEP, SHOWING DIRECTION OF FLOW
Df	DEBRIS FLOW
	STRIKE AND DIP OF BEDDING, INCLINED
	STRIKE AND DIP OF BEDDING, JOINT

BASE MAP SOURCE: UNKNOWN

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PRELIMINARY GEOLOGY MAP
FARIA PROPERTY
PITTSBURG, CALIFORNIA

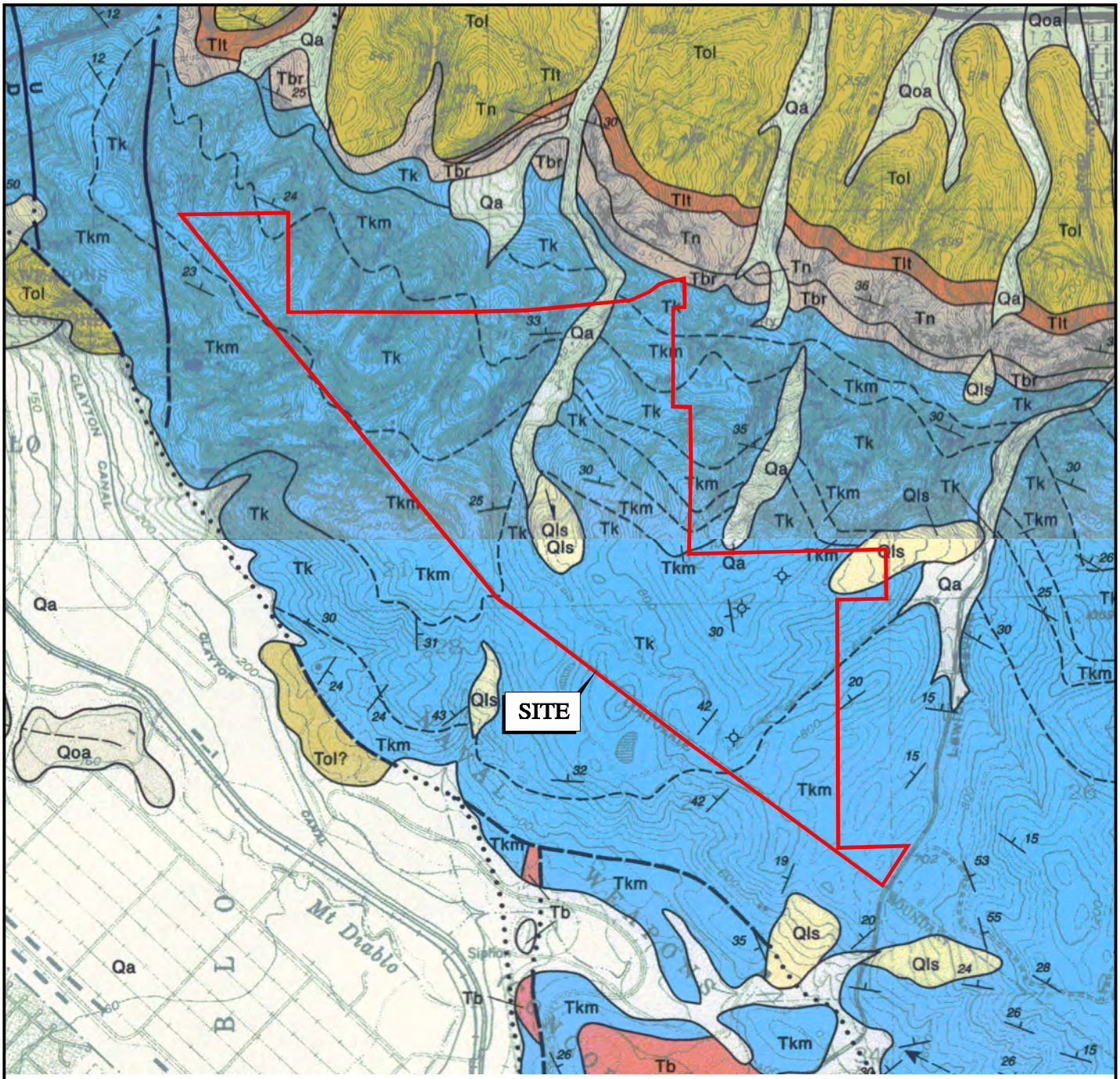
PROJECT NO.: 2705.280.005
SCALE: AS SHOWN
DRAWN BY: DLB CHECKED BY: TB

FIGURE NO.
2

ORIGINAL FIGURE PRINTED IN COLOR

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EXPLANATION

GEOLOGIC CONTACT-DASHED WHERE GRADATIONAL OR APPROXIMATELY LOCATED

FAULT-DASHED WHERE INFERRED, DOTTED WHERE CONCEALED, QUERIED WHERE EXISTENCE IS DOUBTFUL. SAWTEETH ARE ON UPPER PLATE OF LOW ANGLE THRUST FAULT

STRIKE AND DIP OF STRATA, INCLINED

Qa	ALLUVIUM GRAVEL
Qls	LANDSLIDE RUBBLE
Qoa	OLDER SURFICIAL DEPOSITS
Tol	PEBBLE CONGLOMERATE
Tlt	LAWLOR TUFF
Tb	BASALT
Tn	NEROLY FORMATION
Tbr	SANDSTONE
Tk	SHALE MEMBER
Tkm	MARKLEY SANDSTONE MEMBER

N

0 FEET 2000

0 METERS 1000

BASE MAP SOURCE: DIBBLEE, 2006

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REGIONAL GEOLOGIC MAP - DIBBLEE

FARIA PROPERTY

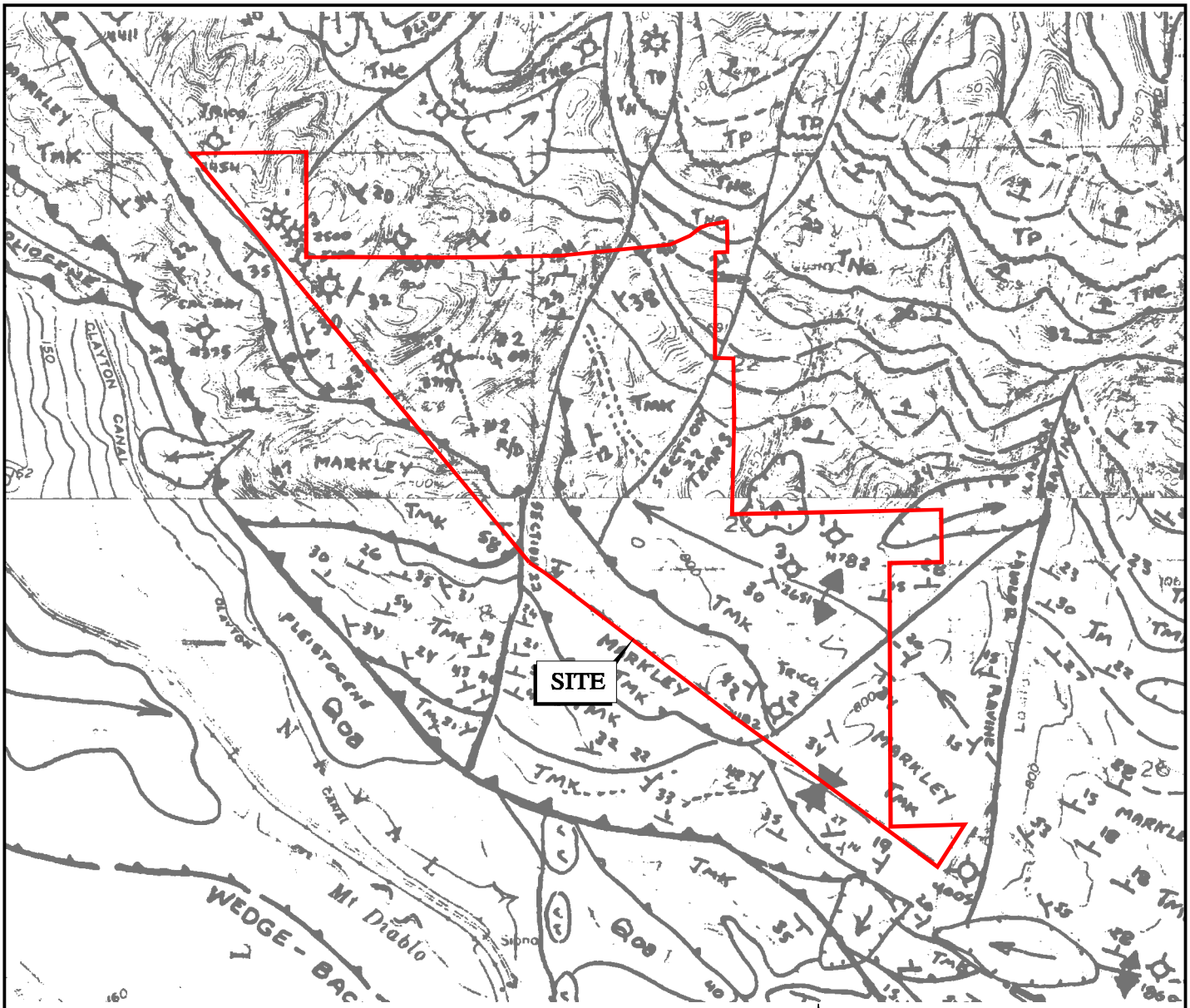
PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 3
SCALE: AS SHOWN		
DRAWN BY: DLB	CHECKED BY: TB	

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ORIGINAL FIGURE PRINTED IN COLOR

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EXPLANATION

Qoa — OLDER ALLUVIUM	ANTICLINE
Tp — PLIOCENE	SYNCLINE
Tne — NEROLY FORMATION	OVERTURNED ANTICLINE
Tmk — MARKLEY	OVERTURNED SYNCLINE
GEOLOGIC CONTACT (APPROXIMATE)	STRIKE AND DIP OF BEDDING
RESISTANT BEDDING	STRIKE AND DIRECTION OF DIP
FAULT	STRIKE AND DIP OF OVERTURNED BEDDING
THRUST FAULT, SAWTEETH ON UPPER PLATE	HORIZONTAL BEDDING SHOWNING TREND OF LINEATION

BASE MAP SOURCE: CRANE, 1988

ENGEO Expect Excellence

REGIONAL GEOLOGIC MAP - CRANE

FARIA PROPERTY

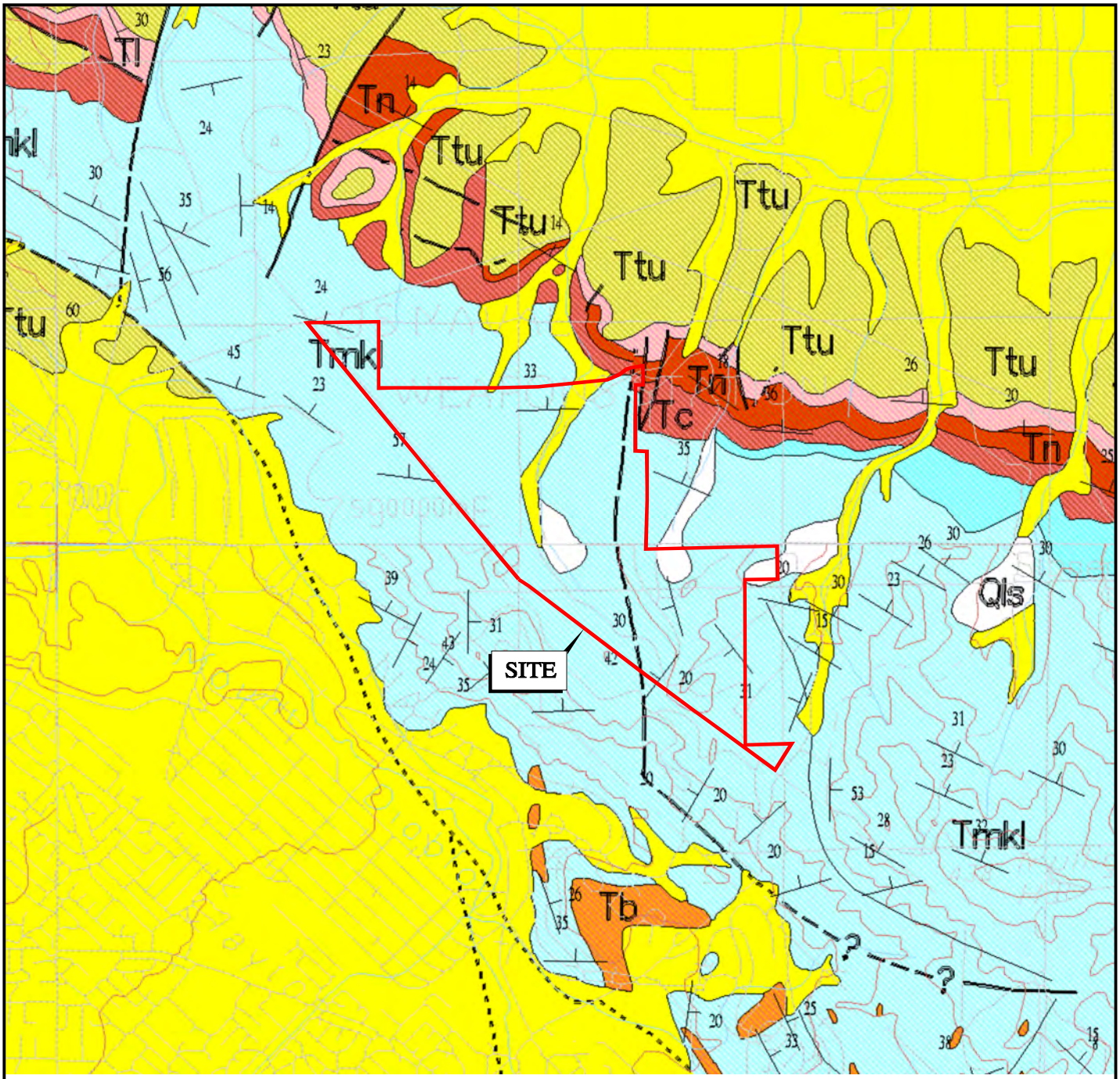
PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 4
SCALE: AS SHOWN		
DRAWN BY: DLB	CHECKED BY: TB	

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N

0 FEET 3000

0 METERS 1500

EXPLANATION

GEOLOGIC CONTACT-DASHED WHERE GRADATIONAL OR APPROXIMATELY LOCATED

FAULT-DASHED WHERE INFERRED, DOTTED WHERE CONCEALED, QUERIED WHERE EXISTENCE IS DOUBTFUL. SAWTEETH ARE ON UPPER PLATE OF LOW ANGLE THRUST FAULT

STRIKE AND DIP OF STRATA, INCLINED

Tb	BASALTIC INTRUSIVE ROCKS
Ttu	TULARE FORMATION
Tn	NEROLY SANDSTONE
Tc	CIERBO SANDSTONE
Tmk	MARKLEY FORMATION
Tmkl	MARKLEY FORMATION LOWER MEMBER

BASE MAP SOURCE: GRAYMER, 1994

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REGIONAL GEOLOGIC MAP - GRAYMER

FARIA PROPERTY

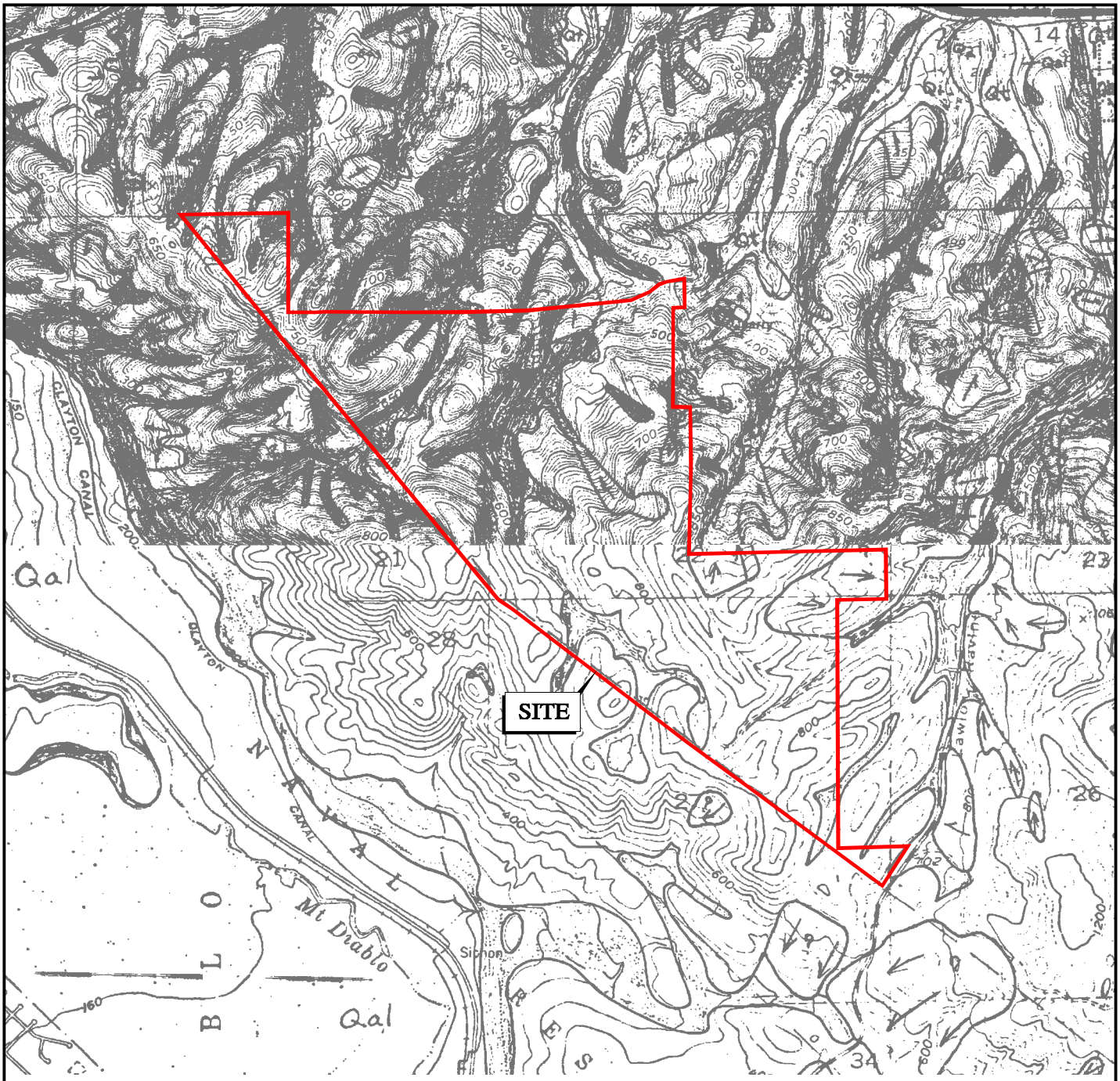
PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 5
SCALE: AS SHOWN		
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N

0 FEET 2000

0 METERS 1000

EXPLANATION

- LANDSLIDE DEPOSIT. ARROWS INDICATE GENERAL DIRECTION OF DOWNSLOPE MOVEMENT. QUERIED WHERE UNCERTAIN
- Qal — ALLUVIAL DEPOSIT
- Qt — ALLUVIAL TERRACE DEPOSIT. QUERIED WHERE UNCERTAIN
- COLLUVIAL DEPOSIT AND/OR SMALL ALLUVIAL FAN DEPOSIT
- BEDROCK. QUERIED WHERE IDENTIFICATION UNCERTAIN

BASE MAP SOURCE: NILSEN, 1975

ENGEO Expect Excellence

REGIONAL LANDSLIDE MAP - NILSEN

FARIA PROPERTY

PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 6
SCALE: AS SHOWN		
DRAWN BY: DLB	CHECKED BY: TB	

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Preliminary Geotechnical Technical Peer Review for the Planned Faria Residential Development in Pittsburg, California

Prepared By:
Kleinfelder

January 24, 2018
Project No. 00114812.000A

Mr. Fritz McKinley
City of Pittsburg
Public Works Director/City Engineer
65 Civic Avenue
Pittsburg, California 94565
fmckinley@ci.pittsburg.ca.us

SUBJECT: Preliminary Geotechnical Technical Peer Review for the Planned Faria Residential Development in Pittsburg, California

Dear Mr. McKinley:

In accordance with your request, we have performed a preliminary peer review of available documents that you have provided to us and which pertain to the planned Faria residential development in Pittsburg, California.

SITE LOCATION AND PROJECT DESCRIPTION

The proposed residential development is planned along the north-facing slopes of southwest Pittsburg, approximately a mile to the south of State Highway 4. The project site is mostly vacant and is currently being used for cattle grazing although some residential structures exist in valley areas. The 607-acre property abuts the existing San Marco and Vista Del Mar subdivisions along their south sides and Bailey Estates development along its western side. It will also have associated street, buried utilities and landscape areas in addition to the residential lots. The site is mostly occupied by hilly terrain and rounded topography that is blanketed with wild grasses.

GEOLOGIC SETTING AND PRIMARY GEOTECHNICAL ISSUES

The hilly portion of the site is generally underlain by Tertiary sandstone and clay shale belonging to Markley and Kirker Formations while valley areas contain alluvial soils. Several large-scale landslides have been mapped within the site limits.

AVAILABLE PROJECT DOCUMENTATION

We reviewed the following documents, provided to us by the City of Pittsburg (City), as part of our current review:

- *Preliminary Geologic Hazard and Geotechnical Report, Faria Property – 607 Parcels, Pittsburg, California,* Prepared by ENGEO, Inc. and dated May 20, 2013, Project No. 2705.280.005.

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- *Chapter 4.6 of the Environmental Impact Report Titled Geology, Soils, and Seismicity,* 24 pages, undated.
- *Site Development Map, Faria Exhibit,* prepared by Isakson and Associates, Inc. and dated September 2017.
- *Faria SW Hills, Master Plan,* Prepared by Isakson and Associates and dated December 2017.

Our review was limited to the documents listed above. We have not been provided with civil or remedial grading plans at this time and no design-level geotechnical engineering report has been presented to us for review.

REVIEW COMMENTS

1. It is important to understand that the ENGEO report dated May 20, 2013 is a geologic feasibility and preliminary geotechnical study and not a design-level engineering geologic/geotechnical engineering study. This preliminary study did not include subsurface exploration or detailed characterization of large-scale landslides. We anticipate that a design-level engineering geologic/geotechnical report will be prepared for the site. The report should include a subsurface exploration program to characterize the identified adverse engineering geologic and geotechnical engineering conditions at the site and to provide measures for mitigating such hazards in addition to presenting recommendations for grading, foundations, and drainage. However, since the development is still at the EIR stage of planning, the design-level geotechnical engineering study and grading plans may be submitted for peer review at later stages of development.

2. We recommend that a design-level geotechnical engineering study for the planned development include the following and address their mitigation measures:

    - The magnitude of remedial grading needed for the site;
    - Construction of high cut slopes and relatively deep fills;
    - Adverse bedrock bedding;
    - Large-scale landslide characterization and remediation;
    - Proximity of site to existing graded parcels;
    - The potential presence of artificial, undocumented fills;
    - The potential presence of compressible alluvial soils;
    - The liquefaction potential within alluvial-filled valley areas;
    - The presence of expansive and corrosive soils;
    - Settlement and deflection of deep fills;
    - Erosion of high cut slopes and fill slopes; and
    - Ground shaking.

3. The latest development Master Plan delineates a 150-foot wide buffer zone along the Pittsburg-Concord Ridgeline in addition to identifying three zones:

    a. Undeveloped Area, 267.2 Acres, colored light green;
    b. Area of Development, 207.4 Acres, colored dark pink; and
    c. Area of Development, 131.7 Acres, colored light pink.

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The plan also shows gray-colored swaths/zones separating the undeveloped and developed areas identified above although no explanation is provided for these gray zones in the map's General Notes. These zones should be identified on the map.

LIMITATIONS

This review has been performed at the request of the City of Pittsburg. Our role has been to provide technical advice to assist the City in its discretionary permit decisions. Our services have been limited to the review of the documents identified in this letter. We have employed accepted engineering geologic and geotechnical engineering procedures, and our professional opinions and conclusions are made in accordance with generally accepted engineering geologic and geotechnical engineering principles and practices that exist in the San Francisco Bay Area at the time this letter was written. No other warranty is expressed or implied. Our review did not include any independent field explorations or analysis. In addition, our review did not include checking of the documents for conformance with state or local governmental codes or client requirements. This review does not relieve the geotechnical engineer for this project from his sole responsibility as geotechnical Engineer-of-Record for the project.

CLOSURE

We trust that the information provided above will assist you in your on-going evaluations of this project. Please contact our office if you have questions concerning this letter or our associated services. It is a pleasure to be of continuing consulting service to the City of Pittsburg.

Sincerely,

KLEINFELDER, INC.

Sadek M. Derrega, PG., CEG
Senior Principal Professional

Fernando J. Silva, CE, GE
Senior Project Manager

SMD/FJS/jmk

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APPENDIX I

PHASE I ENVIRONMENTAL SITE ASSESSMENT

FARIA PROPERTY - 607 ACRES
PITTSBURG, CALIFORNIA



Submitted to:
Mr. Albert Seeno III
Discovery Builders, Inc.
4061 Port Chicago Highway, Suite H
Concord, CA 94520

Prepared by:
ENGEO Incorporated

March 14, 2014

Project No:
2705.280.005

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Project No.
2705.280.005

March 14, 2014

Mr. Albert Seeno III
Discovery Builders, Inc.
4061 Port Chicago Highway, Suite H
Concord, CA 94520

Subject: Faria Property (607 Acres)
Pittsburg, California

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Seeno:

ENGEO is pleased to present our phase I environmental site assessment of the subject property (Property) located in Pittsburg, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding the Property.

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and ASTM 1527-13.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Sincerely,

ENGEO Incorporated

Siobhan O'Reilly-Shah, EIT

Shawn Munger, CHG

sos/sm/jf:esa

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EXECUTIVE SUMMARY

ENGEO conducted a phase I environmental site assessment for the undeveloped property located east of Bailey Road and south of Highway 4 in Pittsburg, California (Property). The Property is approximately 607 acres in area and is identified by Assessor's Parcel Numbers (APN) 097-180-002, 097-180-006, 097-190-002, 097-200-002, 097-200-003, 097-230-008, and 097-240-002.

The project site is generally undeveloped and comprised of rounded hills, valleys, swales and is located about one mile south of State Highway 4, in Pittsburg, California. The existing property development consists of two ranch sites (the Faria Ranch Site and the West Ranch Site). Improvements at the Faria Ranch Site include two residences, a barn, and various storage sheds and other out structures. Current improvements at the West Ranch Site are limited to a domestic well, two windmills, and two above-ground water storage tanks. Three domestic water supply wells were observed on the Property. In addition, there are 11 former natural gas exploration sites on the property.

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil or groundwater impairments associated with the use or past use of the Property. A review of regulatory databases maintained by county, state, tribal and federal agencies found no documentation of hazardous materials violations or discharge on the Property and did not identify contaminated facilities within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to affect the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs), no historical RECs, and no controlled RECs were identified for the Property.

Based on the review of regulatory databases and site reconnaissance, we present information on features of potential environmental concern that were either contained in the databases or observed on the Property. These features were not considered to be RECs. We briefly discuss each feature below.

- Two functioning above-ground storage tanks (AST) containing petroleum products are located on the Faria Ranch Site.

- The Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) web site identifies 11 former natural gas wells on the Property. These wells were plugged and abandoned between 1959 and 1996. A Report of Well Abandonment (Form 159) was filed for each well in accordance with DOGGR regulations.

- Two septic tanks, along with associated leech fields, exist within the Property boundaries.

- An equipment shed and an equipment storage area are located on the Faria Ranch Site.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527 of APN 097-180-002, 097-180-006, 097-190-002, 097-200-002, 097-200-003, 097-230-008, and 097-240-002, Pittsburg, California. Any exceptions to or deletions from this practice are described in Section 6.2 of this report

ENGEO recommends the following:

- Three water supply wells and one piezometer are located on the Property. These should be abandoned in accordance with Contra Costa County regulations.

- An asbestos survey of the Faria Ranch Site north residence, barns and sheds should be undertaken prior to building demolition.

- The Property should be viewed by an environmental professional during demolition and grading activities in the ranch areas and within the area of the former natural gas well sites.

1.0 INTRODUCTION

ENGEO conducted a phase I environmental site assessment for the undeveloped Property located east of Bailey Road and south of Highway 4 in Pittsburg, California (Figure 1). The approximately 607-acre Property is identified as APN 097-180-002, 097-180-006, 097-190-002, 097-200-002, 097-200-003, 097-230-008, and 097-240-002 (Figure 2) and is currently undeveloped and used for open-grazing land, with several residential and farming buildings. The Property is covered with grass and shrub vegetation.

1.1 SITE LOCATION

The Property is located west of Bailey Road and south of Highway 4, in Pittsburg, California (Figure 1). The approximately 607-acre Property is identified as APN 097-180-002, 097-180-006, 097-190-002, 097-200-002, 097-200-003, 097-230-008, and 097-240-002 (Figure 2).

1.2 SITE AND VICINITY CHARACTERISTICS

According to published topographic maps, the Property ranges in elevation from approximately 400 to 850 feet above mean sea level (msl) (Figure 3). Review of the Dibblee, 2006 Geologic Map found that the Property is underlain by Eocene Markley Formation (Tmk), Quaternary alluvium (Qa) and Quaternary landslides (Qls). The Markley Formation consists predominantly of sandstone and siltstone beds and the Quaternary alluvium at the project site consists of silty clay, sandy clay and clayey sand.

Geocheck – Physical Setting Source Summary of the Environmental Resources Data report (Appendix A) indicated no Federal United States Geological Survey (USGS) wells located within 1 mile of the Property. The Physical Setting Source Summary did not provide any hydrogeologic information for use as an indicator of groundwater flow direction in the immediate area.

We reviewed the Department of Water Resources On-line Water Data Library for depth to water near the site. The website did not identify any wells within 1 mile of the Property.

We reviewed EnviroStor, a website maintained by the State of California, Department of Toxic Substances Control, and GeoTracker, a website maintained by the State of California, Water Resources Control Board, for nearby facilities with records that include depth to groundwater measurements. No information regarding local groundwater conditions was available from these websites.

The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation and other factors.

We reviewed the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) web site and map database to determine if any historic oil and/or gas wells were

located within the Property. Eleven wells were mapped on the Property. All wells were plugged and abandoned between 1959 and 1996. A Report of Well Abandonment (Form 159) was filed for each well in accordance with DOGGR regulations.

1.3 CURRENT USE OF PROPERTY/DESCRIPTION OF SITE IMPROVEMENTS

The project site is generally undeveloped and comprised of rounded hills, valleys and swales and is located about 1 mile south of State Highway 4, in Pittsburg, California. The natural gradients of the existing slopes range from as steep as about 1½:1 (horizontal:vertical) to 5:1 or flatter. The Property historically has been operated as a cattle ranch, with the majority of the site used for grazing.

Development has been limited to the parcels consisting of APN 097-180-006, referred to in this report as the Faria Ranch Site, and APN 097-200-002, referred to in this report as the West Ranch Site, (Figure 4).

The Faria Ranch site is comprised of three compounds: the north residence, the south residence, and the east residence. The north residence compound currently includes a single-story house, a septic system with a leach field, a barn, an equipment storage shed, an equipment storage area with two above-ground storage tanks, two locked sheds and a locked conex box. In 1982, the south residence compound consisted of one residence and one fuel shed. The house was demolished between 1982 and 1996, and the fuel shed was demolished between 1996 and 2002. Currently, the south residence area consists of a pump house and an open animal shed. The east residence compound is located on the hillside east of the historic Faria Ranch Site and was constructed in the early 1980s. The east residence compound includes a single-story house, a well pump house, an above-ground water storage tank, and a septic system with a leach field.

The West Ranch Site is comprised of a domestic well, two windmills, and two above-ground water storage tanks. In 1996, an aged single-story residence in disrepair was present on the West Ranch Site. Based on a review of aerial photographs, several additional structures were present at the site prior to 1993.

In addition, there are eleven former natural gas exploration sites on the Property.

1.4 CURRENT USE OF ADJOINING PROPERTIES

The Property is surrounded by undeveloped land and residences to the north, undeveloped land to the east, and the former Concord Naval Weapons Station to the west and south.

1.5 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed at the request of Discovery Builders, Inc. The objective of this phase I environmental site assessment is to identify Recognized Environmental Conditions (RECs) associated with the Property. As defined in the ASTM Standard Practice E 1527-13, an REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at on a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

1.6 DETAILED SCOPE OF SERVICES

The scope of services performed included the following:

- A review of publicly available and practically reviewable standard local, state, tribal, and federal environmental record sources.
- A review of publicly available and practically reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.
- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Interviews with owners/occupants and public sector officials.
- Preparation of this report with our findings, opinions, and conclusions.

1.7 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on contracted database research, out-of-house reports and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse; that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase I environmental site assessment are valid for one year after completion of the report. Updates of portions of the assessment may be necessary after a period of 180 days after completion.

This phase I environmental site assessment is not intended to represent a complete soil or groundwater characterization, nor define the depth or extent of soil or groundwater contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the Property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil and groundwater samples could provide more definitive information concerning site-specific conditions. If additional assessment activities are considered for the Property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities. ENGEO can also not be held responsible from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

1.8 SPECIAL TERMS AND CONDITIONS

ENGEO has prepared this report for the exclusive use of our client, Discovery Builders, Inc. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

Laboratory testing of soil or groundwater samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead-based paint, an inspection of light ballasts for polychlorinated biphenyls (PCBs), a radon evaluation, or a mold survey.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's assessment. Visual observations referenced in this report are intended only to represent conditions at the time of the reconnaissance. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage, that occurred subsequent to the reconnaissance conducted by ENGEO personnel.

2.0 USER-PROVIDED INFORMATION

2.1 PROPERTY RECORDS

2.1.1 Title Report/Ownership

The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to state and the detail of information presented in a Title Report can vary greatly by jurisdiction. As a result, ENGEO utilizes a Title Report, when provided to us, as a supplement to other historical record sources.

A Preliminary Title Report for the Property, prepared by Old Republic and dated February 24, 2012, was provided for our review. The Property title is vested in Faria Land

Investors, LLC. No references to environmental liens, deed restrictions or other potential environmental issues were noted. An easement to Pacific Gas and Electric Company for gas pipe lines and several amendments for oil and gas leases are recorded in the preliminary title report prepared for the Property. This report is included in Appendix B.

2.1.2 Environmental Liens and Activity Use Limitations

Environmental Data Resources, Inc. (EDR) provided an Environmental Lien Search Report for the Property prepared by NETR Real Estate Research and Information. The report, which is included in Appendix C, listed no environmental liens associated with the Property APN. In addition, a questionnaire completed by the Client or authorized representative indicated that they are not aware of any environmental cleanup liens recorded against the Property.

2.2 USER KNOWLEDGE OF PROPERTY

Louis Parsons, representing Discovery Builders, completed an environmental site assessment questionnaire pertaining to user-related applicable environmental information regarding the Property. In the questionnaire, Mr. Parsons stated that the adjacent property to the north had a chemical spill or release. The referenced property (Vista Del Mar School Site) had a leaking UST that was removed in 1994. A Phase I Environmental Site Assessment was performed for this site in 2006 stating that there are no Recognized Environmental Concerns on the subject site, and DTSC issued a letter approving this Phase I Environmental Site Assessment on August 18, 2006. The questionnaire is presented in its entirety in Appendix D. A summary is provided below.

Mr. Parsons is unaware of commonly known, reasonably ascertainable, or specialized knowledge indicative of releases or threatened releases that is material to the potential presence of Recognized Environmental Conditions.

3.0 RECORDS REVIEW

3.1 HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Property.

3.1.1 Historical Topographic Maps

Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the Property had been recorded. The following maps were provided to us through an EDR Historical Topographic Map Report, presented in Appendix E.

TABLE 3.1.1-1
Historical Topographic Maps

Quad	Year	Series	Scale
Mt. Diablo	1896	15	1:62500
Mt. Diablo	1912	15	1:62500
Mt. Diablo	1947	15	1:50000
Clayton	1953	7.5	1:24000
Clayton	1968	7.5	1:24000
Clayton	1973	7.5	1:24000
Clayton	1980	7.5	1:24000
Clayton	1994	7.5	1:24000
Antioch	1908	15	1:62500
Honker Bay	1918	7.5	1:31680
Pittsburg	1953	15	1:62500
Honker Bay	1953	7.5	1:24000
Honker Bay	1968	7.5	1:24000
Honker Bay	1973	7.5	1:24000
Honker Bay	1980	7.5	1:24000

1896 and 1912 Map – The southern portion of the Property is shown on these maps. The Property is undeveloped and mapped north of the City of Clayton

1947 Map – The southern portion of the Property is shown on this map. The Property is undeveloped. Bailey Road has been constructed to the east of the site.

1953 Map – The southwestern portion of the Property is shown on this map. The Property is undeveloped. The Naval Reservation is identified on this map. A railroad is identified to the southwest of the site. Residential and commercial development has taken place in Clayton.

1968 to 1980 Maps - The southwestern portion of the Property is shown on these maps. The Property is undeveloped. Further development has taken place in Clayton and on the Naval Reservation.

1908 and 1918 Maps - The northwestern portion of the Property is shown on these maps. The Property is undeveloped. The Southern Pacific Railroad is shown to the north of the site.

1953 Maps – The northern portion of the Property is shown on these maps. The Property is undeveloped. Arnold Industrial Highway has been constructed to the north of the site and residential and commercial development has taken place to the north of this highway. Bailey Road has been constructed to the east of the site. The Naval Reservation is shown to the southeast of the site.

1968 to 1980 Maps – The northern portion of the Property is shown on these maps. The Property is undeveloped. Further development has continued to the north of Industrial Highway.

3.1.2 Aerial Photographs

The following aerial photographs, provided by EDR, were reviewed for information regarding past conditions and land use at the Property and in the immediate vicinity. These photographs are presented in Appendix F.

TABLE 3.1.2-1
Aerial Photographs

Flyer	Year	Scale
Fairchild	1939	1"=1000'
Jack Ammann	1946	1"=1000'
Cartwright	1958	1"=1000'
Cartwright	1965	1"=1000'
NASA	1974	1"=1000'
WSA	1982	1"=1000'
EDR	1993	1"=500' & 1"=1000'
USGS	1998	1"=1000'
USGS	2005	1"=500'
EDR	2006	1"=500'
EDR	2009	1"=500'
EDR	2010	1"=500'
EDR	2012	1"=500'

1939 Photograph – The majority of the site is undeveloped. Several buildings and sheds can be seen in the Faria Ranch Site and the West Ranch Site.

1946 Photograph – The condition of the majority of the site is similar to the 1939 Photograph. There appears to be an area of disturbed ground to the east of the Faria Ranch Site. Development can be seen on the Concord Naval Station Site.

1958 Photograph – The condition of the majority of the site is similar to the 1946 Photograph. There appears to have been some construction on the northern portion of the Faria Ranch Site.

1965 Photograph – The condition of the majority of the site is similar to the 1958 Photograph. Some ground disturbance possible associated with the gas well activity can been seen.

1974 and 1982 Photographs – The condition of the majority of the site is similar to the 1965 Photograph. Ground disturbance associated with the construction of the second residence on the Faria Ranch Site can be seen.

1993 Photograph – The condition of the majority of the site is similar to the 1982 Photograph. The second residence on the Faria Ranch Site has been constructed. It appears that some of the structures in the West Ranch Site have been demolished.

1998 Photograph – The condition of the majority of the site is similar to the 1993 Photograph. It appears that some of the structures in the southern part of the Faria Ranch Site have been demolished.

2005 Photograph – This photograph only shows the northern central portion of the site. The condition of the majority of the site seen in this photograph is similar to the 1998 Photograph. The West Ranch Site is not visible on this photograph. The northern section of the Faria Ranch Site appears to have been paved and there is a paved driveway to the second residence. There appears to be a pond in the southern part of the Faria Ranch Site.

2006 through 2012 Photographs – These photographs only show the northern central portion of the site. The condition of the majority of the site seen in this photograph is similar to the 2005 Photograph. The West Ranch Site is not visible on these photographs. The pond in the southern part of the Faria Ranch Site is no longer visible.

3.1.3 Fire Insurance Maps

EDR prepared a Sanborn Fire insurance map search for the Property and surrounding properties. EDR reported that no maps were available for the Property and surrounding properties. The Sanborn Fire insurance map search conducted by EDR is located in Appendix G.

3.1.4 City Directory

City Directories, published since the 18th century for major towns and cities, lists the name of the resident or business associated with each address. A city directory search conducted by EDR is located in Appendix H.

3.2 ENVIRONMENTAL RECORD SOURCES

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A. A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below.

3.2.1 Standard Environmental Records

3.2.1.1 Subject Property

The Property is not listed on the Standard Environmental Record sources.

3.2.1.2 Other Properties

There are no surrounding properties within the appropriate ASTM search distances of the Property on Standard Environmental Records sources.

3.2.2 Additional Environmental Records

3.2.2.1 Subject Property

The Property is not listed on the Additional Environmental Record sources.

3.2.2.2 Other Properties

The following database(s) include(s) facilities listed within the appropriate ASTM search distances of the Property on the Additional Environmental Record sources.

3.2.2.3 Other Properties

The following databases include facilities listed within the appropriate ASTM search distances of the Property on Standard Environmental Records sources.

TABLE 3.2.2.3-1

Facility	Street	Databases
Concord Naval Weapons Station	Moffett Field NASA	DOD

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, it is unlikely that the above-stated database sites pose an environmental risk to the Property. Properties that are on the "Orphan Summary" list appear to be located beyond the ASTM recommended radius search criteria.

3.3 REGULATORY AGENCY FILES AND RECORDS

The following agencies were contacted pertaining to possible past development and/or activity at the Property.

- City of Pittsburg Building and Planning Departments
- City of Pittsburg Fire Department

- Contra Costa County Department of Conservation and Development – Building Inspection Division
- Contra Costa County Fire Protection District
- Contra Costa Environmental Health Department
- Contra Costa Heath Services – Hazardous Materials Program
- Contra Costa County Assessor's Office
- Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR)
- California Regional Water Quality Control Board
- Department of Toxic Substance Control (DTSC)

In addition, a building permit report for the Property was provided by EDR. This report is presented in Appendix I.

City of Pittsburg Building and Planning Departments

The City of Pittsburg Building and Planning Departments were contacted regarding files for the Property. Representatives of these departments confirmed that no files were available and directed us to Contra Costa County for more information.

City of Pittsburg Fire Department

The City of Pittsburg Fire Department was contacted regarding hazardous materials-related reports for the Property. A representative directed us to the Contra Costa County Fire Protection District for more information.

Contra Costa County Department of Conservation & Development Building Inspection Division

The Contra Costa County Department of Conservation & Development Building Inspection Division was contacted regarding files for the Property. Two permit applications were found for APN 097-180-006 and one permit application was found for APN 097-200-003. These permit applications do not document any environmental impacts on the Property.

Contra Costa County Fire Protection District

The Contra Costa County Fire Protection District was contacted regarding hazardous materials-related reports for the Property. A representative confirmed that no files were available for review.

Contra Costa Environmental Health Department

The Contra Costa Environmental Health Department was contacted regarding files for the Property. A land use permit was found for APN 097-180-006 and a well permit was found for APN 097-200-003. The Land Use Permit was applied for in 1982 for the construction of the second residence on the Faria Ranch Site. A Water Well Drillers Report for the domestic water supply well was found as part of this permit. The Well Permit for APN 097-200-003 was issued in 2008 for a piezometer installed by Pitcher Drilling for ENGEO. The Well Permit for APN 097-180-006

Contra Costa Heath Services – Hazardous Materials Program
The Contra Costa Heath Services – Hazardous Materials Program was contacted regarding hazardous materials-related reports for the Property. A representative confirmed that no files were available for review.

Contra Costa County Assessor's Office
We reviewed the Contra Costa County Assessor's Office website for information regarding the Property. Information on the website confirmed that the Property is approximately 607 acres and is identified by APN 097-180-002, 097-180-006, 097-190-002, 097-200-002, 097-200-003, 097-230-008, and 097-240-002.

Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR)
We reviewed the Department of Conservation, Division of Oil, Gas, and Geothermal Resources On-line database. The website identified eleven wells on the Property. All wells were plugged and abandoned between 1959 and 1996. A Report of Well Abandonment (Form 159) was filed for each well in accordance with DOGGR regulations.

California Regional Water Quality Control Board
The California State Water Resources Control Board GeoTracker website was viewed for information relating to LUFT and SLIC sites. The Property is not listed on this website. Seven military UST sites are listed on the Concord Naval Station Site to the southwest of the Property. The cleanup status of all the sites is *Completed – Case Closed*.

Department of Toxic Substances Control
The Envirostor Database, maintained by DTSC was viewed for any listings of hazardous materials cleanups or storage records pertaining to the Property and surrounding parcels. The Property is not listed on this website. Two School investigation sites are noted in the development to the northeast of the Property. The status of both sites is *No Action Required*.

4.0 SITE RECONNAISSANCE

4.1 METHODOLOGY

ENGEO conducted a reconnaissance of the Property on February 21, 2014. The reconnaissance was performed by Siobhan O'Reilly-Shah, a Project Engineer of ENGEO. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figures 5A, 5B, 5C, and 5D.

We did not inspect the interiors of the two residences on the Property. In addition, there were several sheds and one conex box that were locked and we did not inspect the interiors.

4.2 GENERAL SITE SETTING

The majority of the project site is undeveloped and is currently used for animal grazing. The site topography consists of natural slopes surrounding low-lying valleys. The topographic information shows that elevations at the site range from approximately 400 feet above mean sea level (msl) to around 850 feet above msl. We observed the following site features during our reconnaissance:

- The majority of the site is undeveloped; the only structures onsite are within the Faria Ranch Site.
- Numerous existing dirt fire trail roads extend throughout the undeveloped portions of the site.
- The site is covered by seasonal grasses and animal grazing was observed.

4.3 EXTERIOR OBSERVATIONS

Structures. Two residences and various barn and storage structures were observed in the Faria Ranch Site during the site reconnaissance. One open animal shed was observed on the southeast portion of the Property.

Hazardous Substances and Petroleum Products in Connection with Identified Uses. Two above ground storage tanks (ASTs) for diesel and unleaded gasoline were observed during the site reconnaissance.

Storage Tanks. Two ASTs for diesel and unleaded gasoline were observed during the site reconnaissance. No evidence of leakage or staining was seen near the ASTs.

Odors. No odors indicative of hazardous materials or petroleum material impacts were noted at the time of the reconnaissance.

Pools of Potentially Hazardous Liquid. No pools of potentially hazardous liquid were observed within the Property at the time of our reconnaissance.

Drums. No drums were observed on the Property at the time of the reconnaissance.

Hazardous Substance and Petroleum Product Containers. No hazardous substance or petroleum product containers were observed on the Property at the time of our reconnaissance.

Polychlorinated Biphenyls (PCBs). A pole mounted electrical transformer was situated adjacent to each of the existing residences at the Faria Ranch. No visible leakage from the units was noted.

Pits, Ponds and Lagoons. No pits, ponds or lagoons were observed within the Property at the time of our reconnaissance.

Stained Soil/Pavement. No stained soil or pavement was observed within the Property at the time of our reconnaissance.

Stressed Vegetation. No signs of stressed vegetation were observed on the Property at the time of our reconnaissance.

Solid Waste/Debris No disposal of solid waste was observed at the Property.

Stockpiles/Fill Material No stockpiles or fill material was observed on the Property during the reconnaissance.

Wastewater. No wastewater conveyance systems were observed at the Property during the reconnaissance.

Wells. Three wells were observed and/or confirmed within the Property during our site reconnaissance. Contra Costa Environmental Health Department records indicate that there is a piezometer on the property as well. There is municipal water service to one of the residences in the Faria Ranch Site

Septic Systems. Two septic systems were observed and/or confirmed within near the two residences in the Faria Ranch Site during our site reconnaissance. There is apparently no municipal sewer system service on the Property.

4.4 INTERIOR OBSERVATIONS

The majority of the onsite structures included open-air sheds, barns, and residences. The barns and sheds observed gravel or dirt floors and the interiors free of debris.

4.5 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT

An asbestos and lead-based paint survey was not conducted as part of this assessment. The Faria Ranch residence, sheds and barn structures appear to have been built prior to 1952, and it is conceivable that asbestos-containing materials and lead-based paint materials may exist within these structures. The residence east of the ranch was constructed in the early 1980s and would not be expected to contain friable asbestos bearing materials.

4.6 INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that 7 tests were conducted within the Property zip code, with no tests exceeding the current EPA action level of 4 picocuries per liter [pCi/L][1]).

[1] California Department of Health Services – Division of Drinking Water and Environmental Management – Radon (http://www.cdph.ca.gov/HealthInfo/environhealth/Documents/Radon/CaliforniaRadonDatabase.pdf).

In accordance with ASTM E2600-10 (Tier 1) (*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*); no potential petroleum hydrocarbon sources for vapor intrusion within 1/10 mile of the Property or volatile organic compound (VOCs) sources within 1/3 mile of the Property.

5.0 INTERVIEWS

Louis Parsons completed an environmental site assessment questionnaire pertaining to applicable past and present uses and physical characteristics of the Property and surrounding properties. In the questionnaire, Mr. Parsons did not identify potential environmentally related issues with the Property. The questionnaire is presented in its entirety in Appendix D.

6.0 EVALUATION

6.1 FINDINGS

The reconnaissance and records research did not find documentation or physical evidence of soil or groundwater impairments associated with the current or past use of the Property. A review of regulatory databases maintained by county, state and federal agencies found no documentation of hazardous materials violations or discharge on the Property. No documented soil or groundwater contamination associated with abutting properties was found from the records research.

Three wells, one piezometer, two ASTs, septic tanks and leach fields are present on the Property. These could present an environmental concern if not mitigated properly. Eleven former natural gas wells are present on the Property. These well sites were abandoned between 1959 and 1996 with no remaining improvements. No physical evidence of soil contamination associated with the gas well sites was evident at the time of the site reconnaissance.

6.2 OPINIONS AND DATA GAPS

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC.

The data gaps identified during this process, if any, do not affect the conclusions as to the presence or lack of presence of RECs at the Property.

6.3 CONCLUSIONS

The study included a review of local, state and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources; a reconnaissance of the Property to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials; and interview with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil or groundwater impairments associated with the use of the Property. A review of regulatory databases maintained by county, state, and federal agencies found no documentation of hazardous materials violations or discharge on the Property. A review of regulatory agency records and available databases did not identify contaminated facilities within the appropriate ASTM search distances that would be expected to affect the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs), no historical RECs, and no controlled RECs were identified for the Property.

Based on the review of regulatory databases and site reconnaissance, we present information on features of potential environmental concern that were either contained in the databases or observed on the Property. These features were not considered to be RECs. We briefly discuss each feature below.

- Two functioning above-ground storage tanks (ASTs) containing petroleum products are located on the Faria Ranch Site.
- The Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) web site identifies 11 former natural gas wells on the Property. These wells were plugged and abandoned between 1959 and 1996. A Report of Well Abandonment (Form 159) was filed for each well in accordance with DOGGR regulations.
- Two septic tanks, along with associated leech fields, exist within the Property boundaries.
- An equipment shed and an equipment storage area are located on the Faria Ranch Site.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527 of APN 097-180-002, 097-180-006, 097-190-002, 097-200-002, 097-200-003, 097-230-008, and 097-240-002, Pittsburg, California, the Property. Any exceptions to, or deletions from, this practice are described in Section 6.2 of this report.

ENGEO recommends the following:

- Three water supply wells and one piezometer are located on the Property. These should be abandoned in accordance with Contra Costa County regulations.
- An asbestos survey of the Faria Ranch Site north residence, barns and sheds should be undertaken prior to building demolition.
- The Property should be viewed by an environmental professional during demolition and grading activities in the ranch areas and within the area of the former natural gas well sites.

SELECTED REFERENCES

California Department of Water Resources
(http://www.water.ca.gov/waterdatalibrary/)

California Department of Conservation (DOGGR)
(http://maps.conservation.ca.gov/doms/doms-app.html)

California Department of Health Services – Division of Drinking Water and Environmental Management – Radon
(http://ww2.cdph.ca.gov/HealthInfo/environhealth/Documents/Radon/CaliforniaRadonDatabase.pdf)

Dibblee, Jr., T.W., 2006, Geologic Map of the Clayton Quadrangle, Contra Costa County, California.

Dibblee, Jr., T.W., 2006, Geologic Map of the Honker Bay Quadrangle, Contra Costa County, California.

Google Maps (http://maps.google.com)

FIGURES

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N

0 MILES 1
0 KILOMETERS 2

BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

VICINITY MAP

FARIA PROPERTY

PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 1
SCALE: AS SHOWN		
DRAWN BY: SRP	CHECKED BY: SM	

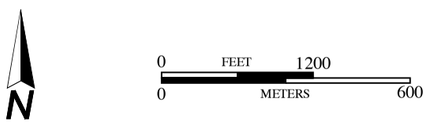
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ORIGINAL FIGURE PRINTED IN COLOR

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BASE MAP SOURCE: CONTRA COSTA COUNTY

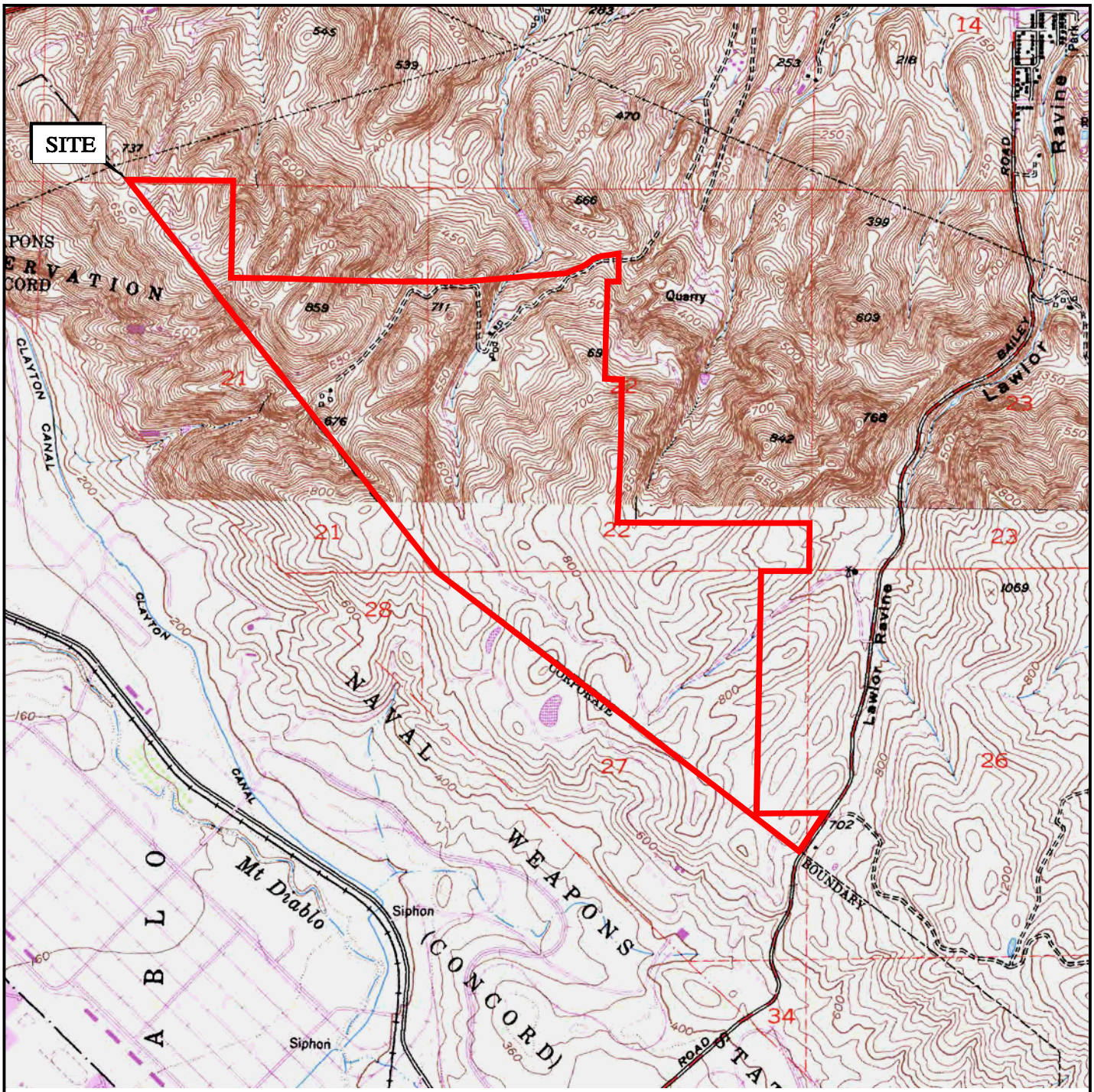
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ASSESSOR'S PARCEL MAP
FARIA PROPERTY
PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005	FIGURE NO. 2
SCALE: AS SHOWN	
DRAWN BY: SRP	CHECKED BY: SM

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BASE MAP SOURCE: USGS, 1983

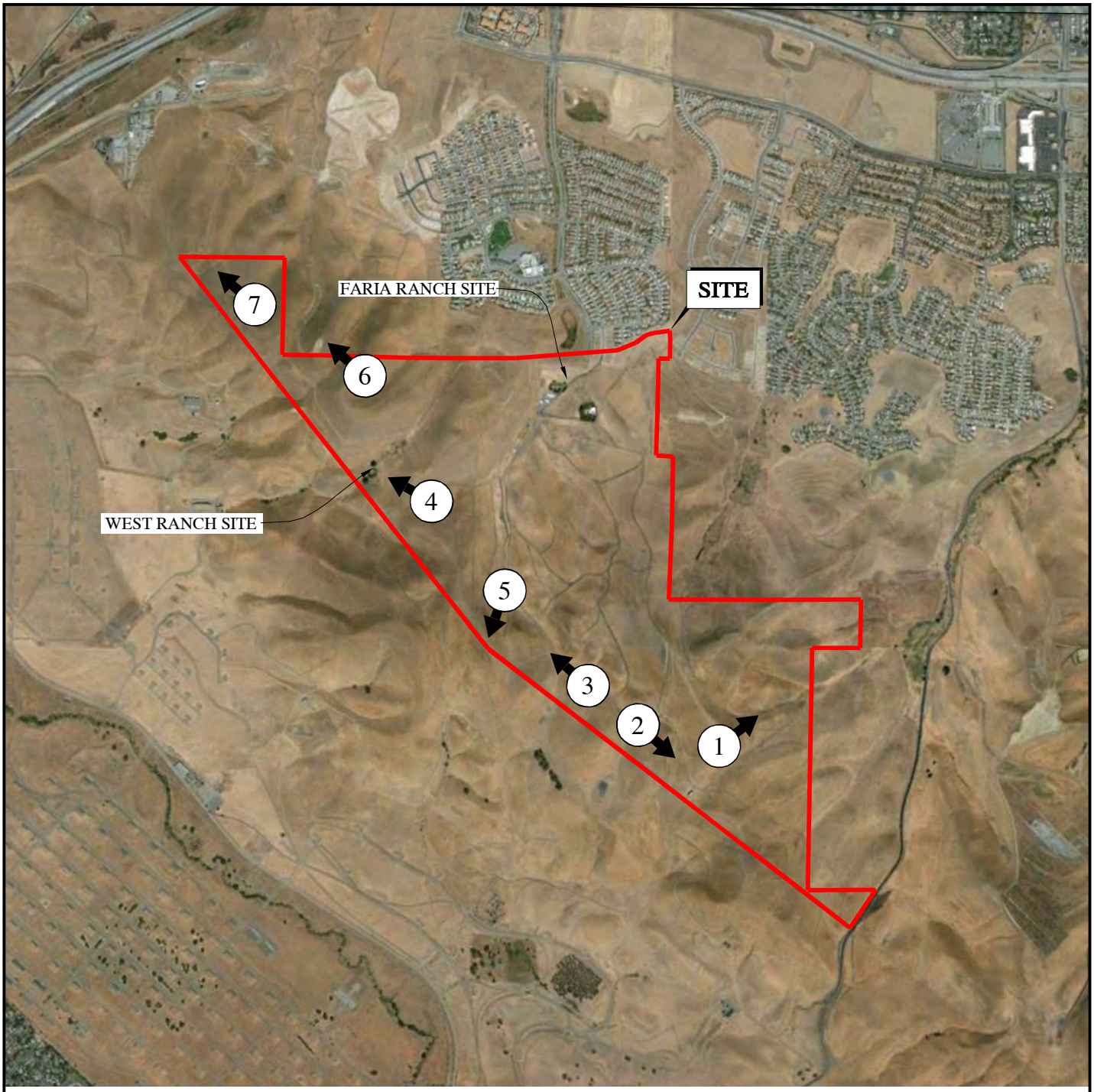
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TOPOGRAPHIC MAP FARIA PROPERTY PITTSBURG, CALIFORNIA	PROJECT NO.: 2705.280.005	FIGURE NO. 3
	SCALE: AS SHOWN	
	DRAWN BY: SRP / CHECKED BY: SM	

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N

0 FEET 2000

0 METERS 1000

EXPLANATION

7 PHOTOGRAPH LOCATION AND DIRECTION

BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

PHOTOGRAPH LOCATION MAP

FARIA PROPERTY

PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 4
SCALE: AS SHOWN		
DRAWN BY: SRP	CHECKED BY: SM	

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PHOTO 1

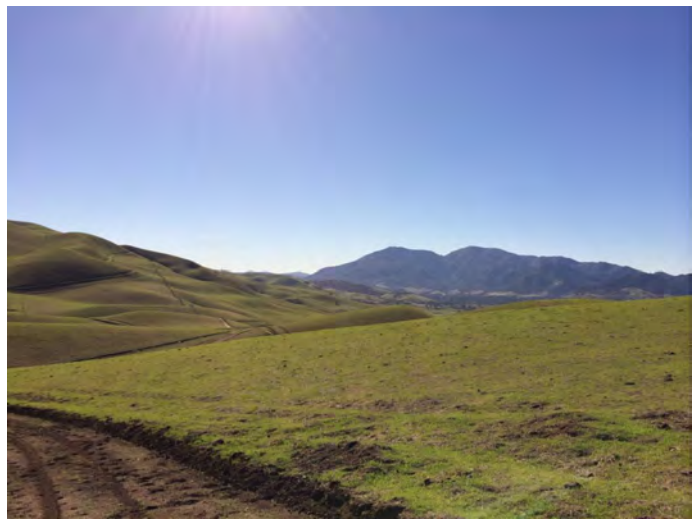


PHOTO 2



PHOTO 3



PHOTO 4



PHOTO 5

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SITE PHOTOGRAPHS

FARIA PROPERTY

PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 5A
SCALE: NO SCALE		
DRAWN BY: SRP	CHECKED BY: SM	

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PHOTO 6



PHOTO 7



WATER STORAGE TANKS AT THE WEST RANCH SITE



FARIA RANCH SITE - EQUIPMENT STORAGE AREA AND AST



OVERLOOKING THE SOUTHERN PART
OF THE FARIA RANCH SITE

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SITE PHOTOGRAPHS

FARIA PROPERTY

PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 5B
SCALE: NO SCALE		
DRAWN BY: SRP	CHECKED BY: SM	

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FARIA RANCH SITE - NORTH RESIDENCE LOOKING SOUTH



FARIA RANCH SITE - EAST RESIDENCE LOOKING NORTH



FARIA RANCH SITE LOOKING TO THE NORTHEAST



FARIA RANCH SITE -OLD FARM AND RANCH EQUIPMENT



FARIA RANCH SITE -WELL NEAR EAST RESIDENCE

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SITE PHOTOGRAPHS

FARIA PROPERTY

PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005		FIGURE NO. 5C
SCALE: NO SCALE		
DRAWN BY: SRP	CHECKED BY: SM	

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FARIA RANCH SITE -WORK AREA BEHIND NORTH RESIDENCE



SHED ON SOUTHEASTERN PORTION OF THE PROPERTY



NORTHERN PORTION OF THE WEST
RANCH SITE LOOKING NORTHWEST



SOUTHERN PORTION OF THE WEST
RANCH SITE LOOKING SOUTHWEST



WEST RANCH SITE LOOKING SOUTHEAST

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SITE PHOTOGRAPHS
FARIA PROPERTY
PITTSBURG, CALIFORNIA

PROJECT NO.: 2705.280.005	FIGURE NO. 5D
SCALE: NO SCALE	
DRAWN BY: SRP	CHECKED BY: SM

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ORIGINAL FIGURE PRINTED IN COLOR

APPENDIX A

ENVIRONMENTAL DATA RESOURCES, INC.

Radius Map Report

APPENDIX A



Faria Property
Faria Property
Pittsburg, CA 94565

Inquiry Number: 03848393.2r
February 05, 2014

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR).
The results of this search follow:

TARGET PROPERTY ADDRESS

FARIA PROPERTY
FARIA PROPERTY
PITTSBURG, CA 94565
Elevation: 753 ft.
EDR Inquiry Number: 03848393.2r

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

SURROUNDING SITES SEARCH RESULTS

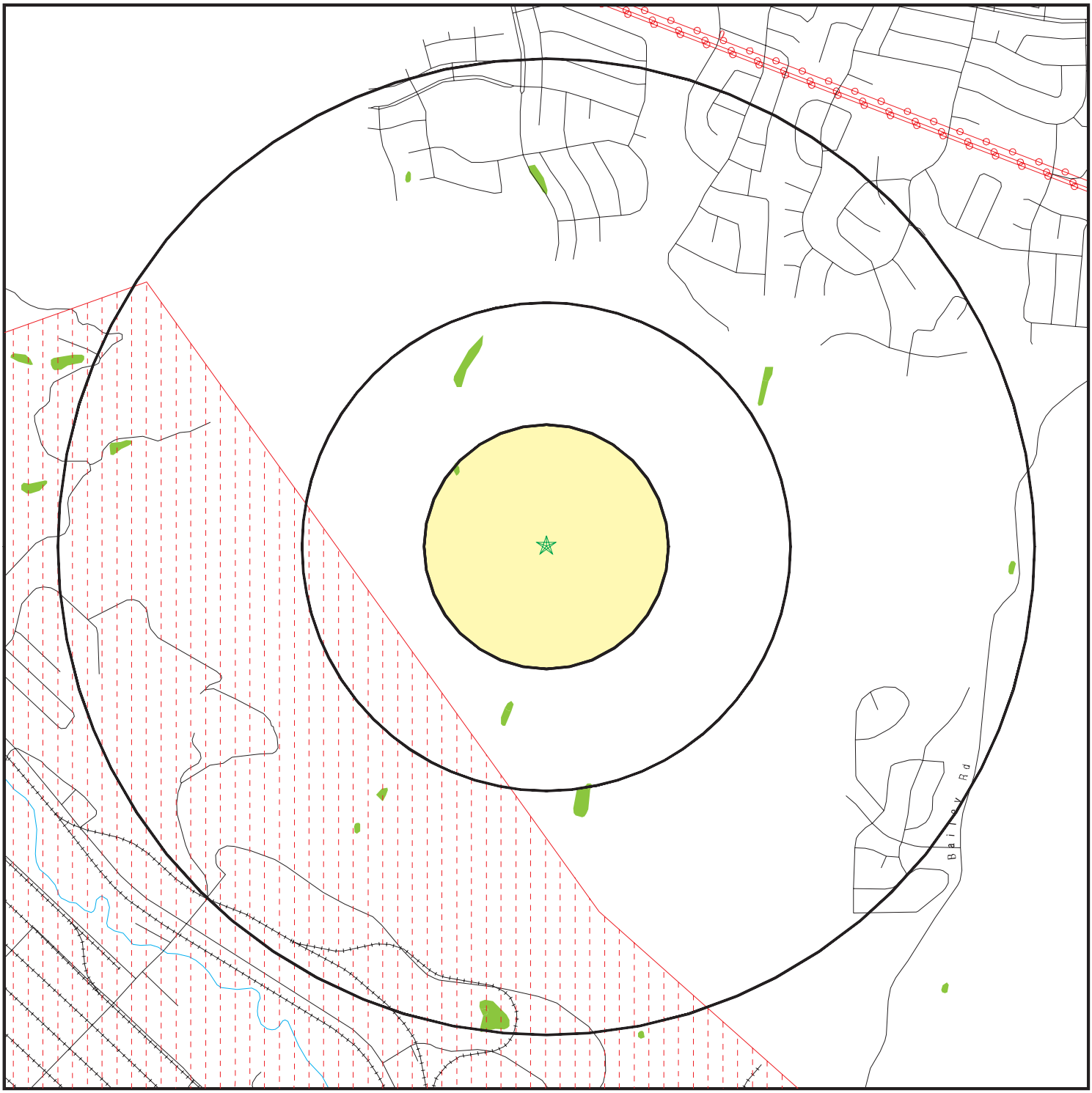
STANDARD ENVIRONMENTAL RECORDS

Site	Map ID / Direction / Distance / Distance ft. / Elevation ft.	NPL	Proposed NPL	NPL LIENS	Delisted NPL	CERCLIS	FEDERAL FACILITY	CERC-NFRAP	CORRACTS	RCRA-TSDF	RCRA-LQG	RCRA-SQG	RCRA-CESQG	US ENG CONTROLS	US INST CONTROL	LUCIS	ERNS	RESPONSE	ENVIROSTOR	SWF/LF	LUST	SLIC	INDIAN LUST	UST	AST	INDIAN UST	FEMA UST	VCP	INDIAN VCP
CONCORD NAVAL WEAPONS STATION , CA CUSA135820	Region SW 1/4-1/2 1837 ft.																												

ADDITIONAL ENVIRONMENTAL RECORDS

Site	US BROWNFIELDS	DEBRIS REGION 9	ODI	WMUDS/SWAT	SWRCY	HAULERS	INDIAN ODI	US CDL	HIST Cal-Sites	SCH	Toxic Pits	CDL	US HIST CDL	CA FID UST	HIST UST	SWEEPS UST	LIENS 2	LIENS	DEED	HMIRS	CHMIRS	LDS	MCS	SPILLS 90	RCRA NonGen / NLR	DOT OPS	DOD	FUDS	CONSENT	ROD	UMTRA	US MINES	TRIS	TSCA	FTTS	HIST FTTS	SSTS	ICIS	PADS	MLTS	RADINFO	FINDS	RAATS	RMP	CA BOND EXP. PLAN	UIC	NPDES	Cortese	HIST CORTESE	CONTRA COSTA CO. SITE	CUPA Listings	Notify 65	DRYCLEANERS	WIP	ENF	HAZNET	EMI	INDIAN RESERV	SCRD DRYCLEANERS	2020 COR ACTION	LEAD SMELTERS	WDS	US AIRS	PRP	MWMP	COAL ASH DOE	HWT	HWP	US FIN ASSUR	COAL ASH EPA	PCB TRANSFORMER	Financial Assurance
CONCORD NAVAL WEAPONS STATION																											X																																													

OVERVIEW MAP - 03848393.2r



0 1/4 1/2 1 Miles

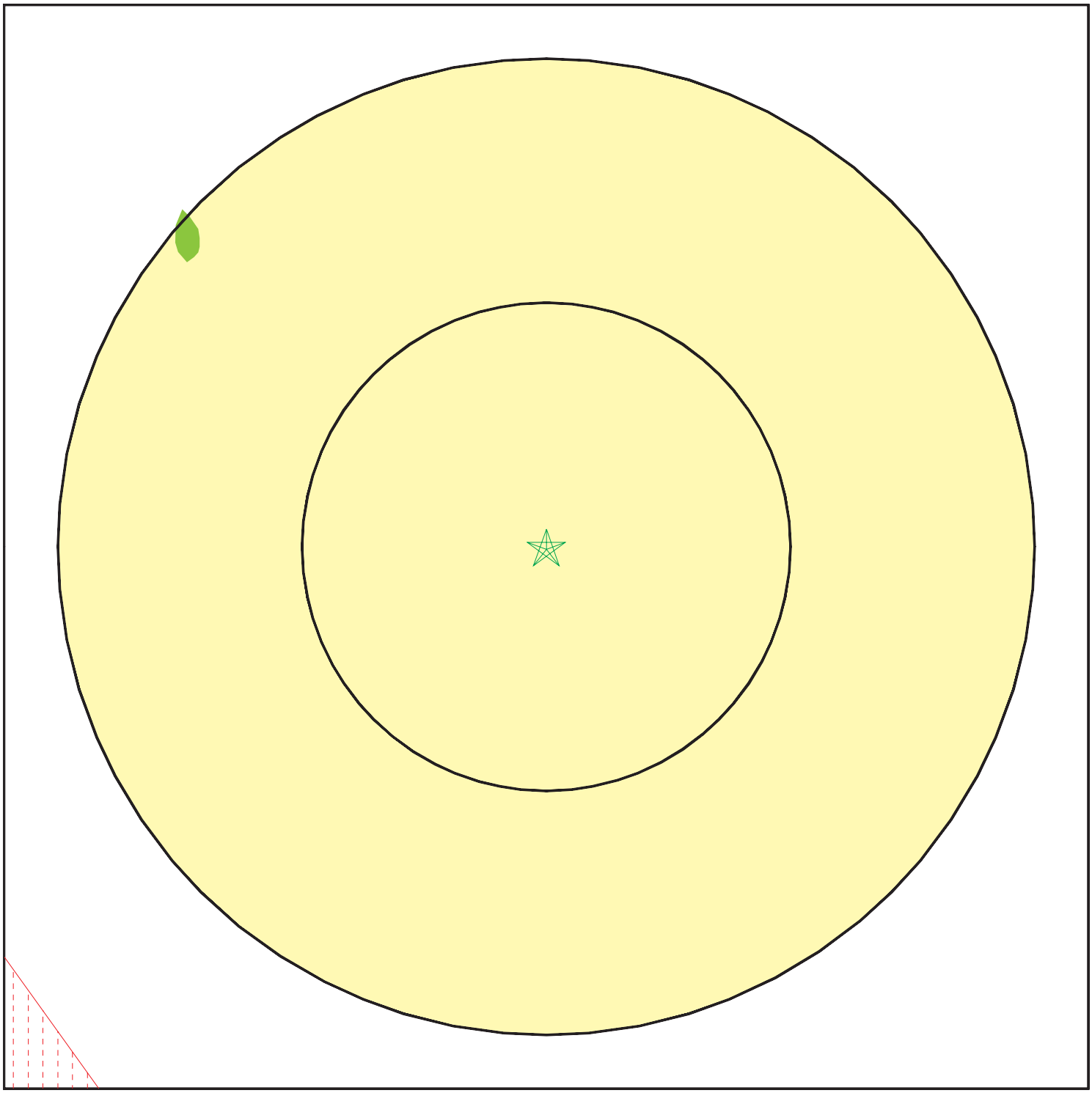
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Faria Property ADDRESS: Faria Property Pittsburg CA 94565 LAT/LONG: 37.9997 / 121.9646	CLIENT: Engeo Inc. CONTACT: Siobhan Oreilly-Shah INQUIRY #: 03848393.2r DATE: February 05, 2014 9:25 pm

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DETAIL MAP - 03848393.2r



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Faria Property ADDRESS: Faria Property Pittsburg CA 94565 LAT/LONG: 37.9997 / 121.9646	CLIENT: Engeo Inc. CONTACT: Siobhan Oreilly-Shah INQUIRY #: 03848393.2r DATE: February 05, 2014 9:26 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
SWEEPS UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	1	0	NR	1
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
CONTRA COSTA CO. SITE LIST	0.250		0	0	NR	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Financial Assurance	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.500		0	0	0	NR	NR	0
RGA LUST	0.500		0	0	0	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

DOD **CONCORD NAVAL WEAPONS STATION** **DOD** **CUSA135820**
Region **N/A**
SW
CONCORD NAVAL WEAPONS STA (County), CA
1/4-1/2
1837 ft.

DOD:

Feature 1:	Navy DOD
Feature 2:	Not reported
Feature 3:	Not reported
URL:	Not reported
Name 1:	Concord Naval Weapons Station
Name 2:	Not reported
Name 3:	Not reported
State:	CA
DOD Site:	Yes
Tile name:	CACONTRA_COSTA

Count: 9 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
PITTSBURG	S106922600	ALVES, EUGENE	HIGHWAY 4 & ENES AVE	94565	SWEEPS UST
PITTSBURG	S102261679	CIRCLE "A" RANCH	HWY 4 & BAILEY RD	94565	CONTRA COSTA CO. SITE LIST
PITTSBURG	1001815655	CALTRANS DIST 4	HWY 4 FROM E OF WILLOW PASS RD		RCRA-SQG, FINDS
PITTSBURG	1015732600	IMPERIAL WEST CHEM POND	ACROSS ST OF 1300 LOVERIDGE RD	94565	CERC-NFRAP
PITTSBURG	1003878923	PG&E GAS PLANT PITTSBURG	APPROX 1/2 MI E HARBOR/8TH	94565	CERC-NFRAP
PITTSBURG	S100676224	DOW CHEMICAL COMPANY	P.O. BOX 1398	94565	Toxic Pits
PITTSBURG	S106924476	CIRCLE "A" RANCH	S HWY 4 BEFORE BAILEY RD	94565	SWEEPS UST
PITTSBURG	1003878641	UNION COLLIER	E OF NICHOLS RD	94565	CERC-NFRAP
PITTSBURG CA	S103438405	USS-POSCO	END OF LOVERIDGE ROAD	94565	WMUDS/SWAT, CHMIRS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 01/21/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 01/09/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 01/09/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 72

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/11/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/31/2013
Date Data Arrived at EDR: 07/08/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 151

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/10/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 72

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/11/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/02/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/02/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/02/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/02/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/02/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/17/2013
Date Data Arrived at EDR: 01/14/2014
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/17/2013
Date Data Arrived at EDR: 01/14/2014
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/20/2013
Date Data Arrived at EDR: 08/23/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 70

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/18/2013
Next Scheduled EDR Contact: 03/03/2014
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 66

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 01/10/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/03/2013
Number of Days to Update: 27

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/06/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/03/2013
Number of Days to Update: 27

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/06/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/18/2013
Date Data Arrived at EDR: 11/21/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 42

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/21/2013
Next Scheduled EDR Contact: 03/03/2014
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Quarterly

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/16/2014
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 08/27/2013
Date Data Arrived at EDR: 08/27/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 66

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 91

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 08/20/2013
Date Data Arrived at EDR: 08/23/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 70
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/07/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 29
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 272
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 91
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/20/2013
Date Data Arrived at EDR: 08/23/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 70

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/29/2013
Date Data Arrived at EDR: 08/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 92

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 07/29/2013
Date Data Arrived at EDR: 07/30/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 129

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/17/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 66
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/03/2013
Number of Days to Update: 27
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/06/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/24/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 73
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/24/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 11/08/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/20/2013
Date Data Arrived at EDR: 11/25/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 36
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/18/2013
Next Scheduled EDR Contact: 03/03/2014
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 11/04/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/06/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 22

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 12/05/2013
Next Scheduled EDR Contact: 03/17/2014
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/03/2013
Number of Days to Update: 27

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/06/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 09/03/2013
Date Made Active in Reports: 10/10/2013
Number of Days to Update: 37

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 12/02/2013
Next Scheduled EDR Contact: 03/17/2014
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 04/25/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 10/08/2013
Date Data Arrived at EDR: 10/15/2013
Date Made Active in Reports: 11/27/2013
Number of Days to Update: 43

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/09/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 24

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 12/10/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 76

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/14/2013
Date Data Arrived at EDR: 10/30/2013
Date Made Active in Reports: 12/03/2013
Number of Days to Update: 34

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 18

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/02/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/06/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 15

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/13/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 08/07/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 57

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 06/11/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 143

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/12/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/26/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 09/05/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 28

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/06/2013
Next Scheduled EDR Contact: 03/17/2014
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/31/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 44

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/27/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/21/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/21/2014
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/28/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 10/09/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2013
Date Data Arrived at EDR: 07/17/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 107

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/28/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 91

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/09/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 23

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/10/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 03/08/2013
Date Data Arrived at EDR: 03/21/2013
Date Made Active in Reports: 07/10/2013
Number of Days to Update: 111

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/10/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012
Date Data Arrived at EDR: 05/25/2012
Date Made Active in Reports: 07/10/2012
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/25/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 09/25/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/19/2013
Date Data Arrived at EDR: 11/21/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 42
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/21/2013
Next Scheduled EDR Contact: 03/03/2014
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 11/26/2013
Number of Days to Update: 56
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/31/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/16/2013
Number of Days to Update: 35
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/09/2013
Date Data Arrived at EDR: 08/13/2013
Date Made Active in Reports: 10/08/2013
Number of Days to Update: 56

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/16/2013
Date Made Active in Reports: 08/26/2013
Number of Days to Update: 41

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/17/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 06/25/2013
Date Made Active in Reports: 08/22/2013
Number of Days to Update: 58

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/21/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Quarterly

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 07/03/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 72

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 01/02/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Varies

EPA WATCH LIST: EPA WATCH LIST
EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 08/13/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/15/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List
The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/15/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Quarterly

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 10/31/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/03/2013
Number of Days to Update: 27

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/18/2013
Date Data Arrived at EDR: 11/19/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 42

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/18/2013
Next Scheduled EDR Contact: 03/03/2014
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/13/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information
All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 10/28/2013
Date Data Arrived at EDR: 10/29/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 38

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/18/2013
Next Scheduled EDR Contact: 03/03/2014
Data Release Frequency: Quarterly

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: N/A

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/23/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 30

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/23/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 30

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Annually

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/20/2013
Date Data Arrived at EDR: 12/11/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 24

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/15/2013
Date Data Arrived at EDR: 10/15/2013
Date Made Active in Reports: 11/27/2013
Number of Days to Update: 43

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/14/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 11/26/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/26/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: EDR
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: EDR
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 11/13/2013
Date Data Arrived at EDR: 11/15/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 31

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 11/13/2013
Date Data Arrived at EDR: 11/15/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 46

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List
Cupa Facility List

Date of Government Version: 12/05/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 24

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 08/22/2013
Number of Days to Update: 20

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 11/26/2013
Number of Days to Update: 56

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 12/05/2013
Date Data Arrived at EDR: 12/05/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 53

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 11/15/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/18/2013
Date Data Arrived at EDR: 11/19/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 42

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 11/04/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/09/2013
Date Data Arrived at EDR: 01/10/2013
Date Made Active in Reports: 02/25/2013
Number of Days to Update: 46

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 11/04/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/18/2013
Date Data Arrived at EDR: 11/19/2013
Date Made Active in Reports: 01/14/2014
Number of Days to Update: 56

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 11/04/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/16/2013
Date Made Active in Reports: 11/27/2013
Number of Days to Update: 42

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/20/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/04/2013
Number of Days to Update: 28

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/08/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/12/2013
Date Data Arrived at EDR: 12/13/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 25

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/25/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/28/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 65
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/21/2013
Date Data Arrived at EDR: 10/22/2013
Date Made Active in Reports: 11/27/2013
Number of Days to Update: 36
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/21/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 32
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 10/21/2013
Date Data Arrived at EDR: 10/25/2013
Date Made Active in Reports: 11/27/2013
Number of Days to Update: 33
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/15/2013
Date Data Arrived at EDR: 07/18/2013
Date Made Active in Reports: 08/20/2013
Number of Days to Update: 33
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 09/20/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/18/2013
Number of Days to Update: 24

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/20/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/07/2013
Date Data Arrived at EDR: 10/09/2013
Date Made Active in Reports: 11/26/2013
Number of Days to Update: 48

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/23/2013
Date Data Arrived at EDR: 08/27/2013
Date Made Active in Reports: 10/08/2013
Number of Days to Update: 42

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 11/20/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 12/02/2013
Date Data Arrived at EDR: 12/03/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 30

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 12/02/2013
Next Scheduled EDR Contact: 03/17/2014
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 09/11/2013
Date Data Arrived at EDR: 09/12/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 32

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 11/20/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/02/2013
Next Scheduled EDR Contact: 03/17/2014
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/02/2013
Next Scheduled EDR Contact: 03/17/2014
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/07/2013
Date Made Active in Reports: 12/04/2013
Number of Days to Update: 27
Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 11/04/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/04/2013
Date Data Arrived at EDR: 11/13/2013
Date Made Active in Reports: 12/04/2013
Number of Days to Update: 21
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/08/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/04/2013
Date Data Arrived at EDR: 11/13/2013
Date Made Active in Reports: 12/04/2013
Number of Days to Update: 21
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/08/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/04/2013
Date Data Arrived at EDR: 11/13/2013
Date Made Active in Reports: 12/04/2013
Number of Days to Update: 21
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/08/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Quarterly

PLACER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/09/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 28
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/10/2013
Date Data Arrived at EDR: 10/22/2013
Date Made Active in Reports: 11/27/2013
Number of Days to Update: 36
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/10/2013
Date Data Arrived at EDR: 10/22/2013
Date Made Active in Reports: 11/27/2013
Number of Days to Update: 36
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/05/2013
Date Data Arrived at EDR: 10/10/2013
Date Made Active in Reports: 11/26/2013
Number of Days to Update: 47
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/06/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/05/2013
Date Data Arrived at EDR: 10/10/2013
Date Made Active in Reports: 11/26/2013
Number of Days to Update: 47
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/06/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/26/2013
Date Data Arrived at EDR: 11/27/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 34

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/08/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2013
Date Data Arrived at EDR: 11/19/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 42

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 11/18/2013
Next Scheduled EDR Contact: 02/11/2014
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/08/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/08/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/18/2013
Date Data Arrived at EDR: 12/19/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 20

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/26/2013
Date Data Arrived at EDR: 08/27/2013
Date Made Active in Reports: 10/10/2013
Number of Days to Update: 44

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/20/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 10/01/2013
Date Data Arrived at EDR: 10/08/2013
Date Made Active in Reports: 11/26/2013
Number of Days to Update: 49

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/16/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/12/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/21/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 12/03/2013
Date Data Arrived at EDR: 12/04/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 54

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 12/02/2013
Next Scheduled EDR Contact: 03/17/2014
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 12/02/2013
Date Data Arrived at EDR: 12/03/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 30

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 12/02/2013
Next Scheduled EDR Contact: 03/17/2014
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/12/2013
Date Data Arrived at EDR: 11/15/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 49

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/08/2013
Next Scheduled EDR Contact: 02/24/2014
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 12/09/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 24

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/03/2013
Date Data Arrived at EDR: 12/04/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 29

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/21/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/18/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 21

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/12/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/19/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 20

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/12/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 11/26/2013
Number of Days to Update: 56

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 10/01/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 11/26/2013
Number of Days to Update: 55

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/10/2013
Date Data Arrived at EDR: 12/11/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 24

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/09/2013
Next Scheduled EDR Contact: 03/24/2014
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 11/04/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/04/2013
Number of Days to Update: 28

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 10/29/2013
Date Data Arrived at EDR: 11/21/2013
Date Made Active in Reports: 01/14/2014
Number of Days to Update: 54

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/19/2013
Next Scheduled EDR Contact: 03/03/2014
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/19/2013
Next Scheduled EDR Contact: 03/03/2014
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 10/02/2013
Date Data Arrived at EDR: 10/30/2013
Date Made Active in Reports: 11/27/2013
Number of Days to Update: 28

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/28/2013
Next Scheduled EDR Contact: 02/11/2014
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/26/2013
Date Data Arrived at EDR: 12/18/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 21

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/16/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 12/18/2013
Date Data Arrived at EDR: 12/24/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 15

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/17/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 12/06/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 25

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 12/06/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/22/2013
Next Scheduled EDR Contact: 03/03/2014
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/17/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/01/2013
Date Data Arrived at EDR: 11/07/2013
Date Made Active in Reports: 11/18/2013
Number of Days to Update: 11

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/07/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/24/2013
Date Made Active in Reports: 08/19/2013
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 08/05/2013
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/25/2013
Next Scheduled EDR Contact: 03/10/2014
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 08/09/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 49

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/11/2013
Next Scheduled EDR Contact: 03/31/2014
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

FARIA PROPERTY
FARIA PROPERTY
PITTSBURG, CA 94565

TARGET PROPERTY COORDINATES

Latitude (North):	37.9997 - 37° 59' 58.92''
Longitude (West):	121.9646 - 121° 57' 52.56''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	590909.2
UTM Y (Meters):	4206082.0
Elevation:	753 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	37121-H8 CLAYTON, CA
Most Recent Revision:	1994
North Map:	38121-A8 HONKER BAY, CA
Most Recent Revision:	1980

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

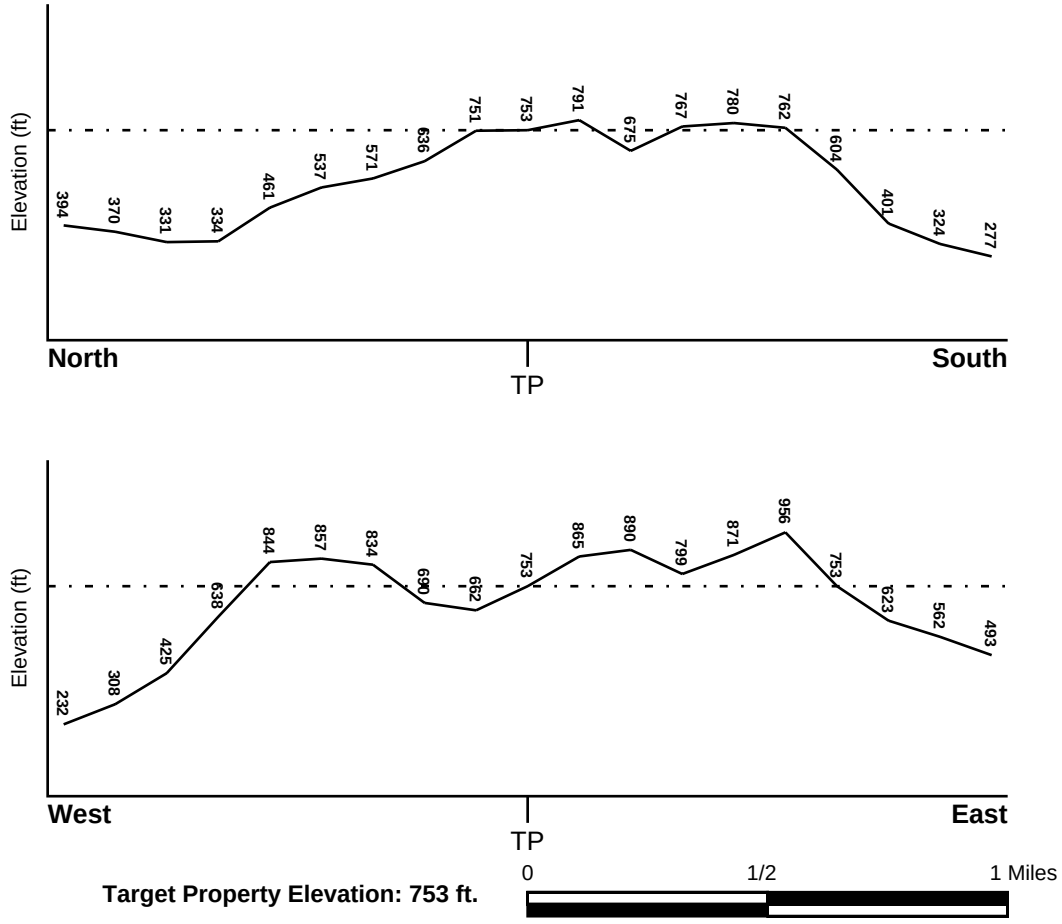
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 753 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
CONTRA COSTA, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06013C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CLAYTON	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

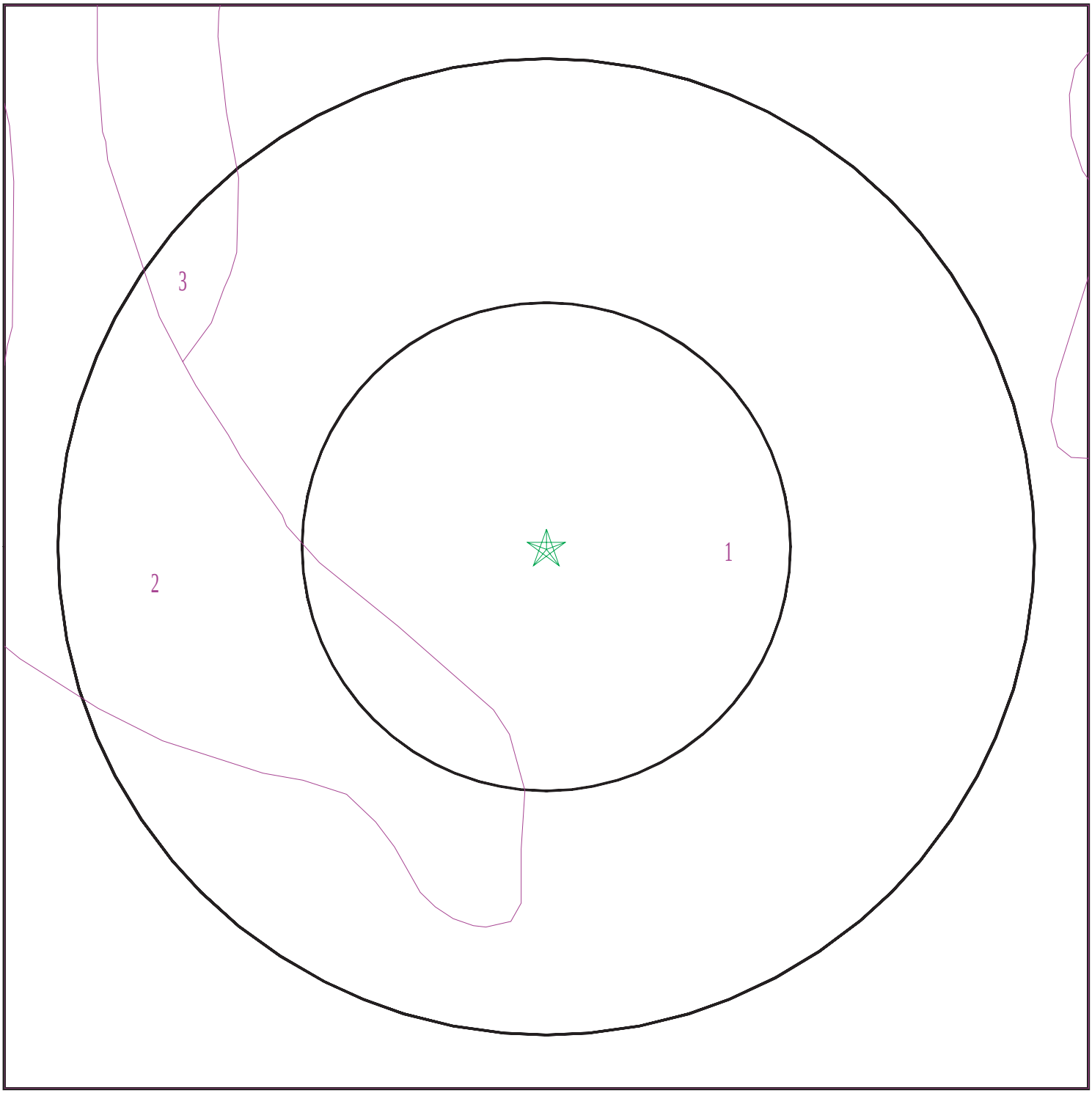
Era:	Cenozoic
System:	Tertiary
Series:	Eocene
Code:	Te *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 03848393.2r



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Faria Property	CLIENT:	Engeo Inc.
ADDRESS:	Faria Property Pittsburg CA 94565	CONTACT:	Siobhan Oreilly-Shah
LAT/LONG:	37.9997 / 121.9646	INQUIRY #:	03848393.2r
		DATE:	February 05, 2014 9:26 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: ALTAMONT

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	25 inches	48 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	48 inches	51 inches	weathered bedrock	Not reported	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 2

Soil Component Name: ALTAMONT

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 30 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	25 inches	48 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	48 inches	51 inches	weathered bedrock	Not reported	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 3

Soil Component Name: CAPAY

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	35 inches	51 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	51 inches	72 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

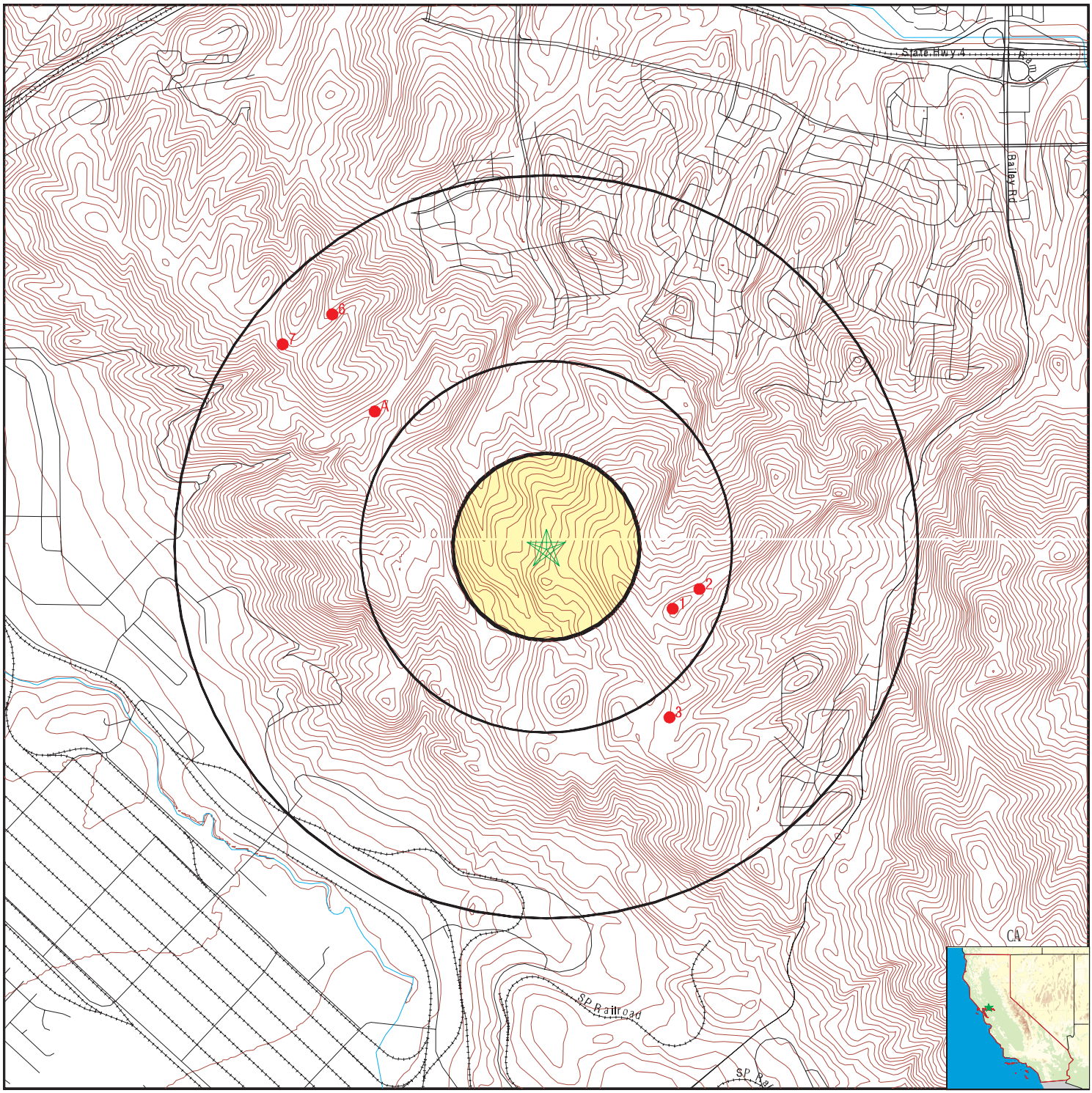
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG9A000208194	1/4 - 1/2 Mile ESE
2	CAOG9A000208196	1/4 - 1/2 Mile ESE
3	CAOG9A000208127	1/2 - 1 Mile SE
A4	CAOG9A000208240	1/2 - 1 Mile NW
A5	CAOG9A000208239	1/2 - 1 Mile NW
6	CAOG9A000208269	1/2 - 1 Mile NW
7	CAOG9A000208262	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 03848393.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Faria Property	CLIENT:	Engeo Inc.
ADDRESS:	Faria Property Pittsburg CA 94565	CONTACT:	Siobhan Oreilly-Shah
LAT/LONG:	37.9997 / 121.9646	INQUIRY #:	03848393.2r
		DATE:	February 05, 2014 9:26 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
ESE **OIL_GAS** **CAOG9A000208194**
1/4 - 1/2 Mile

Districtnu:	6	Apinumber:	01300208
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Trico Industries, Inc.		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	27		
Township:	02N	Range:	01W
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.997282		
Glong:	-121.958371		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Keller	Wellnumber:	3
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000208194

2
ESE **OIL_GAS** **CAOG9A000208196**
1/4 - 1/2 Mile

Districtnu:	6	Apinumber:	01300204
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Trico Industries, Inc.		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	22		
Township:	02N	Range:	01W
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.998051		
Glong:	-121.957051		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Keller	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000208196

3
SE **OIL_GAS** **CAOG9A000208127**
1/2 - 1 Mile

Districtnu:	6	Apinumber:	01300207
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Trico Industries, Inc.		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	27		
Township:	02N	Range:	01W
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.993042		
Glong:	-121.958521		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Keller	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000208127

A4
NW
1/2 - 1 Mile

OIL_GAS **CAOG9A000208240**

Districtnu:	6	Apinumber:	01320175
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Vintage Production California LLC		
Countyname:	Contra Costa	Fieldname:	Willow Pass Gas (ABD)
Areaname:	Main		
Section:	21		
Township:	02N	Range:	01W
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	38.004981		
Glong:	-121.972852		
Gissourcec:	hud		
Comments:	Status Code 024		
Leasename:	Faria	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDG	Site id:	CAOG9A000208240

A5
NW
1/2 - 1 Mile

OIL_GAS **CAOG9A000208239**

Districtnu:	6	Apinumber:	01320182
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Hilliard Oil & Gas, Inc.		
Countyname:	Contra Costa	Fieldname:	Willow Pass Gas (ABD)
Areaname:	Main		
Section:	21		
Township:	02N	Range:	01W
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	38.004981		
Glong:	-121.973262		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	Faria	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000208239

6
NW
1/2 - 1 Mile

OIL_GAS **CAOG9A000208269**

Districtnu:	6	Apinumber:	01300181
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Trico Industries, Inc.		
Countyname:	Contra Costa	Fieldname:	Willow Pass Gas (ABD)
Areaname:	Main		
Section:	21		
Township:	02N	Range:	01W
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	38.008771		
Glong:	-121.975152		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Faria Unit-Alvernaz	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000208269

7
NW
1/2 - 1 Mile

OIL_GAS **CAOG9A000208262**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Districtnu:	6	Apinumber:	01300179
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	The Termo Company		
Countyname:	Contra Costa	Fieldname:	Willow Pass Gas (ABD)
Areaname:	Main		
Section:	21		
Township:	02N	Range:	01W
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	38.007601		
Glong:	-121.977602		
Gissourcec:	hud		
Comments:	Status Code 024		
Leasename:	Faria Unit	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDG	Site id:	CAOG9A000208262

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94565	29	2

Federal EPA Radon Zone for CONTRA COSTA County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 94565

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.375 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX B

OLD REPUBLIC

Preliminary Title Report

APPENDIX B



OLD REPUBLIC TITLE COMPANY

1000 Burnett Ave, Suite 400
Concord, CA 94520
(925) 687-7880 Fax: (925) 687-4836

PRELIMINARY REPORT

4TH UPDATE

FARIA LAND INVESTORS LLC
4061 PORT CHICAGO HIGHWAY, SUITE H
CONCORD, CA 94520

Our Order Number 294929A-DJ

When Replying Please Contact:

Donna Jones
DonnaJ@ortc.com
(925) 687-7880

Property Address:

Faria South , Concord, CA
[Unincorporated area of Contra Costa County]

In response to the above referenced application for a policy of title insurance, OLD REPUBLIC TITLE COMPANY hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said Policy or Policies are set forth in Exhibit A attached. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the Homeowner's Policy of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit A. Copies of the Policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.
It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of February 24, 2012, at 7:30 AM

OLD REPUBLIC TITLE COMPANY
For Exceptions Shown or Referred to, See Attached

The form of policy of title insurance contemplated by this report is:

CLTA Standard Coverage Policy -1990. A specific request should be made if another form or additional coverage is desired.

The estate or interest in the land hereinafter described or referred or covered by this Report is:

Fee as to Parcel(s) One, Two, Three, Four, Five and Eight and an Easement as to Parcel(s) Six and Seven

Title to said estate or interest at the date hereof is vested in:

FARIA LAND INVESTORS, LLC, a California limited liability company

The land referred to in this Report is situated in the unincorporated area of the County of Contra Costa, State of California, and is described as follows:

PARCEL ONE:

Beginning at the Southeast corner of the North 1/2 of the Northwest 1/4 of Section 22, Township 2 North, Range 1 West, Mount Diablo Base and Meridian; thence from said point of beginning West 855 feet along the South line of said North 1/2 of the Northwest 1/4 of Section 22; thence North 29° 51' East, 142.1 feet; thence North 70° 02' East, 285.7 feet; thence North 52° 54' East, 159.3 feet; thence North 72° 24' East, 90 feet; thence North 80° 25' East, 314.6 feet to the East line of said North 1/2 of the Northwest 1/4 of Section 22; thence South 1° 03' 30" West, 396.55 feet to the place of beginning.

EXCEPTING FROM PARCEL ONE: All oil, gas, mineral and other hydrocarbon substances lying below a depth of 500 feet, with rights of surface entry and the right to remove same at such location or locations which will not unreasonably interfere with Grantee's use and development of the subject property, as reserved in the deed from James O. Huberty, Trustee, et al, recorded May 19, 1989, Book 15080, Page 232, Official Records.

APN: 097-180-002

PARCEL TWO:

The South 1/2 of the Northwest 1/4 of Section 22, in Township 2 North, Range 1 West, Mount Diablo Base and Meridian.

EXCEPTING FROM PARCEL TWO:

1. That certain parcel of land described in that certain Deed dated September 3, 1904, executed by Joseph Faria to W.W. Wight and S.A. Sellers, and recorded November 14, 1904, Book 109 of Deeds, Page 198.

2. That portion of that certain parcel of land included in the South one-half of the Northwest quarter described in the Deed dated February 20, 1923, executed by Joseph Faria and Geraldine Faria, his wife, to Antonio Faria and Mary Faria, his wife, and recorded February 20, 1923, Book 432 of Deeds, Page 181.

3. “All minerals, oil, gas and hydrocarbons lying being or situated in or under said premises”, as reserved in the Deed from Antone Faria, et al, recorded May 14, 1947, Book 1111, Official Records, Page 206.

FURTHER EXCEPTING FROM PARCEL TWO: Any further mineral rights that may be vested in the grantors in and to all oil, gas, mineral and other hydrocarbon substances lying below a depth of 500 feet, with rights of surface entry and the right to remove same at such location or locations which will not unreasonably interfere with Grantee's use and development of the subject property, as reserved in the deed from James O. Huberty, Trustee, et al, recorded May 19, 1989, Book 15080, Page 232, Official Records.

APN: 097-180-006

PARCEL THREE:

Portion of Fractional Section 21 and portion of the Southwest 1/4 of the Northwest 1/4 of Section 22, Township 2 North, Range 1 West, Mount Diablo Base and Meridian, described as follows:

Beginning on the East line of said Section 21, at the intersection thereof with the Northeast line of the 4,961.163 acre parcel described in the fourth amendment to the Lis Pendens in the action entitled, "United States of America vs. Von Heckeren, et al", District Court, Case No. 23520-G, a certified copy of which was recorded March 29, 1945, Book 812 Official Records, Page 413; thence from said point of beginning, North, along said East line to the East 1/4 of said Section 21; thence Northeasterly, along a fence to a point on the North line of the South 1/2 of the Northwest 1/4 of said Section 22 which bears East 792 feet from the East line of said Section 21; thence West, along said North line and along the North line of the South 1/2 of the Northeast 1/4 of said Section 21, a distance of 3432 feet to North-South-Midsection line of said Section 21; thence North along said mid-section line, 1320 feet to the North line of said Section 21; thence West along said last mentioned North line to the Northeast line of said 4961.163 acre parcel; thence Southeasterly along said Northeast line to the point of beginning.

EXCEPTING FROM PARCEL THREE: "All the minerals, mineral substances and oils of every sort and description", as reserved in the Deed from Edward T. Faria and Orlinda R. Faria, his wife, and Irvin E. Faria, as joint tenants, a life estate recorded April 23, 1964, Book 4602, Page 415, Official Records.

FURTHER EXCEPTING FROM PARCEL THREE: Any further mineral rights that may be Vested in the Grantors in and to all oil, gas, mineral and other hydrocarbon substances lying below a depth of 500 feet, with rights of surface entry and the right to remove the same at such location or locations which will not unreasonably interfere with Grantee's use and development of the subject property, as reserved in the deed from James O. Huberty, Trustee, et al, recorded May 19, 1989, Book 15080, Page 232, Official Records.

APN: 097-190-002 and 097-200-002

PARCEL FOUR:

The Southwest 1/4 of Section 22, Township 2 North, Range 1 West, Mount Diablo Base and Meridian.

EXCEPTING FROM PARCEL FOUR:

1. That parcel of land described in the final judgment filed on November 17, 1950, in District Court, Action No. 23529-G, Northern District of California, Southern Division, a certified copy of which was recorded November 29, 1950, Book 1676 Official Records, Page 326, and as described in the Deed from Antone Faria, et al, to the United States of America, recorded November 29, 1950, Book 1676 Official Records, Page 331.

2. "All minerals, oil, gas and hydrocarbons lying being or situated in or under said premises", as reserved in the Deed from Antone Faria, et al, recorded May 14, 1947, Book 1111, Official Records, Page 206, and in the Quitclaim Deed recorded March 30, 1975, Book 7458, Page 363, Official Records.

FURTHER EXCEPTING FROM PARCEL FOUR: Any further mineral rights that may be vested in the grantors in and to all oil, gas, mineral and other hydrocarbon substances lying below a depth of 500 feet, with rights of surface entry and the right to remove same at such location or locations which will not unreasonably interfere with Grantee's use and development of the subject property, as reserved in the deed from James O. Huberty, Trustee, et al, recorded May 19, 1989, Book 15080, Page 232, Official Records.

APN: 097-200-003

PARCEL FIVE:

Portion of the Northwest 1/4 of Section 27, Township 2 North, Range 1 West, Mount Diablo Base and Meridian, described as follows: Beginning at the Northeast corner of the Northwest 1/4 of said Section 27; thence from said point of beginning, South 89° 15' West, along the North line if said Northwest 1/4, 2456.52 feet to the Northeast line of the parcel of land described as Parcel 3-A, in the judgment entered in the United States District Court, in and for the Northern District of California, Southern Division, (Case No. 23529-G), entitled United States of America, plaintiff, vs. Ralph D. Bollman, et al, defendants, dated March 26, 1945, a certified copy of which was recorded March 30, 1945, Book 816 Official Records, Page 40; thence South 53° 13' 31" East, along said Northeast line 3080 feet to the East line of said Northwest 1/4 of said Section 27; thence North along said East line, 1870 feet to the point of beginning.

EXCEPTING FROM PARCEL FIVE: Rights Reserved in the Deed from Ralph D. Bollman, et ux, recorded December 29, 1950, Book 1694, Official Records, Page 296, as follows:

"SAVING AND EXCEPTING THEREFROM AND RESERVING unto the Grantors, and their Successors and Assigns, for and during the terms of the natural lives of said Grantors, and each of them, and for and during the terms of the lives of their two children, Harold Bollman and Beverly Bollman, from all of the lands hereinabove described all oil, gas and other hydrocarbons and minerals now, or at any time hereafter, situate therein and thereunder, together with all easements and rights necessary or convenient for the production, storage and transportation thereof and the exploration and testing of the said real property and also the right to drill for, produce and use after water from the said real property in connection with drilling or mining operations thereon; provided, however, that this reservation or right to take water in connection with drilling operations shall, at all time, be conditional upon there being an ample and sufficient supply of water on said lands at all times for the watering of any livestock pastured thereon by the grantees, or their successors, or assigns. If the grantors shall drill the said real property for oil gas or hydrocarbons, for mine the same for minerals, they shall compensate the grantees for any damages done to growing crops, pasture and improvements, and shall pay to the grantees the reasonable agricultural value of all land actually taken for the said purposes. If the Grantors, or any of their Lessors, and the Grantees cannot agree with regard to the amount of such compensation, the same shall be determined from time to time, as it becomes necessary to determine it, by arbitration, the grantors, or their lessees, to appoint one arbitrator and the grantees another arbitrator, and the two so appointed to appoint a third, and a decision of a majority to be conclusive; provided that the grantors, or any of their lessors, may exercise all of the rights reserved hereby at any time, and from time to time, without first being required to agree with respect to such compensation, or having the same fixed by arbitration, and that such compensation shall be fixed, either by agreement or arbitration, after the grantors or any lessees, have commenced and are prosecuting operations, and all parties agree to cooperate to the end

that such compensation will be fixed by either of the said methods within a reasonable time after the occasions for fixing the same arise".

APN: 097-240-002

PARCEL SIX:

Non-exclusive roadway and utility easement appurtenant to Parcels One through Five, above, granted in the deed to Faria Land Investors, LLC, recorded June 12, 2006, Series No. 2006-183298, Official Records, over, through and across that portion of Parcel C, MS 676-05 filed June 21, 2005, Book 193 of Parcel Maps, Page 46, described in Exhibit "C" attached thereto.

PARCEL SEVEN:

A Right of Way for road purpose only over the present traveled road across the remaining portion of said Northeast Quarter of said Section Twenty-one (21), (Township 2 North, Range 1 West), and over the present traveled road running across the Northwest corner of the Northwest quarter of Section Twenty-Two (22) in said township and range, said Right of Way to be Sixteen (16) feet wide, and being the same land conveyed to Antonio Faria and Mary Faria, September 7, 1908, by Joseph S. Faria and Geraldine Faria, and recorded in Book 141 of Deeds, Page 146, Contra Costa County Records.

PARCEL EIGHT:

Being all of the West portion of Parcel 'B', as said Parcel is shown on that Lot Line Adjustment Filed on January 18, 2002 under Recorder's Serial Number 2002-18773 in the Office of the County Recorder of Contra Costa County and a portion of the East portion of Parcel 'B' of said LLA (02-18773), more particularly described as follows:

Beginning at the Northeast corner of Section 27, Township 2 North, Range 1 West, Mount Diablo Base and Meridian; thence along the North line of said Section 27, North 89° 55' 57" West, 653.54 feet to the intersection of said North line of Section 27 and the East line of said West portion of Parcel 'B' (02-18773); thence along said East line, South 01° 26' 59" West, 3316.70 feet; thence South 89° 55' 57" East, 644.83 feet; thence North 89° 45' 30" East, 291.51 feet to the intersection of the Westerly Right of Way line of Bailey Road (50 feet wide) and said East line of said West portion of Parcel 'B' (02-18773); thence along said Westerly Right of Way line, South 33° 13' 40" West, 404.32 feet; thence along the arc of a tangent curve to the right having a radius of 1475.12 feet through a central angle of 03° 50' 00" and an arc length of 98.69 feet; thence South 37° 03' 40" Wet, 97.74 feet to the most Southeasterly corner of said West portion of Parcel 'B' (02-18773); thence along the South line of said West portion of Parcel 'B', North 52° 20' 13" West, 3168.86 feet; thence leaving said South line and along the West line of said West portion of Parcel 'B', North 00° 59' 53" East, 1878.43 feet; thence North 00° 16' 03" East, 655.64 feet to the most Northwest corner of said West portion of Parcel 'B'; thence along the North line of said West portion of Parcel 'B', South 89° 58' 08" East, 2618.12 feet; thence South 00° 36' 37" West, 657.34 feet to the point of beginning.

EXCEPTING THEREFROM: The Rights Reserved in the Deed from Kathryn Costa, et al, recorded July 3, 1991, in Book 16711, Page 438, Contra Costa County Official Records, as follows:

"Grantor Reserves unto themselves all oil, gas, casinghead gas, hydrocarbon and mineral substances below a point 500 feet below the surface of said land, together with the right to take, remove, mine and dispose of all said oil, gas, casinghead gas and other hydrocarbon and mineral substances, together with the right to remove

all or any thereof and the right to grant leases for the removal of all or any thereof by means of wells surfaced outside of the lands described herein and slant drilled to reach the subsurface of the land described herein, but without any right whatsoever to enter upon the surface of said land or any part of said land within 500 feet of the surface thereof."

APN: 097-230-008

At the date hereof exceptions to coverage in addition to the Exceptions and Exclusions in said policy form would be as follows:

1. Taxes and assessments, general and special, for the fiscal year 2012 - 2013, a lien, but not yet due or payable.

2. Taxes and assessments, general and special, for the fiscal year 2011 - 2012, as follows:

Assessor's Parcel No	:	097-180-002	
Code No.	:	79-004	
1st Installment	:	$539.47	Marked Paid
2nd Installment	:	$539.47	NOT Marked Paid
Land	:	$88,070.00	
Imp. Value	:	$0.00	
Exemption	:	$0.00	

Said matters affect Parcel One

3. Taxes and assessments, general and special, for the fiscal year 2011 - 2012, as follows:

Assessor's Parcel No	:	097-180-006	
Code No.	:	79-004	
1st Installment	:	$5,712.40	Marked Paid
2nd Installment	:	$5,712.40	NOT Marked Paid
Land Value	:	$1,034,383.00	
Imp. Value	:	$2,257.00	

Said matters affect Parcel Two

4. Taxes and assessments, general and special, for the fiscal year 2011 - 2012, as follows:

Assessor's Parcel No	:	097-190-002	
Code No.	:	79-004	
1st Installment	:	$6,595.26	Marked Paid
2nd Installment	:	$6,595.26	NOT Marked Paid
Land	:	$1,200,800.00	
Imp. Value	:	$0.00	
Exemption	:	$0.00	

Corrected Bill

Said matters affect a portion of Parcel Three

5. Taxes and assessments, general and special, for the fiscal year 2011 - 2012, as follows:

Assessor's Parcel No	:	097-200-002	
Code No.	:	79-004	
1st Installment	:	$4,202.61	Marked Paid
2nd Installment	:	$4,202.61	NOT Marked Paid
Land	:	$760,489.00	
Imp. Value	:	$0.00	
Exemption	:	$0.00	

Said matters affect a portion of Parcel Three

6. Taxes and assessments, general and special, for the fiscal year 2011 - 2012, as follows:

Assessor's Parcel No	:	097-200-003	
Code No.	:	79-004	
1st Installment	:	$4,421.91	Marked Paid
2nd Installment	:	$4,421.91	NOT Marked Paid
Land	:	$800,846.00	
Imp. Value	:	$0.00	
Exemption	:	$0.00	

Said matters affect Parcel Four

7. Taxes and assessments, general and special, for the fiscal year 2011 - 2012, as follows:

Assessor's Parcel No	:	097-240-002	
Code No.	:	79-004	
1st Installment	:	$4,474.62	Marked Paid
2nd Installment	:	$4,474.62	NOT Marked Paid
Land	:	$810,545.00	
Imp. Value	:	$0.00	
Exemption	:	$0.00	

Said matters affect Parcel Five

8. Taxes and assessments, general and special, for the fiscal year 2011 - 2012, as follows:

Assessor's Parcel No	:	097-230-008	
Code No.	:	79-004	
1st Installment	:	$4,497.28	Marked Paid
2nd Installment	:	$4,497.28	NOT Marked Paid
Land	:	$814,716.00	
Imp. Value	:	$0.00	
Exemption	:	$0.00	

Said matters affect Parcel Eight

9. Supplemental taxes, general and special, for the fiscal year 2011 - 2012 (triggered by change of ownership on April 22, 2009) as follows:

Assessor's Parcel No.	:	097-200-002	
1st Installment	:	$74.69	Marked Paid
2nd Installment	:	$74.69	Marked Paid

Said matters affect a portion of Parcel Three

10. Supplemental taxes, general and special, for the fiscal year 2011 - 2012 (triggered by change of ownership on April 22, 2009) as follows:

Assessor's Parcel No.	:	097-200-002	
1st Installment	:	$2,550.17	Marked Paid
2nd Installment	:	$2,550.17	Marked Paid

Said matters affect a portion of Parcel Three

11. Supplemental taxes, general and special, for the fiscal year 2011 - 2012 (triggered by change of ownership on April 22, 2009) as follows:

Assessor's Parcel No.	:	097-240-002	
1st Installment	:	$79.60	Marked Paid
2nd Installment	:	$79.60	Marked Paid

Said matters affect Parcel Five

12. Supplemental taxes, general and special, for the fiscal year 2011 - 2012 (triggered by change of ownership on April 22, 2009) as follows:

Assessor's Parcel No.	:	097-240-002	
1st Installment	:	$2,718.03	Marked Paid
2nd Installment	:	$2,718.03	Marked Paid

Said matters affect Parcel Five

13. The lien of supplemental taxes, if any, assessed pursuant to the provisions of Section 75, et seq., of the Revenue and Taxation Code of the State of California.

14. Any special tax which is now a lien and that may be levied within the Mt. Diablo Unified School District Community Facilities District No. 1, a notice of which was recorded as follows:

Instrument Entitled	:	Notice of Special Tax Lien
By	:	Mt. Diablo Unified School District
Recorded	:	August 10, 1990, in Reel 16045 of Official Records, Image 1, under Series No. 90-163881

the amounts of which are to be included in and payable with the general and special real property taxes

Further information may be obtained by contacting:
Associate Superintendent – Administrative Service of the Mt. Diablo Unified School District, 1936 Carlotta Drive, Concord, CA 94519. phone (925) 682-8000.

15. Road Maintenance Provisions contained in the Deed from W. W. Wight et al to Jos. Faria et al, recorded February 20, 1905, Book 109 of Deeds, Page 520, and in the Judgment recorded December 4, 1933, Book 348, Page 468, Official Records.

Said matters affect Parcel Seven.

16. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Deed
Granted to	:	Pacific Gas and Electric Company
For	:	Gas pipe lines
Recorded	:	March 31st, 1961 in Book 3836 of Official Records, Page 257
Affects	:	Portions of Parcel Three, 20 feet in width

The interest of Pacific Gas and Electric Company, therein was assigned to Shell Oil Company, by conveyance recorded July 10, 1964, Book 4657, Page 625, Official Records.

17. Oil and Gas Lease dated February 24, 1981, by and between Alvin P. Faria et al, Lessors, to Hilliard Oil and Gas, Inc., a Nevada corporation, Lessee, recorded April 24, 1981, Book 10297, Official Records, Page 147.

Said matters affect: Parcels Two, Three and Four

NOTE: The present ownership of said leasehold or leaseholds and other matters affecting the interest of the lessee or lessees are not shown herein.

18. Oil and Gas Lease dated May 26, 1981, by and between JAMES W. BAETA, Lessor, and HILLIARD OIL & GAS, INC., a Nevada corporation, Lessee, recorded May 26, 1981, Book 10338, Page 765, Official Records.

Said matters affect: Parcels Two and Four

NOTE: The present ownership of said leasehold or leaseholds and other matters affecting the interest of the lessee or lessees are not shown herein.

19. Provisions contained in the Deed from James O. Huberty, Trustee et al, to Seecon Financial and Construction Co., Inc., recorded May 19, 1989, Book 15080, Page 232, Official Records, which recites as follows:

"Grantor and Grantee, for themselves, their successors and assigns, agree to execute any documents necessary at a future date to specifically locate the agreed drilling sites referred to in the Mineral Reservation set forth in the legal description at a time when it becomes necessary for Grantee's development of the herein described property at such location or locations which will not unreasonably interfere with such development."

Affects Parcels One through Seven

20. Covenants and conditions contained in the Deed from Kathryn Costa, et al, to Bailey Road Developers, recorded July 3, 1991, in Book 16711, Page 438, Official Records, which recites as follows:

Grantee for and on behalf of itself, its successors and assigns, Covenants and Agrees not to use or permit the lands herein Conveyed to be used for the deposit or disposal thereon of any or all of the following substances:

A. Any Extremely Hazardous Waste as now or hereafter defined in Sections 25115 and 25117 of California Health & Safety Code, or similar law, or statutes hereafter enacted.

B. Any Infectious Waste or Ecological Agent as now or hereafter defined in California Health & Safety Code Section 25117.5 or similar law or statute hereafter adopted.

C. The storage thereon other than temporary of any discarded trucks, motor vehicles, machinery, metals, concrete or brick.

Affects: Parcel Eight

21. Covenants, Conditions and Restrictions which do not contain express provisions for forfeiture or reversion of title in the event of violation, but omitting any covenants or restrictions if any, based upon race, color, religion, sex, handicap, familial status, or national origin unless and only to the extent that said covenant (a) is exempt under Title 42, Section 3607 of the United States Code or (b) relates to handicap but does not discriminate against handicapped persons, as provided in an instrument

Entitled	:	Declaration of Restrictions
Executed by	:	Seecon Financial & Construction Co., Inc., a California Corporation
Recorded	:	August 24th, 1994 in Official Records under Recorder's Serial Number 94-211687

Affects a portion of Parcel Three

NOTE: "If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to Section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

22. Ordinance No. 96-28 Bay Point Area of Benefit, by the Board of Supervisors of Contra Costa County, recorded August 15, 1996, Recorder's Series No. 96-152750; and Ordinance No,. 98-40, Revision of Fees for the Bay Point Area of Benefit, by the Board of Supervisors of Contra Costa County, recorded October 26, 1998, Recorder's Series No. 98-265409, Contra Costa County Records.

23. Ordinance No. 97-30, Revision of Eastern Contra Costa Sub-Regional Transportation Mitigation Fees, by the Board of Supervisors of Contra Costa County, recorded August 6, 1997, Series No. 97-140390; Ordinance No. 97-29, Urgency Measure for Interim Authorization to Revise Eastern Contra Costa Sub-Regional Transportation Mitigation Fees, recorded August 6, 1997, Series No. 97-140391 and Resolution and Ordinance for the Eastern Urgency Ordinance for the Eastern Contra Costa Sub-Regional Transportation Mitigation Fee Program, recorded August 18, 1997, Series No. 97-148355.

24. The effect of those certain Oil and Gas Leases executed by Marjorie Bolton et al and recorded on May 20, 2005 under Recorder's Serial Numbers 2005-182588, 182589, 182590, 182591, 182592, 182593, 182594, 182595, 182596 and on July 22, 2005 under Recorder's Serial Numbers 2005-272377, 272378, 272379, 272380, 272381 and on August 5, 2005 under Recorder's Serial Numbers 2005-293939, 293940, 293941, 293942, 293943 and on September 9, 2005 under Recorder's Serial Number 2005-344022, 344023, 344024 and on October 5, 2005 under Recorder's Serial Number 2005-382410 and on November 8, 2005 under Recorder's Serial Number 2005-434309 and on November 10, 2005 under Recorder's Serial Number 2005-437998 and 437999.

Affects: Parcels Two and Four

25. Terms and provisions as contained in an instrument,

Entitled	:	Grant of Roadway/Utility Easement
Executed By	:	Faria Land Investors, LLC, a California limited liability company and Lyon Vista Del Mar 533, LLC, a Delaware limited liability company
Dated	:	April 12, 2006
Recorded	:	June 12, 2006 in Official Records under Recorder's Serial Number 2006-0183298-00
Returned to Address	:	840 Newport Center Dr #400, Newport Beach, CA 92660

Which, among other things, provides: Provisions pertaining to Parcel Six

26. Deed of Trust to secure an indebtedness incurred under that certain Amended and Restated Revolving Credit Agreement dated May 9, 2007, as said Credit Agreement is modified and extended by various agreements appearing of record and executed by the several owners of the properties involved,

Trustor/Borrower	: Faria Land Investors, LLC, a California limited liability company
Trustee	: American Securities Company, a California corporation
Beneficiary/Lender	: Wells Fargo Bank, National Association
Dated	: June 23, 2009
Recorded	: June 30, 2009 in Official Records under Recorder's Serial Number 2009-152966
Loan No.	: 1894ZW-043
Address	: 2033 N. Main Street, Suite 400, Walnut Creek, CA 94596

Said matters affect Parcels One and Three through Eight

27. Covenants, Conditions and Restrictions which do not contain express provision for forfeiture or reversion of title in the event of violation, but omitting any covenants or restriction if any, based upon race, color, religion, sex, handicap, familial status, or national origin unless and only to the extent that said covenant (a) is exempt under Title 42, Section 3607 of the United States Code or (b) relates to handicap but does not discriminate against handicapped persons, as provided in an instrument.

Entitled	:	Declaration and Establishment of Covenants and Restrictions
Executed by	:	Faria Land Investors, LLC, a California Limited Liability Company
Recorded	:	February 7, 2011 in Official Records under Recorder's Serial Number 2011-29124

Affects a portion of Parcels Three and Four

28. Matters as contained or referred to in an instrument,

Entitled	:	Memorandum of Understanding
Executed By	:	Faria Land Investors, LLC, et al, and the City of Pittsburg
Recorded	:	September 1, 2011 in Official Records under Recorder's Serial Number 2011-179943
Which Among Other Things Provides	:	Provisions pertaining to a regional transportation mitigation fee

29. Prior to the issuance of any policy of title insurance, the Company will require the following with respect to Faria Land Investors, LLC, a California Limited Liability Company:

1. A copy of any management or operating agreements and any amendments thereto, together with a current list of all members of said LLC.

2. A certified copy of its Articles of Organization (LLC-1), any Certificate of Correction (LLC-11), Certificate of Amendment (LLC-2), or Restatement of Articles of Organization (LLC-10).

3. Recording a Certified copy of said LLC-1 and any “amendments thereto”.

---------- Informational Notes ----------

A. The applicable rate(s) for the policy(s) being offered by this report or commitment appears to be section(s) 4.1 et. seq.

B.

NOTE: Recorded transfers or agreements to transfer the land described herein within the last three years prior to the date hereof are as follows:

Instrument Entitled	:	Grant Deed
By/From	:	Faria Land Investors, LLC, a California limited liability company
To	:	Jacqueline M. Seeno, an unmarried woman
Recorded	:	April 21, 2009 in Official Records under Recorder's Serial Number 2009-86138

Affects Parcel Two

C.

Instrument Entitled	:	Grant Deed
By/From	:	Faria Land Investors, LLC, a California limited liability company
To	:	Jacqueline M. Seeno, an unmarried woman
Recorded	:	April 22, 2009 in Official Records under Recorder's Serial Number 2009-87282

Affects Parcels One and Three through Eight

D.

Instrument Entitled	:	Grant Deed
By/From	:	Jacqueline M. Seeno, an unmarried woman
To	:	Carmel Hills, LLC, a California limited liability company
Recorded	:	May 15, 2009 in Official Records under Recorder's Serial Number 2009-110693

Affects Parcels One and Three through Eight

E.

Instrument Entitled	:	Grant Deed
By/From	:	Carmel Hills, LLC, a California limited liability company
To	:	Faria Land Investors, LLC, a California limited liability company
Recorded	:	June 19, 2009 in Official Records under Recorder's Serial Number 2009-144005

Affects Parcels One and Three through Eight

F.

Instrument Entitled	:	Grant Deed
By/From	:	Jacqueline M. Seeno, an unmarried woman
To	:	FARIA LAND INVESTORS, LLC, a California limited liability company
Recorded	:	May 4, 2010 in Official Records under Recorder's Serial Number 2010-88492

Affects Parcel Two

If you anticipate having funds wired to , our wiring information is as follows: ,
credit to the account of: Account Number , ABA Number .

When instructing the financial institution to wire funds, it is very important that you reference Old Republic Title's Escrow Number 294929A.

Note: Automated Clearing House (ACH) transfers are not accepted in lieu of wired funds, except when received from a governmental agency.

Funds deposited directly into an account of at a branch are subject to verification and may cause a delay in closing.

Should you have any questions in this regard, please contact your Escrow or Title Officer immediately.

Exhibit A

CALIFORNIA LAND TITLE ASSOCIATION
STANDARD COVERAGE POLICY - 1990
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or {iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.-

   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.

3. Defects, liens, encumbrances, adverse claims or other matters:

   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;

   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;.

   (c) resulting in no loss or damage to the insured claimant;

   (d) attaching or created subsequent to Date of Policy; or

   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.

4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land Is situated.

5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.

6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments Which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.

   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.

2. Any facts, rights, interests, or claims Which are not shown by the public records but which could be ascertained by an inspection of the land which may be asserted by persons in possession thereof,

3. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.

4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.

5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.

6. Any lien or right to a lien for services, labor or material not shown by the public records.

OLD REPUBLIC TITLE COMPANY

Privacy Policy Notice

PURPOSE OF THIS NOTICE

Title V of the Gramm-Leach-Bliley Act (GLBA) generally prohibits any financial institution, directly or through its affiliates, from sharing nonpublic personal information about you with a nonaffiliated third party unless the institution provides you with a notice of its privacy policies and practices, such as the type of information that it collects about you and the categories of persons or entities to whom it may be disclosed. In compliance with the GLBA, we are providing you with this document, which notifies you of the privacy policies and practices of OLD REPUBLIC TITLE COMPANY

We may collect nonpublic personal information about you from the following sources:

Information we receive from you such as on applications or other forms.
Information about your transactions we secure from our files, or from [our affiliates or] others.
Information we receive from a consumer reporting agency.
Information that we receive from others involved in your transaction, such as the real estate agent or lender.

Unless it is specifically stated otherwise in an amended Privacy Policy Notice, no additional nonpublic personal information will be collected about you.

We may disclose any of the above information that we collect about our customers or former customers to our affiliates or to nonaffiliated third parties as permitted by law.

We also may disclose this information about our customers or former customers to the following types of nonaffiliated companies that perform marketing services on our behalf or with whom we have joint marketing agreements:

Financial service providers such as companies engaged in banking, consumer finance, securities and insurance.
Non-financial companies such as envelope stuffers and other fulfillment service providers.

WE DO NOT DISCLOSE ANY NONPUBLIC PERSONAL INFORMATION ABOUT YOU WITH ANYONE FOR ANY PURPOSE THAT IS NOT SPECIFICALLY PERMITTED BY LAW.

We restrict access to nonpublic personal information about you to those employees who need to know that information in order to provide products or services to you. We maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Disclosure to Consumer of Available Discounts

Section 2355.3 in Title 10 of the California Code of Regulation necessitates that Old Republic Title Company provide a disclosure of each discount available under the rates that it, or its underwriter Old Republic National Title Insurance Company, have filed with the California Department of Insurance that are applicable to transactions involving property improved with a one to four family residential dwelling.

You may be entitled to a discount under Old Republic Title Company's escrow charges if you are an employee or retired employee of Old Republic Title Company including its subsidiary or affiliated companies or you are a member in the California Public Employees Retirement System "CalPERS" or the California State Teachers Retirement System "CalSTRS" and you are selling or purchasing your principal residence.

If you are an employee or retired employee of Old Republic National Title Insurance Company, or it's subsidiary or affiliated companies, you may be entitled to a discounted title policy premium.

Please ask your escrow or title officer for the terms and conditions that apply to these discounts.

A complete copy of the Schedule of Escrow Fees and Service Fees for Old Republic Title Company and the Schedule of Fees and Charges for Old Republic National Title Insurance Company are available for your inspection at any Old Republic Title Company office.

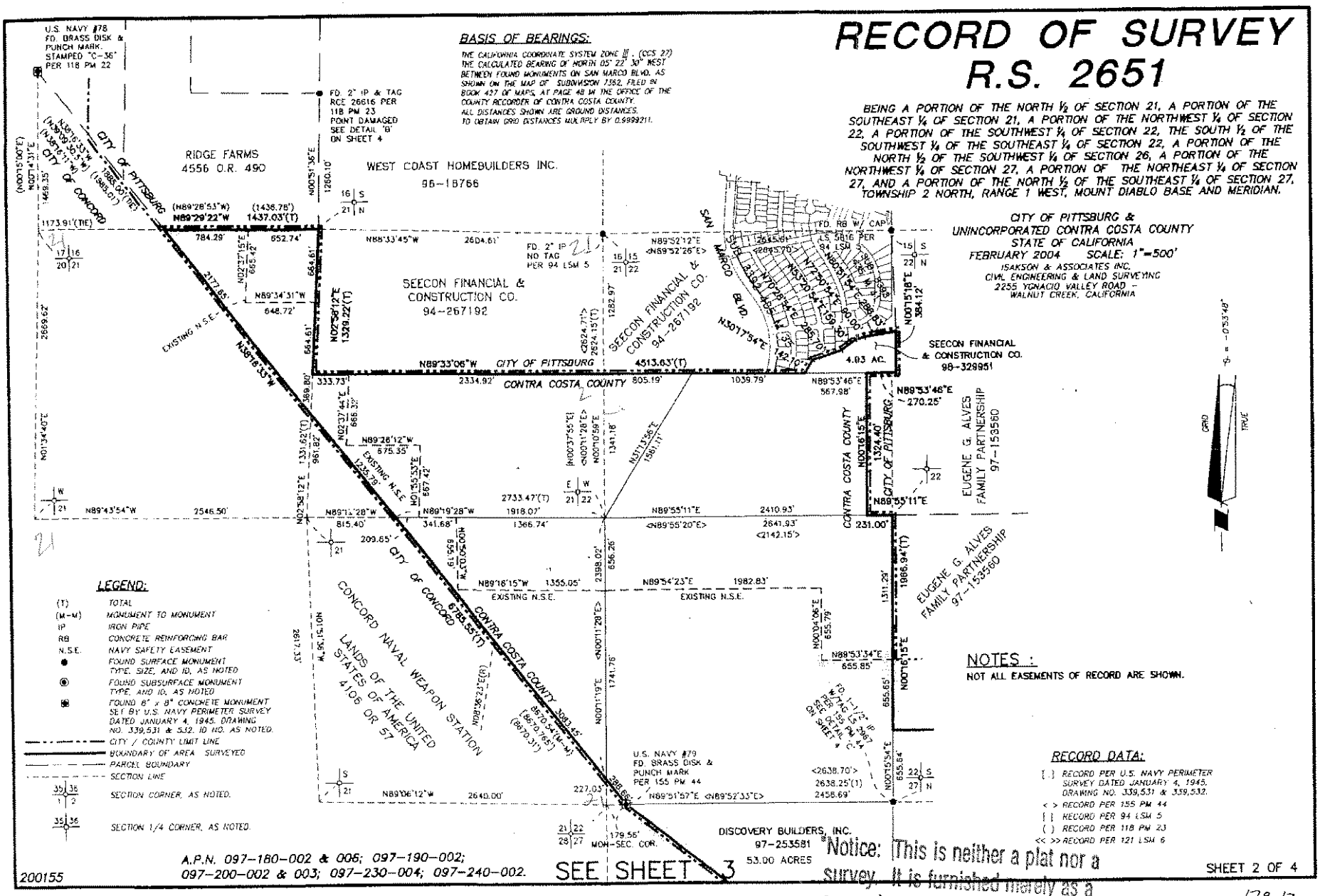
Description: Contra Costa,CA Record Map 129.13 Page: 1 of 1
Order: 1 Comment:

RECORD OF SURVEY
R.S. 2651

BEING A PORTION OF THE NORTH ½ OF SECTION 21, A PORTION OF THE SOUTHEAST ¼ OF SECTION 21, A PORTION OF THE NORTHWEST ¼ OF SECTION 22, A PORTION OF THE SOUTHWEST ¼ OF SECTION 22, THE SOUTH ½ OF THE SOUTHWEST ¼ OF THE SOUTHEAST ¼ OF SECTION 22, A PORTION OF THE NORTH ½ OF THE SOUTHWEST ¼ OF SECTION 26, A PORTION OF THE NORTHWEST ¼ OF SECTION 27, A PORTION OF THE NORTHEAST ¼ OF SECTION 27, AND A PORTION OF THE NORTH ½ OF THE SOUTHEAST ¼ OF SECTION 27, TOWNSHIP 2 NORTH, RANGE 1 WEST, MOUNT DIABLO BASE AND MERIDIAN.

CITY OF PITTSBURG &
UNINCORPORATED CONTRA COSTA COUNTY
STATE OF CALIFORNIA
FEBRUARY 2004 SCALE: 1"=500'

ISAKSON & ASSOCIATES INC.
CIVIL ENGINEERING & LAND SURVEYING
2255 YGNACIO VALLEY ROAD -
WALNUT CREEK, CALIFORNIA



129 LSM 13

129-13

"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to street and other land. No liability is assumed by reason of any reliance hereon."

Description: Contra Costa, CA Record Map 129.14 Page: 1 of 1
Order: 1 Comment:

RECORD OF SURVEY
R.S. 2651

BEING A PORTION OF THE NORTH ½ OF SECTION 21, A PORTION OF THE SOUTHEAST ¼ OF SECTION 21, A PORTION OF THE NORTHWEST ¼ OF SECTION 22, A PORTION OF THE SOUTHWEST ¼ OF SECTION 22, THE SOUTH ½ OF THE SOUTHWEST ¼ OF THE SOUTHEAST ¼ OF SECTION 22, A PORTION OF THE NORTH ½ OF THE SOUTHWEST ¼ OF SECTION 26, A PORTION OF THE NORTHWEST ¼ OF SECTION 27, A PORTION OF THE NORTHEAST ¼ OF SECTION 27, AND A PORTION OF THE NORTH ½ OF THE SOUTHEAST ¼ OF SECTION 27, TOWNSHIP 2 NORTH, RANGE 1 WEST, MOUNT DIABLO BASE AND MERIDIAN.

CITY OF PITTSBURG &
UNINCORPORATED CONTRA COSTA COUNTY
STATE OF CALIFORNIA
FEBRUARY 2004 SCALE: 1"=500'

ISAKSON & ASSOCIATES INC.
CIVIL ENGINEERING & LAND SURVEYING
2255 YGNACIO VALLEY ROAD -
WALNUT CREEK, CALIFORNIA

DISCOVERY BUILDERS, INC.
98-329951
158.55 ACRES

SEE SHEET 2

EUGENE G. ALVES
FAMILY PARTNERSHIP
97-153560

SMITH
13795 O.R. 63
CITY OF PITTSBURG

CONTRA COSTA COUNTY

BAILEY ESTATES LLC.
99-327895

LANDS OF THE UNITED STATES OF AMERICA
4106 OR 57

CONCORD NAVAL WEAPON STATION

CITY OF CONCORD

CONTRA COSTA COUNTY

BAILEY ROAD

P.G.& E. POWER LINES

SANTA LUCIA COURT

SANTA LUCIA DR.

SAN BENITO DR.

SAN TOMAS DR.

SAN LUCAS DR.

SANTA TERESA DR.

SAN MARCO BLVD.

"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to street and other land. No liability is assumed by reason of any reliance thereon."

LEGEND:

(1)	TOTAL
(M-M)	MONUMENT TO MONUMENT
IP	IRON PIPE
RB	CONCRETE REINFORCING BAR
N.S.E.	NAVY SAFETY EASEMENT
●	FOUND SURFACE MONUMENT TYPE, SIZE, AND ID, AS NOTED
◉	FOUND SUBSURFACE MONUMENT TYPE, AND ID, AS NOTED
▣	FOUND 8" x 8" CONCRETE MONUMENT SET BY U.S. NAVY PERIMETER SURVEY DATED JANUARY 4, 1945. DRAWING NO. 339,531 & 532 ID NO. AS NOTED.
	CITY / COUNTY LIMIT LINE
	BOUNDARY OF AREA SURVEYED
	PARCEL BOUNDARY
	SECTION LINE
35 | 36 / 1 | 2	SECTION CORNER, AS NOTED.
35 | 36	SECTION 1/4 CORNER, AS NOTED

BASIS OF BEARINGS:

THE CALIFORNIA COORDINATE SYSTEM ZONE III, (CCS 27) THE CALCULATED BEARING OF NORTH 05° 22' 30" WEST BETWEEN FOUND MONUMENTS ON SAN MARCO BLVD. AS SHOWN ON THE MAP OF SUBDIVISION 7362, FILED IN BOOK 427 OF MAPS, AT PAGE 48 IN THE OFFICE OF THE COUNTY RECORDER OF CONTRA COSTA COUNTY. ALL DISTANCES SHOWN ARE GROUND DISTANCES. TO OBTAIN GRID DISTANCES MULTIPLY BY 0.9999211.

RECORD DATA:

( ) RECORD PER U.S. NAVY PERIMETER SURVEY DATED JANUARY 4, 1945. DRAWING NO. 339,531 & 339,532.
< > RECORD PER 155 PM 44
[ ] RECORD PER 94 LSM 5
( ) RECORD PER 118 PM 23
<< >> RECORD PER 121 LSM 6

NOTE:

NOT ALL EASEMENTS OF RECORD ARE SHOWN.

A.P.N. 097-180-002 & 006; 097-190-002;
097-200-002 & 003; 097-230-004; 097-240-002.

200155

DETAIL 'H'

SHEET 3 OF 4

129 LSM 14

129-14

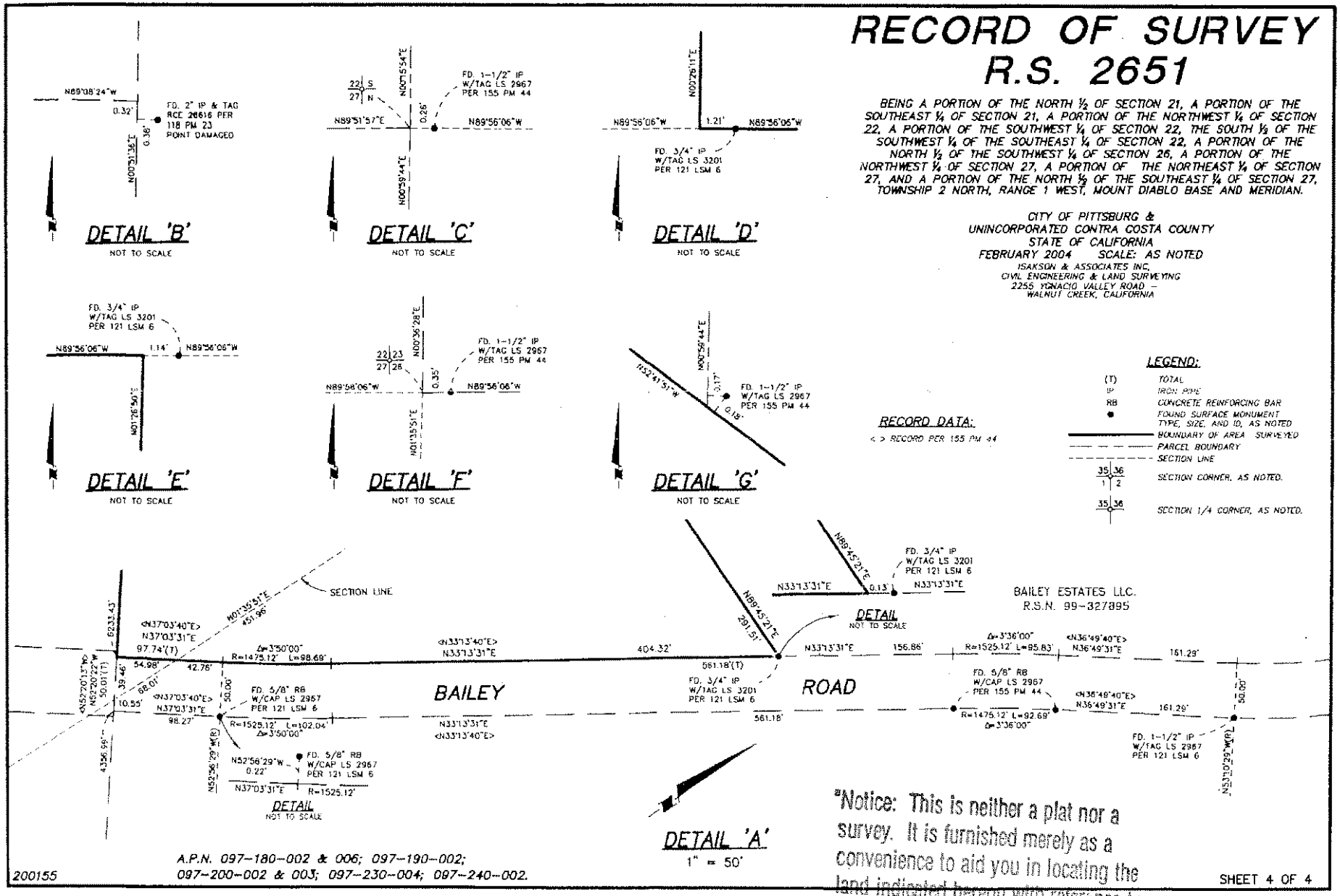
Description: Contra Costa,CA Record Map 129.15 Page: 1 of 1
Order: 1 Comment:

RECORD OF SURVEY
R.S. 2651

BEING A PORTION OF THE NORTH ½ OF SECTION 21, A PORTION OF THE SOUTHEAST ¼ OF SECTION 21, A PORTION OF THE NORTHWEST ¼ OF SECTION 22, A PORTION OF THE SOUTHWEST ¼ OF SECTION 22, THE SOUTH ½ OF THE SOUTHWEST ¼ OF THE SOUTHEAST ¼ OF SECTION 22, A PORTION OF THE NORTH ½ OF THE SOUTHWEST ¼ OF SECTION 26, A PORTION OF THE NORTHWEST ¼ OF SECTION 27, A PORTION OF THE NORTHEAST ¼ OF SECTION 27, AND A PORTION OF THE NORTH ½ OF THE SOUTHEAST ¼ OF SECTION 27, TOWNSHIP 2 NORTH, RANGE 1 WEST, MOUNT DIABLO BASE AND MERIDIAN.

CITY OF PITTSBURG &
UNINCORPORATED CONTRA COSTA COUNTY
STATE OF CALIFORNIA
FEBRUARY 2004 SCALE: AS NOTED

ISAKSON & ASSOCIATES INC.
CIVIL ENGINEERING & LAND SURVEYING
2255 IGNACIO VALLEY ROAD
WALNUT CREEK, CALIFORNIA



A.P.N. 097-180-002 & 006; 097-190-002;
097-200-002 & 003; 097-230-004; 097-240-002.

200155

SHEET 4 OF 4

"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to street and other land. No liability is assumed by reason of any reliance hereon."

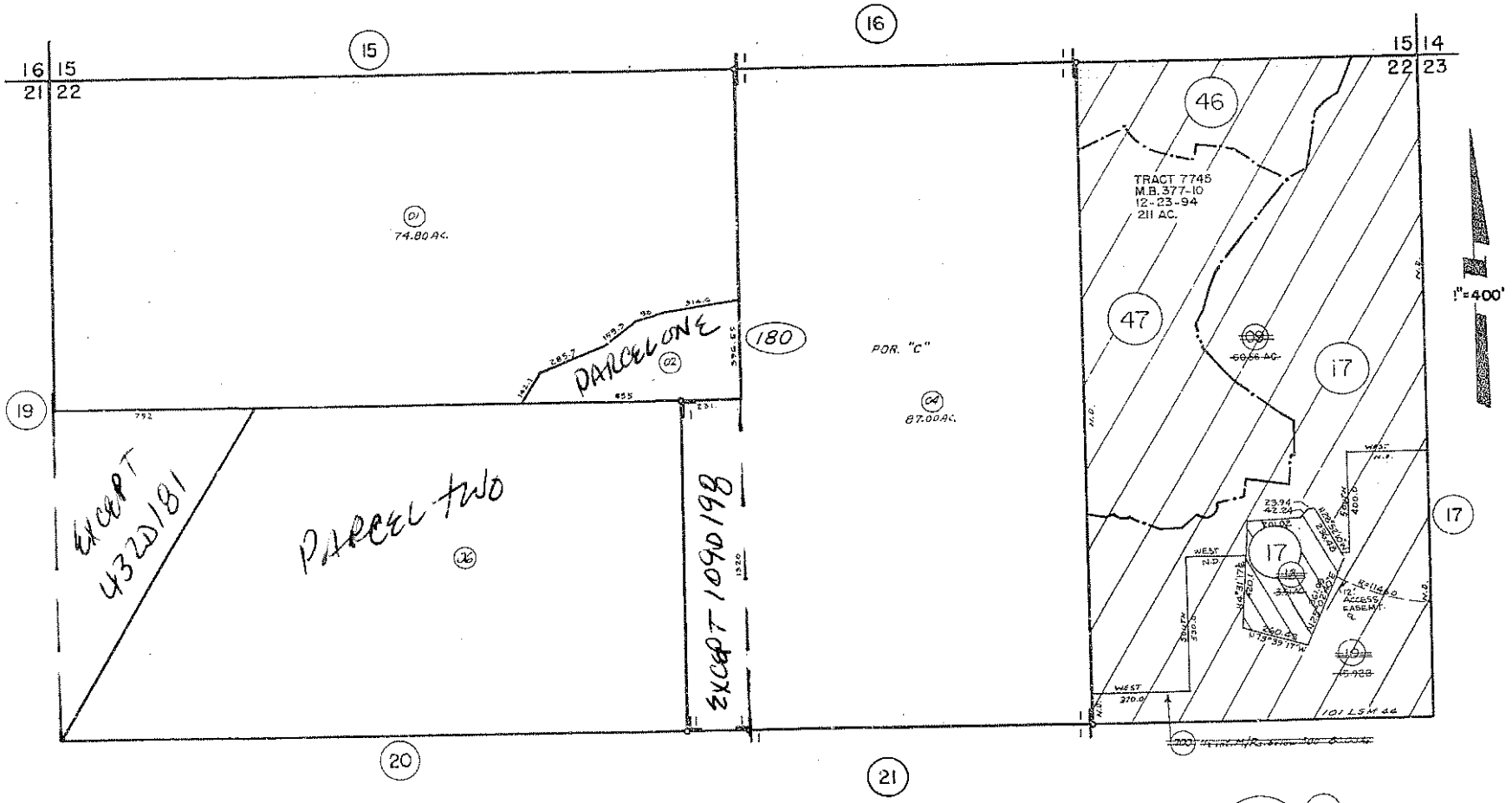
129-15

129 LSM 15

Description: Contra Costa,CA Assessor Map 97.18 Page: 1 of 1
Order: 3 Comment:

N ½ SEC. 22 T2N. R1W M.D.B.M.
1-POR. PCL. 'C' 108 P.M. 2 & 3 10-24-83

TAX CODE AREA



REVISED	CHANGE	BY
10-10-91	16867-600	MS
3-27-95	T.7745, R.12 TO PO	MS

"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to street and other land. No liability is assumed by reason of any reliance hereon."

180

MAY 08 1995

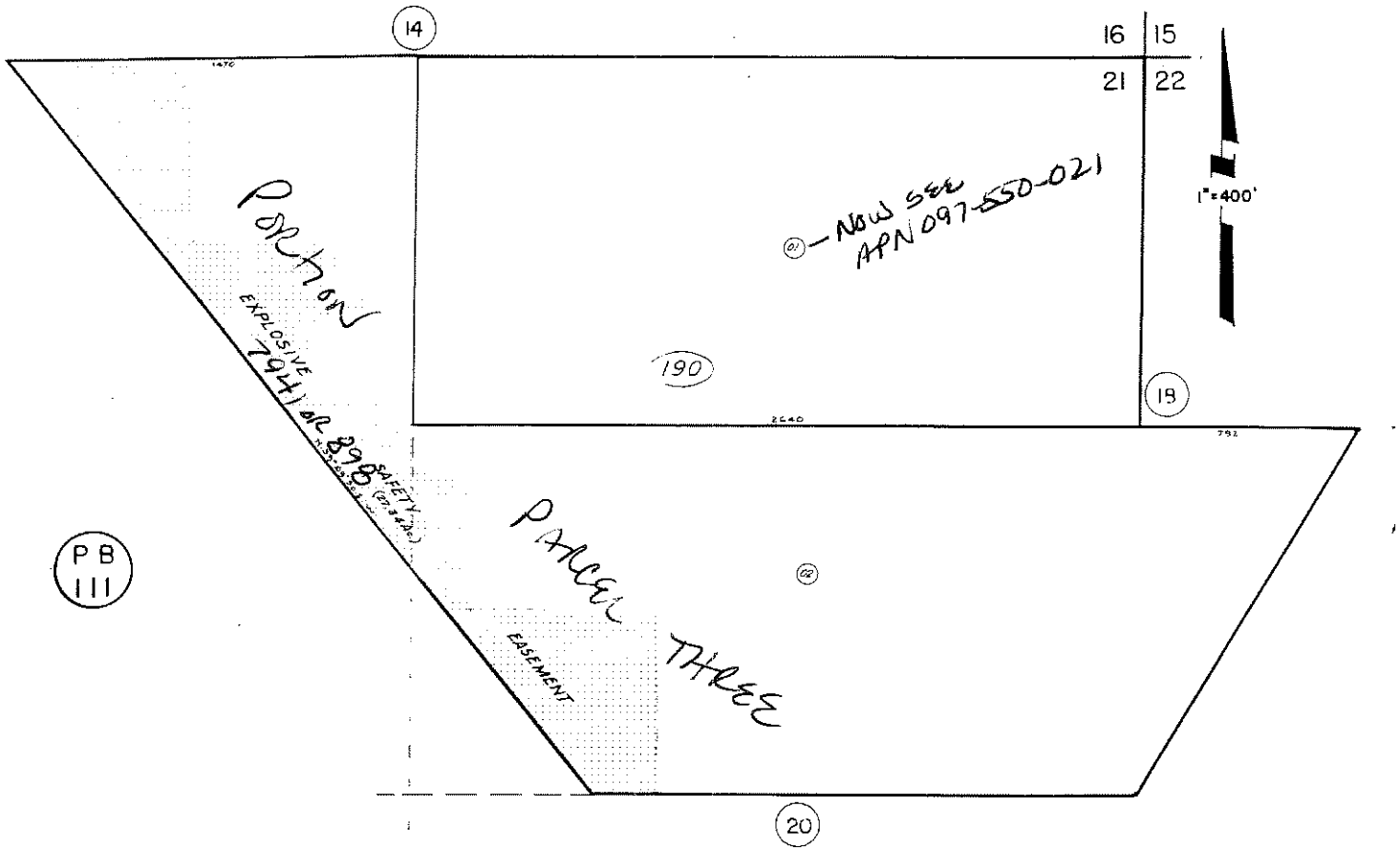
ASSESSOR'S MAP
BOOK 97 PAGE 18

COUNTY OF CONTRA COSTA, CALIF.

Description: Contra Costa,CA Assessor Map 97.19 Page: 1 of 1
Order: 3 Comment:

N ½ SEC. 21 T2N R1W M.D.B.M.

TAX CODE AREA



"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to street and other land. No liability is assumed by reason of any reliance hereon."

190

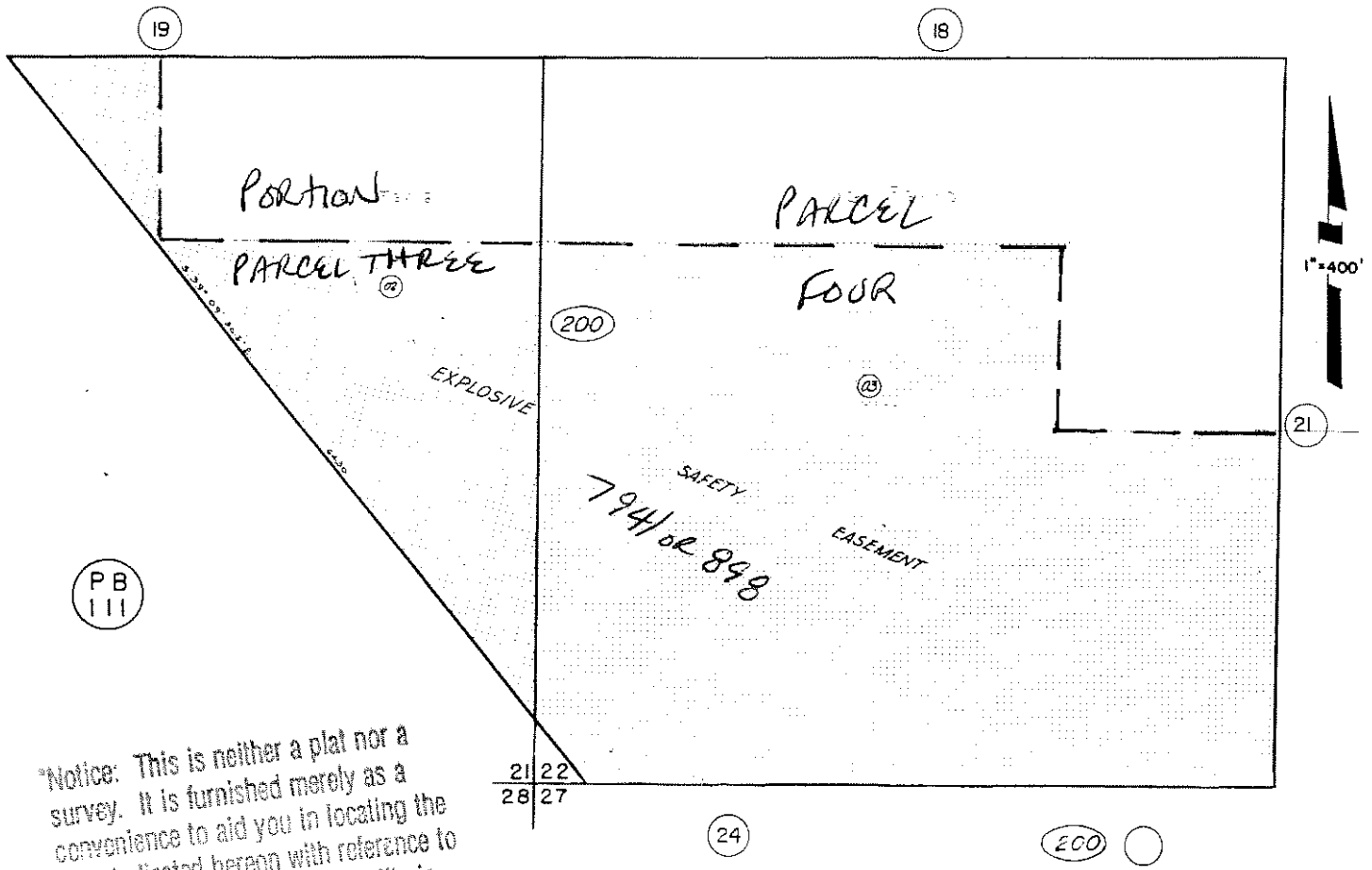
ASSESSOR'S MAP
BOOK 97 PAGE 19

COUNTY OF CONTRA COSTA, CALIF.

Description: Contra Costa,CA Assessor Map 97.20 Page: 1 of 1
Order: 3 Comment:

SE ¼ SEC. 21 & SW ¼ SEC. 22 T2N. R1W M.D.B.M.

TAX CODE AREA

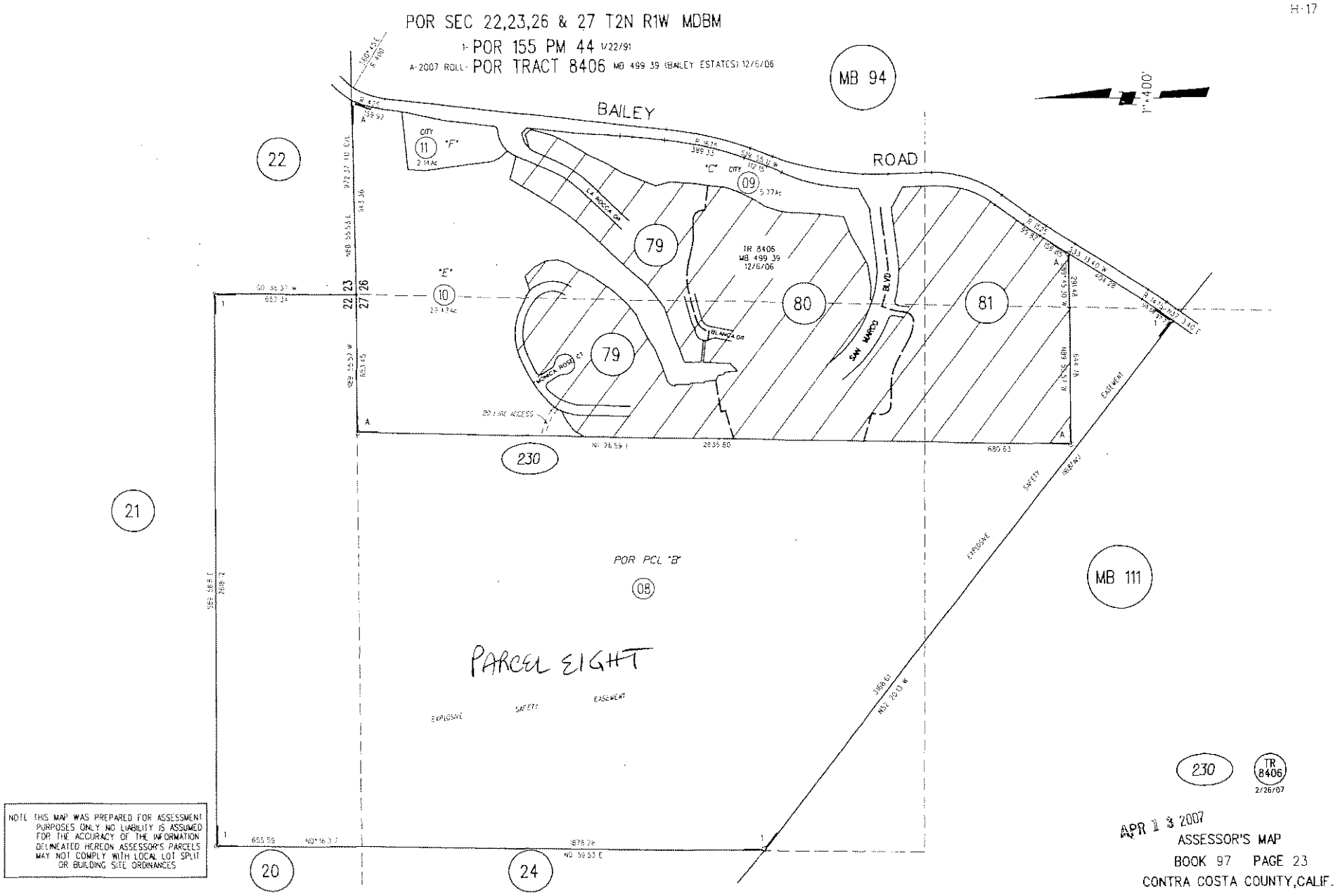


"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to street and other land. No liability is assumed by reason of any reliance hereon."

ASSESSOR'S MAP
BOOK 97 PAGE 20

COUNTY OF CONTRA COSTA, CALIF.

Description: Contra Costa,CA Assessor Map 97.23 Page: 1 of 1
Order: 1 Comment:



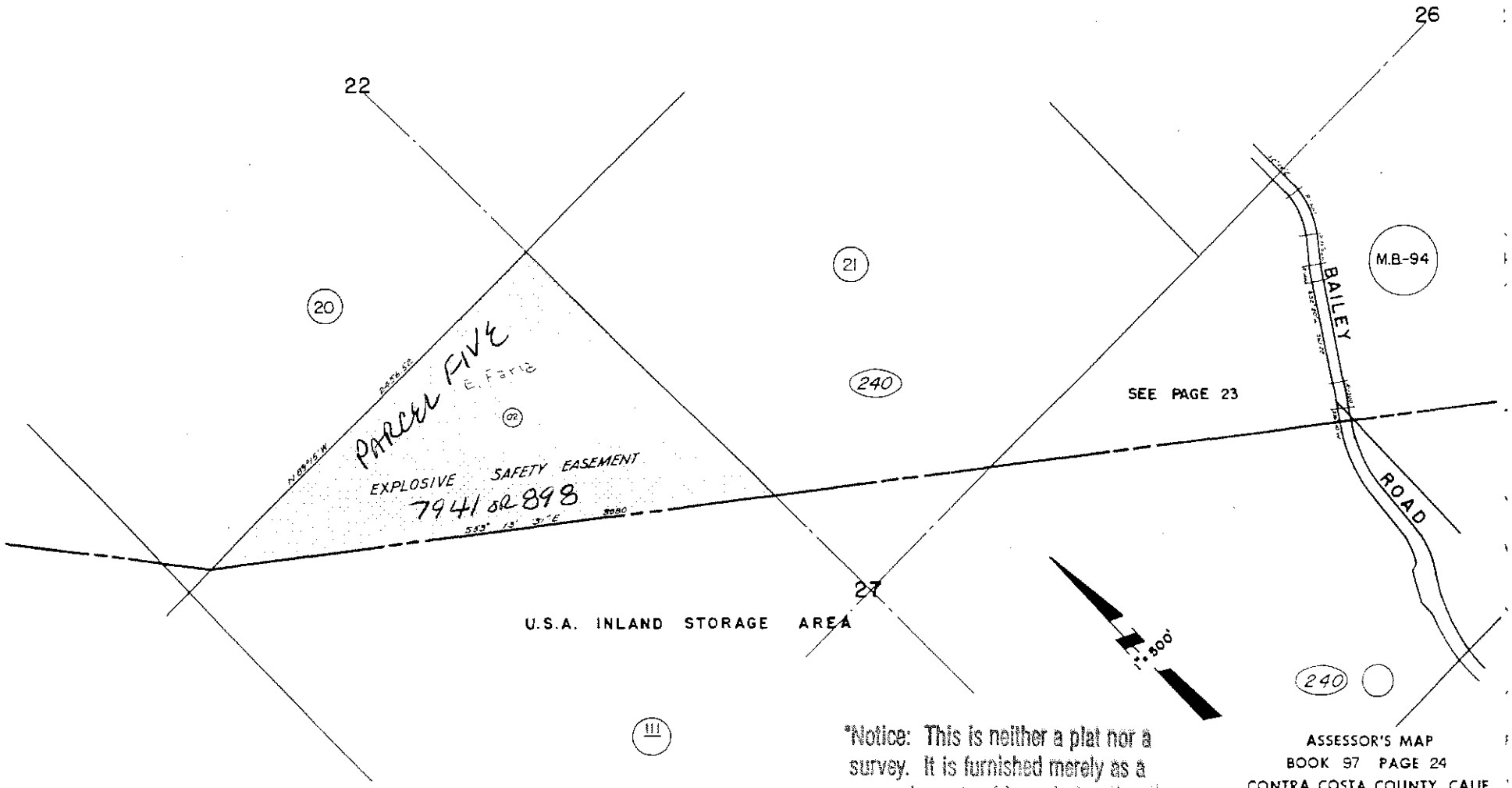
APR 13 2007

ASSESSOR'S MAP
BOOK 97 PAGE 23
CONTRA COSTA COUNTY, CALIF.

Description: Contra Costa,CA Assessor Map 97.24 Page: 1 of 1
Order: 3 Comment:

POR. SEC. 26 & 27
T2N R1W M.D.B.M.

TAX CODE AREA



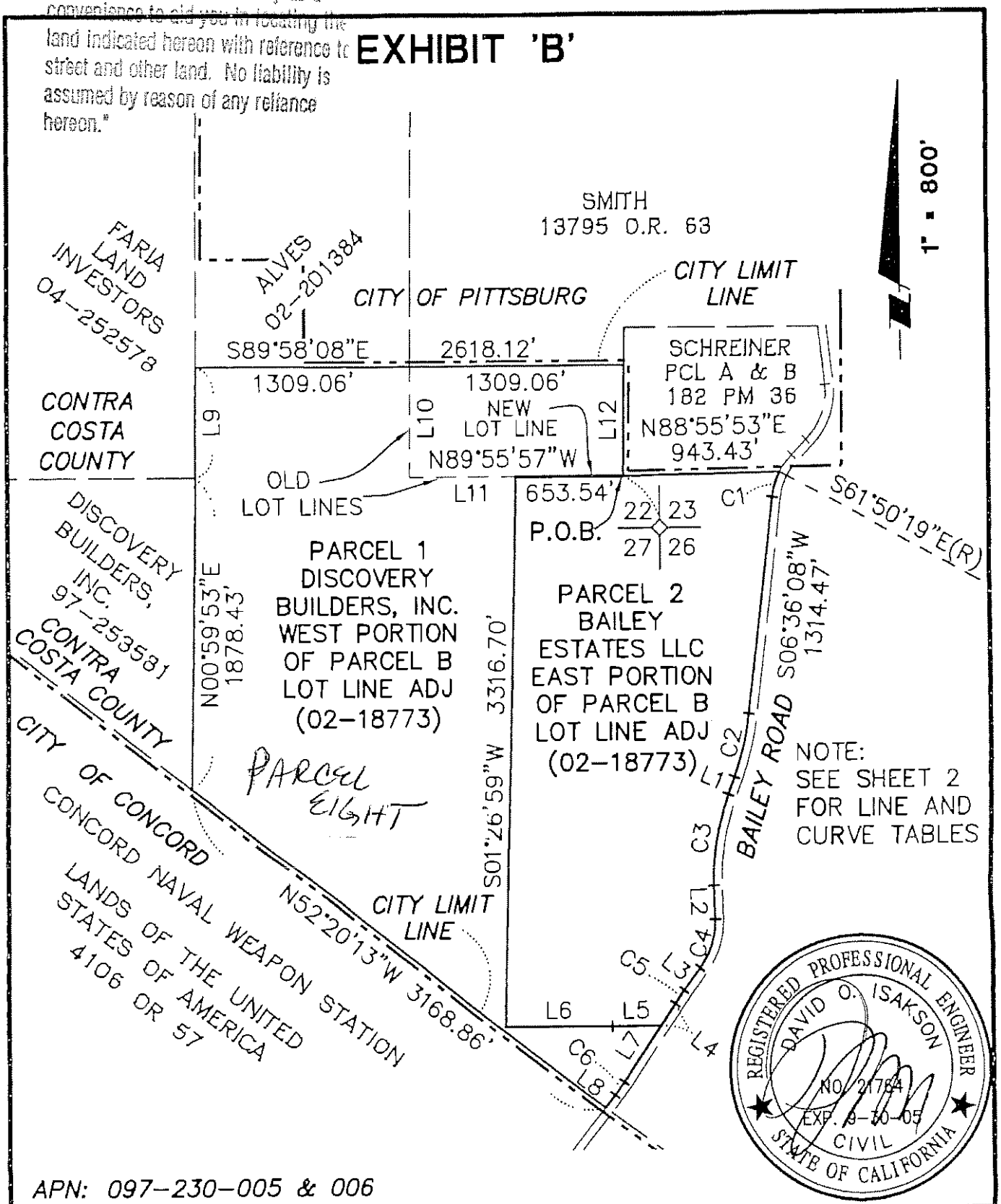
"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to street and other land. No liability is assumed by reason of any reliance hereon."

ASSESSOR'S MAP
BOOK 97 PAGE 24
CONTRA COSTA COUNTY, CALIF.

"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to street and other land. No liability is assumed by reason of any reliance hereon."

070485

EXHIBIT 'B'



APN: 097-230-005 & 006

ISAKSON & ASSOCIATES INC.
2255 YGNACIO VALLEY ROAD, SUITE C WALNUT CREEK, CA. 94598-3335
PHONE (925) 937-9333 FAX (925) 937-7926

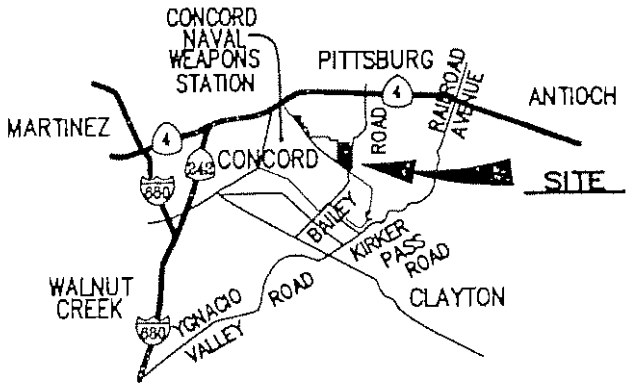
EXHIBIT 'B'	CHECKED BY: BL	DRAWN BY: GW	JOB NO. 200461
	SCALE: 1"=800	DATE: 12/02/04	SHEET 1 OF 2

Description: Contra Costa,CA Document-Year.DocID 2005.70485 Page: 4 of 5
Order: 2 Comment:

EXHIBIT 'B'

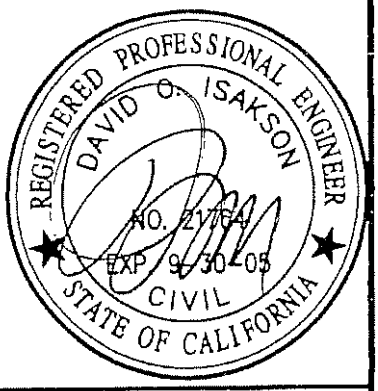
"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to street and other land. No liability is assumed by reason of any reliance hereon."

LINE TABLE		
NO.	BEARING	LENGTH
L1	S19°55'11"W	112.16'
L2	S01°20'20"E	201.13'
L3	S36°49'40"W	161.29'
L4	S33°13'40"W	156.86'
L5	N89°45'30"E	291.51'
L6	S89°55'57"E	644.83'
L7	S33°13'40"W	404.32'
L8	S37°03'40"W	97.74'
L9	N00°16'03"E	655.64'
L10	N00°26'20"E	656.49'
L11	N89°55'57"W	653.55'
L12	S00°36'37"W	657.34'



VICINITY MAP
NOT TO SCALE

CURVE TABLE			
NO.	RADIUS	DELTA	LENGTH
C1	425.03'	21°33'33"	159.93'
C2	1675.13'	13°19'03"	389.36'
C3	1525.12'	21°15'31"	565.87'
C4	475.04'	38°10'00"	316.44'
C5	1525.12'	03°36'00"	95.83'
C6	1475.12'	03°50'00"	98.69'



ISAKSON & ASSOCIATES INC.
2255 YGNACIO VALLEY ROAD, SUITE C WALNUT CREEK, CA. 94598-3336
PHONE (925) 937-9333 FAX (925) 937-7926

EXHIBIT 'B'	CHECKED BY: BL	DRAWN BY: GW	JOB NO. 200461
	SCALE: 1"=800	DATE: 12/02/04	SHEET 2 OF 2

END OF DOCUMENT

Description: Contra Costa,CA Document-Year.DocID 2005.70485 Page: 5 of 5
Order: 2 Comment:

APPENDIX C

ENVIRONMENTAL DATA RESOURCES, INC.

Environmental Lien and AUL Search Report

APPENDIX C



Faria Property
Faria Property
Pittsburg, CA 94565

Inquiry Number: 3848393.7
February 07, 2014

EDR Environmental Lien and AUL Search

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

Faria Property
Faria Property
Pittsburg, CA 94565

RESEARCH SOURCE

Source 1:
Conta Costa Recorder
Contra Costa, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	Faria Land Investors LLC
Title received from:	Carmel Hills LLC
Deed Dated	6/18/2009
Deed Recorded:	6/19/2008
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Faria Land Investors LLC
Parcel # / Property Identifier:	097-180-002, 097-190-002, 097-200-002,097-200-003, 097-240-002, 097-230-008
Comments:	See Exhibit

Deed 2:

Type of Deed:	deed
Title is vested in:	Faria Land Investors LLC
Title received from:	Jacqueline Seeno
Deed Dated	4/20/2010
Deed Recorded:	5/4/2010
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	

Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Faria Land Investors LLC

Parcel # / Property Identifier: 097-180-006

Comments: See Exhibit

Deed 3:

Type of Deed:	deed
Title is vested in:	William Lyon Homes Inc
Title received from:	Lyon Vista Del Mar 533 LLC
Deed Dated	9/28/2006
Deed Recorded:	9/28/2006
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	

Legal Description: See Exhibit

Legal Current Owner: William Lyon Homes Inc

Parcel # / Property Identifier:097-210-012

Comments: See Exhibit

EDR Environmental Lien and AUL Search

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

Deed Exhibit 1

4790004735D

U

APN 097-180-002; 097-190-002;
097-200-002 & 003; 097-230-008
097-240-002

RECORDED AT THE REQUEST OF:

WHEN RECORDED RETURN TO:
Faria Land Investors, LLC
4061 Port Chicago Highway, Suite H
Concord, CA 94520

CONTRA COSTA Co Recorder Office
STEPHEN L. WEIR, Clerk-Recorder
DOC- 2009-0144005-00
Acct 11-Old Republic Title
Friday, JUN 19, 2009 08:00:00
CCC $330.00 SUR $10.00 MOD $6.00
REC $10.00 FTC $5.00 RED $1.00
Ttl Pd $362.00 Nbr-0000169169
MNH/R2/1-6

GRANT DEED

The undersigned grantor(s) declare(s):
Documentary Transfer Tax $330.00

( ) computed on full value of property conveyed
( ) computed on full value less value of encumbrances
(X) unincorporated area ( ) City of _____, and
( ) realty not sold

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

Carmel Hills, LLC, a California limited liability company

hereby **GRANTS** to Faria Land Investors, LLC, a California limited liability company

that property in the unincorporated area, County of Contra Costa, State of California, described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

Mail tax statements to grantee at above address.

Dated : 6/18/09

Carmel Hills, LLC, a California limited liability company

By:
Title:

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Contra Costa

On June 18, 2009 before me, Marlena Tamayo , Notary Public

personally appeared----------Jacqueline M. Seeno----------

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

GMN1 MARLENA TAMAYO Comm. # 1621135 NOTARY PUBLIC - CALIFORNIA CONTRA COSTA COUNTY My Commission Expires 11/14/2009 GMN1

WITNESS my hand and official seal.

Signature Marlena Tamayo
Signature of Notary Public

Place Notary Seal Above

Exhibit "A"

The land referred to herein is situated in the unincorporated area of the County of contra Costa, State of California, and is particularly described as follows:

PARCEL ONE:

Beginning at the Southeast corner of the North 1/2 of the Northwest 1/4 of Section 22, Township 2 North, Range 1 West, Mount Diablo Base and Meridian; thence from said point of beginning West 855 feet along the South line of said North 1/2 of the Northwest 1/4 of Section 22; thence North 29° 51' East, 142.1 feet; thence North 70° 02' East, 285.7 feet; thence North 52° 54' East, 159.3 feet; thence North 72° 24' East, 90 feet; thence North 80° 25' East, 314.6 feet to the East line of said North 1/2 of the Northwest 1/4 of Section 22; thence South 1° 03' 30" West, 396.55 feet to the place of beginning.

EXCEPTING FROM PARCEL ONE: All oil, gas, mineral and other hydrocarbon substances lying below a depth of 500 feet, with rights of surface entry and the right to remove same at such location or locations which will not unreasonably interfere with Grantee's use and development of the subject property, as reserved in the deed from James O. Huberty, Trustee, et al, recorded May 19, 1989, Book 15080, Page 232, Official Records.

APN: 097-180-002

PARCEL TWO:

Portion of Fractional Section 21 and portion of the Southwest 1/4 of the Northwest 1/4 of Section 22, Township 2 North, Range 1 West, Mount Diablo Base and Meridian, described as follows:

Beginning on the East line of said Section 21, at the intersection thereof with the Northeast line of the 4,961.163 acre parcel described in the fourth amendment to the Lis Pendens in the action entitled, "United States of America vs. Von Heckeren, et al", District Court, Case No. 23520-G, a certified copy of which was recorded March 29, 1945, Book 812 Official Records, Page 413; thence from said point of beginning, North, along said East line to the East 1/4 of said Section 21; thence Northeasterly, along a fence to a point on the North line of the South 1/2 of the Northwest 1/4 of said Section 22 which bears East 792 feet from the East line of said Section 21; thence West, along said North line and along the North line of the South 1/2 of the Northeast 1/4 of said Section 21, a distance of 3432 feet to North-South-Midsection line of said Section 21; thence North along said mid-section line, 1320 feet to the North line of said Section 21; thence West along said last mentioned North line to the Northeast line of said 4961.163 acre parcel; thence Southeasterly along said Northeast line to the point of beginning.

EXCEPTING FROM PARCEL TWO: "All the minerals, mineral substances and oils of every sort and description", as reserved in the Deed from Edward T. Faria and Orlinda R. Faria, his wife, and Irvin E. Faria, as joint tenants, a life estate recorded April 23, 1964, Book 4602, Page 415, Official Records.

FURTHER EXCEPTING FROM PARCEL TWO: Any further mineral rights that may be Vested in the Grantors in and to all oil, gas, mineral and other hydrocarbon substances lying below a depth of 500 feet, with rights of surface entry and the right to remove the same at such location or locations which will not unreasonably interfere with Grantee's use and development of the subject property, as reserved in the deed from James O. Huberty, Trustee, et al, recorded May 19, 1989, Book 15080, Page 232, Official Records.

APN: 097-190-002 and 097-200-002

PARCEL THREE:

The Southwest 1/4 of Section 22, Township 2 North, Range 1 West, Mount Diablo Base and Meridian.

EXCEPTING FROM PARCEL THREE:

1. That parcel of land described in the final judgment filed on November 17, 1950, in District Court, Action No. 23529-G, Northern District of California, Southern Division, a certified copy of which was recorded November 29, 1950, Book 1676 Official Records, Page 326, and as described in the Deed from Antone Faria, et al, to the United States of America, recorded November 29, 1950, Book 1676 Official Records, Page 331.

2. "All minerals, oil, gas and hydrocarbons lying being or situated in or under said premises", as reserved in the Deed from Antone Faria, et al, recorded May 14, 1947, Book 1111, Official Records, Page 206, and in the Quitclaim Deed recorded March 30, 1975, Book 7458, Page 363, Official Records.

FURTHER EXCEPTING FROM PARCEL THREE: Any further mineral rights that may be vested in the grantors in and to all oil, gas, mineral and other hydrocarbon substances lying below a depth of 500 feet, with rights of surface entry and the right to remove same at such location or locations which will not unreasonably interfere with Grantee's use and development of the subject property, as reserved in the deed from James O. Huberty, Trustee, et al, recorded May 19, 1989, Book 15080, Page 232, Official Records.

APN: 097-200-003

PARCEL FOUR:

Portion of the Northwest 1/4 of Section 27, Township 2 North, Range 1 West, Mount Diablo Base and Meridian, described as follows: Beginning at the Northeast corner of the Northwest 1/4 of said Section 27; thence from said point of beginning, South 89° 15' West, along the North line if said Northwest 1/4, 2456.52 feet to the Northeast line of the parcel of land described as Parcel 3-A, in the judgment entered in the United States District Court, in and for the Northern District of California, Southern Division, (Case No. 23529-G), entitled United States of America, plaintiff, vs. Ralph D. Bollman, et al, defendants, dated March 26, 1945, a certified copy of which was recorded March 30, 1945, Book 816 Official Records, Page 40; thence South 53° 13' 31" East, along said Northeast line 3080 feet to the East line of said Northwest 1/4 of said Section 27; thence North along said East line, 1870 feet to the point of beginning.

EXCEPTING FROM PARCEL FOUR: Rights Reserved in the Deed from Ralph D. Bollman, et ux, recorded December 29, 1950, Book 1694, Official Records, Page 296, as follows:

"SAVING AND EXCEPTING THEREFROM AND RESERVING unto the Grantors, and their Successors and Assigns, for and during the terms of the natural lives of said Grantors, and each of them, and for and during the terms of the lives of their two children, Harold Bollman and Beverly Bollman, from all of the lands hereinabove described all oil, gas and other hydrocarbons and minerals now, or at any time hereafter, situate therein and thereunder, together with all easements and rights necessary or convenient for the production, storage and transportation thereof and the exploration and testing of the said real property and also the right to drill for, produce and use after water from the said real property in connection with drilling or mining operations thereon; provided, however, that this reservation or right to take water in connection with drilling operations shall, at all time, be conditional upon there being an ample and sufficient supply of water on said lands at all times for the watering of any livestock pastured thereon by

the grantees, or their successors, or assigns. If the grantors shall drill the said real property for oil gas or hydrocarbons, for mine the same for minerals, they shall compensate the grantees for any damages done to growing crops, pasture and improvements, and shall pay to the grantees the reasonable agricultural value of all land actually taken for the said purposes. If the Grantors, or any of their Lessors, and the Grantees cannot agree with regard to the amount of such compensation, the same shall be determined from time to time, as it becomes necessary to determine it, by arbitration, the grantors, or their lessees, to appoint one arbitrator and the grantees another arbitrator, and the two so appointed to appoint a third, and a decision of a majority to be conclusive; provided that the grantors, or any of their lessors, may exercise all of the rights reserved hereby at any time, and from time to time, without first being required to agree with respect to such compensation, or having the same fixed by arbitration, and that such compensation shall be fixed, either by agreement or arbitration, after the grantors or any lessees, have commenced and are prosecuting operations, and all parties agree to cooperate to the end that such compensation will be fixed by either of the said methods within a reasonable time after the occasions for fixing the same arise".

APN: 097-240-002

PARCEL FIVE:

A Right of Way for road purpose only over the present traveled road across the remaining portion of said Northeast Quarter of said Section Twenty-one (21), (Township 2 North, Range 1 West), and over the present traveled road running across the Northwest corner of the Northwest quarter of Section Twenty-Two (22) in said township and range, said Right of Way to be Sixteen (16) feet wide, and being the same land conveyed to Antonio Faria and Mary Faria, September 7, 1908, by Joseph S. Faria and Geraldine Faria, and recorded in Book 141 of Deeds, Page 146, Contra Costa County Records.

PARCEL SIX:

Non-exclusive roadway and utility easement appurtenant to Parcels One through Four above, granted in the Grant of Roadway/Utility Easement to Faria Land Investors, LLC, recorded June 12, 2006, Series No. 2006-183298, Official Records, over, through and across that portion of Parcel C, MS 676-05 filed June 21, 2005, Book 193 of Parcel Maps, Page 46, as particularly described and shown in said Grant of Roadway/Utility Easement.

PARCEL SEVEN:

Being all of the West portion of Parcel 'B', as said Parcel is shown on that Lot Line Adjustment Filed on January 18, 2002 under Recorder's Serial Number 2002-18773 in the Office of the County Recorder of Contra Costa County and a portion of the East portion of Parcel 'B' of said LLA (02-18773), more particularly described as follows:

Beginning at the Northeast corner of Section 27, Township 2 North, Range 1 West, Mount Diablo Base and Meridian; thence along the North line of said Section 27, North 89° 55' 57" West, 653.54 feet to the intersection of said North line of Section 27 and the East line of said West portion of Parcel 'B' (02-18773); thence along said East line, South 01° 26' 59" West, 3316.70 feet; thence South 89° 55' 57" East, 644.83 feet; thence North 89° 45' 30" East, 291.51 feet to the intersection of the Westerly Right of Way line of Bailey Road (50 feet wide) and said East line of said West portion of Parcel 'B' (02-18773); thence along said Westerly Right of Way line, South 33° 13' 40" West, 404.32 feet; thence along the arc of a tangent curve to the right having a radius of 1475.12 feet through a central angle of 03° 50' 00" and an arc length of 98.69 feet; thence South 37° 03' 40" Wet, 97.74 feet to the most Southeasterly corner of said West portion of Parcel 'B' (02-18773); thence along the South line of said West portion of Parcel 'B', North 52° 20' 13" West, 3168.86 feet; thence leaving said South line and along the West line of said West

portion of Parcel 'B', North 00° 59' 53" East, 1878.43 feet; thence North 00° 16' 03" East, 655.64 feet to the most Northwest corner of said West portion of Parcel 'B'; thence along the North line of said West portion of Parcel 'B', South 89° 58' 08" East, 2618.12 feet; thence South 00° 36' 37" West, 657.34 feet to the point of beginning.

EXCEPTING THEREFROM: The Rights Reserved in the Deed from Kathryn Costa, et al, recorded July 3, 1991, in Book 16711, Page 438, Contra Costa County Official Records, as follows:

"Grantor Reserves unto themselves all oil, gas, casinghead gas, hydrocarbon and mineral substances below a point 500 feet below the surface of said land, together with the right to take, remove, mine and dispose of all said oil, gas, casinghead gas and other hydrocarbon and mineral substances, together with the right to remove all or any thereof and the right to grant leases for the removal of all or any thereof by means of wells surfaced outside of the lands described herein and slant drilled to reach the subsurface of the land described herein, but without any right whatsoever to enter upon the surface of said land or any part of said land within 500 feet of the surface thereof."

APN: 097-230-008

NT

END OF DOCUMENT

Deed Exhibit 2

ORT-Subdivision

RECORDING REQUESTED BY:
#47900004 73-SD
Faria Land Investors, LLC

AND WHEN RECORDED MAIL TO:

Faria Land Investors, LLC
Attn.: Legal Dept.
4021 Port Chicago Hwy.
Concord, CA 94520

CONTRA COSTA Co Recorder Office
STEPHEN L. WEIR, Clerk-Recorder
DOC- 2010-0088492-00
Acct 11-Old Republic Title
Tuesday, MAY 04, 2010 08:00:00
CCC$1,135.20 SUR $10.00 MOD $2.00
REC $12.00 FTC $1.00 PCO $20.00
RED $1.00 ERD $1.00
Ttl Pd $1,182.20 Nbr-0000463693

(Space Above This Line For Recorder's Use Only)

GRANT DEED

APN: 097-180-006

The undersigned Grantor(s) declare(s):
Documentary Transfer tax is $1135.20
☐ computed on full value of property conveyed, or
☐ computed on full value less value of liens and encumbrances remaining at time of sale
☒ unincorporated area: ☐ City of _____
☐ realty not sold

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

JACQUELINE M. SEENO, an unmarried woman,

hereby GRANT(S) to

FARIA LAND INVESTORS, LLC, a California limited liability company,

that property in the unincorporated area, County of Contra Costa, State of California.

LEGAL DESCRIPTION OF REAL PROPERTY SET FORTH IN ***EXHIBIT A*** ATTACHED HERETO AND MADE A PART HEREOF.

Mail Tax Statements to Grantee at above address.

DATED: April 20, 2010

This instrument is filed for record by Old Republic Title as an accommodation only and no title insurance has been purchased. It has not been examined as its effect, if any, upon the title of the land described.

JACQUELINE M. SEENO

STATE OF CALIFORNIA
COUNTY OF CONTRA COSTA

On April 20, 2010, before me, TRACEY L. MARQUIT, a Notary Public, personally appeared **JACQUELINE M. SEENO** who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Tracey L. Marquit

Name Tracey L. Marquit
(typed or printed)

NRO1 TRACEY L. MARQUIT NRO1
COMM. #1780119
Notary Public - California
Contra Costa County
My Comm. Expires Dec. 11, 2011

(This area for official notarial seal)

EXHIBIT "A"

The land referred to is situated in the unincorporated area, County of Contra Costa, State of California, and is described as follows:

The South 1/2 of the Northwest 1/4 of Section 22, in Township 2 North, Range 1 West, Mount Diablo Base and Meridian.

EXCEPTING THEREFROM:

1. That certain parcel of land described in that certain Deed dated September 3, 1904, executed by Joseph Faria to W.W. Wight and S.A. Sellers, and recorded November 14, 1904, Book 109 of Deeds, Page 198.

2. That portion of that certain parcel of land included in the South one-half of the Northwest quarter described in the Deed dated February 20, 1923, executed by Joseph Faria and Geraldine Faria, his wife, to Antonio Faria and Nary Faria, his wife, and recorded February 20, 1923, Book 432 of Deeds, Page 181.

3. "All minerals, oil, gas and hydrocarbons lying being or situated in or under said premises", as reserved in the Deed from Antone Faria, et al, recorded May 14, 1947, Book 1111, Official Records, Page 206.

FURTHER EXCEPTING FROM PARCEL TWO: Any further mineral rights that may be vested in the grantors in and to all oil, gas, mineral and other hydrocarbon substances lying below a depth of 500 feet, with rights of surface entry and the right to remove same at such location or locations which will not unreasonably interfere with Grantee's use and development of the subject property, as reserved in the deed from James 0. Huberty, Trustee, et al, recorded May 19, 1989, Book 15080, Page 232, official Records.

APN: 097-180-006

END OF DOCUMENT

Deed Exhibit 3

RECORDING REQUESTED BY
FIRST AMERICAN TITLE
#0131-615162 ala

RECORDING REQUESTED BY:

WHEN RECORDED RETURN TO:

WILLIAM LYON HOMES, INC.
4490 Von Karman Ave.
Newport Beach, CA 92660
Attention: Mr. Richard S. Robinson

CONTRA COSTA Co Recorder Office
STEPHEN L. WEIR, Clerk-Recorder
DOC- 2006-0307756-00
Acct 6- First American Title
Thursday, SEP 28, 2006 08:00:00
MIC $1.00 MOD $2.00 REC $6.00
TCF $1.00
Ttl Pd $10.00 Nbr-0003421426
cmb/R2/1-2

APN's: 097-210-012
& 097-180-013

Space Above This Line Reserved for Recorder's Use

GRANT DEED

FOR VALUE RECEIVED, LYON VISTA DEL MAR 533, LLC, a Delaware limited liability company (the "**Grantor**"), hereby grants to **WILLIAM LYON HOMES, INC.,** a California corporation (the "**Grantee**"), that certain real property situated in the City of Pittsburg, County of Contra Costa, California, described as follows, subject to all non-delinquent real property taxes, special assessments, if any, and all other liens, leases, easements, encumbrances, covenants, conditions, restrictions and other matters of record and apparent:

Lot 136 as shown on Subdivision 8448 filed August 25, 2006 in Book 494 of Maps, Page 27, Contra Costa County Records.

EXECUTED this 28 day of September, 2006.

LYON VISTA DEL MAR 533, LLC,
a Delaware limited liability company

By: WILLIAM LYON HOMES, INC.,
a California corporation,
its Managing Member

By: _____
Name: Richard S Robinson (Richard S. Robinson)
Title: Senior Vice President (Senior Vice President)

By: W. Douglas Harris
Name: W. Douglass Harris
Title: Vice President

657939.01/SD
R6864-012/9-25-06/vcg/scm

307756

STATE OF CALIFORNIA)
) ss:
COUNTY OF Orange)

On September 26, 2006 before me, Kathy Sampson, a Notary Public in and for said County and State, personally appeared Richard S. Robinson & W. Douglas Harris, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Kathy Sampson
Notary Public

OFFICIAL SEAL
KATHY SAMPSON
NOTARY PUBLIC - CALIFORNIA
COMMISSION # 1397488
ORANGE COUNTY
My Commission Exp. FEBRUARY 9, 2007

End of Document

APPENDIX D

Environmental Site Assessment Questionnaires (2)

APPENDIX D



Project Name:
Project No.

ENGEO
Expect Excellence

☒ 2010 Crow Canyon Place ▪ Suite 250 ▪ San Ramon, CA 94583 (925) 866-9000 ▪ Fax (888) 279-2698
☐ 2213 Plaza Drive ▪ Rocklin, CA 95765 (916) 786-8883 ▪ Fax (888) 279-2698
☐ 332 Pine Street ▪ Suite 300 ▪ San Francisco, CA 94104 (415) 284-9900 ▪ Fax (888) 279-2698
☐ 6399 San Ignacio Avenue ▪ Suite 150 ▪ San Jose, CA 95119 (408) 574-4900 ▪ Fax (888) 279-2698
☐ 580 N. Wilma Avenue▪ Suite A ▪ Ripon, CA 95366 (209) 835-0610 ▪ Fax (888) 279-2698
☐ 17675 Sierra Highway ▪ Santa Clarita, CA 91351 (661) 257-4004 ▪ Fax (888) 279-2698

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR CLIENT

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be completed by the user of the phase one environmental site assessment, or their authorized representative.

PART I

1. Property address and Assessor's Parcel Number (APN):

   SEE TITLE REPORT

2. Current property owner (name, address, voice/fax number):

   SEE TITLE REPORT

3. Date current property owner assumed title of property:

   NOT SURE

4. Current property development/improvements:

   VACANT. ONE HOUSE + ACCESSORY STRUCTURES. WINDMILL

5. Past property use, development/improvements:

   AG / GRAZING

6. Neighboring property uses:

   RESIDENTIAL. DECOMMISSIONED NAVAL WEAPONS STATION

PART II

1. Are you aware of any environmental cleanup liens against the *property* that are filed under federal, tribal, local or state law? ☐ Yes ☒ No

2. Are you aware of any activity and land use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law? ☐ Yes ☒ No

3. Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example are you involved in the same line of business as the current or former occupants of the *property* or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? ☒ Yes ☐ No

4. If a property transaction is occurring in conjunction with this environmental assessment, does the purchase price of this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*? ☐ Yes ☒ No

5. Are you aware of any commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, ☒ Yes ☐ No

   (a) do you know of specific chemicals that are present or once were present at the *property*? NO
   (b) do you know of spills or other chemical releases that have taken place at the *property*? NO
   (c) do you know of any environmental cleanups that have taken place at the *property*? NO

6. Based on your knowledge and experience related to the *property* are there any obvious indicators that point to the presence or likely presence of contamination at the *property*? ☐ Yes ☒ No

If a "Yes" response was provided to any of the above questions, please provide details below:

WE OWN THE ADJACENT PROPERTY TO THE NORTH. WE HAVE NO KNOWLEDGE OF CHEMICAL SPILLS OR RELEASES ON THIS PROPERTY

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): LOUIS PARSONS

Signature: [signature] Date: 2/7/14

Project Name: Hecker Pass West Cluster
Project No. 5183.002.000

ENGEO
Expect Excellence

☐ 2010 Crow Canyon Place ▪ Suite 250 ▪ San Ramon, CA 94583	(925) 866-9000 ▪ Fax (888) 279-2698
☐ 2213 Plaza Drive ▪ Rocklin, CA 95765	(916) 786-8883 ▪ Fax (888) 279-2698
☐ 332 Pine Street ▪ Suite 300 ▪ San Francisco, CA 94104	(415) 284-9900 ▪ Fax (888) 279-2698
☒ 6399 San Ignacio Avenue ▪ Suite 150 ▪ San Jose, CA 95119	(408) 574-4900 ▪ Fax (888) 279-2698
☐ 580 N. Wilma Avenue▪ Suite A ▪ Ripon, CA 95366	(209) 835-0610 ▪ Fax (888) 279-2698
☐ 17675 Sierra Highway ▪ Santa Clarita, CA 91351	(661) 257-4004 ▪ Fax (888) 279-2698
☐ 13211 Pusan Way ▪ Suite 16 ▪ Irvine, CA 92618	(949) 529-3479 ▪ Fax (888) 279-2698

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE FOR "KEY SITE MANAGER"

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be preferably completed by the current property owner, or owner representative, leasing agent, or other person having good knowledge of the uses and physical characteristics of the property (Key Site Manager).

PART I

1. Property Address/Location and Assessor's Parcel Number (APN):

   See Title Report

2. Current property owner (name, address, voice/fax number):

   FARIA LAND INVESTORS, LLC - 4061 PORT CHICAGO HWY, SUITE H., CONCORD, CA 94520

3. Date current property owner assumed title of property:

   APPROX 2004

4. Current property development/improvements:

   VACANT W/ SINGLE HOUSE

5. Past property use, development/improvements:

   AG

6. Neighboring property uses:

   SOUTH- VACANT / AG
   NORTH- RESIDENTIAL
   EAST - VACANT + RESIDENTIAL
   WEST- VACANT - CLOSED BASE

PART II - The following questions should be answered to the best of your knowledge.

1.	Is/has the *property* or any adjoining property used/been used for industrial purposes?	☐ Yes	☒ No
2.	Has the *property* or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	☐ Yes	☒ No
3.	Are there currently, or have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal in volume or 50 gal in the aggregate, stored on or used at the *property* or at the facility?	☐ Yes	☒ No
4.	Has undocumented soil been brought onto the property at any time? If yes, estimated quantity is _____ cubic yards.	☐ Yes	☒ No
5.	Has soil been brought onto the property that originated from a contaminated site or that is of an unknown origin?	☐ Yes	☒ No
6.	Are there currently, or have there been previously, any pits, ponds, or lagoons located on the *property* in connection with waste treatment or waste disposal?	☐ Yes	☒ No
7.	Is there currently, or has there been previously, any stained soil on the *property*?	☐ Yes	☒ No
8.	Are there currently, or have there been previously, any registered or unregistered storage tanks (above or underground) located on the *property*?	☐ Yes	☒ No
9.	Are there currently, or have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?	☐ Yes	☒ No
10.	Are there currently, or have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?	☐ Yes	☒ No
11.	Are there any domestic, irrigation or monitoring wells on the property?	☐ Yes	☒ No
12.	If the *property* is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?	☐ Yes	☒ No
13.	Have you been informed of the past or current existence of *hazardous substances* or *petroleum products* or environmental violations with respect to the *property* or any facility located on the *property*?	☐ Yes	☒ No
14.	Have there been any *environmental site assessments* of the *property* or facility that indicated the presence of *hazardous substances* or *petroleum products* on, or contamination of, the *property* or recommended further assessment of the *property*?	☐ Yes	☒ No
15.	Have there been any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any *hazardous substance* or *petroleum products* involving the *property*?	☐ Yes	☒ No
16.	Has there been any past agricultural use of the *property*, such as orchards or seed crop cultivation?	☐ Yes	☒ No
17.	Have any *hazardous substances* or *petroleum products*, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the *property*?	☐ Yes	☒ No
18.	Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	☐ Yes	☒ No

If a "Yes" response was provided to any of the above questions, please provide details below:

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Louis Parsons

Signature: [signature] Date: 2/27/14

APPENDIX E

ENVIRONMENTAL DATA RESOURCES, INC.

Historical Topographic Map Report

APPENDIX E



Faria Property
Faria Property
Pittsburg, CA 94565

Inquiry Number: 3848393.4
February 05, 2014

EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Historical Topographic Map



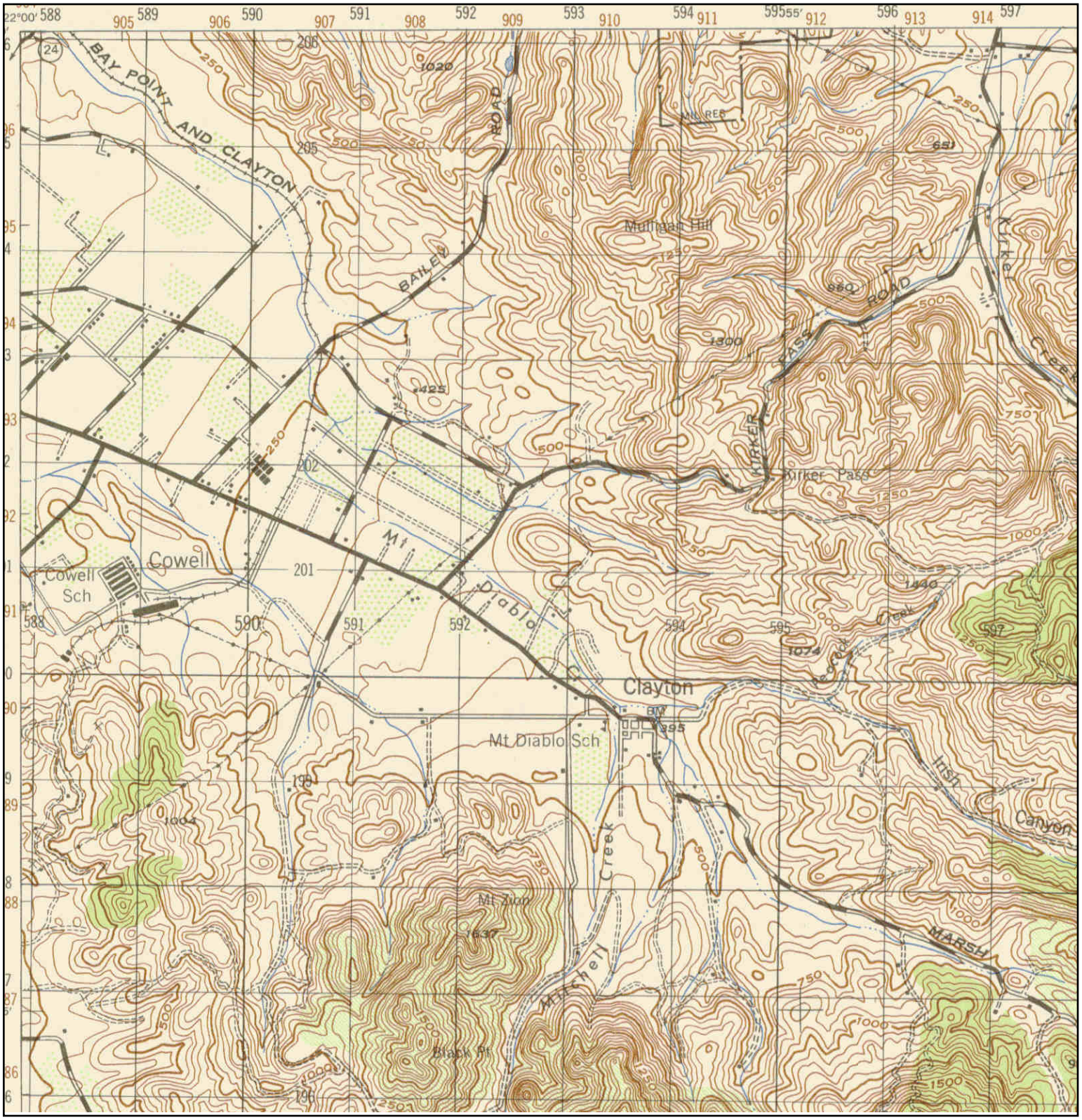
N	TARGET QUAD NAME: MOUNT DIABLO MAP YEAR: 1896 SERIES: 15 SCALE: 1:62500	SITE NAME: Faria Property ADDRESS: Faria Property Pittsburg, CA 94565 LAT/LONG: 37.9997 / -121.9646	CLIENT: Engeo Inc. CONTACT: Siobhan Oreilly-Shah INQUIRY#: 3848393.4 RESEARCH DATE: 02/05/2014

Historical Topographic Map



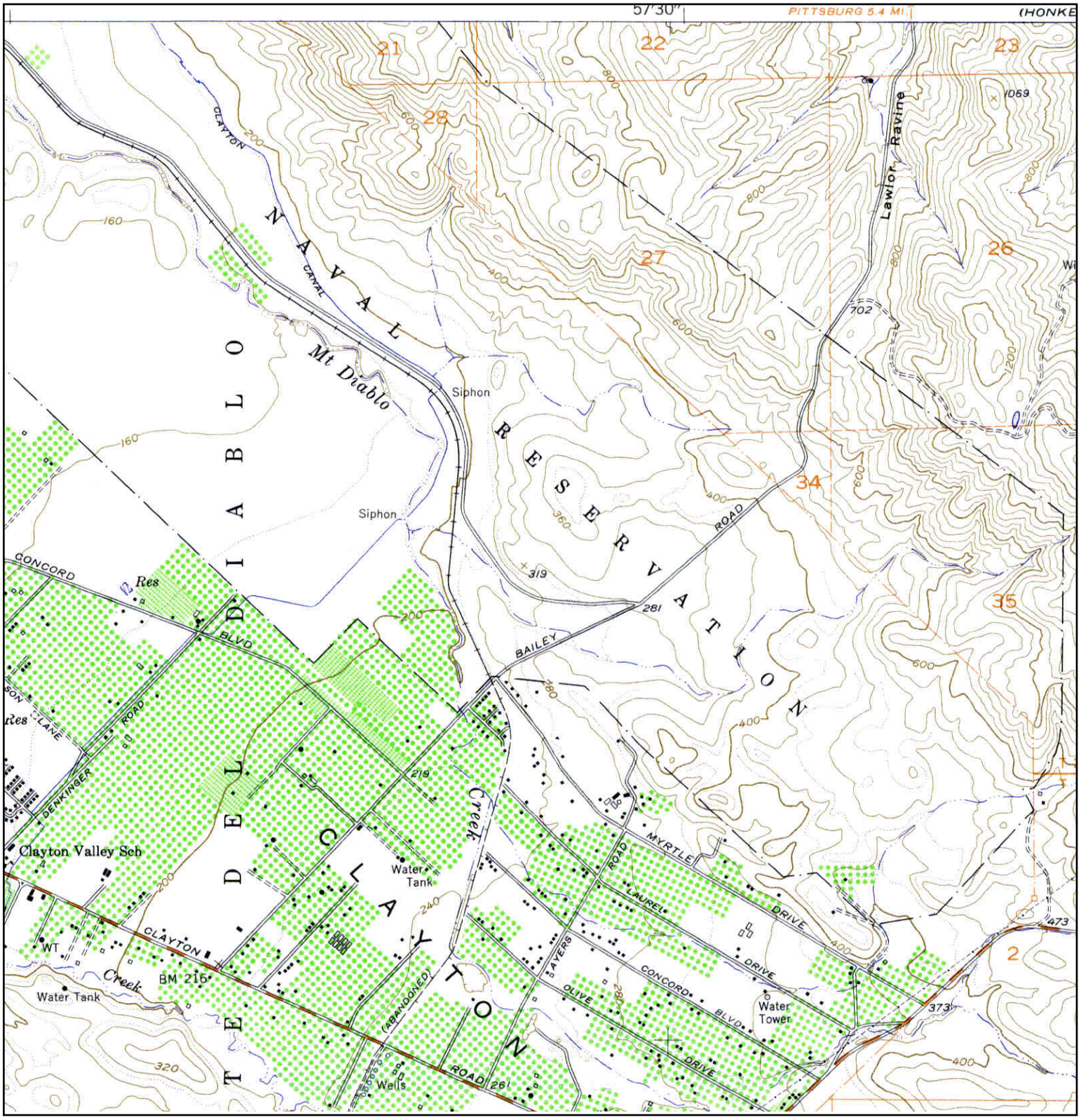
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Historical Topographic Map



N	TARGET QUAD		SITE NAME:	Faria Property	CLIENT:	Engeo Inc.
	NAME:	MT. DIABLO	ADDRESS:	Faria Property	CONTACT:	Siobhan Oreilly-Shah
	MAP YEAR:	1947		Pittsburg, CA 94565	INQUIRY#:	3848393.4
			LAT/LONG:	37.9997 / -121.9646	RESEARCH DATE:	02/05/2014
	SERIES:	15				
	SCALE:	1:50000				

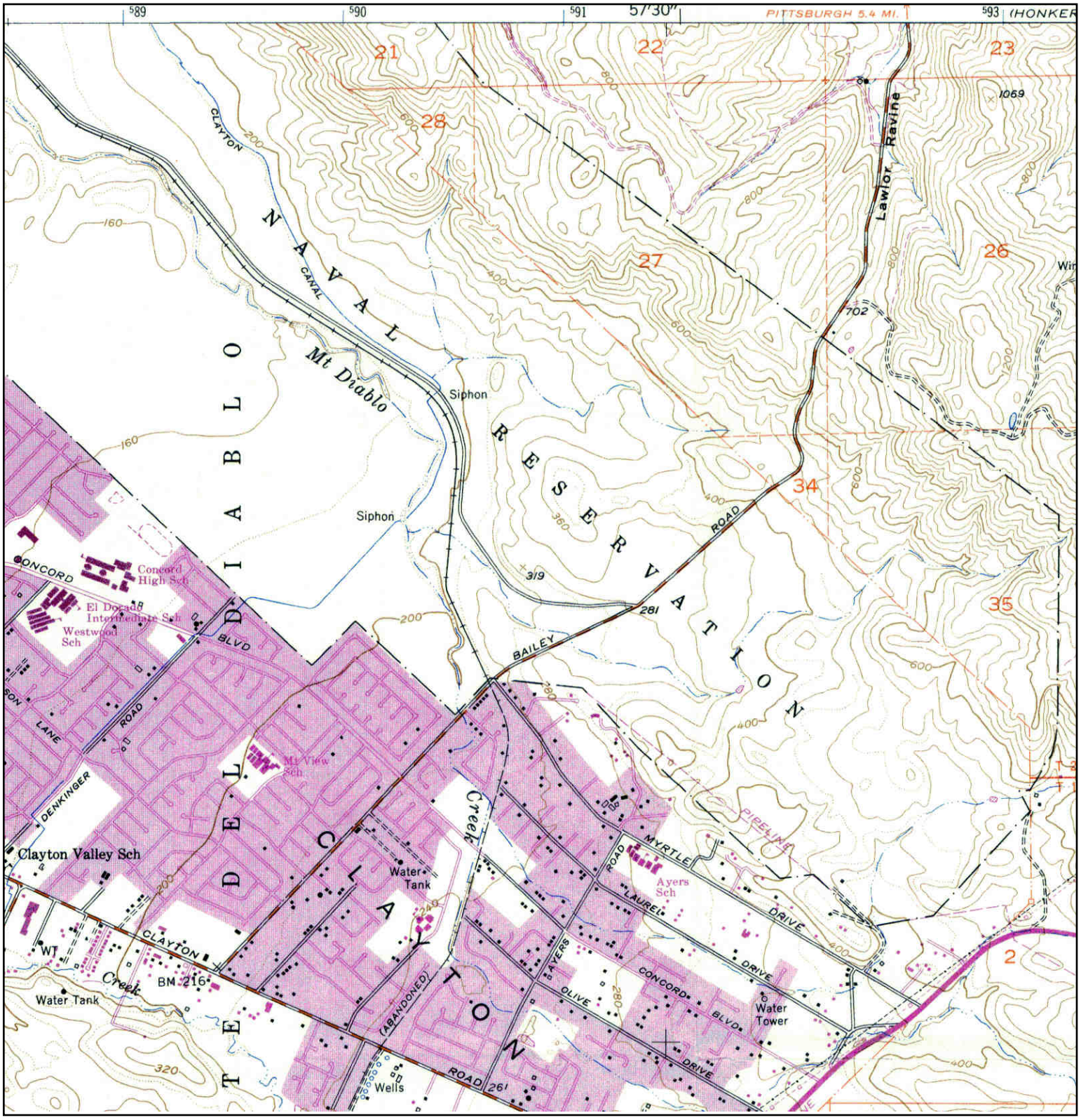
Historical Topographic Map



N	TARGET QUAD			
	NAME:	CLAYTON	SITE NAME:	Faria Property
	MAP YEAR:	1953	ADDRESS:	Faria Property
				Pittsburg, CA 94565
	SERIES:	7.5	LAT/LONG:	37.9997 / -121.9646
	SCALE:	1:24000		

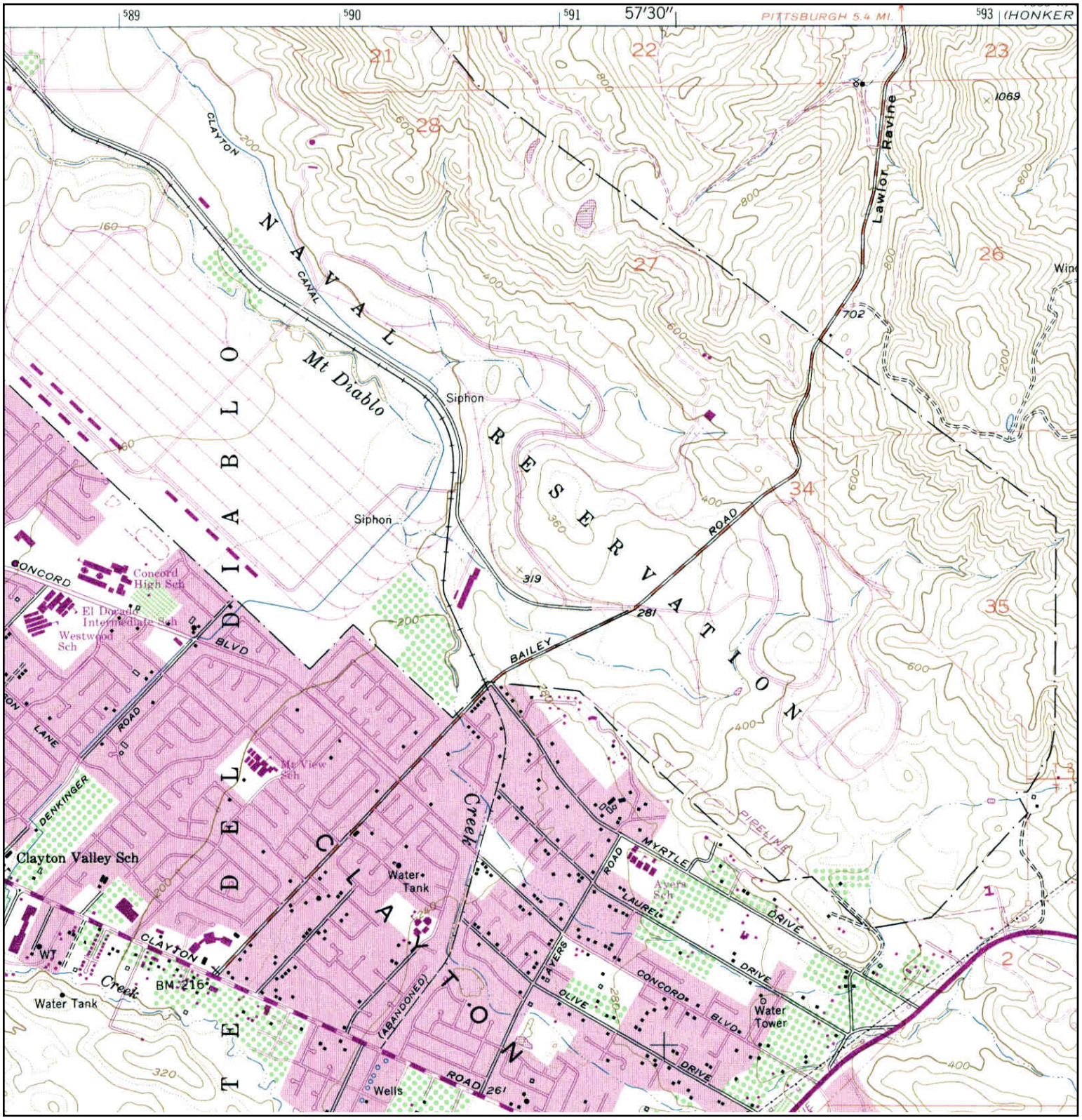
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CONTACT:	Siobhan Oreilly-Shah
INQUIRY#:	3848393.4
RESEARCH DATE:	02/05/2014

Historical Topographic Map



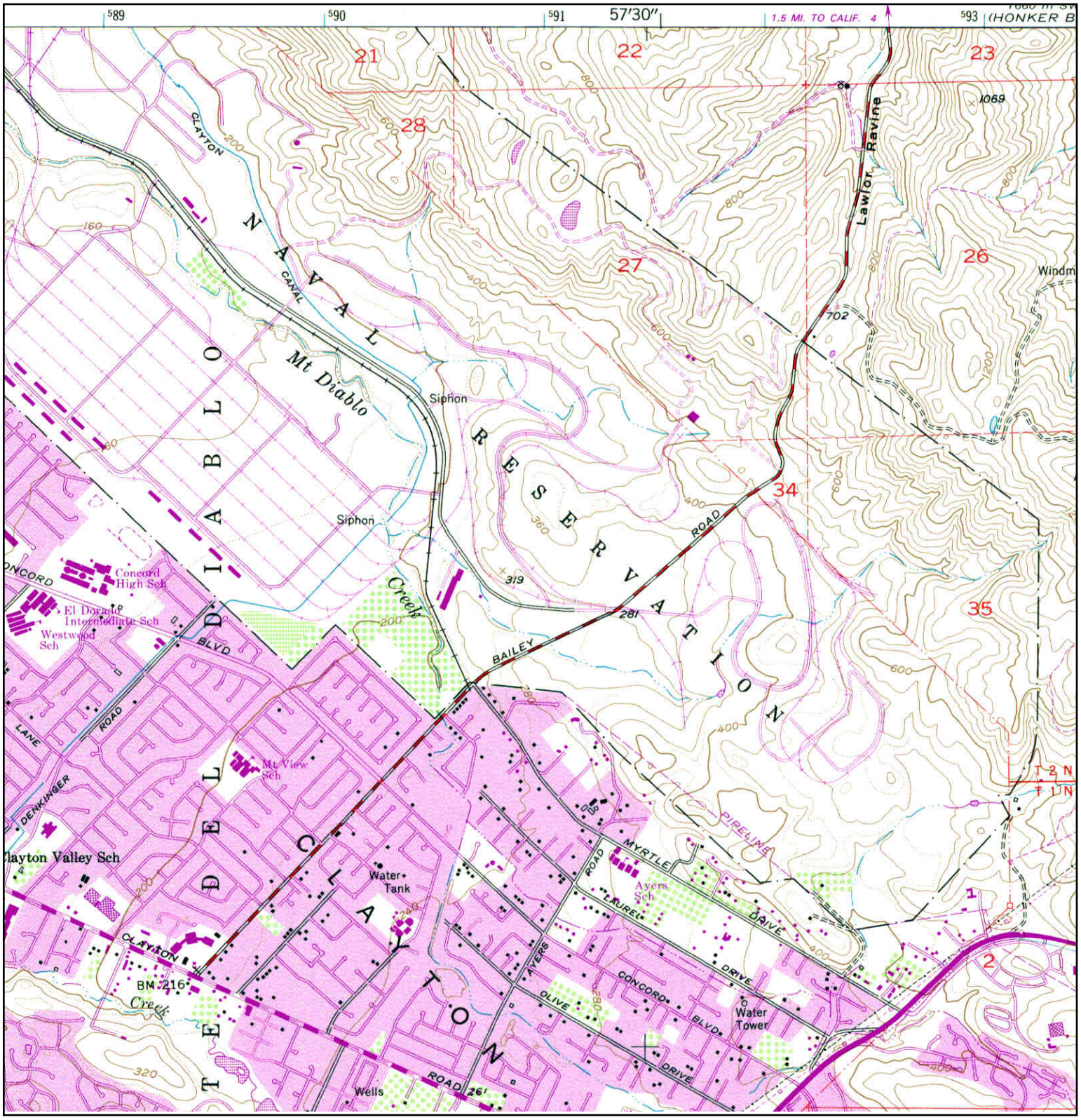
N	TARGET QUAD NAME: CLAYTON MAP YEAR: 1968 PHOTOREVISED FROM :1953 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Faria Property ADDRESS: Faria Property Pittsburg, CA 94565 LAT/LONG: 37.9997 / -121.9646	CLIENT: Engeo Inc. CONTACT: Siobhan Oreilly-Shah INQUIRY#: 3848393.4 RESEARCH DATE: 02/05/2014

Historical Topographic Map



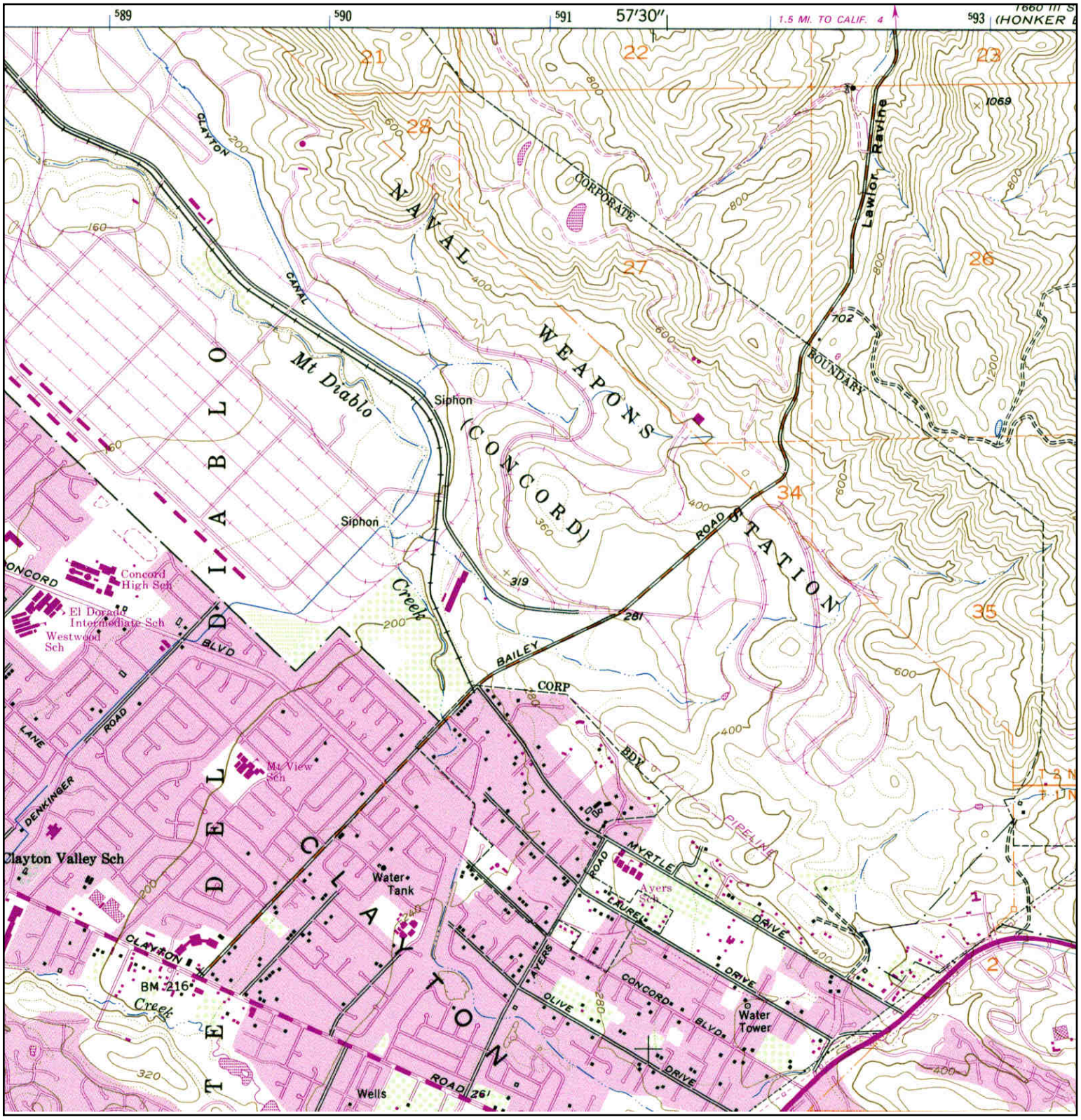
N	TARGET QUAD NAME: CLAYTON MAP YEAR: 1973 PHOTOREVISED FROM :1953 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Faria Property ADDRESS: Faria Property Pittsburg, CA 94565 LAT/LONG: 37.9997 / -121.9646	CLIENT: Engeo Inc. CONTACT: Siobhan Oreilly-Shah INQUIRY#: 3848393.4 RESEARCH DATE: 02/05/2014

Historical Topographic Map



N	TARGET QUAD				
	NAME:	CLAYTON	SITE NAME:	Faria Property	CLIENT: Engeo Inc.
	MAP YEAR:	1980	ADDRESS:	Faria Property	CONTACT: Siobhan Oreilly-Shah
	PHOTOREVISED FROM :	1953		Pittsburg, CA 94565	INQUIRY#: 3848393.4
	SERIES:	7.5	LAT/LONG:	37.9997 / -121.9646	RESEARCH DATE: 02/05/2014
	SCALE:	1:24000			

Historical Topographic Map



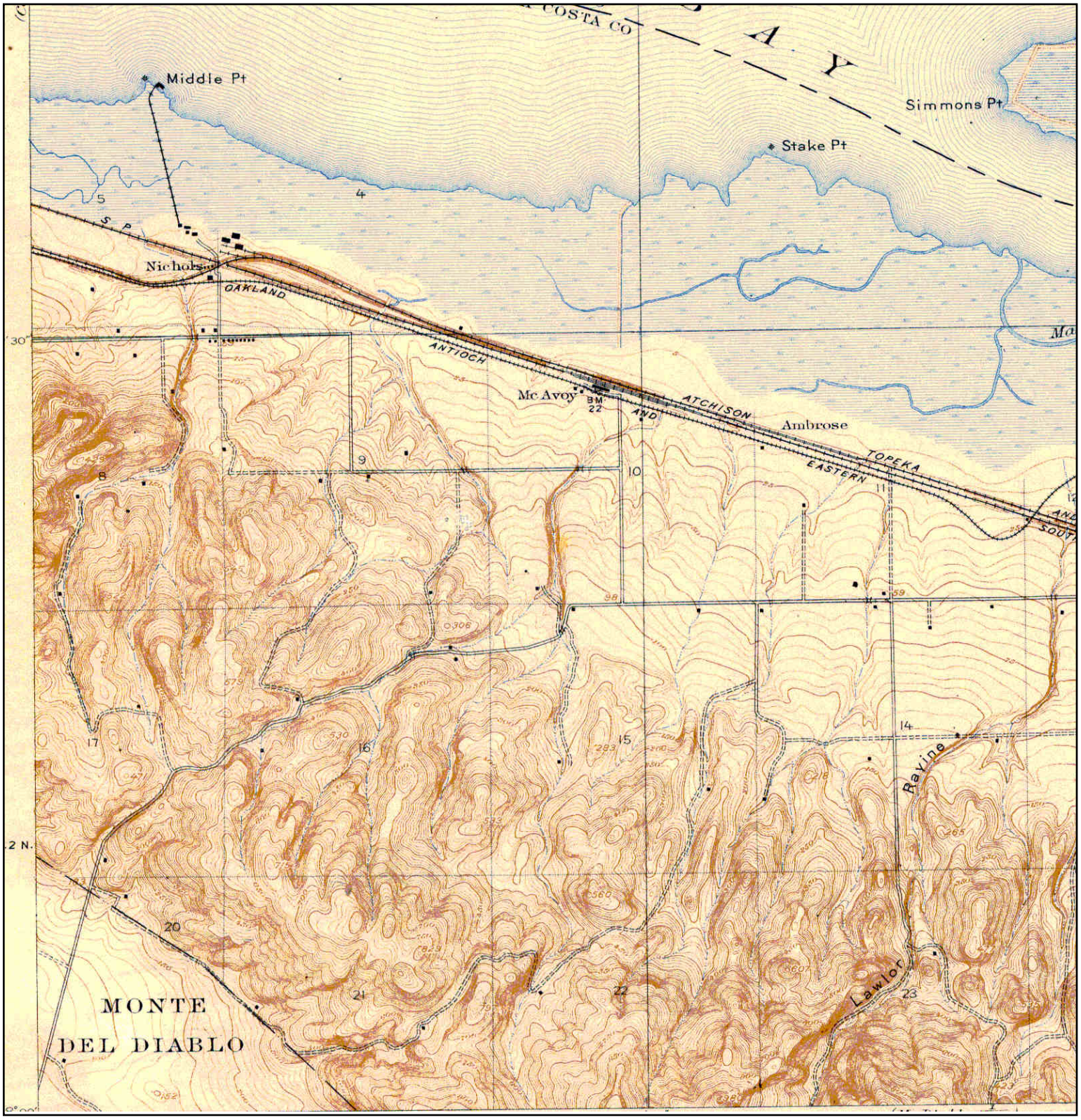
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	NAME:	CLAYTON	SITE NAME:	Faria Property	CLIENT: Engeo Inc.
	MAP YEAR:	1994	ADDRESS:	Faria Property	CONTACT: Siobhan Oreilly-Shah
	REVISED FROM :	1953		Pittsburg, CA 94565	INQUIRY#: 3848393.4
	SERIES:	7.5	LAT/LONG:	37.9997 / -121.9646	RESEARCH DATE: 02/05/2014
	SCALE:	1:24000			

Historical Topographic Map



N	ADJOINING QUAD		
	NAME: ANTIOCH	SITE NAME: Faria Property	CLIENT: Engeo Inc.
	MAP YEAR: 1908	ADDRESS: Faria Property	CONTACT: Siobhan Oreilly-Shah
		Pittsburg, CA 94565	INQUIRY#: 3848393.4
	SERIES: 15	LAT/LONG: 37.9997 / -121.9646	RESEARCH DATE: 02/05/2014
	SCALE: 1:62500		

Historical Topographic Map



N	ADJOINING QUAD NAME: HONKER BAY MAP YEAR: 1918 SERIES: 7.5 SCALE: 1:31680	SITE NAME: Faria Property ADDRESS: Faria Property Pittsburg, CA 94565 LAT/LONG: 37.9997 / -121.9646	CLIENT: Engeo Inc. CONTACT: Siobhan Oreilly-Shah INQUIRY#: 3848393.4 RESEARCH DATE: 02/05/2014

Historical Topographic Map



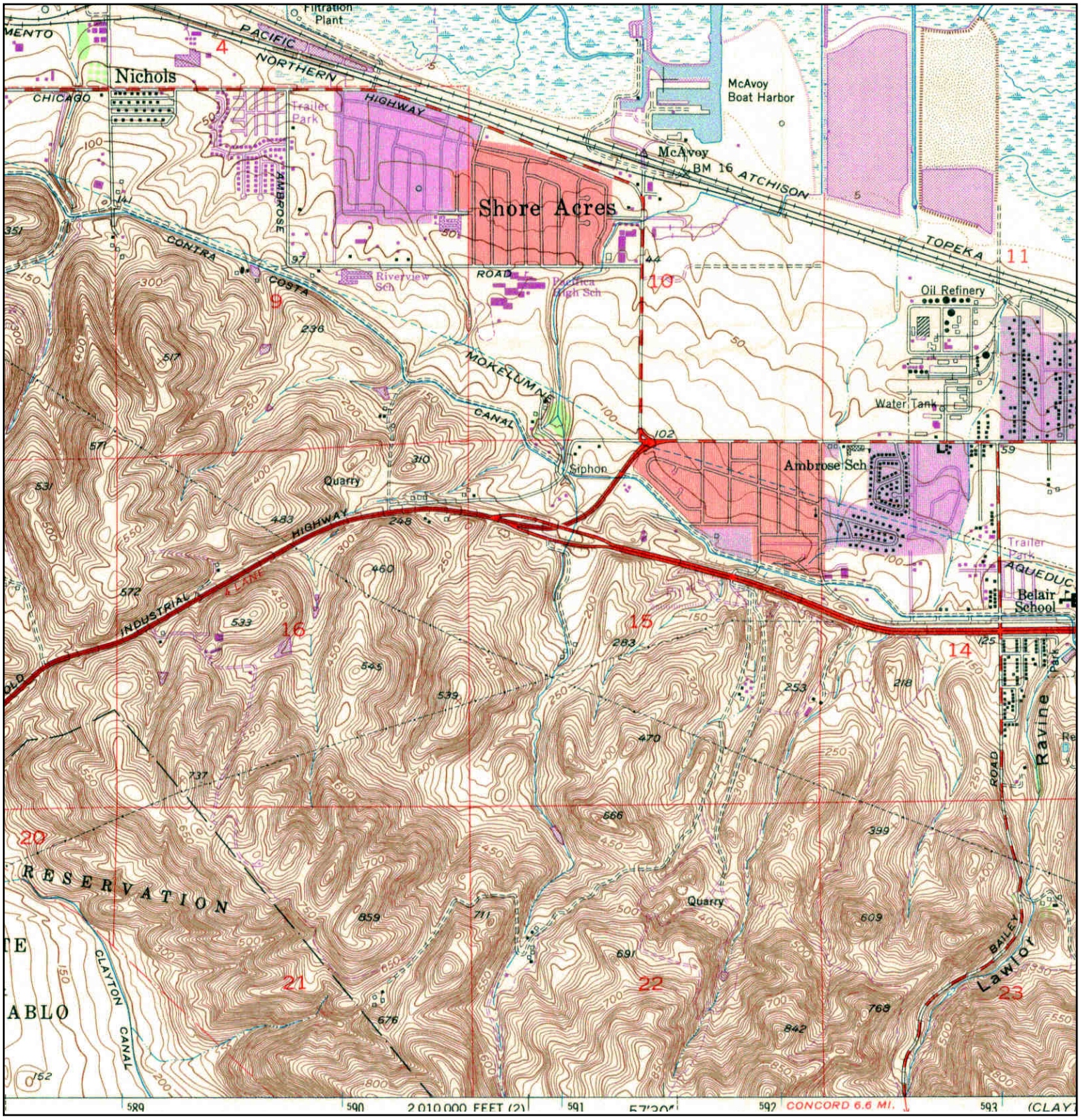
N	ADJOINING QUAD NAME: PITTSBURG MAP YEAR: 1953 SERIES: 15 SCALE: 1:62500	SITE NAME: Faria Property ADDRESS: Faria Property Pittsburg, CA 94565 LAT/LONG: 37.9997 / -121.9646	CLIENT: Engeo Inc. CONTACT: Siobhan Oreilly-Shah INQUIRY#: 3848393.4 RESEARCH DATE: 02/05/2014

Historical Topographic Map



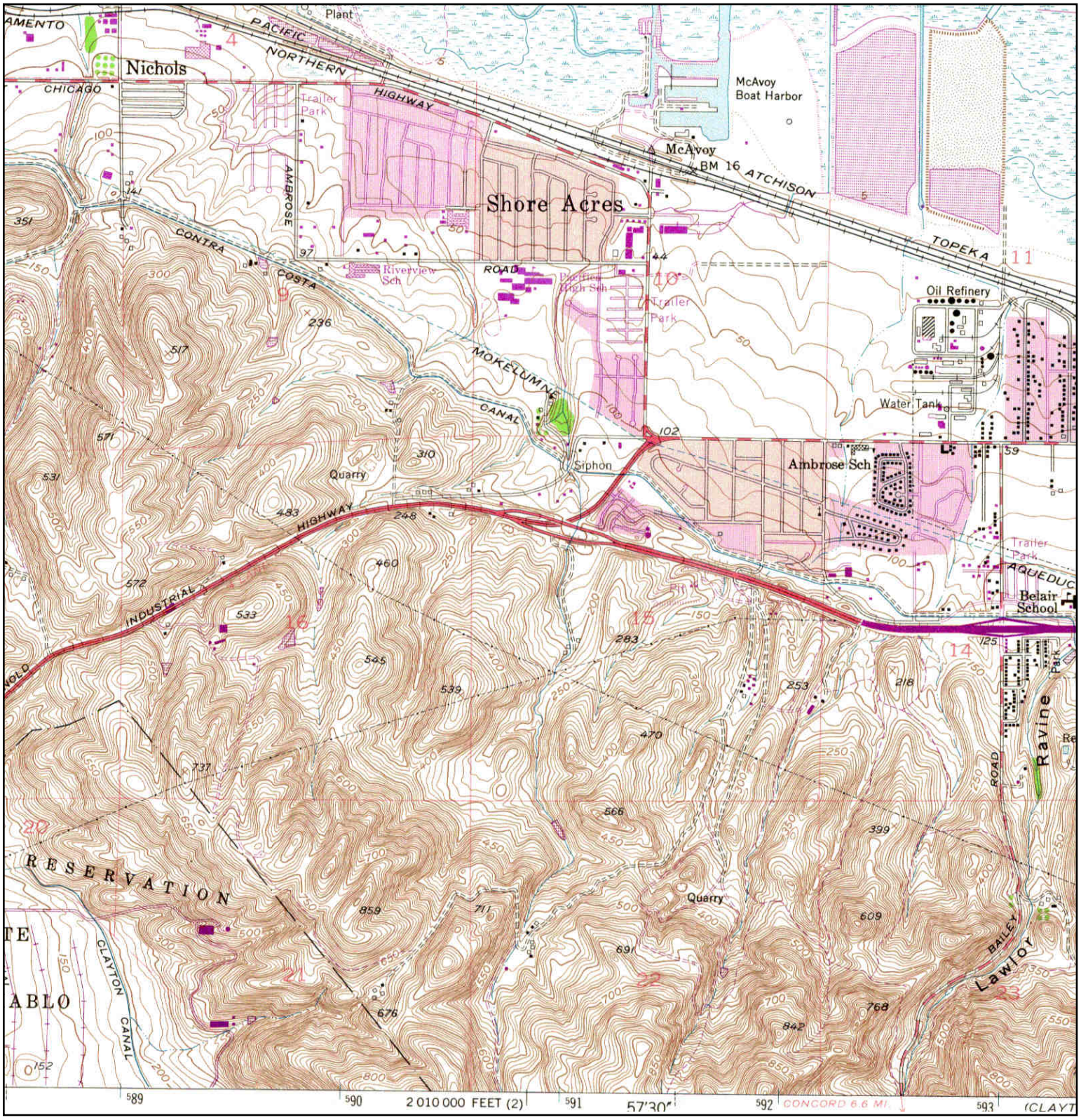
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Historical Topographic Map



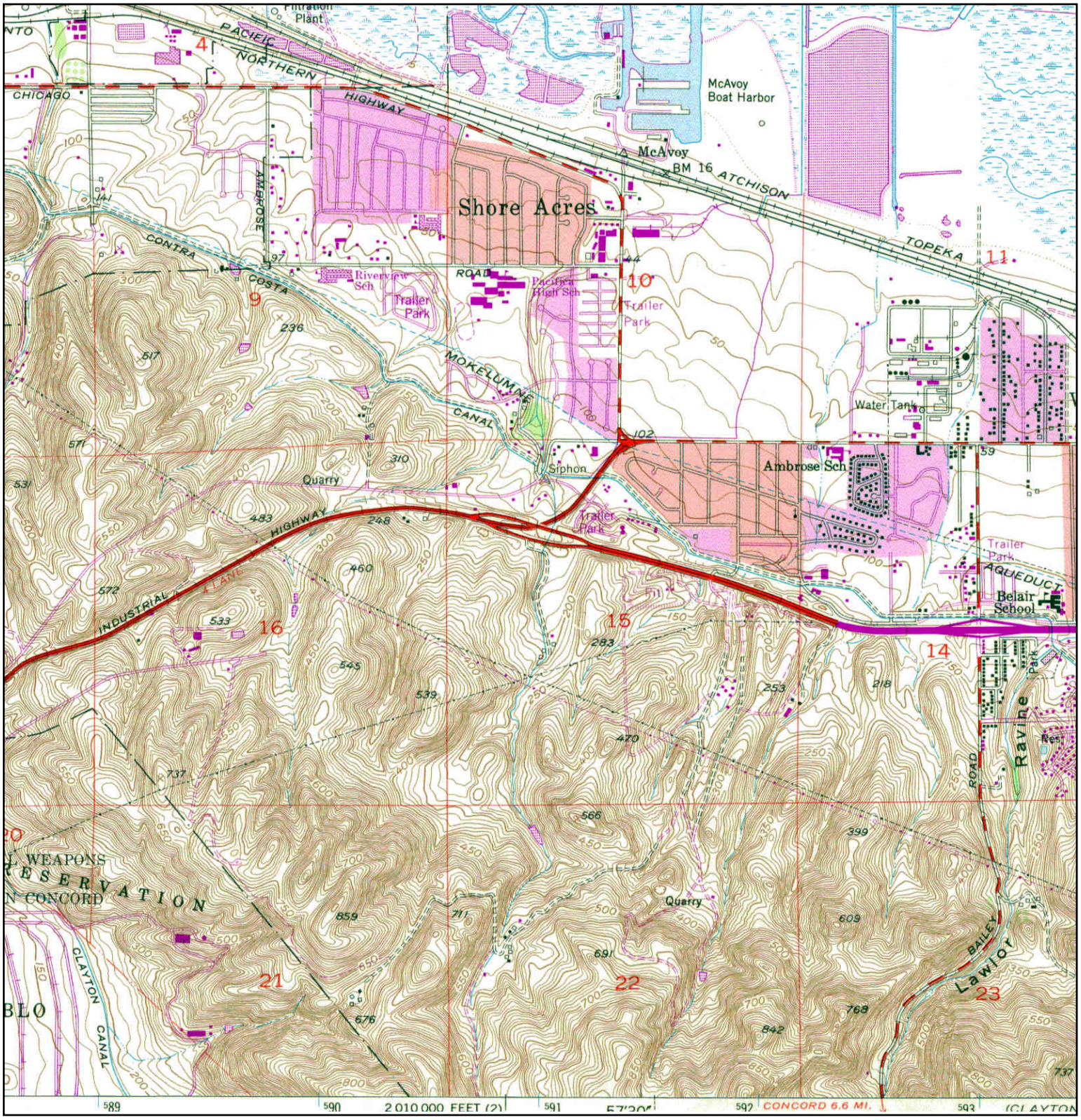
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Historical Topographic Map



N	ADJOINING QUAD NAME: HONKER BAY MAP YEAR: 1973 PHOTOREVISED FROM :1953 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Faria Property ADDRESS: Faria Property Pittsburg, CA 94565 LAT/LONG: 37.9997 / -121.9646	CLIENT: Engeo Inc. CONTACT: Siobhan Oreilly-Shah INQUIRY#: 3848393.4 RESEARCH DATE: 02/05/2014

Historical Topographic Map



N	ADJOINING QUAD NAME: HONKER BAY MAP YEAR: 1980 PHOTOREVISED FROM :1953 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Faria Property ADDRESS: Faria Property Pittsburg, CA 94565 LAT/LONG: 37.9997 / -121.9646	CLIENT: Engeo Inc. CONTACT: Siobhan Oreilly-Shah INQUIRY#: 3848393.4 RESEARCH DATE: 02/05/2014

APPENDIX F

ENVIRONMENTAL DATA RESOURCES, INC.

Aerial Photo Decade Package

APPENDIX F



Faria Property
Faria Property
Pittsburg, CA 94565

Inquiry Number: 3848393.11
February 20, 2014

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

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Date EDR Searched Historical Sources:

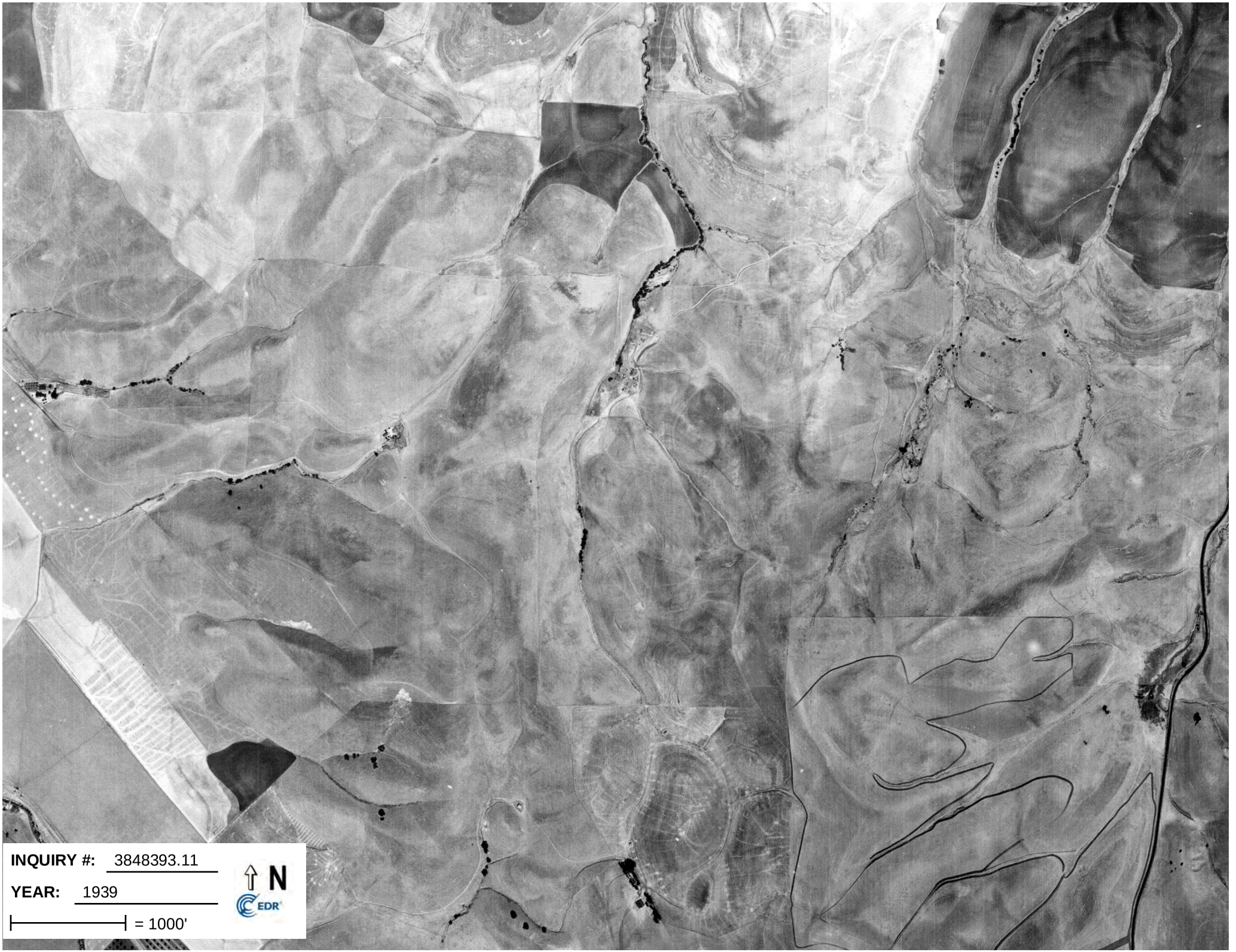
Aerial Photography February 20, 2014

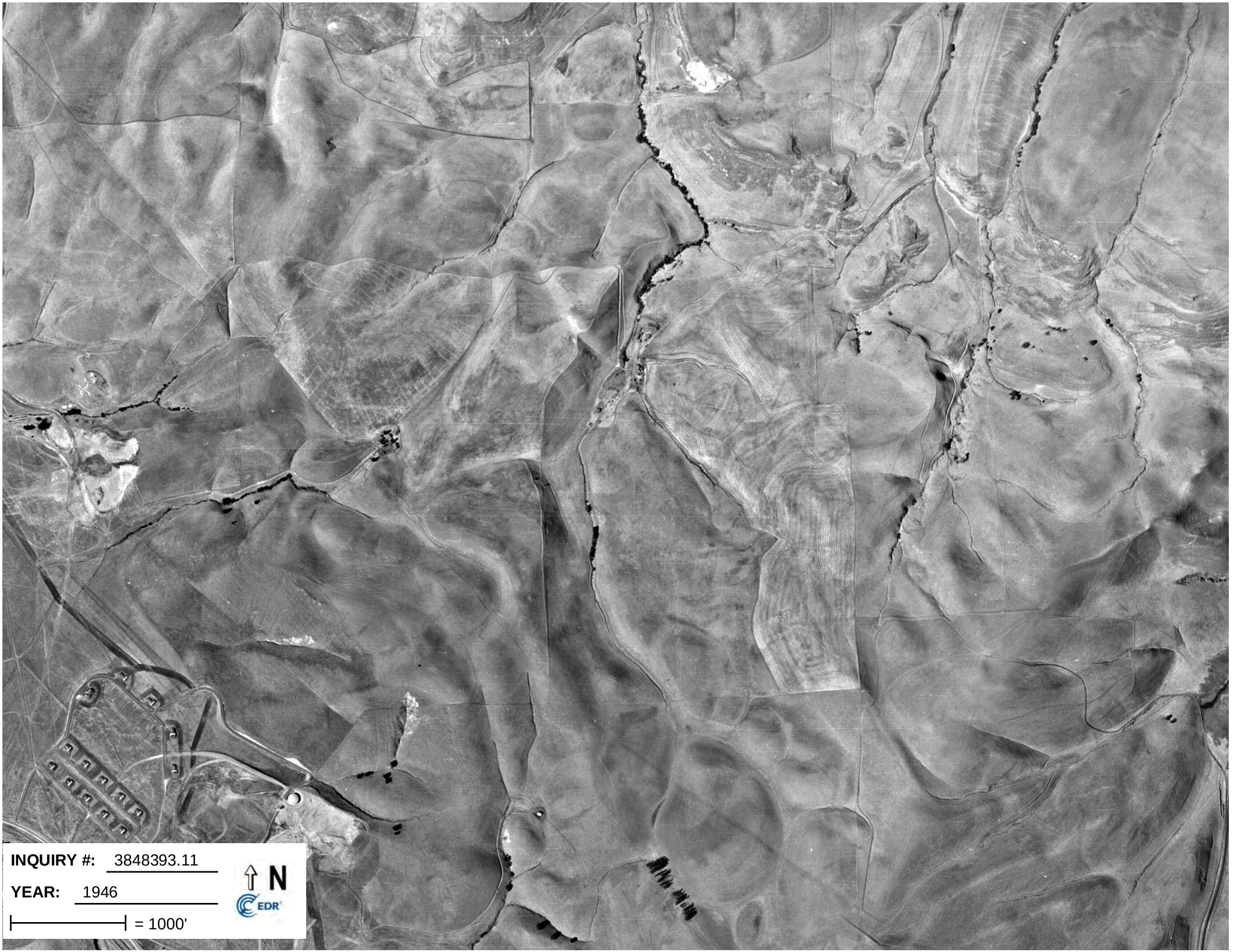
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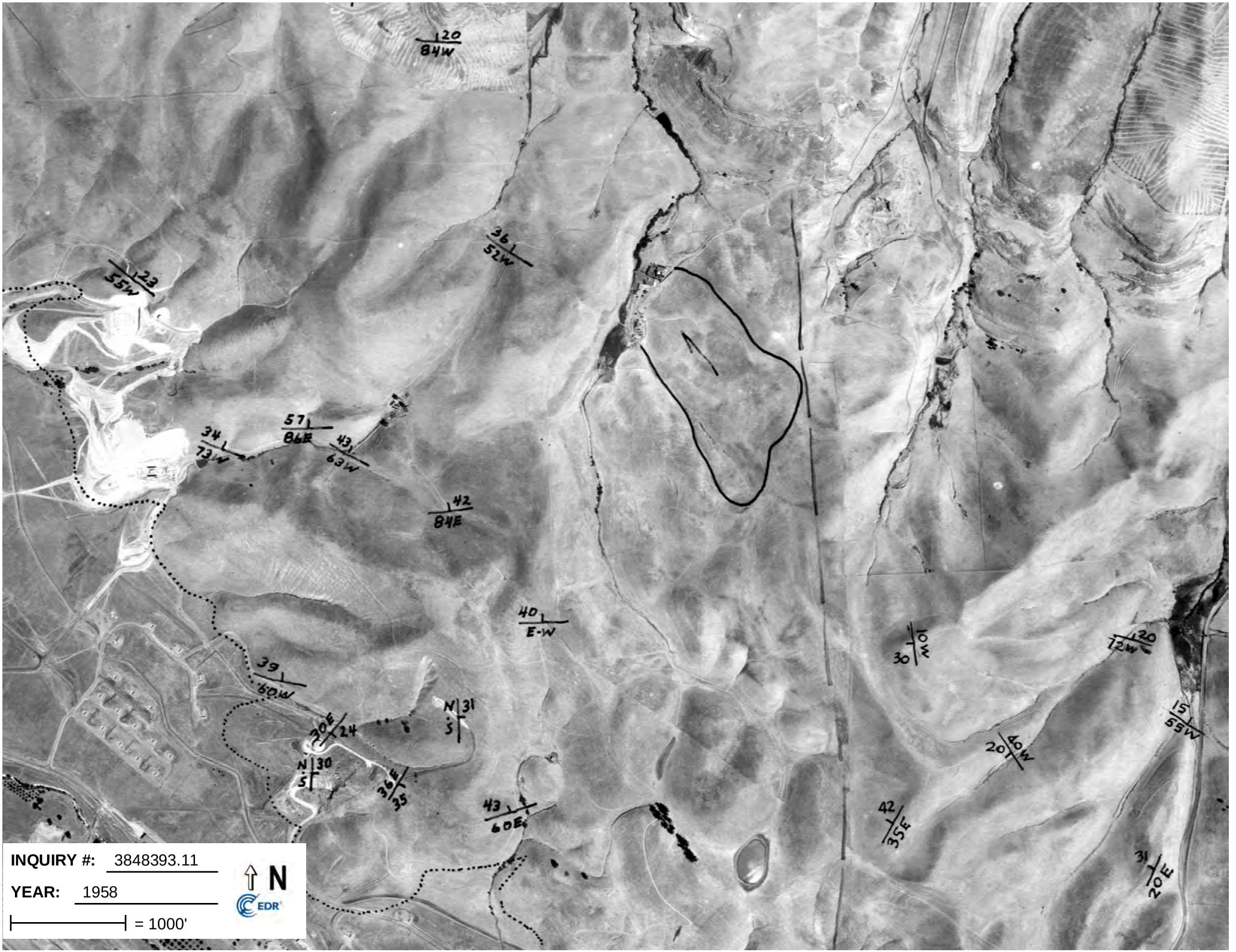
Faria Property

Pittsburg, CA 94565

Year	***Scale***	***Details***	***Source***
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1946	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1946	Jack Ammann
1958	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1958	Cartwright
1965	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1965	Cartwright
1974	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1974	NASA
1982	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1982	WSA
1993	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1993	EDR
1993	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1993	USGS
1998	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1998	USGS
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR


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YEAR: 1939
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EDR


INQUIRY #: 3848393.11
YEAR: 1946
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N
EDR



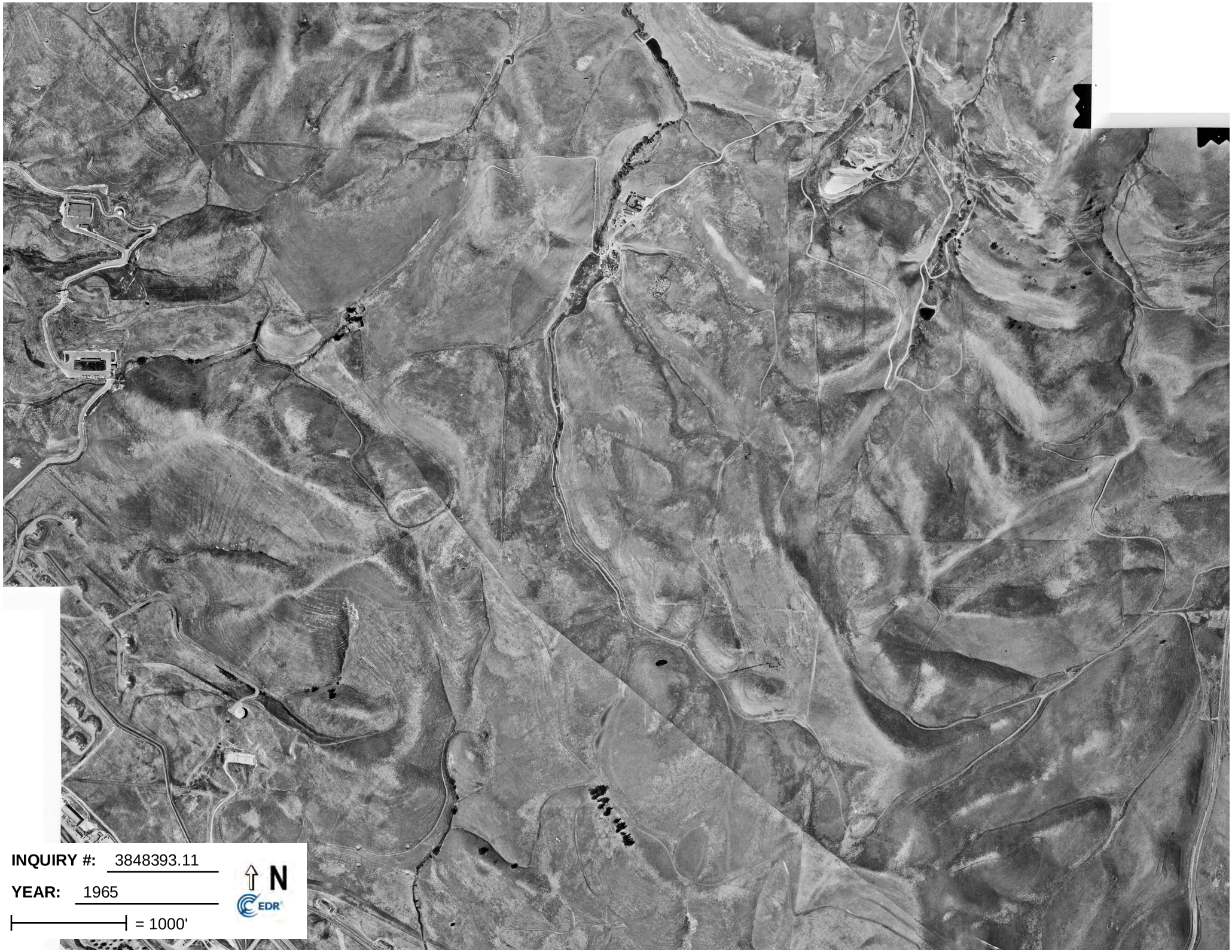
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YEAR: 1958

= 1000'

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EDR



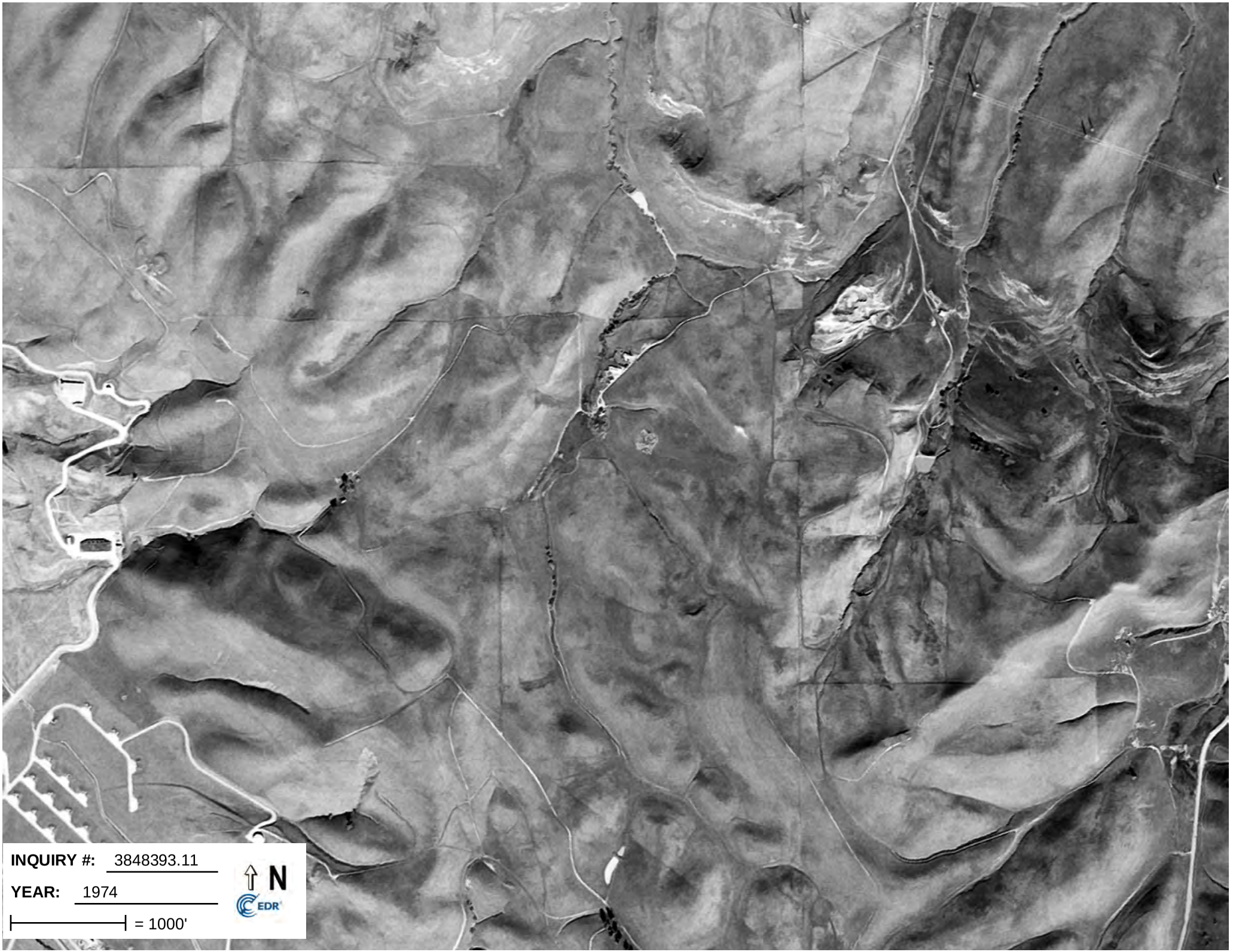
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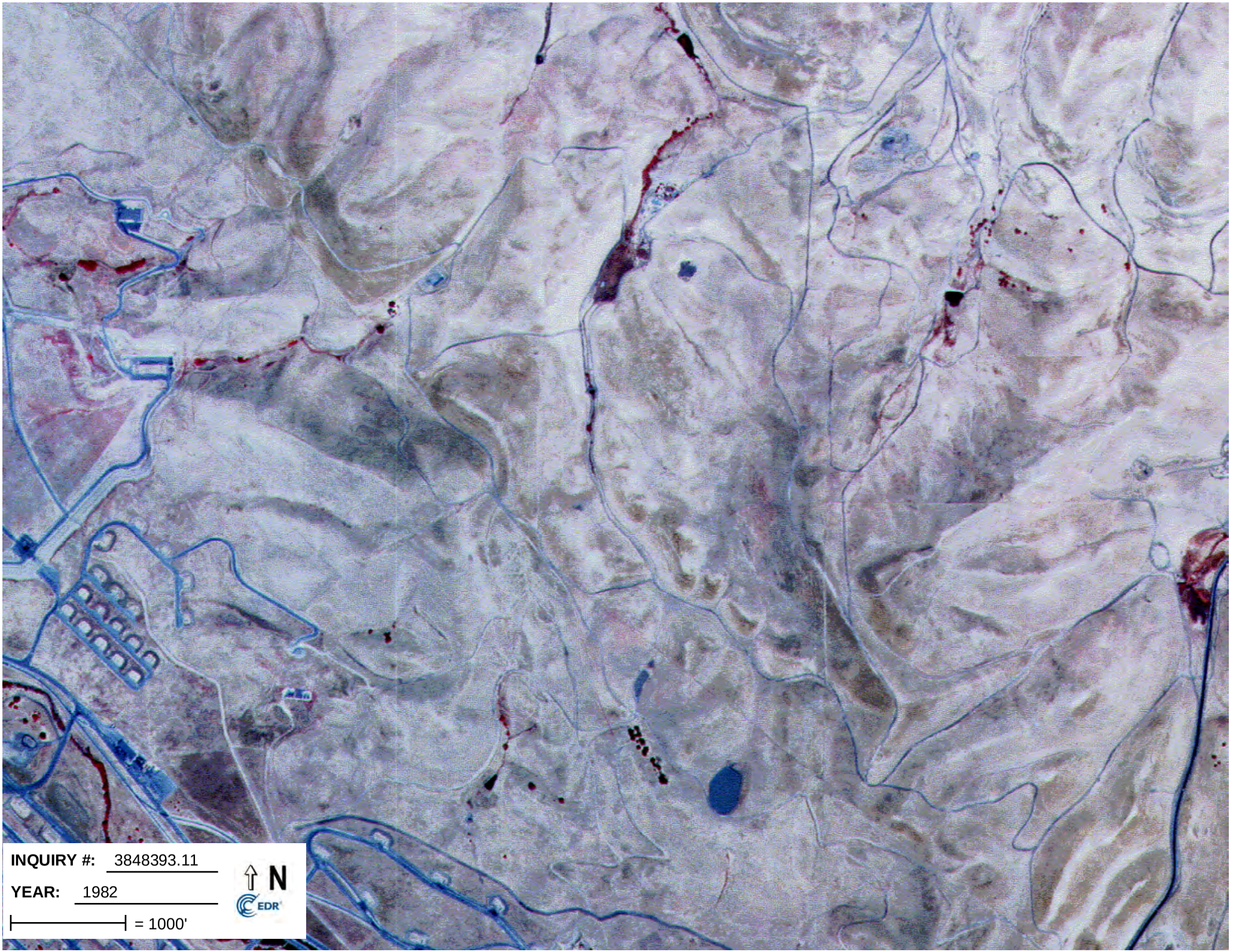
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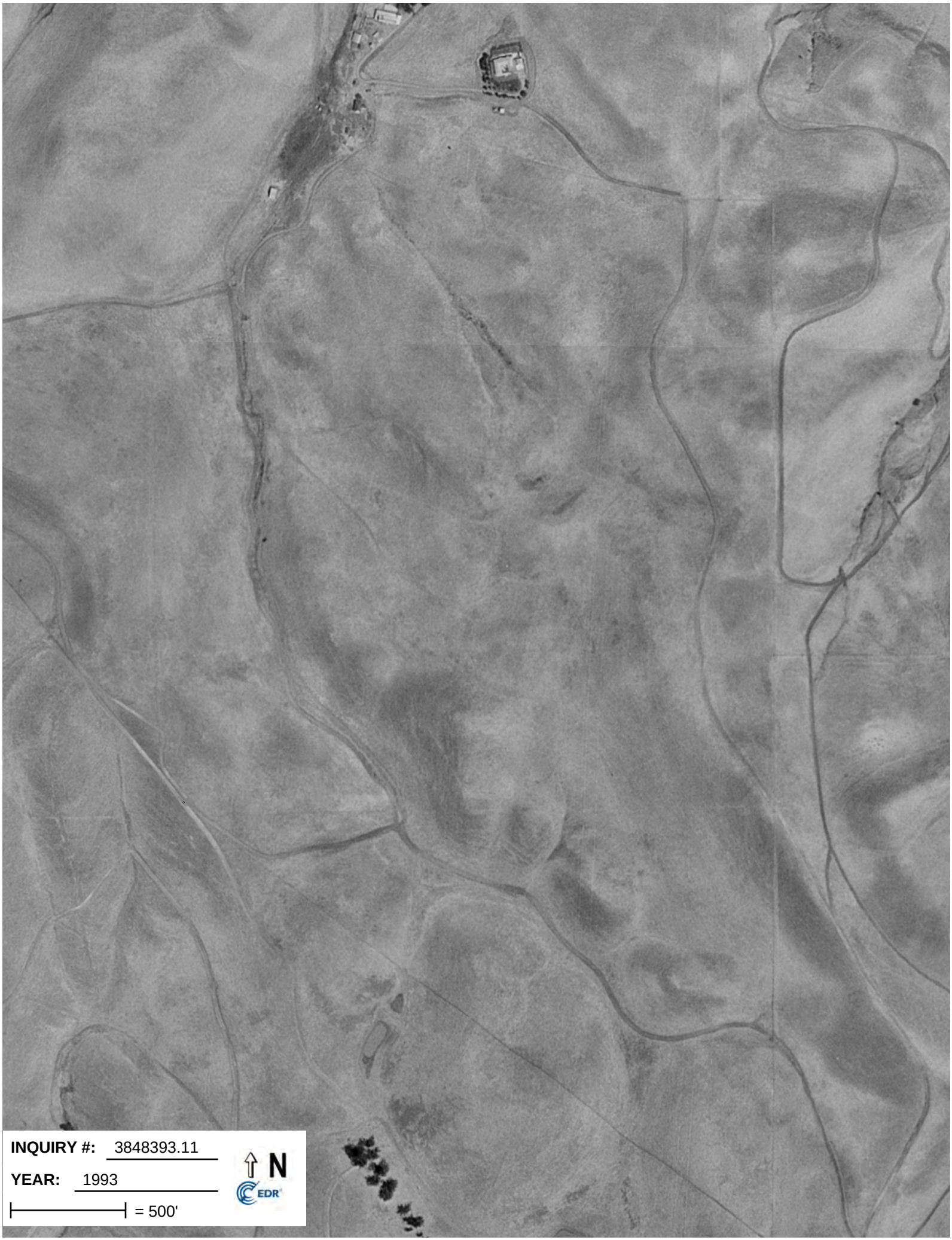
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EDR


INQUIRY #: 3848393.11
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EDR


INQUIRY #: 3848393.11
YEAR: 1982
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EDR



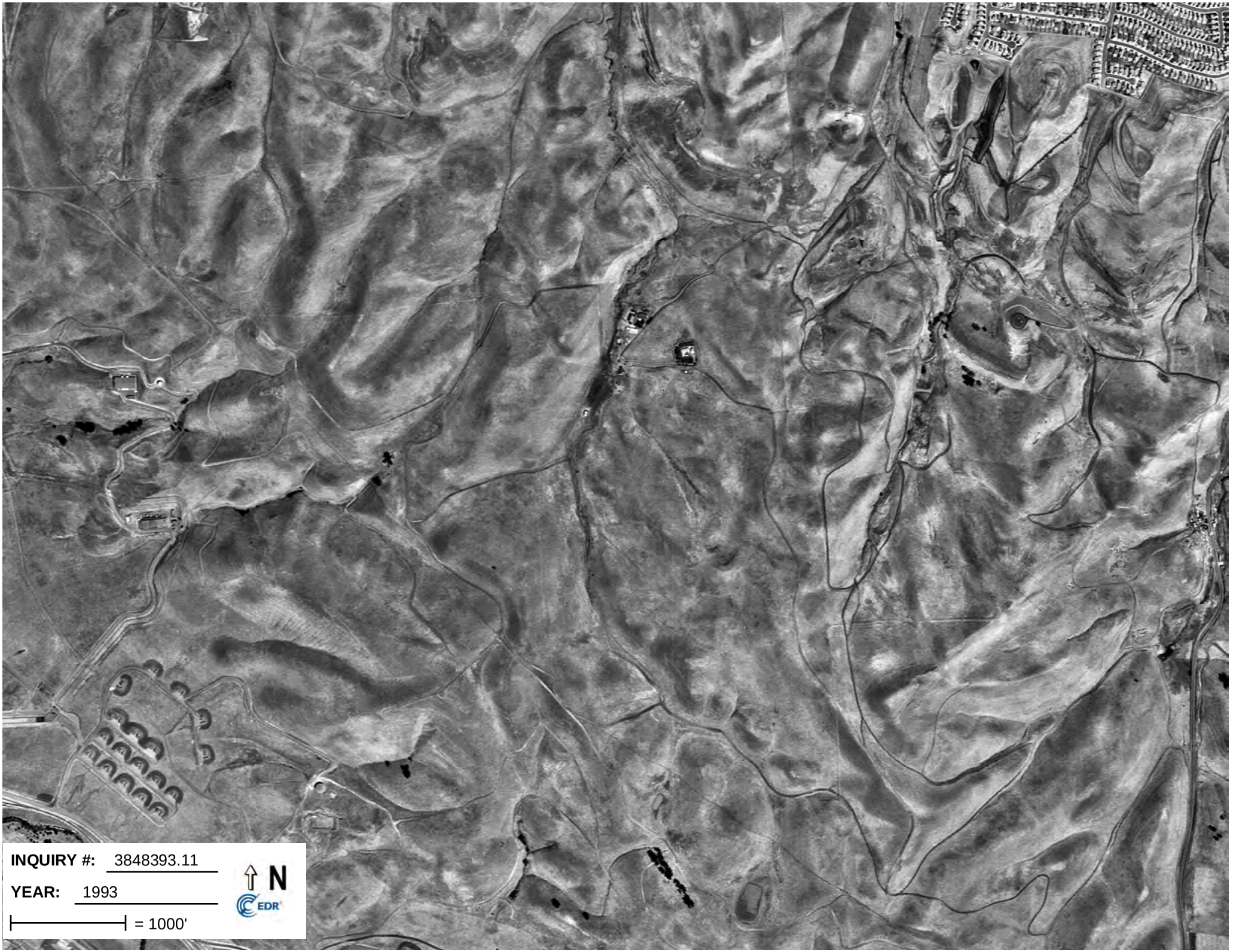
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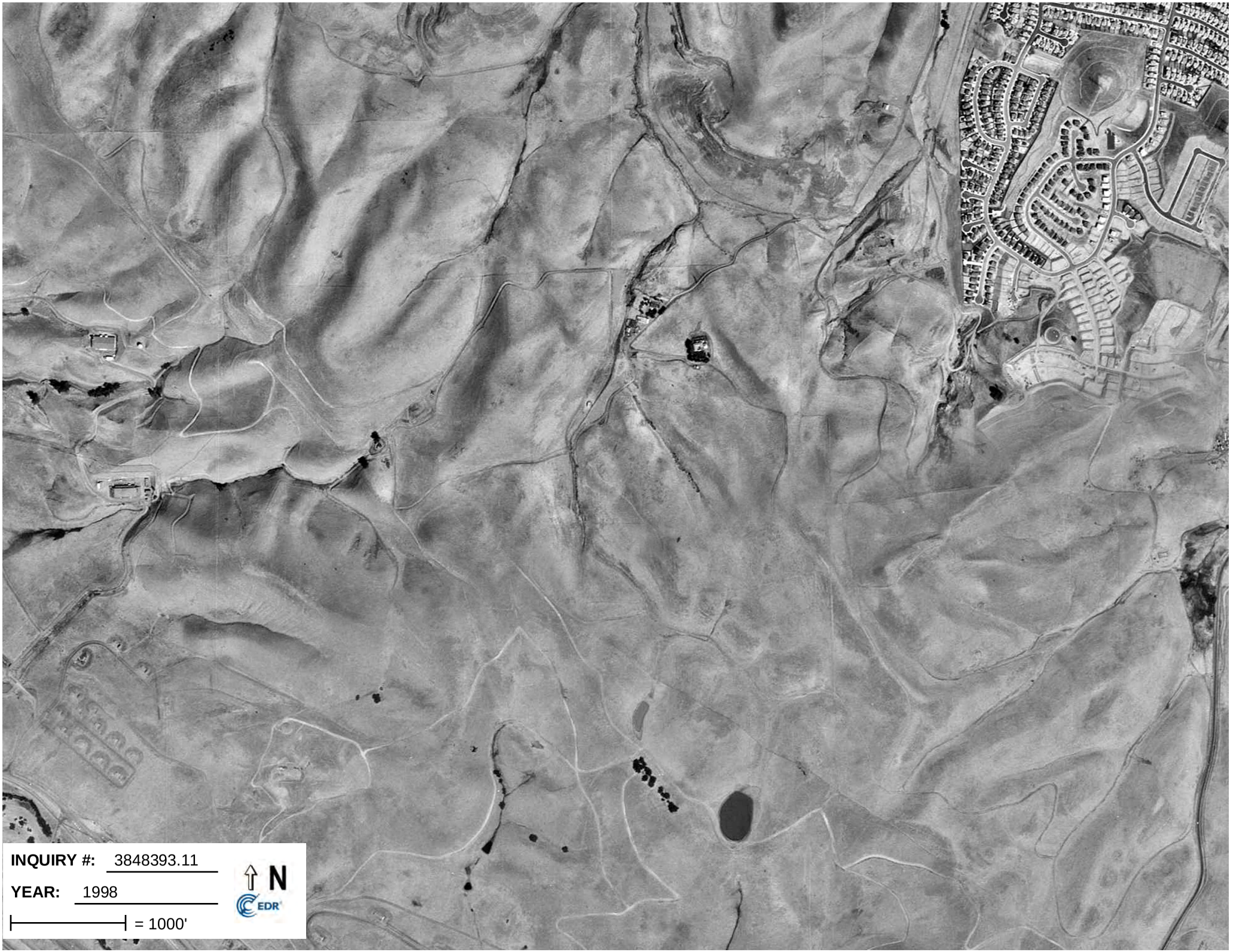
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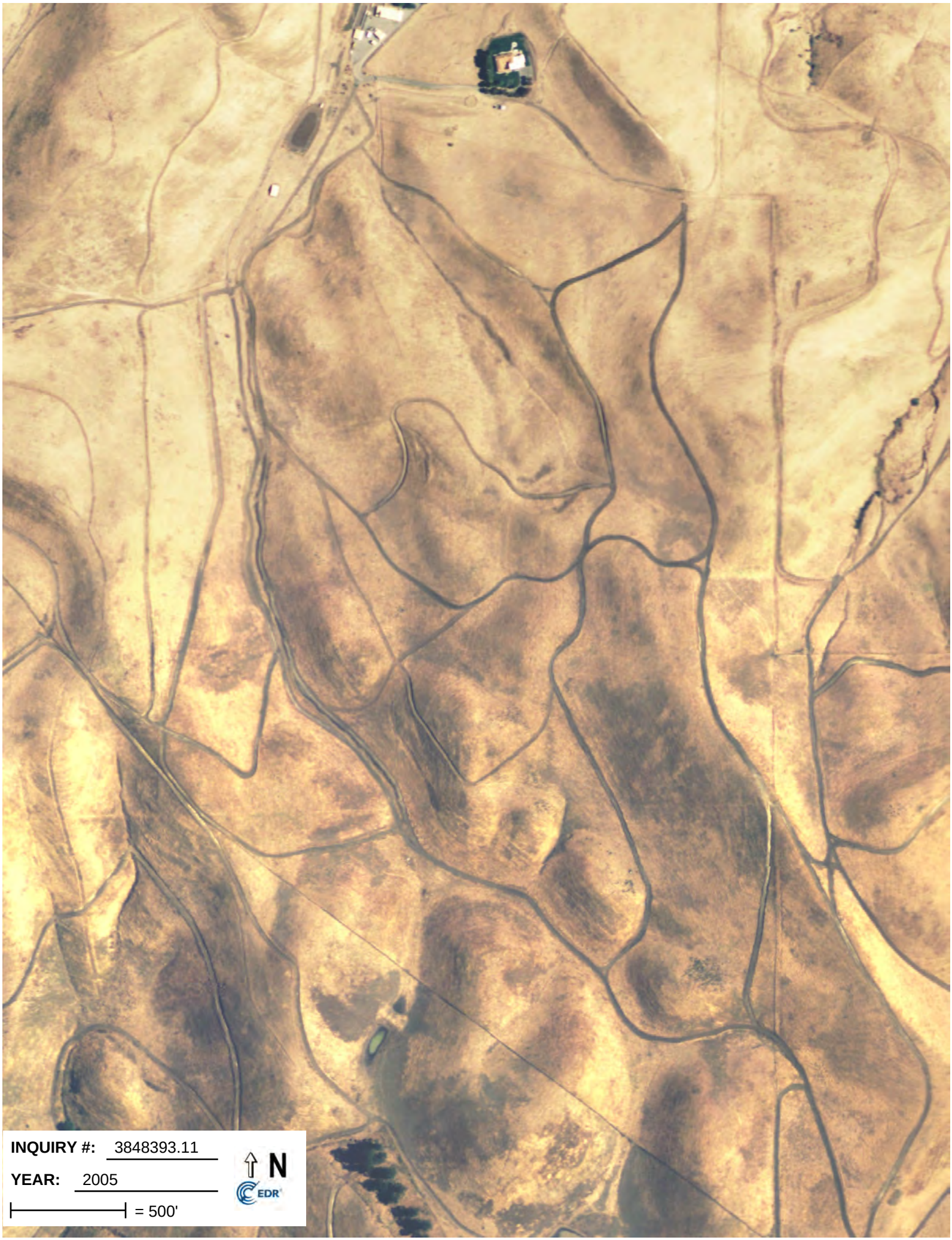
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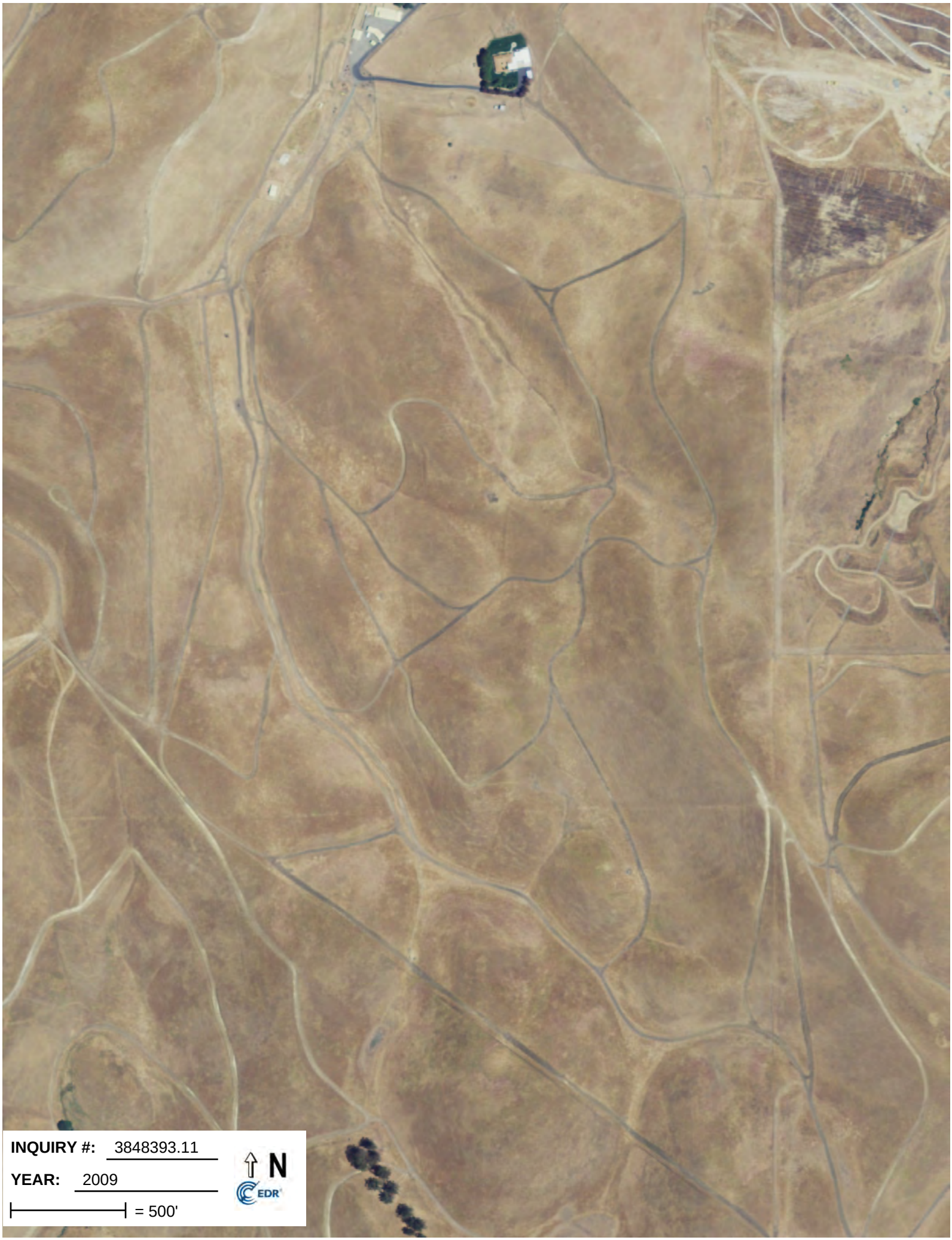
EDR


INQUIRY #: 3848393.11
YEAR: 1993
= 1000'
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EDR

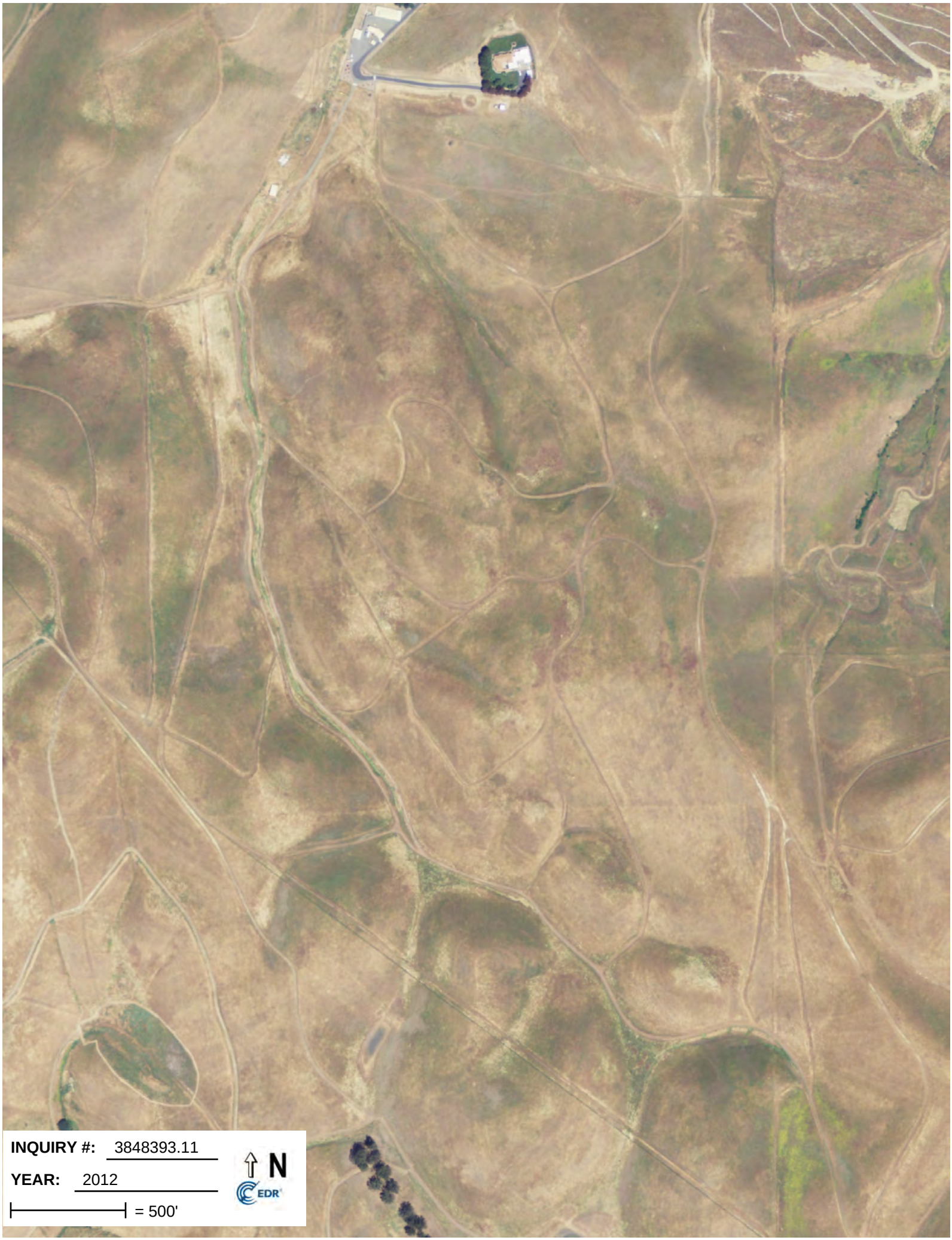

INQUIRY #: 3848393.11
YEAR: 1998
= 1000'
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EDR


INQUIRY #: 3848393.11
YEAR: 2005
= 500'
N
EDR


INQUIRY #: 3848393.11
YEAR: 2006
= 500'
N
EDR


INQUIRY #: 3848393.11
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 3848393.11
YEAR: 2010
= 500'
N
EDR


INQUIRY #: 3848393.11
YEAR: 2012
= 500'
N
EDR

APPENDIX G

ENVIRONMENTAL DATA RESOURCES, INC.

Sanborn Map Report

APPENDIX G



Faria Property
Faria Property
Pittsburg, CA 94565

Inquiry Number: 3848393.3
February 05, 2014

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

2/05/14

Site Name:
Faria Property
Faria Property
Pittsburg, CA 94565

Client Name:
Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583

EDR Inquiry # 3848393.3

Contact: Siobhan Oreilly-Shah

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name: Faria Property
Address: Faria Property
City, State, Zip: Pittsburg, CA 94565
Cross Street:
P.O. # 2705.280.005
Project: Faria Property
Certification # 8096-44A4-A262

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results
Certification # 8096-44A4-A262

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

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APPENDIX H

ENVIRONMENTAL DATA RESOURCES, INC.

City Directory

APPENDIX H



Faria Property
Faria Property
Pittsburg, CA 94565

Inquiry Number: 3848393.5
February 07, 2014

The EDR-City Directory Image Report

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

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City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2013	☑	☑	Cole Information Services
2008	☑	☑	Cole Information Services
2003	☑	☐	Cole Information Services
1999	☑	☑	Cole Information Services
1994	☑	☐	Haines Criss-Cross Directory
1989	☑	☐	Haines Criss-Cross Directory
1985	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1975	☑	☐	Haines Criss-Cross Directory

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FINDINGS

TARGET PROPERTY STREET

Faria Property
Pittsburg, CA 94565

Year	*CD Image*	*Source*

BAILEY RD

2013	pg A1	Cole Information Services
2008	pg A6	Cole Information Services
2003	pg A12	Cole Information Services
1999	pg A16	Cole Information Services
1994	pg A21	Haines Criss-Cross Directory
1994	pg A22	Haines Criss-Cross Directory
1989	pg A23	Haines Criss-Cross Directory
1989	pg A24	Haines Criss-Cross Directory
1985	pg A25	Haines Criss-Cross Directory
1980	pg A26	Haines Criss-Cross Directory
1980	pg A27	Haines Criss-Cross Directory
1975	pg A28	Haines Criss-Cross Directory
1975	pg A29	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
ROSA BLANCA DR			
2013	pg. A5	Cole Information Services	
2008	pg. A11	Cole Information Services	
2003	-	Cole Information Services	Target and Adjoining not listed in Source
1999	pg. A20	Cole Information Services	
1994	-	Haines Criss-Cross Directory	Street not listed in Source
1989	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2013

110	AARON LAURENT
	ADRAINE TRAPPS
	ALEX SMITH
	ALEXIS FORTUNE
	ANISE SCOTT
	CARMEN GIRON
	CHARAN KAUR
	CONNIE FELICIANO
	COURTNEY JOHNSON
	DANISHA HAYGOOD
	DARREN WOODS
	DONNA TOOLE
	ELEUTERIO PENA
	EPIFANIA DOMINGO
	EUGENE PLAZA
	EVELYN GIRON
	GERARDA BALATBAT
	GREGORIO SALVADOR
	IRMA GAMBLE
	JAMAL BATISTE
	JAN WILLIAMS
	KARYN GAYFIELD
	KENNETH WILSON
	LAOTHAY VENTURA
	LUCIANO ARELLANO
	M MASIH
	MANUEL FLORES
	MARCELA SULANGI
	MAY BERMUDES
	NATY RIOSA
	OLIVIA MENDOZA
	ORLANDO JINGCO
	PEGGY HUMPHRIES
	ROBERT SUMIBCAY
	RODOLFO BARROGA
	RUDY BARRGA
	S WALKER
	SALOME HOZESKA
	SEAN ANDERSON
	SHANNON SUTHERLAND
	THOMAS DIAZ
	TIMEA TRUMBO
	VERNELL COUSIN
	VICTOR ALCANTAR
	VICTORIA OSORIO
	VIRGINIA CABADDU
	VIVIAN ROSSIGNON
	WILLOWBROOK APARTMENTS
	ZAKIYA EDMOND
116	LUCILLE MCCREE

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2013 (Cont'd)

126	EUGENIA CLEVELAND
132	FRANCISCO VARGAS
138	ALVIN HUSALAR
	CALOYS BRAKE & CLUTCH REPAIR
144	MIRIAM ESPINOZA
150	MELISSA MORA
	RAVINESH BEHARI
156	ANTOINAE HARRIS
	FRANCISCO REYES
	JERRY RINCON
	OMAR GIRON
162	CHARDAE MERLES
	COURTNEY DAVIS
	MARYELLEN BENJAMIN
	REGINALD WEAVER
170	JEHOVAHS WITNESS
204	WEST PITTSBURG COMMUNITY CHURCH OF G
220	MCDONALDS
247	ALVARO BARAJAS
	ANN ROBEY
	ANTHONY JONES
	ARMONDO HINOJOSA
	B BENTLEY
	BENJAMIN FRANKLYNN
	BOBBY STURGEON
	BRENDA GODINEZ
	BRYAN VITKO
	CARLOS MONTOYA
	CLIFFORD LEE
	DANA MATTSON
	DANIELA RODRIGUES
	DEBBIE GARRISON
	DEBORAH CURTIS
	DENNIS MARTINEZ
	DOROTHY DARLING
	ENEMORIO TORRES
	FAR HILLS MOBILE PARK
	FRANCISCO VARGAS
	FRANCISCO VASQUEZ
	GARCIA FLOR
	GEORGE STEVENS
	GLORIANNA ROMERO
	HAROLD MILLER
	HAYNE RYAN
	IGNACIO RAMIREZ
	IONE ADCOCK
	JAIME SOTO
	JOHN WEST
	JOSE ESTRADA
	JOSE VERDUZCO

BAILEY RD 2013 (Cont'd)

247	JULIET LOPEZ
	KEVIN JOHNSON
	LARRY ACOSTA
	LARRY HAYNE
	LIBRADO CALDERON
	MARIA HIGUERA
	MARTIN GORDIANO
	MIGUEL ORDAZ
	MIGUEL VALDEZ
	MIRTA DOMINGUEZ
	NESTOR PALACIOS
	NOELIA MONTEBELLO
	NORMA CHAVEZ
	R BARNES
	RGS ASPHALT MAINTENANCE
	ROBERT SIZEMORE
	ROLANDO MONTEBELLO
	ROSAUR PORTILLO
	RUSSELL SHEARER
	SELIO GUARDADO
	SOPHIA STANLEY
	TED MOSER
	VICENTE CEDANO
254	TOWER MART
261	BAILEY ROAD SHELL
408	ROUND TABLE PIZZA
520	CALIFORNIA CHECK CASHING STORES
526	LOS REYES TAQUERIA
532	SUBWAY SANDWICHES
538	PATEL RITA DDS
	PATEL SANJAY DDS FAMILY DENTISTRY
542	H&R BLOCK
546	HEALTHY WATER
550	ARRIEANNA EDWARDSLOMBARD STATE FA
556	1ST UNITED SERVICES CREDIT UNION
	BEAUTY SUPPLY SALON
558	DESIGNER FASHIONS
564	LUCKY NAILS
570	DESIGNER CUTS
580	RITE AID PHARMACY
591	JOHN KOONTZ
604	BURGER KING
620	CYPRESS CLEANERS
621	RICHARD WEBSTER
624	CIGARETTE DISCOUNT CENTER
628	DOLLAR JOES 1 & MORE
636	MOMS DONUTS & ICE CREAM
640	24 HOUR EMERGENCY TOWING
	911 REMEDIATION
	AA TOWING

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2013 (Cont'd)

640	AUTO TOWING
	MAIL BOXES ETC
	MR DRAIN PLUMBING OF PITTSBURG
	MULTI LOCKSMITH
	RB INVESMENTS LLC
	SANDALS PEST CONTROL CO
	THE LAW OFFICES OF STAN E RIDDLE
	THE UPS STORE
	UNITED TAXI
644	RADIOSHACK
648	DULCES ANTOJITOS
652	AUTOZONE
660	STARBUCKS COFFEE
	WELLS FARGO
671	JASON BILLINGTON
690	DOLLAR TREE
705	MARIO ORTIZ
717	ZHEN YU
727	JOHN ADAMO
731	SELVADURAI MUTHUKUMAR
735	MARCOS IGNACIO
739	PHILLIP COOK
743	MICHAEL RUSH
747	CHARLES GUENTHNER
751	AJIT SOLOMON
901	ALLIED WASTE SERVICES
	AMERESCO
1200	DUSTIN SCHREINER

Target Street	Cross Street	Source
-	✓	Cole Information Services

ROSA BLANCA DR 2013

1837	MICHAEL DUFRESNE
1838	OCCUPANT UNKNOWN
1843	ASICOLO ARDALES
1844	MICHAEL FORMISANO
1850	BALJIT BHANDAL
1855	LAURENCE RUSSELL
1856	BILL NGUYEN
1861	HUBERT MAYS
1862	CHRISTOPHER SMITH
1867	MALCOLM COWLER
1868	BRANDON RILEY
1901	OCCUPANT UNKNOWN
1902	OCCUPANT UNKNOWN
1905	OCCUPANT UNKNOWN
1906	OCCUPANT UNKNOWN
1909	OCCUPANT UNKNOWN
1910	OCCUPANT UNKNOWN
1913	OCCUPANT UNKNOWN
1914	OCCUPANT UNKNOWN
1917	OCCUPANT UNKNOWN
1959	FRANCISCO LARA

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2008

110	AARON LAURENT
	ADRIENA TRAPPS
	AFGHANI AZIZ
	ANGELA STANDIFER
	ARSENIA ROXAS
	BERNARDO OSORIO
	C WILLIAMS
	CATALINO MUSNIT
	CHARAN KAUR
	COLETTE GAINES
	CONRADO OCAMPO
	COURTNEY JOHNSON
	DAN WOODS
	DANA CURRIE
	DANIEL AGUIRRE
	DANIEL JERVOSO
	EPIFANIA DOMINGO
	ESTANISLAO BAUTISTA
	EUGENE PLAZA
	FRANCINE SMITH
	GERALDA BALATBAT
	IRMA GAMBLE
	ISBEL CORNELL
	JAMAL BATISTE
	JARMALL BATISTE
	K KEOPARAMY
	KENNETH WILSON
	LAWANA HARRISON
	LORRETTA SMITH
	LUCIANO ARELLANO
	MANUEL FLORES
	MARCELA SULANGI
	MARY AQUINO
	MARY GRAY
	MARY ROWAND
	MAY BERMUDES
	MG PROPERTIES
	MONIQUE TURNER
	NANCY QUINTERO
	NATY RIOSA
	ORLANDO JINGCO
	ROBERT SUMIBCAY
	SALOME HOZESKA
	SERGIO MACIEL
	SHIMICA MIXON
	SONYA FULCHER
	TARA LIPSCOMB
	TYRONE ROBERTS
	VERNELL COUSIN
	VICTOR ALCANTAR

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2008 (Cont'd)

110	VIRGINIA CABADDU
	VRICILLA OSORIO
	WAYZATA TURNER
116	THOMAS MCCREE
126	EUGENIA CLEVELAND
138	ALEXANDER LEGASPI
144	JOHN GREENHOUSE
150	JOHN GREENHOUSE
156	KRISTINE NORTHEN
	LATONYA THOMAS
	MARTIN BARBOSA
	STEVEN JENKINS
	TRE THOMSON
162	VALERIA MERLES
170	JEHOVAHS WITNESSES
176	JOEY ANDERSON
204	WEST PITTSBURG COMMUNITY CHURCH OF G
220	MCDONALDS
247	ABELARDO MONTOYA
	ALEJANDRO VAQUERA
	ANN ROBEY
	ANNA RODRIGUEZ
	BARBARA RENTERIA
	BILLY BREWER
	BOBBY STURGEON
	BRIAN OCONNOR
	BUFFY JONES
	CARLA STANLEY
	CARLOS VALENCIA
	CLARENCE GARRISON
	CLIFFORD LEE
	CONSUELO TORRES
	DEBORAH CURTIS
	DENNIS MARTINEZ
	DIANA CARLTON
	DON CLARK
	DOROTHY DARLING
	EVANGELINA ESPINOZA
	FAR HILLS MOBILE PARK
	FRANCISCO VASQUEZ
	FREDDYKA ALVAREZ
	GEORGE STEVENS
	GUILLERMO ZAVALA
	GUS STANLEY
	HAROLD MILLER
	HARRIETT JIMENEZ
	HEATHER PARKINS
	IGNACIO RAMIREZ
	IONE ADCOCK
	JAIME SOTO

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2008 (Cont'd)

247	JAVIER BLANDON
	JOHN HOWLAND
	JOSE CUADRAS
	JOSE ESTRADA
	JOSE GUADALUPE
	JOSE VERDUZCO
	JUAN VALENZUELA
	KENNETH RUTHERFORD
	KEVIN JOHNSON
	LARRY ACOSTA
	LARRY GARCIA
	LIBRADO MATA
	MANUEL MONTOYA
	MARGARITO VASQUEZ
	MARIA ALVAREZ
	MARIA GUTIERREZ
	MARIA HIGUERA
	MARIA MENDOZA
	MARVIN HOWARD
	MICHAEL SHARP
	MICHELLE TINDER
	MIGUEL ORDAZ
	MIGUEL VALDEZ
	MIRACLE HOUSEKEEPING
	NAGI SANCHEZ
	NICOLASA MUNOZ
	NOELIA MONTEBELLO
	NORMA CHAVEZ
	RALPH WALTERS
	RAUDEL LUJANO
	RAYMOND NIELSEN
	RENATA SANTIZO
	REYES CARRER
	RGS ASPHALT MAINTENANCE
	RICARDO ESTRADA
	RICHARD FREEMAN
	ROSALINDA ESTRADA
	ROSAURA PORTILLO
	ROY COOKSEY
	SAM WHITLATCH
	SERGIO AGUILAR
	STEVE STEVENS
	THOMAS GLENN
	VICENTE CEDANO
	WALT HAYNE
	YAJAIRA MORENO
254	TOWER MART
261	SHELL OIL CO
408	ROUND TABLE PIZZA
520	CALIFORNIA CHECK CASHING STORES

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2008 (Cont'd)

520	JTS DESIGNER CUTS
526	LOS REYES TAQUERIA
532	SUBWAY
538	FAMILY DENTISTRY
546	HEALTHY WATER
550	LADIES WORKOUT EXPRESS
	OCCUPANT UNKNOWN
558	ANWARY ENTERPRISES INC
	DESIGNER BRANDS
564	LUCKY NAILS
570	DESIGNER CUTS INC
580	RITE AID PHARMACY
591	JOHN KOONTZ
604	BURGER KING
	SACCA CORP
615	JOHN STONEKING
620	CYPRESS CLEANERS
621	RICHARD WEBSTER
624	HAIR MODE SUPPLY & SALON
	NEW IMAGE BEAUTY SUPPLY & SALON
625	ADAM BUCK
	SHARON KLEIN
633	OCCUPANT UNKNOWN
636	MOMS DONUTS & ICE CREAM
640	ADVANCED RECOVERY
	AMERS ANIMAL AMBULANCE INC
	AT TOWING
	CLOUTHIERS HO LEANING
	GARNER ENTERPRISE
	HOFALAR ELECTRICAL SERVICES
	JANI KING INC
	LUXURY LIFE INC
	MAIL BOXES ETC
	PACIFIC BREEZE AIR & WATER
	PLAYFUL TREASURES INC
	SANDALS PEST CONTROL CO
	SHOWCASE ELECTRIC
	THE HOUSE OF RAYTOWN
	THE UPS STORE
	TITAN MARKETING
644	CIGARETTE DISCOUNT CENTER
648	B A B SYSTEMS
	BIG APPLE BAGELS
652	AUTOZONE
660	SAFEWAY
	SAFEWAY PHARMACY 1215
	WELLS FARGO
682	RADIOSHACK
694	BETTER HOMES REALTY JIM MANN INC
	JOSEPH FONTILLAS

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2008 (Cont'd)

705	MARIO ORTIZ
717	JOSE RAMIREZ
735	MARCOS IGNACIO
739	PHILLIP COOK
743	MICHAEL RUSH
747	MICHAEL PETERS
751	AJIT SOLOMON
901	ALLIED WASTE INDUSTRIES
	KELLER CANYON LANDFILL CO
1199	RAMON LINAO
1200	DUSTIN SCHREINER

Target Street	Cross Street	Source
-	✓	Cole Information Services

ROSA BLANCA DR 2008

1837	RIGO AYALA
1838	KHURRAM SHAH
1843	OCCUPANT UNKNOWN
1844	VINCENT CALCASI
1849	JEREMY DEJESUS
1850	TONY HUA
1855	MARIANNE LAJOM
1856	UT NGUYEN
1861	HENRY STANFORD
1862	CHRISTOPHER SMITH
1867	MALCOLM COWLER
1868	RICH MOUNTZ
1959	FRANCISCO LARA

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2003

110	ABDUL DELERY
	ADRIENA TRAPPS
	ADRIENNE GARDNER
	BERNADETTE SCARBROUGH
	COLETTE GAINES
	DAMIAN JERVOSO
	DANA CURRIE
	DAVON THOMPSON
	DOROTHY EDWARDS
	ESTANISLAO BAUTISTA
	EVELINA AQUINO
	FRANCINE SMITH
	H ALVARADO
	JAMAL BATISTE
	JANET WILLIAMS
	K KEOPARAMY
	LORENA MARTINEZ
	LUCY MOGANNAM
	MANUEL FLORES
	MARCELA SULANGI
	MARTIN RODRIGUEZ
	NATY RIOSA
	RAQUEL CARREON
	SEAN ANDERSON
	SONYA FULCHER
	SUSANO MANRIQUEZ
	VICTOR ALCANTAR
	WILLOWBROOK APARTMENTS
116	SAMUEL MCCREE
126	EUGENIA CLEVELAND
132	JOSE ORDAZ
138	GERALD YAW
144	CARMEN WILSON
150	CHARLES SPEARS
156	LATONYA THOMAS
	MARTIN BARBOSA
162	VALERIA MERLES
170	JEHOVAHS WITNESSES
176	LANE DAVIS
204	WEST PTSBRG CMNTY CHRCH OF GOD
220	MCDONALDS
247	ABELARDO MONTOYA
	AILEEN CHANG
	ANNE ROBEY
	BARBARA FRENCH
	BILLY BREWER
	BILLY MARTIN
	BOBBY STURGEON
	BRENDA GODINEZ
	BRENDA GONZALEZ

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 2003 (Cont'd)

247

C LOPEZ
CARL BRUSH
CELLENNA STEWENS
CHERYL DELROSARIO
CLARENCE GARRISON
CONSUELO TORRES
D & R CONSTRUCTION
DAVID PEREZ
DEBORAH CURTIS
DON CLARK
ELAINE QUINTANA
ELDRICK OUBRE
ERNEST WILSON
EVERARDO VALDEZ
FARHILLS MOBILE HOME PARK
FAUSTO LOPEZ
FRANSISCO VASQUEZ
GEORGE STANLEY
GOMEZ LOPEZ
HEATHER PARKINS
HILDA CROSGROVE
IGNACIO RAMIREZ
JEFFREY WELDEN
JOSE ESTRADA
JOSE JARA
JOSE ROBLES
JUAN PEREZ
JUSTINE MASELLI
KERRIE OWENS
KEVIN KIERSTINE
LARRY ROACH
LAURA HASELRIG
LEO MIERZWIK
LETICIA DIAZ
MARIA HGUERA
MARIO RODRIGUEZ
MARTHA LUJANO
MICHALE DELGADO
MICHELE TINDER
NICOLASA MUNOZ
NORMA CHAVEZ
OLLIE CROUCH
PATSY WALTERS
PEARL MOSER
ROBIN MCINERNEY
SAM WHITLATCH
SILVIA AGUILAR
SOPHIA STANLEY
STEVE STEVENS
TERRY ROLLINS

BAILEY RD 2003 (Cont'd)

247	THOMAS GLENN
	TIM HAVERLAND
	WALT HAYNE
	WANDA BLANKENSHIP
	WARREN MEINEN
254	TOWER MART
261	BAILEY ROAD SHELL
408	ROUND TABLE PIZZA
526	LOS REYES TAQUERIA
532	SUBWAY SANDWICHES & SALADS
538	PATEL SANJAY DDS FMLY DNTSTRY
	SOMABHAI PATEL
546	HEALTHY WATER
556	FIRST UNITED SRVC CRDT UNION
558	CITIWEAR
	DESIGNER BRANDS 4 LESS
564	LUCKY NAILS
570	DESIGNER CUTS
580	RITE AID 5935
	RITE AID CORP
	RITE AID PHARMACIES
591	CARL KOONTZ
615	JOHN STONEKING
620	CYPRESS CLEANERS
624	BEAUTY STORE & SALON
	NAILS BY KIM
	THE BEAUTY STORE & SALON
625	ADAM BUCK
	JEO DALLMANN
628	DOLLAR JOES
	GOLDEN BAILEY CO
	MYUNG KIM
636	MOMS DONUTS & ICE CREAM
640	ADVANCED RECOVERY
	ANYTIME FUNDING
	BETTE TOLNAI
	CHARLIE WILLIAMS
	CORP TRUST REAL EST
	DIAMOND ENTERTAINMENT PRMTN
	DUNG NGUYEN
	EMILY HANSEN
	ENGINEER CONSULTANT
	JUDGEMENT RECOVERY CTR
	MAIL BOXES ETC
	RAYMOND KEYLON
	RICHARD SOLIS
	ROBERT OWEN
	SHIRLEY WASHINGTON
	STRICKLY PLATNUM RECORDS
644	CIGARETTE DISCOUNT CTR & GIFTS

BAILEY RD 2003 (Cont'd)

648	BIG APPLE BAGEL
652	AUTOZONE
660	SAFEWAY FOOD & DRUG RTL STORE
670	BLOCKBUSTER VIDEO
682	LUCKY 5
690	RENT A CTR
694	BETTER HOMES REALTY MANN & ASC
	JOSEPH FONTILLAS
	VILLANUEVA ROSEMARIE BTR HOMES
717	JOHN KINCADE
725	ELIZABETH WERNER
731	EDWARD ORTEGA
735	MARCOS IGNACIO
739	PHILLIP COOK
743	DAVID FOGLEMAN
747	MICHAEL PETERS
751	CHRISTIE FISHER
1199	RAMON LINAO

Target Street	Cross Street	Source
✓	-	Cole Information Services

BAILEY RD 1999

110	AARON LAURENT
	ADRIENA TRAPPS
	AFGHANI AZIZ
	C WILLIAMS
	CATALINO MUSNIT
	CHARAN KAUR
	DANIEL JERVOSO
	EPIFANIA DOMINGO
	ESTANISLAO BAUTISTA
	EUGENE PLAZA
	FRANCINE SMITH
	FRANCIS PORTILLO
	IRMA GAMBLE
	ISBEL CORNELL
	JAMAL BATISTE
	KENNETH WILSON
	LASHIA SCOTT
	LAWANA HARRISON
	LEONARDO BALATBAT
	LUCIANO ARELLANO
	LUDELL COLEMAN
	MANUEL FLORES
	MARCELA SULANGI
	MARIA PELAYO
	MARY AQUINO
	MARY GRAY
	MARY ROWAND
	MAY BERMUDES
	NATY RIOSA
	ORLANDO JINGCO
	OSCAR DELIRA
	ROBERT SUMIBCAY
	SALOME HOZESKA
	SEAN ANDERSON
	SERGIO MACIEL
	SHIMICA MIXON
	SONYA FULCHER
	TAYLOR WHITE
	VERNELL COUSIN
	VICTOR ALCANTAR
	VRICILLA OSORIO
	WAYZATA TURNER
	WILLOWBROOK APARTMENTS
116	OCCUPANT UNKNOWN
	THOMAS MCCREE
126	EUGENIA CLEVELAND
	OCCUPANT UNKNOWN
144	MIRIAM ESPINOZA
150	JOSEFINA AGUIRRE
	RAVINESH BEHARI

BAILEY RD 1999 (Cont'd)

156	JERRY RINCON
	KRISTINE NORTHEN
	OCCUPANT UNKNOWN
	STEVEN JENKINS
	TRE THOMSON
162	VALERIA MERLES
170	JEHOVAHS WITNESSES
176	JOEY ANDERSON
204	MANNING JAMES REV WEST PITTSBURG COMMUNITY CHURCH OF GO
	WEST PITTSBURG COMMUNITY CHURCH OF GOD IN CHRIST
220	MCDONALDS
247	ABELARDO MONTOYA-ANGULO
	ANN ROBEY
	ANNA RODRIGUEZ
	BILLY BREWER
	BOBBY STURGEON
	BUFFY JONES
	C STANLEY
	CLARENCE GARRISON
	CLAUDIA MACIEL
	CLIFFORD LEE
	DANA MATTSON
	DANIELA RODRIGUES
	DEBORAH CURTIS
	DENNIS MARTINEZ
	DIANA CARLTON
	DON CLARK
	DOROTHY DARLING
	E MABUNGA
	EFREN PALACIOS
	EVANGELINA ESPINOZA
	FAR HILLS MOBILE PARK
	FRANCISCO VARGAS
	FRANCISCO VASQUEZ
	FREDDYKA ALVAREZ
	G ROMERO
	GEORGE STEVENS
	GUILLERMO ZAVALA
	HAROLD MILLER
	HEATHER PARKINS
	IGNACIO RAMIREZ
	IONE ADCOCK
	JAIME SOTO
	JAVIER BLANDON
	JOHN HOWLAND
	JOSE CUADRAS
	JOSE ESTRADA
	JOSE GUADALUPE
	JOSE VERDUZCO
	JUAN VALENZUELA

BAILEY RD 1999 (Cont'd)

247	JUSTINE MASELLI
	KENNETH RUTHERFORD
	KEVIN JOHNSON
	KIRKE CORREIA
	LABACHERIE DAIQUIRIS & CAJUN CUISINE CUISINE
	LARRY ACOSTA
	LARRY GARCIA
	MARIA ALVAREZ
	MARIA GUTIERREZ
	MARIA HIGUERA
	MARIA MENDOZA
	MARISOL GARCIA
	MARTINEZ DENNIS
	MARVIN HOWARD
	MICHAEL SHARP
	MICHELLE TINDER
	MIGUEL ORDAZ
	MIGUEL VALDEZ
	NICOLASA MUNOZ
	NOELIA MONTEBELLO
	NORMA CHAVEZ
	P MARTIN-MOSER
	RAYMOND NIELSEN
	RENATA SANTIZO
	RICARDO BOJORQUEZ
	ROSAURA PORTILLO
	ROY COOKSEY
	S CANTWELL
	STEVE STEVENS
	VICENTE CEDANO
	WALT HAYNE
254	TOWER MART
261	ANDYS PITTSBURG SHELL
	BAILEY ROAD SHELL
520	CALIFORNIA CHECK CASHING
	WESTERN UNION PITTSBURG
521	OCCUPANT UNKNOWN
526	TAQUERIA LOS REYES
532	SUBWAY SANDWICHES & SALADS
538	OCCUPANT UNKNOWN
	PATEL SANJAY DDS FAMILY DENTISTRY
541	AUTHUR HAMMOND
542	GENERAL NUTRITION CENTER
546	HEALTHY WATER
556	EL CAMINO SHOE REPAIR
558	KARATE-DO USA
564	LUCKY NAILS
570	DESIGNER CUTS
580	PAY LESS DRUG STORES PITTSBURG STORE
	WESTERN UNION PITTSBURG

Target Street	Cross Street	Source
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BAILEY RD 1999 (Cont'd)

591	JOHN KOONTZ
604	BURGER KING
611	OCCUPANT UNKNOWN
615	JOHN STONEKING
620	CYPRESS CLEANERS
621	OCCUPANT UNKNOWN
	RICHARD WEBSTER
624	NAILS BY KIM
	NEW IMAGE BEAUTY SUPPLY & SALON
	NEW IMAGE SALON
625	ADAM BUCK
	OCCUPANT UNKNOWN
628	DOLLAR JOES
633	OCCUPANT UNKNOWN
636	MOMS DONUTS & ICE CREAM
640	BERGMAN RESEARCH GROUP INCORPORATED
	DESIGN PRODUCTS ENTERPRISE
	MAIL BOXES ETC PITTSBURG
	SECURE FUTURE FOOD & SUPPLIES
644	COMMUNITY RESIDENTIAL MORTGAGE
648	BIG APPLE BAGELS
652	CHIEF AUTO PARTS PITTSBURG
660	CHINA EXPRESS PITTSBURG
	SAFEWAY STORES RETAIL STORES
	WELLS FARGO BANK
670	BLOCKBUSTER VIDEO
671	OCCUPANT UNKNOWN
681	OCCUPANT UNKNOWN
682	LUCKY 5
694	BETTER HOMES REALTY MANN & ASSOCIATES EAST COUNTY
	HOLLAND MONIQUE
	OCCUPANT UNKNOWN
	ROSS CATONYA REALTOR
	WYGAL KEN
705	MARIO ORTIZ
717	JOSE RAMIREZ
	OCCUPANT UNKNOWN
735	MARCOS IGNACIO
739	PHILLIP COOK
743	MICHAEL RUSH
747	MICHAEL PETERS
751	AJIT SOLOMON
901	BFI OF CONTRA COSTA COUNTY KELLER CYN LANDFILL COMPANY BFI
	KELLER CANYON LANDFILL COMPANY BFI WASTE SERVICES
1199	RAMON LINAO
1200	DUSTIN SCHREINER

Target Street	Cross Street	Source
-	✓	Cole Information Services

ROSA BLANCA DR 1999

1837	RIGO AYALA
1838	KHURRAM SHAH
1844	VINCENT CALCASI
1849	JEREMY DEJESUS
1850	TONY HUA
1855	LAURENCE RUSSELL
1856	UT NGUYEN
1862	CHRISTOPHER SMITH
1867	MALCOLM COWLER
1868	RICH MOUNTZ
1959	FRANCISCO LARA

Target Street	Cross Street	Source
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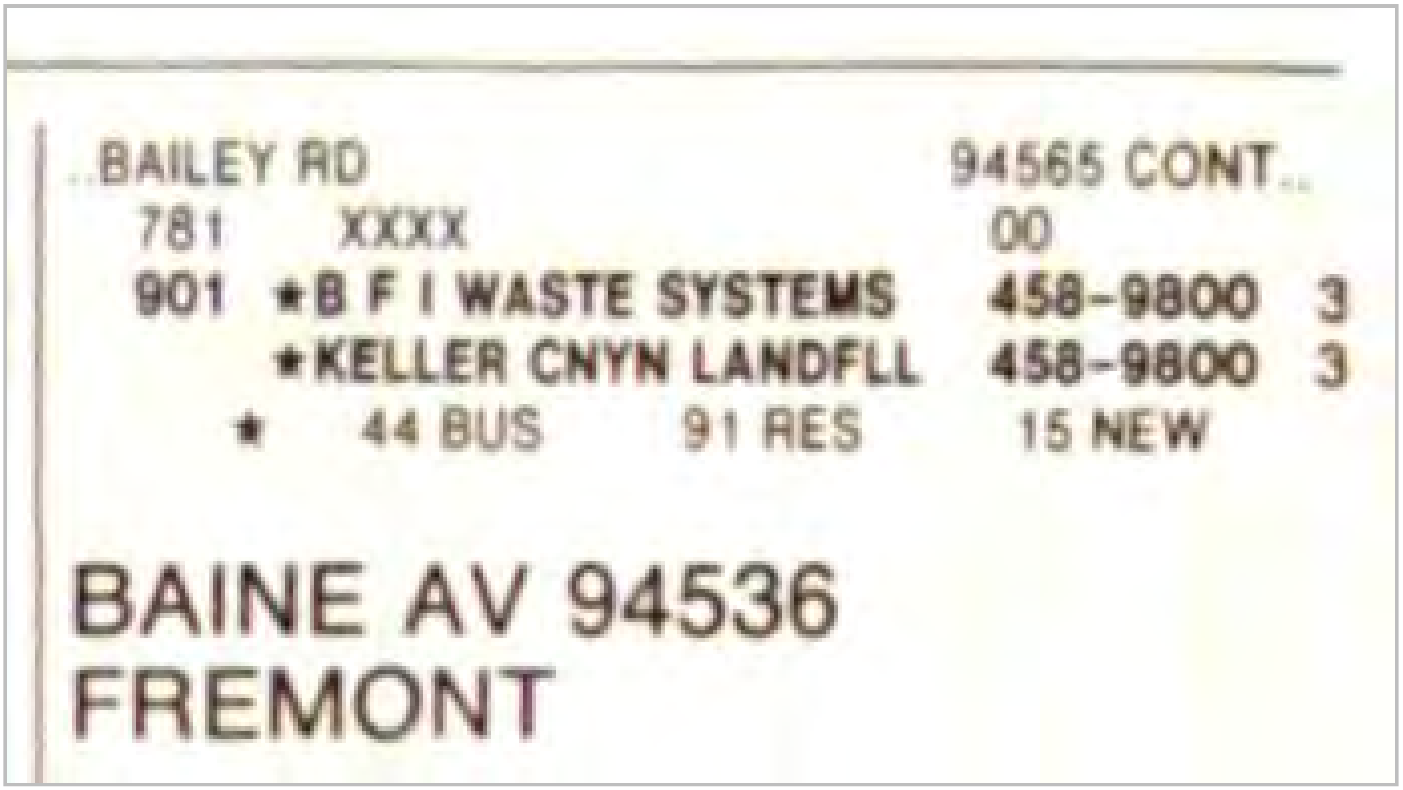
BAILEY RD 1994



110	WILLOWBROOK APTS	
	BANKS Deborah	458-7111
	BAUTISTA Estanislao	458-1029
	COLEMAN Ludell	458-2557
	ELDER John W	458-4168
	JERVOSO Damian P	458-5639
	LANTIN Simplicio	458-5838
	MATHIS Lela	458-4168
	MOGANNAM Lucy	458-1717
	MYERS Robert L	458-4272
	PHAN Chien	458-0974
	ROBERTS Lavida	458-5184
	ROBERTS Tyrone	458-5184
	SOLIZ Carmen C	709-0803
	STROMAN Markel	458-9874
	THOMPSON Ruby	458-4168
	*WILLOWBROOK APTS	458-6107
110		
112	XXXX	00
116	XXXX	00
126	XXXX	00
132	XXXX	00
150	*SPEARS Chas	458-2847
162	GLASCO Julius	458-3633
	GLASCO Maggie	458-3633
170	*JEHOVAHS WITNESSES	458-2739
176A	*ANDERSON Elza	458-3992
204	MANNING Jas Rev	458-2831
	*WEST PIT CH OF GOD	458-2831
218	XXXX	00
247	FAR HILLS MBL PK	
	ALVAREZ J David	458-9023
15	BLACK George	458-1061
16	BREWER Billy	458-4605
	BRIGHAM W P	458-5712
	BRUSH Carl	709-0686
4	*CHRISTENSEN ART	458-4489
54	CROSGROVE H L	458-2412
4	CROUCH C M	458-4293
	DELCARLO Gary R	709-1333
6	*FAR HILLS MBL PARK	458-4489
56	GITCHEL C E	458-1215
	GITCHEL C E	458-3489
	GITCHEL Johnnie	458-1215
	GITCHEL Johnnie	458-3489
	HOFFMAN Chas	458-0604
80	JOHNSON Clyde L	458-1134
	JOHNSON Kevin	458-6418
93	JONES Tommy M	458-3767
	KIELAK Angel	458-9050
	KIELAK Dariusz	458-9050
	LAVENDER Barbara	458-4346
	LOPEZ Carlos J	458-5029
	MCGEE Michael	458-6397
32	MEADOR Rubie	458-0895
51	MIERZWIK Leo Mrs	458-1521
83	MOSER Ted	458-2011
34	OMO Oren M	458-1319
	ROACH Larry L	458-6227
22	STANLEY Gus R	458-2851
36	STEINER Harold M	458-4931
	STEVENS Elizabeth	458-0418
26	STEVENS Geo	458-3150
	STEVENS Steve	458-8037
	STURGEON Bobby	458-3670
	STURGEON Kathleen	458-3670
	TURNER A	458-6765
	WALTERS P J	458-5489
61	WARREN I M	458-4946
247		
254	*CHEAPER	458-9900
258	XXXX	00
261	*SHELL SELF SERVE	458-6117
408	*ROUND TABLE PIZZA	458-2244
471	XXXX	00
481	XXXX	00
491	XXXX	00
511	XXXX	00
520	*CHECK CENTER	458-3210
	*WESTRN UNION PCK UP	458-3210
521	XXXX	00
532	*SUBWAY SANDWICHES	458-8018
538	*RENES LADIES DSCNT	458-3306
541	XXXX	00
546	*HEALTHY WATER	458-1883
551	XXXX	00
552	*DOWNING LIZ	709-0417
	*NEW IMAGE BTY SPLY	458-4066
558	*NORMITAS HALLMARK	458-3461
561	XXXX	00
564	*LUCKY NAILS	458-3433
570	*DESIGNER CUTS	458-7060
571	XXXX	00
580	*PAY LESS DRG ST	458-0995
	*PAY LESS DRG ST	458-1055
	*PAY LESS DRG ST	458-0955
581	*POWELL Charlie	458-2897
591	*KOONTZ Carl	458-1168
600	XXXX	00
604	*BURGER KING	458-9311
605	*STONEKING Floyd	458-3548
611	KOEHLER Andrew	458-4741
615	XXXX	00
620	*OAK HILLS CSTM CLNR	458-8370
625	XXXX	00
628	*DOLLAR JOES	709-1824
633	ATKINSON Geo E	458-2824
636	*MOMS DONUTS&ICE CRM	458-0207
640	*DESIGN PRDCT ENTPRS	779-2285
	*INDEP NEWS&ADVRTSG	427-2200
	*MAIL BOXES ETC	458-0919
	*S I FIRE SPRINKLERS	427-4682
	*WESTRN UNION ML BOX	458-0919
644	*WESTAMERICA BANK	458-1100
648	XXXX	00
652	*CHIEF AUTO PARTS	709-0131
660	*CHINA EXPRESS	458-6087
	*SAFEWAY STORE	458-0181
	*SAFEWAY STORE BAKE	458-6083
	*SAFEWAY STORE CHINA	458-6087
	*SAFEWAY STORE FISH	458-6109
	*SAFEWAY STORE PHAR	458-0930
	*WELLS FRGO	674-6844
	*WELLS FRGO NW ACCNT	458-3961
670	*BLOCKBUSTER VIDEO	709-1080
682	*OAK HILL GIFT&FRNTR	458-6699
694	XXXX	00
717	KINCADE J	458-3950
725	MCIVOR Roy W	458-5119
727	XXXX	00
735	*IGNACIO Marcos	458-5193
739	XXXX	00
743	FOGLEMAN David	458-3677
	FOGLEMAN Shirley	458-3677
747	ROBB A	458-6559
	ROBB J	458-6559

Target Street	Cross Street	Source
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BAILEY RD 1994



..BAILEY RD 94565 CONT..

781 XXXX 00

901 *B F I WASTE SYSTEMS 458-9800 3

*KELLER CNYN LANDFLL 458-9800 3

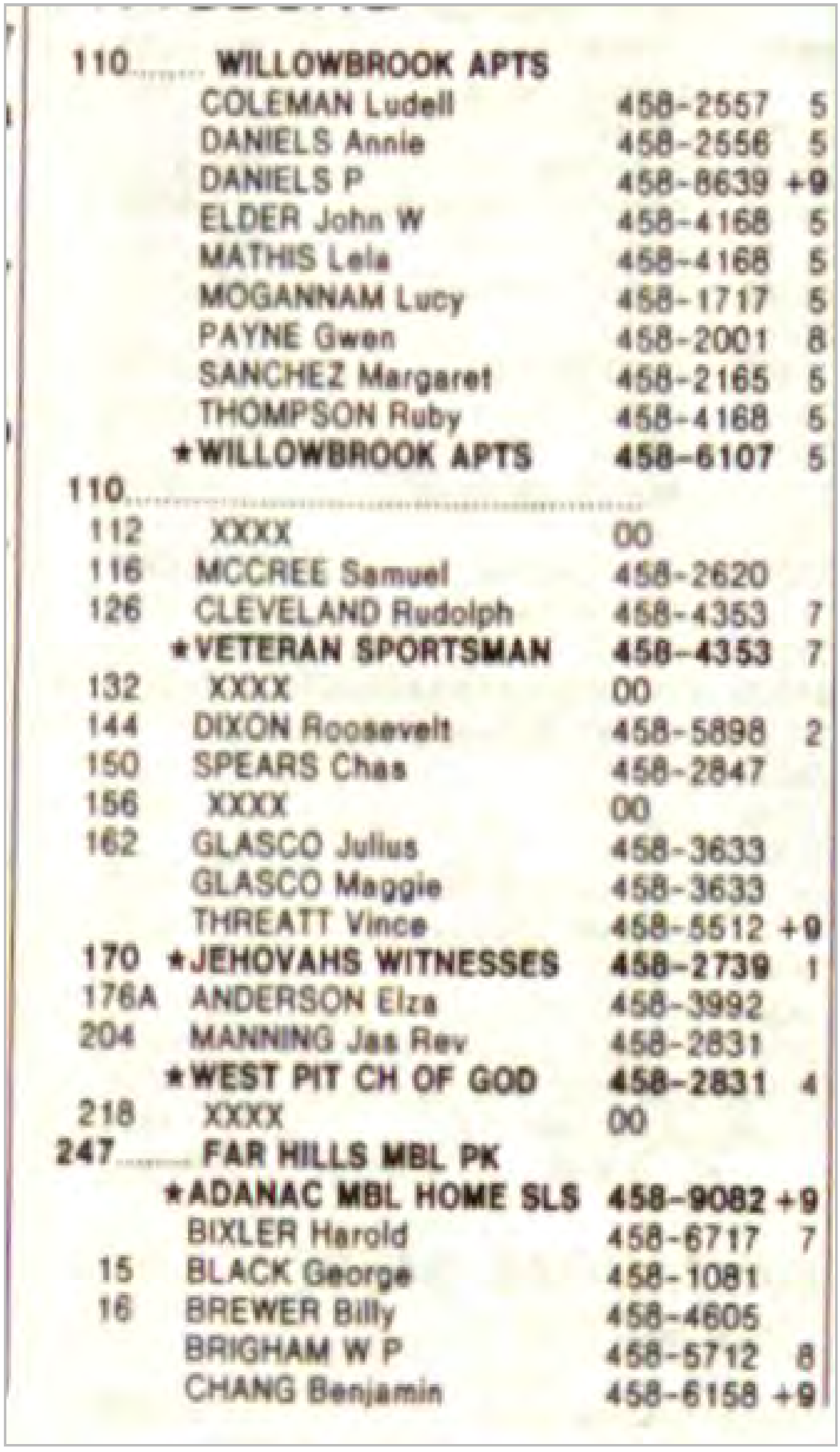
* 44 BUS 91 RES 15 NEW

BAINE AV 94536

FREMONT

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

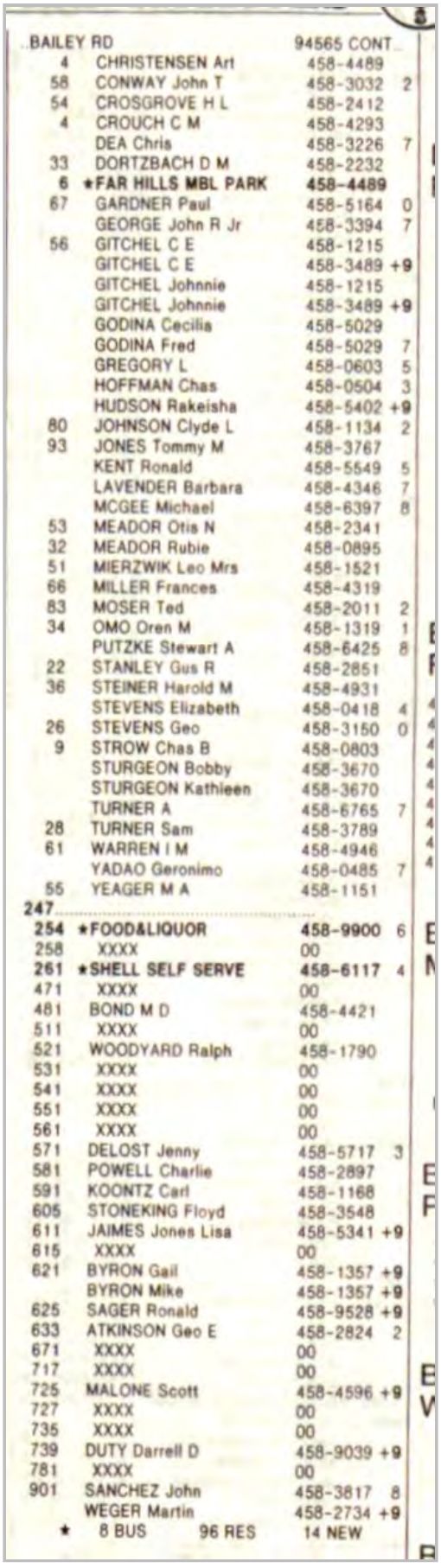
BAILEY RD 1989



110	WILLOWBROOK APTS		
	COLEMAN Ludell	458-2557	5
	DANIELS Annie	458-2556	5
	DANIELS P	458-8639	+9
	ELDER John W	458-4168	5
	MATHIS Lela	458-4168	5
	MOGANNAM Lucy	458-1717	5
	PAYNE Gwen	458-2001	8
	SANCHEZ Margaret	458-2165	5
	THOMPSON Ruby	458-4168	5
	*WILLOWBROOK APTS	458-6107	5
110			
112	XXXX	00	
116	MCCREE Samuel	458-2620	
126	CLEVELAND Rudolph	458-4353	7
	*VETERAN SPORTSMAN	458-4353	7
132	XXXX	00	
144	DIXON Roosevelt	458-5898	2
150	SPEARS Chas	458-2847	
156	XXXX	00	
162	GLASCO Julius	458-3633	
	GLASCO Maggie	458-3633	
	THREATT Vince	458-5512	+9
170	*JEHOVAHS WITNESSES	458-2739	1
176A	ANDERSON Elza	458-3992	
204	MANNING Jas Rev	458-2831	
	*WEST PIT CH OF GOD	458-2831	4
218	XXXX	00	
247	FAR HILLS MBL PK		
	*ADANAC MBL HOME SLS	458-9082	+9
	BIXLER Harold	458-6717	7
15	BLACK George	458-1081	
16	BREWER Billy	458-4605	
	BRIGHAM W P	458-5712	8
	CHANG Benjamin	458-6158	+9

Target Street	Cross Street	Source
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BAILEY RD 1989



BAILEY RD 94565 CONT

4	CHRISTENSEN Art	458-4489	
58	CONWAY John T	458-3032	2
54	CROSGROVE H L	458-2412	
4	CROUCH C M	458-4293	
	DEA Chris	458-3226	7
33	DORTZBACH D M	458-2232	
6	**★FAR HILLS MBL PARK**	**458-4489**	
67	GARDNER Paul	458-5164	0
	GEORGE John R Jr	458-3394	7
56	GITCHEL C E	458-1215	
	GITCHEL C E	458-3489	+9
	GITCHEL Johnnie	458-1215	
	GITCHEL Johnnie	458-3489	+9
	GODINA Cecilia	458-5029	
	GODINA Fred	458-5029	7
	GREGORY L	458-0603	5
	HOFFMAN Chas	458-0504	3
	HUDSON Rakeisha	458-5402	+9
80	JOHNSON Clyde L	458-1134	2
93	JONES Tommy M	458-3767	
	KENT Ronald	458-5549	5
	LAVENDER Barbara	458-4346	7
	MCGEE Michael	458-6397	8
53	MEADOR Otis N	458-2341	
32	MEADOR Rubie	458-0895	
51	MIERZWIK Leo Mrs	458-1521	
66	MILLER Frances	458-4319	
83	MOSER Ted	458-2011	2
34	OMO Oren M	458-1319	1
	PUTZKE Stewart A	458-6425	8
22	STANLEY Gus R	458-2851	
36	STEINER Harold M	458-4931	
	STEVENS Elizabeth	458-0418	4
26	STEVENS Geo	458-3150	0
9	STROW Chas B	458-0803	
	STURGEON Bobby	458-3670	
	STURGEON Kathleen	458-3670	
	TURNER A	458-6765	7
28	TURNER Sam	458-3789	
61	WARREN I M	458-4946	
	YADAO Geronimo	458-0485	7
55	YEAGER M A	458-1151	
247			
254	**★FOOD&LIQUOR**	**458-9900**	6
258	XXXX	00	
261	**★SHELL SELF SERVE**	**458-6117**	4
471	XXXX	00	
481	BOND M D	458-4421	
511	XXXX	00	
521	WOODYARD Ralph	458-1790	
531	XXXX	00	
541	XXXX	00	
551	XXXX	00	
561	XXXX	00	
571	DELOST Jenny	458-5717	3
581	POWELL Charlie	458-2897	
591	KOONTZ Carl	458-1168	
605	STONEKING Floyd	458-3548	
611	JAIMES Jones Lisa	458-5341	+9
615	XXXX	00	
621	BYRON Gail	458-1357	+9
	BYRON Mike	458-1357	+9
625	SAGER Ronald	458-9528	+9
633	ATKINSON Geo E	458-2824	2
671	XXXX	00	
717	XXXX	00	
725	MALONE Scott	458-4596	+9
727	XXXX	00	
735	XXXX	00	
739	DUTY Darrell D	458-9039	+9
781	XXXX	00	
901	SANCHEZ John	458-3817	8
	WEGER Martin	458-2734	+9
★	8 BUS 96 RES	14 NEW	

Target Street	Cross Street	Source
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BAILEY RD 1985



110	WILLOWBROOK APTS		
	BLANCHE MICHAEL	458-5680	+5
	COLEMAN LUDELL	458-2557	+5
	DANIELS ANNIE	458-2556	+5
	DAVIS SHERRON	458-5169	+5
	EASTER BEVERLY	458-3307	+5
	ELDER JOHN W	458-4168	+5
	HANKINS JAMES	458-0176	+5
	MARTIN JAS R	458-4792	+5
	MATHIS LELA	458-4168	+5
	MCCOLLEY RAY D	458-6211	+5
	MOGANNAM LUCY	458-1717	+5
	PIERCE JERRI	458-3954	+5
	ROUTTE ROBERT	458-1452	+5
	SANCHEZ MARGARET	458-2165	+5
	SATCHELL GREGORY	458-6751	+5
	THOMPSON RUBY	458-4168	+5
	WHITE JOE L	458-3761	+5
	WILLOWBROOK APTS	**458-6107**	+5
110			
112	XXXX	00	
116	MCCREE SAMUEL	458-2620	
126	CLEVELAND E	458-3882	7
132	XXXX	00	
144	DIXON ROOSEVELT	458-5898	2
150	SPEARS CHAS	458-2847	
156	XXXX	00	
162	GLASCO JULIUS	458-3633	
	GLASCO MAGGIE	458-3633	
170	**JEHOVAHS WITNESSES**	**458-2739**	1
176A	ANDERSON ELZA	458-3992	
204	MANNING JAS REV	458-2831	
	WEST PIT CH OF GOD	**458-2831**	4
218	XXXX	00	
247	FAR HILLS MBL PK		
12A	ADAMS DAWN	458-3607	1
21	BARTEL HERBERT	458-1596	
15	BLACK GEORGE	458-1081	8
16	BREWER BILLY	458-4605	6
	BRUMMETT ROBT	458-5848	2
17	CHILCOTE MONTE	458-2566	0
4	CHRISTENSEN ART	458-4489	
92	CLARK CECIL M	458-0551	
58	CONWAY JOHN T	458-3032	2
54	CROSGROVE H L	458-2412	9
4	CROUCH C M	458-4293	7
33	DORTZBACH C G	458-2232	
6	**FAR HILLS MBL PARK**	**458-4489**	
67	GARDNER PAUL	458-5164	0
56	GITCHEL C E	458-1215	
	GREGORY L	458-0603	+5
	HOFFMAN CHAS	458-0504	3
	HOLMES RONALD G	458-5906	3
80	JOHNSON CLYDE L	458-1134	2
93	JONES TOMMY M	458-3767	9
	KENT RONALD	458-5549	+5
53	MEADOR OTIS N	458-2341	
32	MEADOR RUBIE	458-0895	
51	MIERZWIK LEO MRS	458-1521	8
66	MILLER FRANCES	458-4319	9
27	MITCHELL KEVIN R	458-1520	2
	MOE RICHARD	458-5914	+5
83	MOSER TED	458-2011	2
90	OLSON VIRGIL	458-2978	9
34	OMO OREN M	458-1319	1
	PUTZKE STEWART A	458-6558	4
30	ROJECK TOM	458-3816	2
	ROY RICHARD	458-6606	+5
45	SIRAGUSA D	458-1911	2
	SLATTENGREN BRIAN R	458-2750	+5
22	STANLEY GUS R	458-2851	
36	STEINER HAROLD M	458-4931	
	STEVENS ELIZABETH	458-0418	4
26	STEVENS GEO	458-3150	0
9	STROW CHAS B	458-0803	9
	STURGEON BOBBY	458-3670	1
72	SWINDELL F L	458-1549	9
	TAYLOR BRETT	458-1026	+5
86	TROTTER W S	458-4640	
14	TURNER G A MRS	458-3089	
	TURNER GILBERT	458-3089	
28	TURNER SAM	458-3789	
61	WARREN I M	458-4946	
52	WEBER WM	458-4810	9
	WEINDEL DAVID L	458-5493	3
55	YEAGER M A	458-1151	
247			
254	XXXX	00	
258	XXXX	00	
260	GARRETT L	458-6248	+5
261	**SHELL SELF SERVE**	**458-6117**	4
471	MCBROOM BOB	458-6801	4
481	BOND M D	458-4421	
511	XXXX	00	
521	WOODYARD RALPH	458-1790	
531	XXXX	00	
551	XXXX	00	
561	ROLL LOUIS T	458-0726	
571	DELOST JENNY	458-5717	3
581	POWELL CHARLIE	458-2897	
591	KOONTZ CARL	458-2810	
	KOONTZ FLOYD	458-1168	
605	STONEKING FLOYD	458-3548	
615	XXXX	00	
621	XXXX	00	
625	JOHNSON RALPH	458-4100	+5
B	KELLY PHILLIP	458-0573	
633	ATKINSON GEO E	458-2824	2
671	XXXX	00	
717	STARK DAN	458-1721	8
725	XXXX	00	
727	XXXX	00	
735	XXXX	00	
739	COPPOLA RICHARD T	458-1191	2
781	XXXX	00	
901	XXXX	00	
★	5 BUS 107 RES	26 NEW	

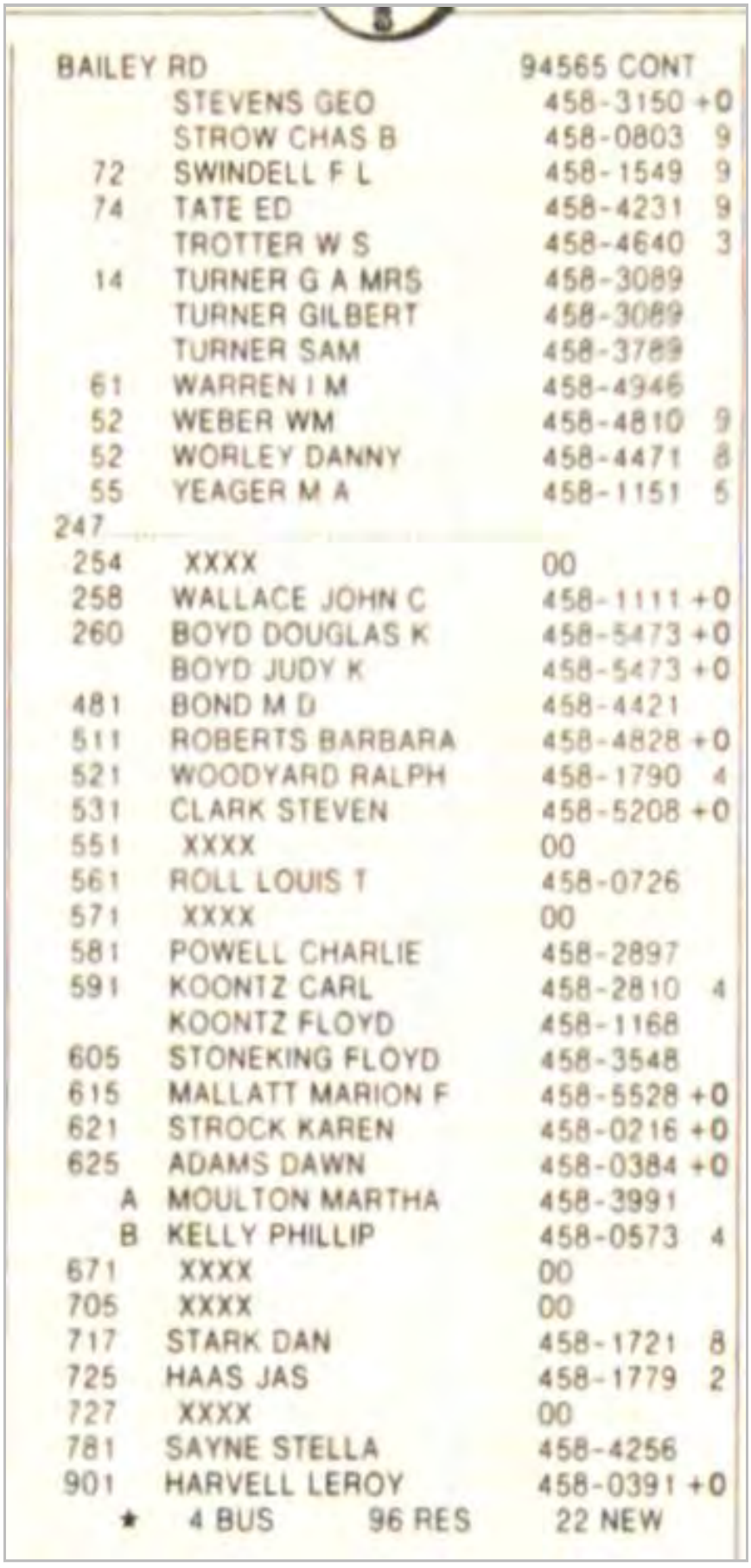
Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

BAILEY RD 1980

116	MCCREE SAMUEL	458-2620	
126	CLEVELAND E	458-3882	7
132★	**MIMS S G**	**458-3634**	
150	SPEARS CHAS	458-2847	
156	GORDIN VERNE	458-5213	+0
162	GLASCO JULIUS	458-3633	
	GLASCO MAGGIE	458-3633	
170★	**JEHOVAHS WITNESSES**	**458-9954**	5
176A	ANDERSON ELZA	458-3992	3
204	MANNING JAS REV	458-2831	
★	**WEST PITT CMNTY CH**	**458-2831**	3
218	XXXX	00	
247	FAR HILLS MBL PK		
	ARROUES A P	458-4345	5
	BAIRD EUGENE VICTOR	458-5621	+0
	BARTEL HERBERT	458-1596	2
15	BLACK GEORGE	458-1081	8
73	BRASWELL JOSEPHINE	458-4046	9
16	BREWER BILLY	458-4605	6
40	BROWN OLEN R	458-1164	7
60	BRUBAKER EARL D	458-2842	7
	CHILCOTE MONTE	458-2566	+0
4	CHRISTENSEN ART	458-4489	
92	CLARK CECIL M	458-0551	2
10	COPELAND FLOYD	458-2456	
54	CROSGROVE H L	458-2412	9
4	CROUCH C M	458-4293	7
	DAVIS W H	458-0356	+0
33	DORTZBACH C G	458-2232	
27	DUFFY CHARLES	458-1520	8
6★	**FAR HILLS MBL PARK**	**458-4489**	
	GARDNER PAUL	458-5164	+0
56	GITCHEL C E	458-1215	5
	GRAHAM VIOLA MRS	458-5310	+0
64	HOWE RICHARD K	458-1238	8
93	JONES TOMMY M	458-3767	9
44	LAUGHLIN ROY	458-3478	
	LEMIRE LOUIS G	458-5717	+0
10	LINDEBERG R G	458-1229	2
	LITTLE J	458-0262	+0
	MALONE MILDRED M	458-5820	+0
53	MEADOR OTIS N	458-2341	
32	MEADOR RUBIE	458-0895	
88	MESSER G C	458-2240	8
51	MIERZWIK LEO MRS	458-1521	8
66	MILLER HOWARD	458-4319	9
14	MOORE THOS E	458-2532	5
67	MOSER TED	458-2011	
	MOUNTEER CATHERINE	458-3196	2
	MOUNTEER ROBT	458-3196	
	MOWATT JOHN	458-2002	6
	NUGENT CLIFTON	458-5331	+0
90	OLSON VIRGIL	458-2978	9
91	PARRACK CLARENCE R	458-3456	9
30	PLANK GARY ALAN	458-4305	9
	SIMMONS VICTOR	458-0149	+0
69	SMITH DAISY M	458-0534	5
	SPRAGUE JERRY F	458-5514	+0
48	SQUIER JULIA C	458-0612	5
22	STANLEY GUS R	458-2851	
36	STEINER HAROLD M	458-4931	4
23	STEVENS E	458-0418	7

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

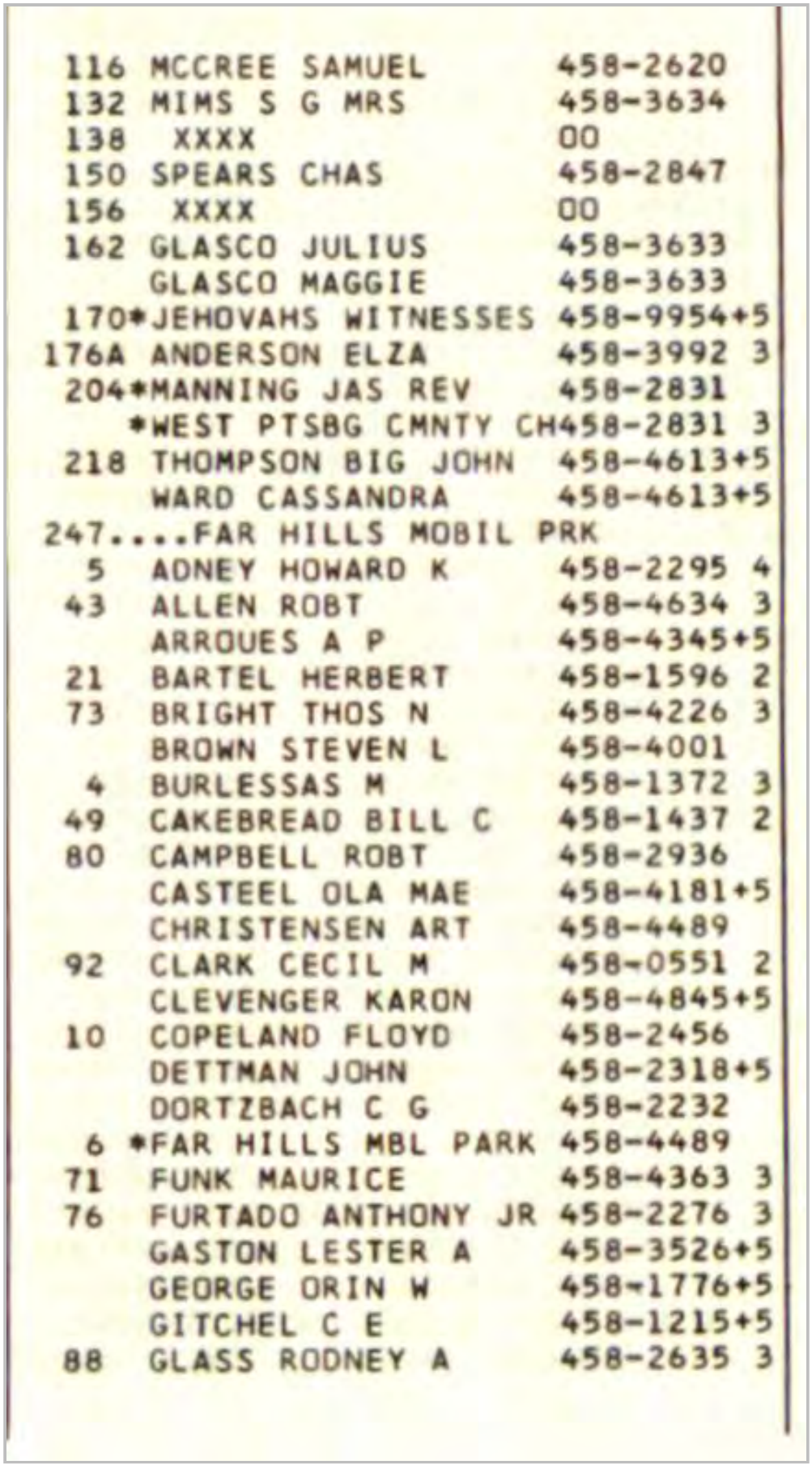
BAILEY RD 1980



BAILEY RD		94565 CONT	
	STEVENS GEO	458-3150	+0
	STROW CHAS B	458-0803	9
72	SWINDELL F L	458-1549	9
74	TATE ED	458-4231	9
	TROTTER W S	458-4640	3
14	TURNER G A MRS	458-3089	
	TURNER GILBERT	458-3089	
	TURNER SAM	458-3789	
61	WARREN I M	458-4946	
52	WEBER WM	458-4810	9
52	WORLEY DANNY	458-4471	8
55	YEAGER M A	458-1151	5
247			
254	XXXX	00	
258	WALLACE JOHN C	458-1111	+0
260	BOYD DOUGLAS K	458-5473	+0
	BOYD JUDY K	458-5473	+0
481	BOND M D	458-4421	
511	ROBERTS BARBARA	458-4828	+0
521	WOODYARD RALPH	458-1790	4
531	CLARK STEVEN	458-5208	+0
551	XXXX	00	
561	ROLL LOUIS T	458-0726	
571	XXXX	00	
581	POWELL CHARLIE	458-2897	
591	KOONTZ CARL	458-2810	4
	KOONTZ FLOYD	458-1168	
605	STONEKING FLOYD	458-3548	
615	MALLATT MARION F	458-5528	+0
621	STROCK KAREN	458-0216	+0
625	ADAMS DAWN	458-0384	+0
A	MOULTON MARTHA	458-3991	
B	KELLY PHILLIP	458-0573	4
671	XXXX	00	
705	XXXX	00	
717	STARK DAN	458-1721	8
725	HAAS JAS	458-1779	2
727	XXXX	00	
781	SAYNE STELLA	458-4256	
901	HARVELL LEROY	458-0391	+0
*	4 BUS 96 RES	22 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

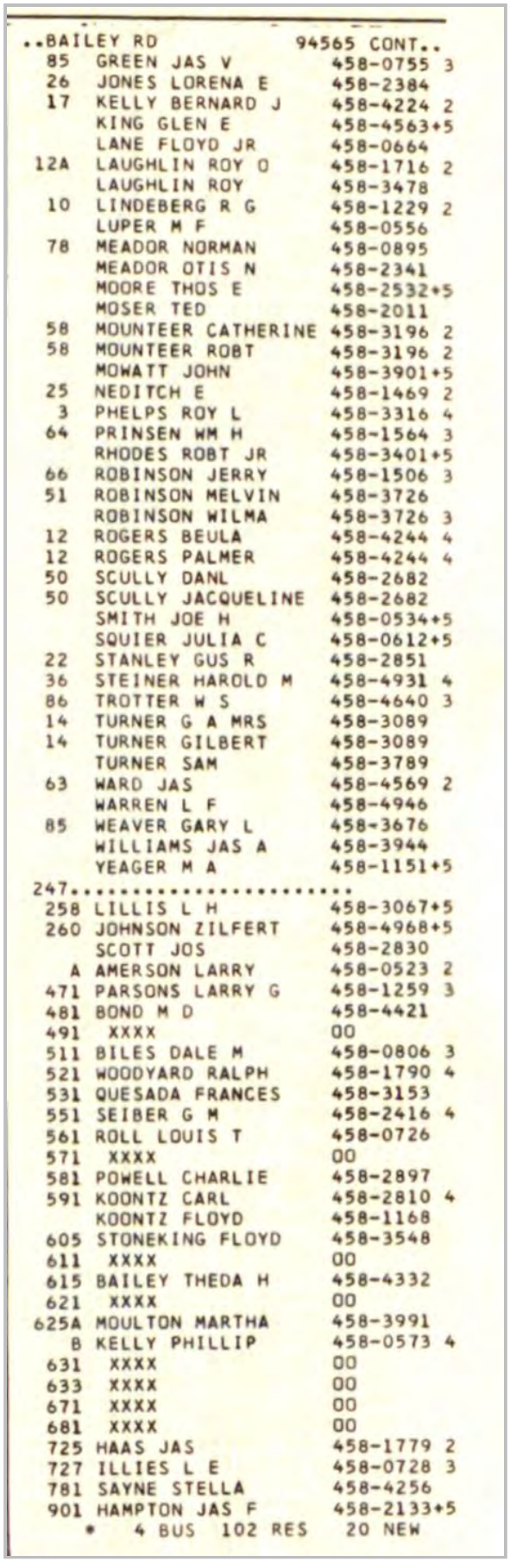
BAILEY RD 1975



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116 MCCREE SAMUEL          458-2620
132 MIMS S G MRS           458-3634
138  XXXX                  OO
150 SPEARS CHAS            458-2847
156  XXXX                  OO
162 GLASCO JULIUS          458-3633
    GLASCO MAGGIE          458-3633
170*JEHOVAHS WITNESSES     458-9954+5
176A ANDERSON ELZA         458-3992 3
204*MANNING JAS REV        458-2831
   *WEST PTSBG CMNTY CH    458-2831 3
218 THOMPSON BIG JOHN      458-4613+5
    WARD CASSANDRA         458-4613+5
247....FAR HILLS MOBIL PRK
  5 ADNEY HOWARD K         458-2295 4
 43 ALLEN ROBT             458-4634 3
    ARROUES A P            458-4345+5
 21 BARTEL HERBERT         458-1596 2
 73 BRIGHT THOS N          458-4226 3
    BROWN STEVEN L         458-4001
  4 BURLESSAS M            458-1372 3
 49 CAKEBREAD BILL C       458-1437 2
 80 CAMPBELL ROBT          458-2936
    CASTEEL OLA MAE        458-4181+5
    CHRISTENSEN ART        458-4489
 92 CLARK CECIL M          458-0551 2
    CLEVENGER KARON        458-4845+5
 10 COPELAND FLOYD         458-2456
    DETTMAN JOHN           458-2318+5
    DORTZBACH C G          458-2232
  6 *FAR HILLS MBL PARK    458-4489
 71 FUNK MAURICE           458-4363 3
 76 FURTADO ANTHONY JR     458-2276 3
    GASTON LESTER A        458-3526+5
    GEORGE ORIN W          458-1776+5
    GITCHEL C E            458-1215+5
 88 GLASS RODNEY A         458-2635 3
```

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

BAILEY RD 1975



..BAILEY RD 94565 CONT..

85	GREEN JAS V	458-0755 3
26	JONES LORENA E	458-2384
17	KELLY BERNARD J	458-4224 2
	KING GLEN E	458-4563+5
	LANE FLOYD JR	458-0664
12A	LAUGHLIN ROY O	458-1716 2
	LAUGHLIN ROY	458-3478
10	LINDEBERG R G	458-1229 2
	LUPER M F	458-0556
78	MEADOR NORMAN	458-0895
	MEADOR OTIS N	458-2341
	MOORE THOS E	458-2532+5
	MOSER TED	458-2011
58	MOUNTEER CATHERINE	458-3196 2
58	MOUNTEER ROBT	458-3196 2
	MOWATT JOHN	458-3901+5
25	NEDITCH E	458-1469 2
3	PHELPS ROY L	458-3316 4
64	PRINSEN WM H	458-1564 3
	RHODES ROBT JR	458-3401+5
66	ROBINSON JERRY	458-1506 3
51	ROBINSON MELVIN	458-3726
	ROBINSON WILMA	458-3726 3
12	ROGERS BEULA	458-4244 4
12	ROGERS PALMER	458-4244 4
50	SCULLY DANL	458-2682
50	SCULLY JACQUELINE	458-2682
	SMITH JOE H	458-0534+5
	SQUIER JULIA C	458-0612+5
22	STANLEY GUS R	458-2851
36	STEINER HAROLD M	458-4931 4
86	TROTTER W S	458-4640 3
14	TURNER G A MRS	458-3089
14	TURNER GILBERT	458-3089
	TURNER SAM	458-3789
63	WARD JAS	458-4569 2
	WARREN L F	458-4946
85	WEAVER GARY L	458-3676
	WILLIAMS JAS A	458-3944
	YEAGER M A	458-1151+5
247	.....	
258	LILLIS L H	458-3067+5
260	JOHNSON ZILFERT	458-4968+5
	SCOTT JOS	458-2830
A	AMERSON LARRY	458-0523 2
471	PARSONS LARRY G	458-1259 3
481	BOND M D	458-4421
491	XXXX	00
511	BILES DALE M	458-0806 3
521	WOODYARD RALPH	458-1790 4
531	QUESADA FRANCES	458-3153
551	SEIBER G M	458-2416 4
561	ROLL LOUIS T	458-0726
571	XXXX	00
581	POWELL CHARLIE	458-2897
591	KOONTZ CARL	458-2810 4
	KOONTZ FLOYD	458-1168
605	STONEKING FLOYD	458-3548
611	XXXX	00
615	BAILEY THEDA H	458-4332
621	XXXX	00
625A	MOULTON MARTHA	458-3991
B	KELLY PHILLIP	458-0573 4
631	XXXX	00
633	XXXX	00
671	XXXX	00
681	XXXX	00
725	HAAS JAS	458-1779 2
727	ILLIES L E	458-0728 3
781	SAYNE STELLA	458-4256
901	HAMPTON JAS F	458-2133+5

* 4 BUS 102 RES 20 NEW

APPENDIX I

ENVIRONMENTAL DATA RESOURCES, INC.

Building Permit Report

APPENDIX I



Faria Property
Faria Property
Pittsburg, CA 94565

Inquiry Number: 3848393.8
February 05, 2014

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

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SECTION

About This Report

Executive Summary

Findings

Glossary

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of Engeo Inc. on Feb 05, 2014.

TARGET PROPERTY

Faria Property
Pittsburg, CA 94565

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **NO PERMITS IDENTIFIED**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Concord
Years: 2000-2011
Source: City of Concord, Building Division, CONCORD, CA
Phone: (925) 671-3107

Name: Contra Costa County
Years: 1962-2012
Source: Contra Costa County, Public Works Services, MARTINEZ, CA
Phone: (925) 335-1360

Name: Oakley
Years: 2000-2012
Source: City of Oakley, Building and Code Enforcement Division, Oakley, CA
Phone: (925) 625-7000

Name: Pittsburg
Years: 2000-2010
Source: City of Pittsburg, Building Division , SAN PEDRO, CA
Phone: (925) 252-4850

Name: Vacaville
Years: 2000-2009
Source: City of Vacaville, Building Permits , VACAVILLE, CA
Phone: (707) 449-5152

Name: Danville town
Years: 2000-2012
Source: Town of Danville, Building Department, Danville, CA
Phone: 925-314-3330

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

Faria Property
Pittsburg, CA 94565

No Permits Found

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

No Permits Found

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeymen:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use(s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

Sample Building Permit Data

Date: Nov 09, 2000
Permit Type: Bldg -
New Permit Number: 101000000405
Status: Valuation: $1,000,000.00
Contractor Company: OWNER-BUILDER
Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

APPENDIX J

Qualifications of Environmental Professional

APPENDIX J



SHAWN MUNGER, CHG
PRINCIPAL GEOLOGIST

EDUCATION

BS, Geology, U.C. Davis, 1985

EXPERIENCE

Years with ENGEO: 25
Years with Other Firms: 0

REGISTRATIONS & CERTIFICATIONS

Certified Hydrogeologist, CA, 413
40 Hour HAZWOPER Training, CA
Certified Environmental Manager, NV, 1332
Registered Environmental Assessor II, CA, 20201
Professional Geologist, CA, 5810

SPECIALIZATIONS

- Environmental Assessments and Remediation
- Environmental Restoration
- Water Quality Studies
- Water Wells/Hydrogeology

Since joining ENGEO in 1985, Mr. Munger has been managing groundwater supply evaluations, hydrogeologic studies, chemical assessments, phase I and II site assessment projects, UST site investigations, risk based corrective action (RBCA), VOC remediation, and agricultural impact evaluations. He serves as Principal-in-Charge or Project Manager for environmental and hazardous materials projects involving groundwater hydrology, contaminant fate and transport, and remediation. He is Principal-in-Charge of our on-call contract with DTSC and the environmental components of our on-call contracts with the City of Sacramento and the County of Sacramento.

Selected Project Experience

Seacliff Estates—Richmond, CA
Principal in Charge. Mr. Munger provided oversight, review, and consultation during preparation of phase I and II site assessments and soil remediation. The 12-acre site was formerly part of Kaiser Shipyard No. 3 and was used for ship repair and maintenance along with scrap metal and salvage yards. The property was developed as a single-family residential subdivision.

Renaissance Square—Concord, CA
Project Manager. Mr. Munger provided consultation, data analysis, and field observation. This former automotive dealership was redeveloped as a five-story multi-family residential structure supported on slab-on-grade foundations, with two levels of below-grade parking. Petroleum hydrocarbon-impacted soil was encountered during excavation of the parking structure, which required characterization and remediation. Soil impacts were attributed to former sumps, USTs and hydraulic lifts.

Pleasant Hill BART Station—Walnut Creek, CA
Principal in Charge. Mr. Munger provided oversight, data analysis and consultation during the preparation of a phase II environmental site assessment. The property is an existing BART station that encompasses 20 acres, including the platform/station area, electrical facilities, a parking garage and additional paved parking areas.

Mills Ranch—King City, CA
Principal in Charge. Mr. Munger provided principal oversight of phase I and II environmental site assessments and risk evaluations. The approximate 80-acre property is used for agricultural cultivation and commercial uses. The proposed mixed-use development includes over 400 single-family residential lots.

Select Foods Site/Cross Creek—Hayward, CA
Principal in Charge. Mr. Munger provided principal oversight, consultation, and data analysis. The property was a former processed food facility, a drum recycling business, battery manufacturing operation and a bus assembly plant. Following completion of soil remediation under RWQCB oversight, the property was developed into a single-family residential subdivision.

Southchase Property—West Sacramento, CA
Project Manager. Mr. Munger provided environmental consultation regarding soil contamination and site characterization work. The property is a former farm headquarters with storage structures and orchards.

Westshore—Richmond, CA
Project Manager. Mr. Munger conducted phase I and II site assessments, risk evaluations and prepared a soil management plan. The property was a former automotive manufacturing plant proposed for a multi-unit condominium development, including a 6-story podium structure to include five residential floors with 269 units and one parking floor.

Union Pacific Railroad Corridor—San Jose, CA.
Project Manager. Mr. Munger prepared a phase I and II environmental assessment. Work included a site reconnaissance, historical records research and recovery of soil samples with laboratory analysis. Lead impacted soil was identified which required risk evaluation. This former 1800 lineal foot section of the former Union Pacific Railroad Corridor was proposed for mixed-use development.

Sparklizing Cleaners and Laundry—Fremont, CA
Principal in Charge. Mr. Munger provided principal review and data analysis for this former dry cleaning facility which had released tetrachloroethylene (PCE) to site soil and groundwater. The project site consists of a drycleaning facility located within a commercial/retail center. Drycleaning operations have been conducted at the facility since 1974 and have resulted in chlorinated solvent impacts to soil and groundwater beneath the site. As a result, the CRWQCB opened a Spills, Leaks, Investigations, and Cleanups (SLIC) case and the site was referred to the Alameda County Water District (ACWD) for lead agency oversight. A series of soil and groundwater investigations identified a source area beneath the drycleaner suite and an adjoining retail suite. A CAP submitted to ACWD in 2009 involves using in-situ chemical oxidation (ISCO) to remediate groundwater and vadose zone soil impacts within the source area.

Mare Island, 3rd and Connelly Utility Corridor—Vallejo, CA
Principal in Charge. Mr. Munger provided principal oversight during demolition and soil excavation activities. The project consisted of utility demolition and soil excavation activities

required to prepare for construction of a 300 – foot water and sewer utility corridor along Connelly Street between 3rd Street and Azuar Drive.

Ivy Glen (Former Tredegar)—Fremont, CA
Principal in Charge. Mr. Munger provided oversight of site characterizations, risk evaluations and groundwater monitoring for this for this former industrial facility. The property was a former industrial facility with documented soil and groundwater contamination. Risk assessments allowed redevelopment of the site as a single-family residential subdivision. Groundwater monitoring continues to date as a result of residual docs beneath the property.

County Crossings Property—Antioch, CA
Principal in Charge. Mr. Munger provided environmental consultation and data review with regard to soil and groundwater contamination. Constituents of concern include petroleum hydrocarbons, nitrates and manganese. The approximately 264 acre site includes several former industrial facilities and petroleum pipelines. Soil and groundwater at the site has been impacted with petroleum hydrocarbons, nitrates and manganese. Planned uses include commercial, residential, retail, and a BART-oriented transit village. The center, which is currently in the entitlement phase, is estimated to break ground in 2011.

Arroyo Crossing—Livermore, CA
Principal in Charge. Mr. Munger provided oversight, data analysis and regulatory consultation while ENGEO provided geotechnical and environmental engineering services for this 34-acre site. This former corporation yard and quarry site was developed into a single-family residential subdivision.

620 North Ninth Street—San Jose, CA
Principal in Charge. Mr. Munger provided oversight of soil, groundwater and soil gad characterizations, risk evaluations and remedial action plan preparation. Mr. Munger also closely interacted with RWQCB staff to achieve approval for residential development. The property is a former fruit packing plant and food preparation facility. The proposed development consists of a single-family residential subdivision.

Former SFPP Alignment—Concord, CA
Project Manager. Mr. Munger prepared a Phase I and II environmental assessment for a ± 6,500-foot corridor formerly occupied by the Southern Pacific Railroad (SPRR). Kinder Morgan petroleum pipelines existed within an easement along the property. Work included the recovery of soil and groundwater samples along the SP right of way. The site was a former ± 6,500-foot corridor formerly occupied by the Southern Pacific Railroad. Kinder Morgan petroleum pipelines existed within an easement along the property. The southern portion of the site was crossed by East Bay Municipal Utilities District water distribution lines and a multi-lane highway overpass. The corridor was developed as a self-storage facility.

Gale Ranch Middle School—San Ramon, CA
Principal in Charge. Mr. Munger provided review and supervision of a Preliminary Endangerment Assessment prepared for this school site under the oversight of DTSC. This former site was developed into a public middle school.

Highlands Ranch—Antioch, CA
Principal in Charge. Mr. Munger provided oversight, data analysis, and collaboration with RWQCB personnel. The project site consists of a 140-acre portion of the former Chevron Los Medanos Tank Farm located in Pittsburg, California. The site was historically occupied by 24 crude oil tanks and four wax ponds. Remediation of the crude oil tank and wax pond locations was conducted according to a remedial action plan (RAP) and oversight was provided by the CRWQCB. Remediation was performed over a period of four months and consisted of excavating approximately 110,000 cubic yards of impacted soil and placing the material in windrows for ex-situ bioremediation.

Hercules Property—Hercules, CA
Project Manager. Mr. Munger provided oversight of a phase I environmental site assessment, site asbestos survey, site characterization, and demolition observation/contaminant assessment. The project area consists of ± 167 acres located near and along the southeastern shore of San Pablo Bay in Hercules. The property was once a portion of a 1300-acre manufacturing facility that was operated by DuPont from 1879 to 1913 and Hercules Incorporated from 1913 to 1979. The planned development includes single/multi family residential development with some commercial components.

Gold Rush Ranch and Golf Resort—Sutter creek, CA
Principal in Charge. Mr. Munger provided principal oversight during the preparation of a preliminary endangerment report, including soil, groundwater and surface water sampling. The project site consists of 945 acres of undeveloped land located near the City of Sutter Creek, California. The proposed development plan for the site involves the Gold Rush Ranch and Golf Resort, which includes an 18-hole championship golf course, 1,334 new homes, a commercial center, and open space. The client has entered into a VCA with the Department of Toxic Substances Control (DTSC) to address historic mine tailings at the site. A PEA was prepared to evaluate human health risks associated with elevated arsenic in tailings, soil, and surface water at the site. The PEA was approved by DTSC in 2009. Based on the findings of the PEA, a removal action workplan (RAW) will be prepared to address the human health risks associated with the arsenic impacts.

1000 Howe Road—Martinez, CA
Principal in Charge. Mr. Munger provided oversight and analysis for this soil remediation project. Mr. Munger worked closely with RWQCB personnel to develop a cost effective and timely closure for site closure and approval for residential development. The site is occupied by a general engineering contractor and was a former bus leasing company. Improvements at the property included an office/warehouse structure and an equipment yard. The proposed development consists of a single-family residential subdivision.

APPENDIX J

General Plan Policy Discussion		
Policy		**Project Consistency**
City of Pittsburg Land Use Element		
2-P-3	Allow market forces, the status of agricultural preserve (Williamson Act) contracts, and the availability of urban services to determine the timing of annexation or development expansion into the hillsides.	The Pittsburg General Plan does not identify farmland resources within the project area, and the site is not designated or zoned for farmland uses. In addition, several hundred acres of grazing land within the Southwest Hills was removed from Williamson Act contracts within the last decade, including areas within the proposed project site. On July 8, 2009, the Contra Costa LAFCo approved an extension of the SOI's for the Delta Diablo and the CCWD service areas to include the Faria/Southwest Hills property.
2-P-96	Allow an overall maximum density of 3.0 du/ac within the Low Density Residential areas south of the San Marco project and outside the present Sphere of Influence line with a maximum number of 1,500 residential units.	The proposed project does not include a specific development proposal at this time; however, the Draft Master Plan specifies that the total number of dwelling units within the project site would not be permitted to exceed 1,500, consistent with Policy 2-P-96.
City of Pittsburg Growth Management Element		
3-P-1	Allow urban and suburban development only in areas where public facilities and infrastructure (police, fire, parks, water, sewer, storm drainage, and community facilities) are available or can be provided. Prior to development approval, public service agencies and/or districts should be contacted and assurance gained that areas of urban expansion will have all necessary infrastructure.	The project site is located within the CCWD SOI, but is not within the service area. Therefore, annexation to CCWD's service area would be included in the proposed project. According to the Public Services and Utilities chapter of this EIR, the project would include connections to the existing water supply lines in the existing San Marco subdivision, located to the north of the project area. The project site is located within the DDSD SOI; however, annexation to the DDSD's service area would be required. Currently, wastewater service or development plans for wastewater service, do not exist for the proposed project site. The proposed project site would be connected to the existing City sewer system located to the north, in the existing San Marco subdivision, and the existing sewer system in Bailey Road, to the southeast. Future development within the project site would involve the conveyance of wastewater through the City of Pittsburg wastewater transmission system, to the DDSD wastewater treatment plant, where treatment of wastewater would be under the jurisdiction of the DDSD. Furthermore, upon annexation to the City of Pittsburg, the proposed project would be located within the jurisdiction of the Pittsburg Police Department. The project site is currently located within the jurisdiction of the Contra Costa County Fire Protection District (CCCFPD).

Contra Costa LAFCo Policy Discussion	
Policy	**Project Consistency**
LAFCo General Policies and Standards	
A. <u>General Policy Statement</u> The statutory goals of the LAFCo include the promotion of orderly growth and development by determining logical local boundaries [§56001], preservation of open space by encouraging development of vacant land within cities before annexation of vacant land adjacent to cities [§56377(b)], and preservation of prime agricultural land by guiding development away from presently undeveloped prime agricultural lands [§56377(a)].	The proposed project would include the annexation of the 607-acre project site to the City of Pittsburg, and would be serviced by CCWD and Delta Diablo (wastewater), the CCCFPD and the City of Pittsburg would provide the remaining services, consistent with LAFCo's General Policies.
Although LAFCo attempts to discourage urban sprawl, to preserve agricultural lands and open space, and to promote well-ordered and appropriate land use within the County, the Commission lacks authority to exercise the more specific powers that a general land use jurisdiction (county or city) can exercise when directly regulating land use density or intensity, property development or subdivision requirements [§56375(a)]. LAFCo intends that its policies promote the overall quality of life of the residents of Contra Costa County.	The proposed project site is adjacent to existing urban development to the north.
In considering proposals that would facilitate or lead to intensification of land uses, the Commission will consider consistency of the application with City and County general and specific plans that are relevant to the proposal or the affected territory.	The project site is consistent with the Pittsburg General Plan land use designations of LDR, HLDR and OS. In November of 2005, the Pittsburg voters approved an initiative which resulted in the project site being prezoned to HPD and OS. The project includes a change in prezoning to HPD-S and OS-S; however, the densities of the overlay zones are consistent with the existing prezoning.
The Commission will generally favor adopted plans that are supportive of the Commission's responsibility to discourage urban sprawl, preserve open space and prime agricultural lands, provide for efficient public services and encourage the orderly formation and development of local agencies.	As discussed in the Agricultural resources chapter of this EIR, the project site does contain soil that could be considered for Prime Farmland; however, the soil found on the project site has very severe limitations that reduce the choice of plants or require very careful management, or both. The limitations include an insufficient water table depth to allow cultivated crops to be grown and a lack of dependable water supply for the production of commonly grown crops. In addition, the proposed project's pre-zoning

(Continued on next page)

Contra Costa LAFCo Policy Discussion	
Policy	**Project Consistency**
	designations would maintain areas with Capay clay present as open space and thus prevent development. Therefore, the project site would not be considered prime agricultural land, and the proposed project would not result in the conversion of such land.
LAFCo will encourage proposals that enable urban development to include annexation to a city whenever reasonably possible, and discourage proposals that enable urban development without annexation to a city. LAFCo will also encourage cities to annex lands that have been developed to urban levels, particularly areas that receive city services.	Project includes annexation consistent with the City of Pittsburg General Plan.
While not bound by the regulations promulgated by local agencies in this County, LAFCo prefers that proponents of any boundary or SOI change demonstrate that their proposal will be consistent with such local regulations as may be relevant to the factors that LAFCo must consider pursuant to §56668.	See Table 4.9-1 in the Land Use and Planning chapter of the EIR for consistency with the Pittsburg General Plan.
While not included in Contra Costa LAFCo's General Policy Statement, the full text of Government Code Section 56668 is presented below for discussion and analysis purposes. According to Section 56668 of CKH, factors to be considered in the review of a boundary change proposal shall include, but not be limited to, all of the following:	
(a) Population and population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas, during the next 10 years.	(a) The proposed project does not include detailed designs to be evaluated (such as, a subdivision map or design review request); therefore, the project is evaluated at a program-level. The maximum buildout for the proposed project site, according to the current General Plan, is 1,500 single-family units, which would result in a project that would be similar in nature to the surrounding residential developments. Based on the average City occupancy of approximately 3.29 persons per household, the proposed project would be expected to result in a total population of 4,935 persons. According to Association of Bay Area Governments (ABAG), the City of Pittsburg's population growth is expected to continuing growing around

(Continued on next page)

Contra Costa LAFCo Policy Discussion	
Policy	**Project Consistency**
	one percent every year for the next 10 years, which is faster than Contra Costa County as a whole.
(b) The need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas. "Services," as used in this subdivision, refers to governmental services whether or not the services are services which would be provided by local agencies subject to this division, and includes the public facilities necessary to provide those services.	(b) Infrastructure costs for expansion of service to the development of the project regarding community services such as water, sewer, fire, and police protection would be paid by the developer; therefore, the community and local agencies would not be affected by such costs.
(c) The effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the county.	(c) The project site is currently vacant land and adjacent to residential development to the north. The development of the project site would serve as an extension of the existing residential developments to the north as designated in the Pittsburg General Plan.
(d) The conformity of both the proposal and its anticipated effects with both the adopted commission policies on providing planned, orderly, efficient patterns of urban development, and the policies and priorities set forth in Section 56377.	(d) The proposed project site is contiguous to Pittsburg City Limits and is a logical extension of the City. The project would result in an orderly pattern of urban development with extending the development of the Southwest Hills planning subarea.
(e) The effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Section 56016.	(e) The project area is not under any Williamson Act contract and the area is designated and prezoned for urban uses.
(f) The definiteness and certainty of the boundaries of the territory, the nonconformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.	(f) The project site boundary is aligned with existing parcel boundaries and would not create islands or corridors of unincorporated territory.
(g) A regional transportation plan adopted pursuant to Section 65080, and consistency with city or county general and specific plans.	(g) The project is consistent with the Metropolitan Transportation Commission's Transportation 2035 Plan. The proposed project's land use

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Contra Costa LAFCo Policy Discussion	
Policy	**Project Consistency**
	designations are consistent with the Pittsburg General Plan designations assigned to the project site.
(h) The sphere of influence of any local agency which may be applicable to the proposal being reviewed.	(h) The proposed project is located within the City of Pittsburg SOI.
(i) The comments of any affected local agency or other public agency.	(i) Comments on the NOP were received from Caltrans and Contra Costa County Public Works Department regarding transportation and circulation and are addressed in the Transportation, Traffic, and Circulation chapter of this EIR. Comments were received from the Contra Costa Environmental Health Division regarding drilling activities, abandoned well, and solid waste; these comments are addressed in the Hazard and Hazardous Materials chapter and the Public Services and Utilities chapter of this EIR. Comments were received from the Contra Costa County Flood Control & Water Conservation District regarding drainage facilities, which is addressed in the Hydrology and Water Quality chapter and the Public Services and Utilities chapter of this EIR. Comments were received from the Contra Costa Water District regarding water entitlements, which are addressed in the Public Services and Utilities chapter of this EIR. Comments were received from the City of Concord regarding aesthetics, lighting and glare, air quality, biological resources, geology and soils, hydrology and water quality, noise, recreation, land use and planning, and transportation; these comments are addressed in the: Aesthetics chapter; Air Quality and Greenhouse Gas Emissions chapter; Biological Resources chapter; Geology Soils, and Seismicity chapter; Hydrology and Water Quality chapter; Noise chapter; Public Services and Utilities chapter; Land Use and Planning chapter; and Transportation, Traffic, and Circulation chapter of this EIR, respectively.

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Contra Costa LAFCo Policy Discussion	
Policy	**Project Consistency**
	Comments were received from the East Bay Regional Park District regarding aesthetics, biological resources, hydrology and water quality, noise, parks and recreation, and land use and planning; these comments are addressed in the: Aesthetics chapter; Biological Resources chapter; Hydrology and Water Quality chapter; Noise chapter; Public Services and Utilities chapter; and Land Use and Planning chapter of this EIR, respectively. Comments were received from Delta Diablo regarding wastewater service, which is addressed in the Public Services and Utilities chapter of this EIR. Comments were received from Contra Costa LAFCo regarding the program-level analysis of the potential General Plan buildout of 1,500 units and Government Code Section 56668 (e.g. need for and adequacy of services and infrastructure, land use, effects of the project on adjacent areas, etc.), which are addressed throughout this EIR. In addition, the LAFCo letter requested that the EIR address agricultural lands, air quality, and water supply entitlements; these comments are addressed in the: Agricultural Resources chapter; Air Quality and Greenhouse Gas Emissions chapter; and Public Services and Utilities chapter of this EIR, respectively.
(j) The ability of the newly formed or receiving entity to provide the services which are the subject of the application to the area, including the sufficiency of revenues for those services following the proposed boundary change.	(j) The project site services such as solid waste and police protection services would be provided by the City of Pittsburg, while the project would be annexed into the CCWD and Delta Diablo service areas (wastewater). The project site is currently within the service boundaries of the CCCFPD.
(k) Timely availability of water supplies adequate for projected needs as specified in Section 65352.5.	(k) The City's existing water supplies would be sufficient to meet the City's existing and projected future water demands, including those future demands associated with the proposed project, to the year 2035 under all hydrologic conditions with implementation of mitigation measures 4.10-1(a) and 4.10-1(b). See impact statement 4.10-1 in Chapter 4.10, Public Services and Utilities chapter of this EIR for more detail.

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Contra Costa LAFCo Policy Discussion	
Policy	**Project Consistency**
(l) The extent to which the proposal will affect a city or cities and the county in achieving their respective fair shares of the regional housing needs as determined by the appropriate council of governments consistent with Article 10.6 (commencing with Section 65580) of Chapter 3 of Division 1 of Title 7.	(l) The project site is consistent with the Pittsburg General Plan land use designations for the site, and development of the project site would contribute to achieving the regional housing needs of the area.
(m) Any information or comments from the landowner or owners, voters, or residents of the affected territory.	(m) Comments were received from the Save Mount Diablo organization regarding aesthetics and recreation, which is addressed in the Aesthetics chapter and the Public Services and Utilities chapter of this EIR. Comment were received from two residents in the area regarding traffic, schools, fire and police services, open space, and biological resources; these comments are addressed in the: Transportation, Traffic, and Circulation chapter; Public Services and Utilities chapter; and Biological Resources chapter of this EIR, respectively. Comments received on the EIR will be responded to in a Final EIR.
(n) Any information relating to existing land use designations.	(n) The existing Pittsburg General Plan designation for the project site is LDR, HLDR, and OS.
(o) The extent to which the proposal will promote environmental justice. As used in this subdivision, "environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.	(o) The proposed project would provide additional types of single-family housing and recreational facilities for all people in the area.

APPENDIX K

Environmental Noise Assessment

Faria Annexation EIR

City of Pittsburg, California

Job # 2013-202

Prepared For:

Raney Planning & Management, Inc.

1501 Sports Drive
Sacramento, California 95834

Attn: Rod Stinson

Prepared By:

j.c. brennan & associates, Inc.

Jim Brennan
President
Member, Institute of Noise Control Engineering

April 9, 2014

j.c. brennan & associates
consultants in acoustics

P.O. Box 6748 - 1287 High Street - Auburn, California 95603 -p: (530) 823-0960 -f: (530) 823-0961

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INTRODUCTION

This analysis is intended to evaluate the noise impacts due to, and upon the proposed Faria Annexation project. The analysis includes an evaluation of the ambient noise environment, and the potential traffic and construction noise impacts as they may affect the project site and adjacent areas within the City of Pittsburg. **Figure 1** shows the project site plan and location.

PROJECT DESCRIPTION

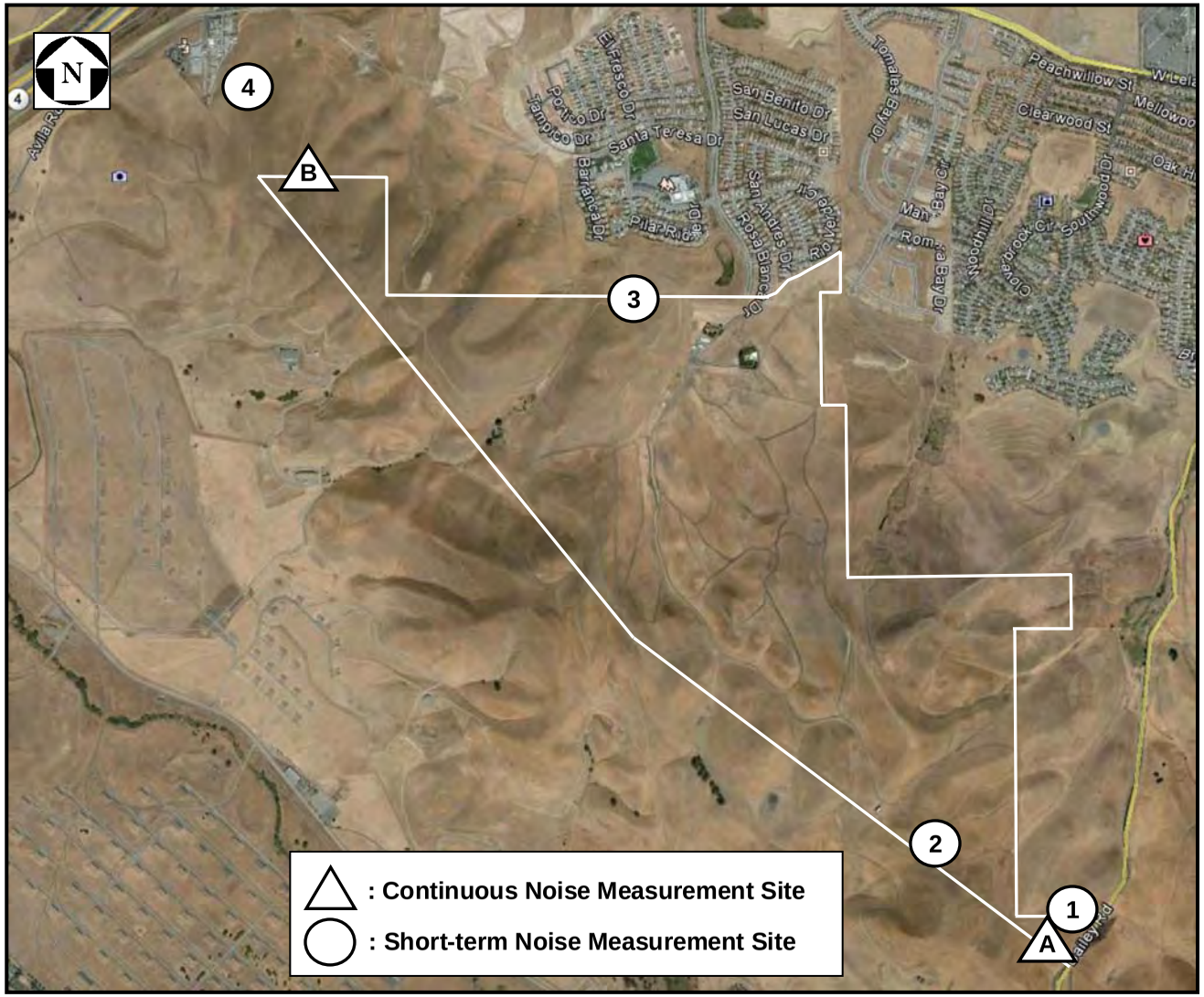
The proposed project is located just southwest of the municipal boundary of the City of Pittsburg and within the Southwest Hills planning subarea of the Pittsburg General Plan. The Project applicant is proposing to annex approximately 607 acres into the City of Pittsburg. The project includes a change in prezoning from HPD (Hillside Planned Development) and OS (Open Space) to HPD-S (Hillside Planned Development with an Interim Study Overlay) District and OS-S (Open Space with an Interim Study Overlay District). For purposes of this CEQA analysis, the maximum buildout for the proposed project site, according to the current General Plan, is 1,500 single family units. Because the proposed project does not include detailed designs to be evaluated (such as a subdivision map or design review request), the project will be evaluated at a program-level.

San Marco Boulevard would provide primary access to and through the annexation area; however, development plans for extension of the roadway have not been submitted with this request for annexation. Prior to future development, the developer would be responsible for financing and constructing all local roadways associated with future development. Final location and design of the roadway improvements would be subject to approval by the City Engineering Department.

SURROUNDING LAND USES

With the exception of one single family home located near the terminus of San Marco Blvd., the remainder of the project area consists of vacant and undeveloped hills just beyond the southwestern boundary of the City of Pittsburg, and is generally bounded by Bailey Road and the Vista Del Mar residential subdivision to the east, the Concord City Limits and recently closed Concord Naval Weapons Station (CNWS) to the south and west, and the San Marco planned development area along the northern boundary and other open space areas along the northeastern boundary. Immediately west of the project site, is land designated for open space and habitat protection and precludes development within the City of Concord eastern hillsides.

Figure 1
Faria Annexation – City of Pittsburg, California
Project Site and Noise Measurement Locations



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ENVIRONMENTAL SETTING

Background Information on Noise and Vibration

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

The day/night average level (Ldn) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn

represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

Table 1: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing
Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. November, 2009.		

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING CONDITIONS

Existing Land Uses

The project site is currently surrounded by existing unimproved land uses and single-family residential uses to the north.

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the project vicinity, continuous 24 hour and short-term noise level measurements were conducted on the project site on February 5, 2014. The noise measurement locations are shown on **Figure 1**. The noise level measurement survey results are provided in **Table 2**.

The sound level meters were programmed to collect hourly noise level intervals at each site during the survey. The maximum value (Lmax) represents the highest noise level measured during an interval. The average value (Leq) represents the energy average of all of the noise measured during an interval. The median value (L50) represents the sound level exceeded 50 percent of the time during an interval.

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

Table 2: Summary of Existing Background Noise Measurement Data

Site	Location	Ldn (dBA)	Average Measured Hourly Noise Levels, dBA					
			Daytime (7am-10pm)			Nighttime (10pm-7am)		
			Leq	L50	Lmax	Leq	L50	Lmax
Continuous (24-hour) Noise Level Measurements								
A	Southeast Corner of Property	65.3	64	59	75	57	47	69
B	Northwest Corner of Property	46.9	43	39	65	40	36	54
Short-term Noise Level Measurements								
ST-1	Southeast Corner by Bailey Road	NA	62	57	72	@ 12:50 p.m.		
ST-2	Southwest Property Line	NA	54	52	64	@ 1:30 p.m.		
ST-3	North Center on Property Line	NA	43	41	56	@ 2:25 p.m.		
ST-4	Northwest Overlooking Gun Range	NA	71	58	86	@ 3:10 p.m.		
Source: j.c. brennan & associates, Inc., 2014.								

The continuous 24-hour noise level measurement results are provided in **Appendix B**, and the noise level measurement results are graphically shown on **Figure 2** and **Figure 3.**

Existing Roadway Noise Levels

To predict existing noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions.

Traffic volumes for existing conditions were obtained from the traffic study prepared for the project (Kimley-Horn & Associates, Inc.). Truck percentages and vehicle speeds on the local area roadways were estimated from field observations.

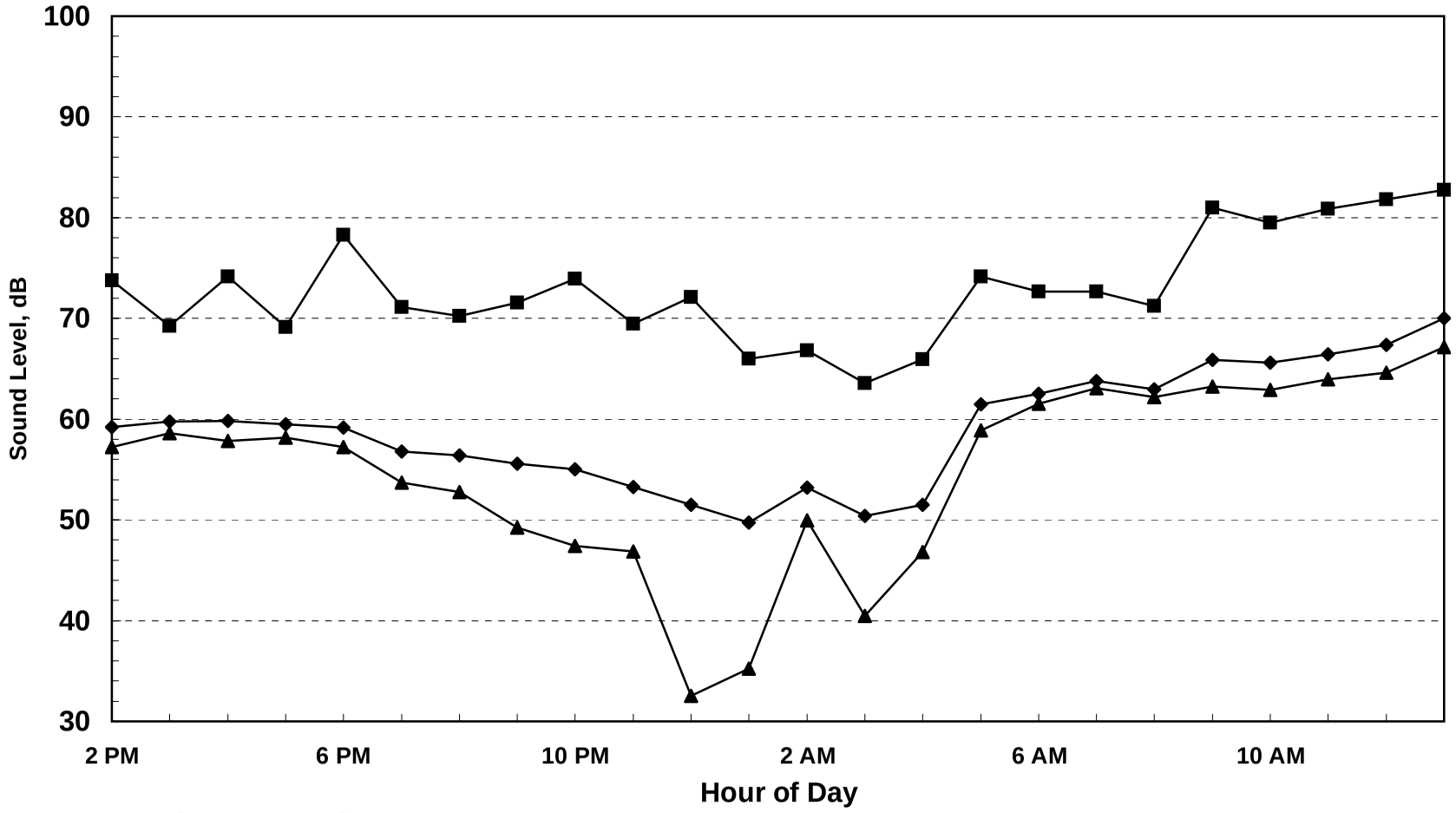
The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers. The distances reported in **Table 3** are generally considered to be conservative estimates of noise exposure along the project-area roadways. A complete listing of the FHWA Model input data is contained in **Appendix C.**

Table 3: Existing Traffic Noise Levels and Distances to Contours

Roadway	Segment	Exterior Traffic Noise Level (Ldn) @ 75 feet	Distance to Traffic Noise Contours, Ldn (feet)		
			70 dB	65 dB	60 dB
Leland Rd	San Marco Blvd to Bailey Rd	62.4	23	50	108
Leland Rd	Bailey Rd to Montevideo Dr	65.9	40	87	187
Leland Rd	Montevideo Dr to Dover Way	64.0	30	64	139
Leland Rd	Dover Way to Railroad Ave	63.6	28	61	131
San Marco Blvd	Leland Rd to Santa Teresa Dr	61.4	20	43	92
Bailey Rd	North of Project to Leland Rd	58.5	13	28	59
Bailey Rd	South of Project to Myrtle Dr	62.3	23	50	107
Bailey Rd	Myrtle Dr to Concord Blvd	59.7	16	33	72
Bailey Rd	Concord Blvd to Clayton Rd	59.4	15	32	68
Willow Pass Rd	Avila Rd to Olivera Rd	64.1	30	65	141
Concord Blvd	West of Farm Bureau Rd	63.5	28	60	129
Concord Blvd	Farm Bureau Rd to Bailey Rd	64.3	31	67	145
Concord Blvd	Bailey Rd to Railroad Ave	63.3	27	58	124
Clayton Rd	Babel Ln to Treat Blvd	67.5	51	111	239
Clayton Rd	Treat Blvd to Bailey Rd	68.2	57	122	263
Clayton Rd	Bailey Rd to Railroad Ave	67.7	53	114	245
Treat Blvd	North of Clayton Rd	61.1	19	41	89
Treat Blvd	Clayton Rd to Cowell Rd	66.1	41	89	192

Notes: Distances to traffic noise contours are measured in feet from the centerlines of the roadways.
Source: FHWA-RD-77-108 with inputs from Kimley-Horn & Associates, Inc., and j.c. brennan & associates, Inc. 2014.

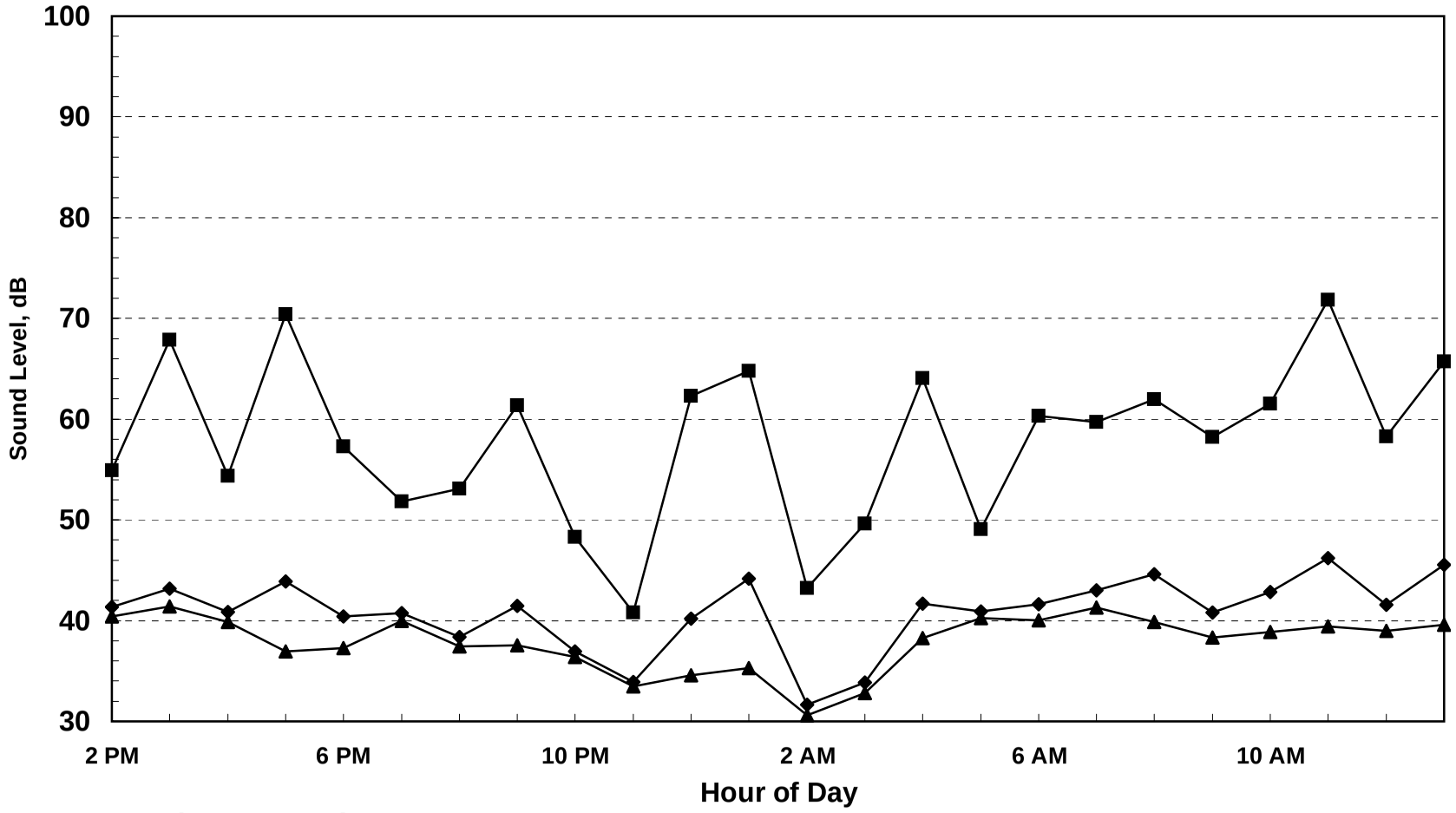
Figure 2
2013-202 Faria Annexation EIR
24hr Continuous Noise Monitoring - Site A
2/4/2014 - 2/5/2014



Ldn = 65.3 dB

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consultants in acoustics

Figure 3
2013-202 Faria Annexation EIR
24hr Continuous Noise Monitoring - Site B
2/4/2014 - 2/5/2014



Ldn = 46.9 dB

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Existing Offsite Noise Levels

The Concord Police Academy Training Facility, which includes a gun range, is located approximately 1,600 feet from the northwest corner of the project. The project site is shielded from the gun range by intervening topography. j.c. brennan & associates, Inc. conducted noise level measurements of the gun range at a distance of 540 feet while the gun range was operating. The measured noise level was 71 dBA Leq and 86 dBA Lmax. During the same time, the continuous 24-hour noise measurements were being conducted at Site B (west portion of the site). Measured noise levels at Site B were 44 dBA Leq, and 68 dBA Lmax. Therefore, based upon the intervening topography and distance from the range, noise levels would comply with the City's 60 dBA Ldn noise level standard for single-family residential land use.

REGULATORY CONTEXT

Federal

There are no federal regulations related to noise that apply to the Proposed Project.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or cause a substantial permanent or temporary increase in ambient noise levels. CEQA standards are discussed more below under the Thresholds of Significance criteria section.

California State Building Codes

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB Ldn or CNEL in any habitable room.

Title 24 also mandates that for structures containing noise-sensitive uses to be located where the Ldn or CNEL exceeds 60 dBA, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment

City of Pittsburg

The City of Pittsburg General Plan

GOALS: NOISE

12-G-1 Protect public health and welfare by eliminating or minimizing the effects of existing noise problems, and by preventing increased noise levels in the future.

12-G-2 Encourage criteria such as building design and orientation, wider setbacks, and intense landscaping in lieu of sound walls to mitigate traffic noise along all major corridors, except along State Route 4.

12-G-3 Continue efforts to incorporate noise considerations into land use planning decisions, and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

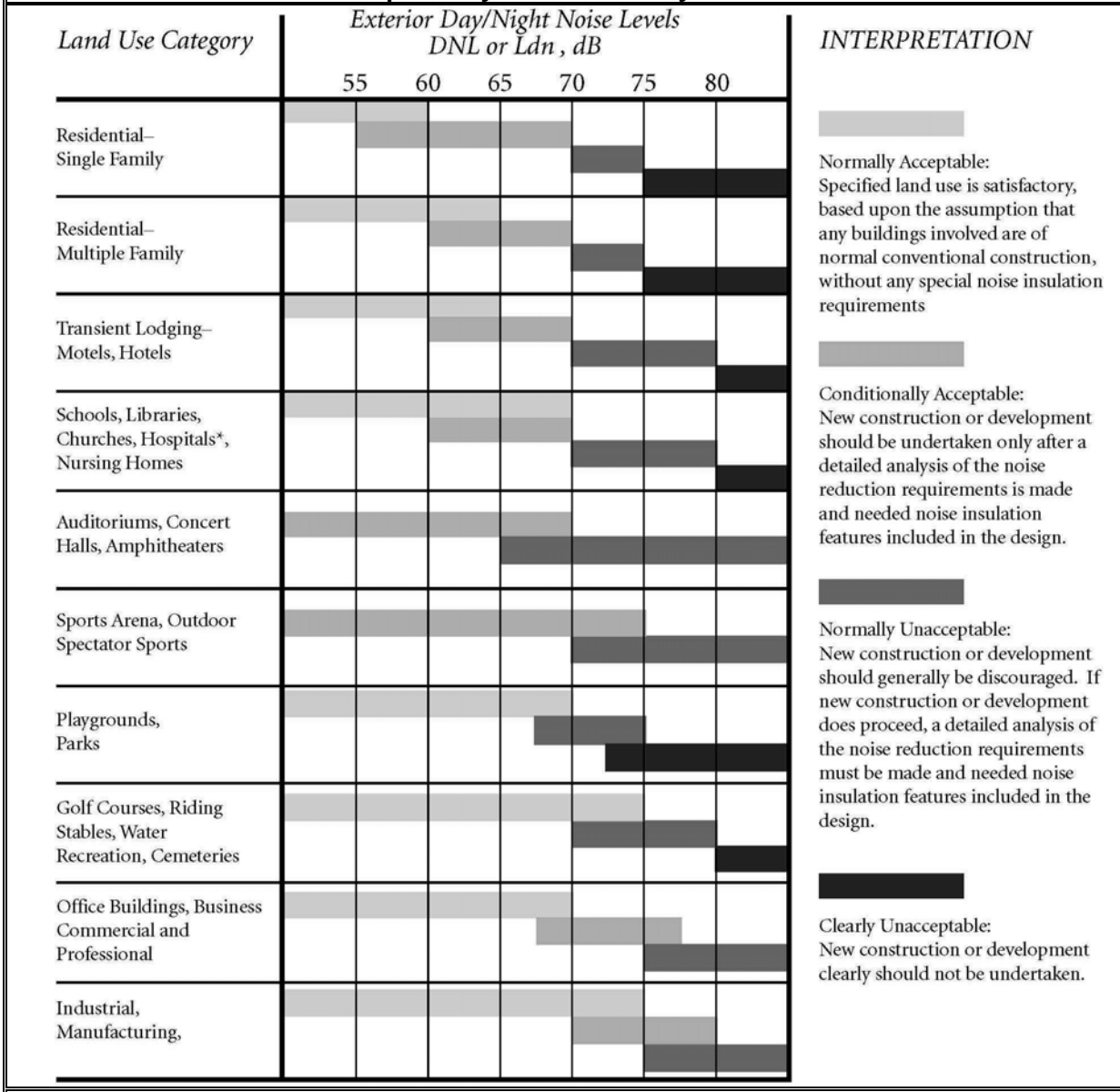
POLICIES: NOISE

12-P-1 As part of development review, use (**Table 4** of this report) to determine acceptable uses and installation requirements in noise-impacted areas.

(**Table 4** of this report) is based on land use and noise exposure compatibility levels in Appendix A of the State of California General Plan Guidelines. The table is consistent with the provision of State law that requires special noise insulation for new residential units within 60 dB Ldn noise exposure contours. The table's land use categories do not correspond to the land use classifications on the General Plan Land Use Diagram, but to actual uses in development projects.

12-P-2 Work with Caltrans to provide sound walls designed to reduce noise by 10 dB in residential areas along State Route 4.

Table: 4
Land Use Compatibility for Community Noise Environments



Source: Office of Planning and Research, State of California General Plan Guidelines,
Appendix A: Guidelines for the Preparation and Content of the Noise Element of the General Plan, 1998.

*Because hospitals are often designed and constructed with high noise insulation properties, it is possible for them to be satisfactorily located in noisier areas.

12-P-4 Require noise attenuation programs for new development exposed to noise above normally acceptable levels. Encourage noise attenuation programs that avoid visible sound walls.

12-P-5 Require that applicants for new noise-sensitive development, such as schools, residences, and hospitals, in areas subject to noise generators producing noise

levels greater than 65 dB CNEL/Ldn, obtain the services of a professional acoustical engineer to provide a technical analysis and design of mitigation measures.

12-P-6 Ensure that new noise-sensitive uses, including schools, hospitals, churches, and homes, in areas near roadways identified as impacting sensitive receptors by producing noise levels greater than 65 dB CNEL/Ldn, incorporate mitigation measures to ensure that interior noise levels do not exceed 45 dB CNEL/Ldn.

12-P-7 Require the control of noise at the source through site design, building design, landscaping, hours of operation, and other techniques, for new development deemed to be noise generators.

12-P-8 Develop noise attenuation programs for mitigation of noise adjacent to existing residential areas, including such measures as wider setbacks, intense landscaping, double-pane windows, and building orientation muffling the noise source.

12-P-9 Limit generation of loud noises on construction sites adjacent to existing development to normal business hours between 8:00 AM and 5:00 PM.

12-P-10 Reduce the impact of truck traffic noise on residential areas by limiting such traffic to appropriate truck routes. Consider methods to restrict truck travel times in sensitive areas.

Determination of a Significant Increase in Noise

The California Environmental Quality Act (CEQA) guidelines define a significant impact of a project if it "increases substantially the ambient noise levels for adjoining areas".

In 1992 the Federal Interagency Committee on Noise (FICON) provided guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been asserted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the Ldn.

Based upon the recommendations, an increase in the noise level of 1.5 dB or more would be significant where the ambient noise level exceeds 65 dBA. An increase in noise levels of 3 dBA or more would be significant where the ambient noise level is between 60 dBA and 65 dBA, and an increase in noise levels of 5 dBA or more would be significant where ambient noise levels are lower than 60 dBA. The rationale is that as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause significant annoyance.

IMPACTS AND MITIGATION MEASURES

Method of Analysis

Traffic Noise Impact Assessment Methodology

To describe future noise levels due to traffic, the Federal Highway Administration Highway

Traffic Noise Prediction Model (FHWA RD-77-108) was used. Direct inputs to the model included traffic volumes provided by Kimley-Horn & Associates, Inc.. The FHWA model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions. To predict Ldn/CNEL values, it is necessary to determine the day/night distribution of traffic and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Construction Noise and Vibration Impact Methodology

Construction noise and vibration was analyzed using data compiled for various pieces of construction equipment at a representative distance of 50 feet. Construction activities are discussed relative to the applicable City of Pittsburg noise policies. Potential impacts and mitigation measures are discussed.

Thresholds of Significance

CEQA Guidelines define a significant adverse impact on the environment as an impact that would:

a. Exposure of persons to or generation of noise levels in excess of standards established in the City of Pittsburg General Plan. Specifically, exterior and interior noise levels of 60 dB Ldn and 45 dB Ldn, respectively, for residential uses exposed to transportation noise sources.

b. Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels. Specifically, a threshold of 0.1 in/sec p.p.v. is considered a safe criterion that would protect against architectural or structural damage and human annoyance.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, defined as an increase in the noise level of 1.5 dB or more would be significant where the ambient noise level exceeds 65 dBA. An increase in noise levels of 3 dBA or more would be significant where the ambient noise level is between 60 dBA and 65 dBA, and an increase in noise levels of 5 dBA or more would be significant where ambient noise levels are lower than 60 dBA.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, defined as an increase of 5-10 dB may be considered substantial for temporary or periodic noise noise.

e. For a project located within an airport land use plan or, where such a plan has not be adopted, within two miles of a public airport or public use airport, where the project would expose people residing or working in the area to excessive noise levels.

f. For a project within the vicinity of a private airstrip, where the project would expose people residing or working in the project area to excessive noise levels.

The proposed project is not located within two miles of an airport. Therefore, aircraft noise is not examined further in this report.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

Impact 1 Construction Noise at Sensitive Receptors

Construction of the Proposed Project would temporarily increase noise levels during construction. This would be a ***potentially significant*** impact.

During the construction of the project including roads, water and sewer lines and related infrastructure, noise from construction activities would add to the noise environment in the project vicinity. Activities involved in construction would generate maximum noise levels, as indicated in **Table 5**, ranging from 76 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration, and would likely occur primarily during daytime hours.

Table 5: Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85
Source: *Roadway Construction Noise Model User's Guide*. Federal Highway Administration. FHWA-HEP-05-054. January 2006.	

Construction activities would be temporary in nature and are exempt from the City's noise criteria during normal business hours between 8:00 AM and 5:00 PM as outlined in the City of Pittsburg General Plan Policy 12-P-9.

Mitigation for Impact 1:

MM-1a: Construction activities shall adhere to the requirements of the City of Pittsburg Policy 12-P-9 with respect to hours of operation.

MM-1b: All equipment shall be fitted with factory equipped mufflers, and in good working order.

Significance after Mitigation: **Less-than-significant**.

Impact 2 Transportation Noise at Existing Sensitive Receptors

Traffic generated by the Proposed Project could generate traffic noise increases which may be considered significant, as outlined in the Thresholds of Significance criteria above. This would be a ***less-than-significant*** impact.

Table 6 shows the predicted traffic noise level increases on the local roadway network for existing and existing plus project conditions. **Table 7** shows the predicted traffic noise level increases on the local roadway network for long-term (2035) and long-term (2035) plus project conditions. **Appendix C** provides the complete inputs and results of the FHWA traffic noise modeling.

Some existing noise sensitive receptors located along the project-area roadways are currently exposed to exterior traffic noise levels exceeding the City of Pittsburg normally acceptable 60 dBA Ldn exterior noise level standard, and in some cases they currently exceed the conditionally acceptable noise level standard of 65 dBA Ldn for residential uses, as shown in **Table 6** and **Table 7**. As shown by **Table 6** and **Table 7**, these receptors will continue to experience elevated exterior noise levels with implementation of the proposed project. The proposed project's contribution to traffic noise increases is predicted to 1.6 dBA Ldn, or less. In each case, this is less than the recommended criteria for a substantial increase in noise.

Based upon Tables 6 and 7, where existing noise-sensitive uses currently comply with either the City of Pittsburg normally acceptable 60 dBA Ldn exterior noise level standard, or the conditionally acceptable noise level standard of 65 dBA Ldn, the project does not contribute to an exceedance of the conditionally acceptable noise level standard of 65 dB Ldn. However, the project does contribute to an exceedance of the normally acceptable exterior noise level standard of 60 dB Ldn. This impact occurs along Bailey Road between Myrtle Drive and Concord Road.

Since the project does not result in a significant increase in noise levels and does not result in an increase in noise levels which exceed the conditionally acceptable noise level standard, this impact is considered **less than significant** relative to the project's significance criteria.

Mitigation for Impact 2: ***None Required***

Table 6: Existing (2014) and Existing (2014) + Project Traffic Noise Levels

Roadway	Segment	Noise Levels (Ldn, dB) at Nearest Sensitive Receptors					
		Existing (2014)	Existing (2014) + Project	Change	Distance to Existing (2014) + Project Traffic Noise Contours (feet)[1]		
					70 dB Ldn	65 dB Ldn	60 dB Ldn
Leland Rd	San Marco Blvd to Bailey Rd	62.4	62.5	0.1	24	51	111
Leland Rd	Bailey Rd to Montevideo Dr	65.9	66.2	0.3	42	91	195
Leland Rd	Montevideo Dr to Dover Way	64.0	64.3	0.3	31	68	146
Leland Rd	Dover Way to Railroad Ave	63.6	64.0	0.4	30	64	138
San Marco Blvd	Leland Rd to Santa Teresa Dr	61.4	63.2	1.8	27	57	123
Bailey Rd	North of Project to Leland Rd	58.5	61.8	3.3	21	46	99
Bailey Rd	South of Project to Myrtle Dr	62.3	64.1	1.8	31	66	142
Bailey Rd	Myrtle Dr to Concord Blvd	59.7	61.5	1.8	20	44	94
Bailey Rd	Concord Blvd to Clayton Rd	59.4	60.3	0.9	17	36	79
Willow Pass Rd	Avila Rd to Olivera Rd	64.1	64.3	0.2	31	67	145
Concord Blvd	West of Farm Bureau Rd	63.5	63.9	0.4	29	63	137
Concord Blvd	Farm Bureau Rd to Bailey Rd	64.3	64.6	0.3	33	71	152
Concord Blvd	Bailey Rd to Railroad Ave	63.3	63.4	0.1	27	59	127
Clayton Rd	Babel Ln to Treat Blvd	67.5	67.6	0.1	52	112	240
Clayton Rd	Treat Blvd to Bailey Rd	68.2	68.2	0.0	57	123	264
Clayton Rd	Bailey Rd to Railroad Ave	67.7	67.7	0.0	53	114	245
Treat Blvd	North of Clayton Rd	61.1	61.1	0.0	19	41	89
Treat Blvd	Clayton Rd to Cowell Rd	66.1	66.3	0.2	43	92	198

[1] Distances to traffic noise contours are measured in feet from the centerlines of the roadways.
[2] Traffic noise levels do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.
Source: j.c. brennan & associates, Inc. 2014.

Table 7: Long-Term (2035) and Long-Term (2035) + Project Traffic Noise Levels

Roadway	Segment	Noise Levels (Ldn, dB) at Nearest Sensitive Receptors					
		Long-Term (2035)	Long-Term (2035) + Project	Change	Distance to Long-Term (2035) + Project Traffic Noise Contours (feet)[1]		
					70 dB Ldn	65 dB Ldn	60 dB Ldn
Leland Rd	San Marco Blvd to Bailey Rd	65.4	65.5	0.1	37	81	174
Leland Rd	Bailey Rd to Montevideo Dr	67.6	67.8	0.2	53	115	248
Leland Rd	Montevideo Dr to Dover Way	65.8	66.0	0.2	40	87	188
Leland Rd	Dover Way to Railroad Ave	65.5	65.7	0.2	39	83	179
San Marco Blvd	Leland Rd to Santa Teresa Dr	62.8	64.3	1.5	31	67	144
Bailey Rd	North of Project to Leland Rd	62.0	63.6	1.6	28	60	130
Bailey Rd	South of Project to Myrtle Dr	67.3	68.0	0.7	55	119	256
Bailey Rd	Myrtle Dr to Concord Blvd	63.4	64.3	0.9	31	67	144
Bailey Rd	Concord Blvd to Clayton Rd	60.0	60.7	0.7	18	39	84
Willow Pass Rd	Avila Rd to Olivera Rd	66.2	66.3	0.1	43	92	199
Concord Blvd	West of Farm Bureau Rd	63.9	64.2	0.3	31	66	143
Concord Blvd	Farm Bureau Rd to Bailey Rd	64.7	65.0	0.3	35	75	161
Concord Blvd	Bailey Rd to Railroad Ave	63.3	63.4	0.1	27	59	127
Clayton Rd	Babel Ln toTreat Blvd	68.7	68.8	0.1	62	134	288
Clayton Rd	Treat Blvd to Bailey Rd	69.0	69.1	0.1	65	141	304
Clayton Rd	Bailey Rd to Railroad Ave	68.8	68.8	0.0	62	135	290
Treat Blvd	North of Clayton Rd	62.3	62.3	0.0	23	49	107
Treat Blvd	Clayton Rd to Cowell Rd	66.9	67.1	0.2	48	104	224

[1] Distances to traffic noise contours are measured in feet from the centerlines of the roadways.
[2] Traffic noise levels do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.
Source: j.c. brennan & associates, Inc. 2014.

Impact 3: Transportation Noise at New Sensitive Receptors

The proposed project could expose new noise-sensitive uses to transportation noise levels that exceed the City of Pittsburg exterior and interior noise level standards. This is considered to be a **potentially significant** impact.

Exterior Traffic Noise Level Impacts:

Since there is no tentative map available for the project site, the traffic noise levels at future residences cannot be determined. However, mitigation measures can be developed to assure compliance with the City of Pittsburg exterior noise level standards.

Interior Noise Impacts:

Modern construction typically provides a 25 dB exterior-to-interior noise level reduction with windows closed. Therefore, sensitive receptors exposed to exterior noise of 70 dB Ldn, or less, will typically comply with the City of Pittsburg 45 dB Ldn interior noise level standard. Additional noise reduction measures, such as acoustically rated windows are generally required for exterior noise levels exceeding 70 dB Ldn.

Mitigation for Impact 3:

MM-3a: When tentative maps are available, an analysis of potential traffic noise impacts should be conducted.

MM-3b: Consistent with Policy 12-P-5, "Require that applicants for new noise-sensitive development, such as schools, residences, and hospitals, in areas subject to noise generators producing noise levels greater than 65 dB CNEL/Ldn, obtain the services of a professional acoustical engineer to provide a technical analysis and design of mitigation measures".

.

MM-3c: Consistent with Policy 12-P-6, "Ensure that new noise-sensitive uses, including schools, hospitals, churches, and homes, in areas near roadways identified as impacting sensitive receptors by producing noise levels greater than 65 dB CNEL/Ldn, incorporate mitigation measures to ensure that interior noise levels do not exceed 45 dB CNEL/Ldn".

Significance after Mitigation: **Less-than-significant**.

Impact 4: Construction Vibration at Sensitive Receptors

The proposed project has the potential to expose sensitive receptors to substantial vibration associated with construction activities. This would be a ***less-than-significant*** *impact.*

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading and utility placement.

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural. **Table 8** shows the typical vibration levels produced by construction equipment.

Sensitive receptors could be impacted by construction related vibrations, especially vibratory compactors/rollers. The nearest receptors are located approximately 50 feet or further from any areas of the project site that might require grading or paving. At this distance construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

Table 8: Vibration Levels for Varying Construction Equipment

Type of Equipment	Peak Particle Velocity @ 25 feet (inches/second)	Peak Particle Velocity @ 50 feet (inches/second)	Peak Particle Velocity @ 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210	0.074	0.026

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006

The **Table 8** data indicate that construction vibration levels anticipated for the project are less than the 0.1 in/sec criteria at distances of 50 feet. Therefore, construction vibrations are not predicted to cause damage to existing buildings or cause annoyance to sensitive receptors. Implementation of the proposed project would have a **less than significant** impact.

Mitigation for Impact 4: **None required**

Cumulative Impacts and Mitigation Measures

Impact 5 Cumulative Noise Levels

The cumulative context for noise impacts associated with the Proposed Project consists of the existing and future noise sources that could affect the project or surrounding uses. Noise generated by construction would be temporary, and would

not add to the permanent noise environment or be considered as part of the cumulative context. The total noise impact of the Proposed Project would be fairly small and would not be a substantial increase to the existing future noise environment. Thus, the Proposed Project would result in a ***less-than-significant cumulative impact.***

Traffic

Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to the Proposed Project and on-site activities resulting from operation of the proposed project. **Table 7** above shows cumulative traffic noise levels with and without the Proposed Project. As discussed, the project would not result in significant increases in traffic noise levels at existing sensitive receptors. New residential uses will be constructed to comply with the applicable City of Pittsburg exterior and interior noise level standards.

Cumulative Conclusion

The traffic noise from the Proposed Project is not expected to produce noise levels that would exceed generally accepted industry standards for a significant impact. The Proposed Project would result in a **less-than-significant cumulative impact**.

Mitigation for Impact 5: **None required**

Appendix A
Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
$L_{(n)}$	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L_{50} is the sound level exceeded 50% of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.
RT_{60}	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is s rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix B
2013-202 Faria Annexation EIR
24hr Continuous Noise Monitoring - Site A
2/4/2014 - 2/5/2014

Hour	Leq	Lmax	L50	L90
14:00	59	74	57	45
15:00	60	69	59	47
16:00	60	74	58	47
17:00	59	69	58	46
18:00	59	78	57	40
19:00	57	71	54	38
20:00	56	70	53	35
21:00	56	72	49	32
22:00	55	74	47	34
23:00	53	69	47	34
0:00	51	72	33	24
1:00	50	66	35	24
2:00	53	67	50	38
3:00	50	64	40	27
4:00	51	66	47	34
5:00	61	74	59	44
6:00	63	73	62	56
7:00	64	73	63	58
8:00	63	71	62	56
9:00	66	81	63	57
10:00	66	80	63	56
11:00	66	81	64	57
12:00	67	82	65	58
13:00	70	83	67	60

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	70	56	64	63	50	57
Lmax (Maximum)	83	69	75	74	64	69
L50 (Median)	67	49	59	62	33	47
L90 (Background)	60	32	49	56	24	35

Computed Ldn, dB	65.3
% Daytime Energy	89%
% Nighttime Energy	11%

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Appendix B
2013-202 Faria Annexation EIR
24hr Continuous Noise Monitoring - Site B
2/4/2014 - 2/5/2014

Hour	Leq	Lmax	L50	L90
14:00	41	55	40	38
15:00	43	68	41	39
16:00	41	54	40	36
17:00	44	70	37	34
18:00	40	57	37	34
19:00	41	52	40	38
20:00	38	53	37	36
21:00	41	61	38	35
22:00	37	48	36	34
23:00	34	41	33	31
0:00	40	62	35	32
1:00	44	65	35	33
2:00	32	43	31	29
3:00	34	50	33	30
4:00	42	64	38	33
5:00	41	49	40	38
6:00	42	60	40	38
7:00	43	60	41	39
8:00	45	62	40	37
9:00	41	58	38	36
10:00	43	62	39	36
11:00	46	72	39	36
12:00	42	58	39	37
13:00	46	66	40	36

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	46	38	43	44	32	40
Lmax (Maximum)	72	52	61	65	41	54
L50 (Median)	41	37	39	40	31	36
L90 (Background)	39	34	36	38	29	33

Computed Ldn, dB	46.9
% Daytime Energy	76%
% Nighttime Energy	24%

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Appendix C
FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2013-202 Faria Annexation
Description: Existing (2014) + Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Leland Rd	San Marco Blvd to Bailey Rd	12,250	87		13	2.0	1.0	35	75	
2	Leland Rd	Bailey Rd to Montevideo Dr	20,990	87		13	2.0	1.0	40	75	
3	Leland Rd	Montevideo Dr to Dover Way	18,500	87		13	2.0	1.0	35	75	
4	Leland Rd	Dover Way to Railroad Ave	16,980	87		13	2.0	1.0	35	75	
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	10,540	87		13	2.0	1.0	40	75	
6	Bailey Rd	North of Project to Leland Rd	13,280	87		13	2.0	1.0	30	75	
7	Bailey Rd	South of Project to Myrtle Dr	9,750	87		13	2.0	1.0	45	75	
8	Bailey Rd	Myrtle Dr to Concord Blvd	9,550	87		13	2.0	1.0	35	75	
9	Bailey Rd	Concord Blvd to Clayton Rd	7,320	87		13	2.0	1.0	35	75	
10	Willow Pass Rd	Avila Rd to Olivera Rd	18,430	87		13	2.0	1.0	35	75	
11	Concord Blvd	West of Farm Bureau Rd	16,800	87		13	2.0	1.0	35	75	
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	19,790	87		13	2.0	1.0	35	75	
13	Concord Blvd	Bailey Rd to Railroad Ave	14,970	87		13	2.0	1.0	35	75	
14	Clayton Rd	Babel Ln toTreat Blvd	28,690	87		13	2.0	1.0	40	75	
15	Clayton Rd	Treat Blvd to Bailey Rd	33,060	87		13	2.0	1.0	40	75	
16	Clayton Rd	Bailey Rd to Railroad Ave	29,550	87		13	2.0	1.0	40	75	
17	Treat Blvd	North of Clayton Rd	11,220	87		13	2.0	1.0	30	75	
18	Treat Blvd	Clayton Rd to Cowell Rd	21,510	87		13	2.0	1.0	40	75	

Appendix C

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2013-202 Faria Annexation
Description: Existing (2014) + Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	Leland Rd	San Marco Blvd to Bailey Rd	60.7	53.6	55.8	62.5
2	Leland Rd	Bailey Rd to Montevideo Dr	64.8	56.8	58.6	66.2
3	Leland Rd	Montevideo Dr to Dover Way	62.5	55.4	57.6	64.3
4	Leland Rd	Dover Way to Railroad Ave	62.2	55.0	57.2	64.0
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	61.8	53.8	55.6	63.2
6	Bailey Rd	North of Project to Leland Rd	59.2	52.9	57.0	61.8
7	Bailey Rd	South of Project to Myrtle Dr	62.9	54.3	55.8	64.1
8	Bailey Rd	Myrtle Dr to Concord Blvd	59.7	52.5	54.7	61.5
9	Bailey Rd	Concord Blvd to Clayton Rd	58.5	51.3	53.5	60.3
10	Willow Pass Rd	Avila Rd to Olivera Rd	62.5	55.4	57.5	64.3
11	Concord Blvd	West of Farm Bureau Rd	62.1	55.0	57.1	63.9
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	62.8	55.7	57.8	64.6
13	Concord Blvd	Bailey Rd to Railroad Ave	61.6	54.5	56.6	63.4
14	Clayton Rd	Babel Ln toTreat Blvd	66.1	58.2	60.0	67.6
15	Clayton Rd	Treat Blvd to Bailey Rd	66.7	58.8	60.6	68.2
16	Clayton Rd	Bailey Rd to Railroad Ave	66.2	58.3	60.1	67.7
17	Treat Blvd	North of Clayton Rd	58.4	52.2	56.3	61.1
18	Treat Blvd	Clayton Rd to Cowell Rd	64.9	56.9	58.7	66.3

Appendix C

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2013-202 Faria Annexation
Description: Existing (2014) + Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

			-------- Distances to Traffic Noise Contours --------				
Segment	Roadway Name	Segment Description	75	70	65	60	55
1	Leland Rd	San Marco Blvd to Bailey Rd	11	24	51	111	238
2	Leland Rd	Bailey Rd to Montevideo Dr	20	42	91	195	421
3	Leland Rd	Montevideo Dr to Dover Way	15	31	68	146	314
4	Leland Rd	Dover Way to Railroad Ave	14	30	64	138	296
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	12	27	57	123	266
6	Bailey Rd	North of Project to Leland Rd	10	21	46	99	214
7	Bailey Rd	South of Project to Myrtle Dr	14	31	66	142	305
8	Bailey Rd	Myrtle Dr to Concord Blvd	9	20	44	94	202
9	Bailey Rd	Concord Blvd to Clayton Rd	8	17	36	79	169
10	Willow Pass Rd	Avila Rd to Olivera Rd	15	31	67	145	313
11	Concord Blvd	West of Farm Bureau Rd	14	29	63	137	294
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	15	33	71	152	328
13	Concord Blvd	Bailey Rd to Railroad Ave	13	27	59	127	273
14	Clayton Rd	Babel Ln toTreat Blvd	24	52	112	240	518
15	Clayton Rd	Treat Blvd to Bailey Rd	26	57	123	264	569
16	Clayton Rd	Bailey Rd to Railroad Ave	25	53	114	245	528
17	Treat Blvd	North of Clayton Rd	9	19	41	89	191
18	Treat Blvd	Clayton Rd to Cowell Rd	20	43	92	198	428

Appendix C
FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2013-202 Faria Annexation
Description: Existing (2014) + Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Leland Rd	San Marco Blvd to Bailey Rd	12,250	87		13	2.0	1.0	35	75	
2	Leland Rd	Bailey Rd to Montevideo Dr	20,990	87		13	2.0	1.0	40	75	
3	Leland Rd	Montevideo Dr to Dover Way	18,500	87		13	2.0	1.0	35	75	
4	Leland Rd	Dover Way to Railroad Ave	16,980	87		13	2.0	1.0	35	75	
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	10,540	87		13	2.0	1.0	40	75	
6	Bailey Rd	North of Project to Leland Rd	13,280	87		13	2.0	1.0	30	75	
7	Bailey Rd	South of Project to Myrtle Dr	9,750	87		13	2.0	1.0	45	75	
8	Bailey Rd	Myrtle Dr to Concord Blvd	9,550	87		13	2.0	1.0	35	75	
9	Bailey Rd	Concord Blvd to Clayton Rd	7,320	87		13	2.0	1.0	35	75	
10	Willow Pass Rd	Avila Rd to Olivera Rd	18,430	87		13	2.0	1.0	35	75	
11	Concord Blvd	West of Farm Bureau Rd	16,800	87		13	2.0	1.0	35	75	
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	19,790	87		13	2.0	1.0	35	75	
13	Concord Blvd	Bailey Rd to Railroad Ave	14,970	87		13	2.0	1.0	35	75	
14	Clayton Rd	Babel Ln toTreat Blvd	28,690	87		13	2.0	1.0	40	75	
15	Clayton Rd	Treat Blvd to Bailey Rd	33,060	87		13	2.0	1.0	40	75	
16	Clayton Rd	Bailey Rd to Railroad Ave	29,550	87		13	2.0	1.0	40	75	
17	Treat Blvd	North of Clayton Rd	11,220	87		13	2.0	1.0	30	75	
18	Treat Blvd	Clayton Rd to Cowell Rd	21,510	87		13	2.0	1.0	40	75	

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FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2013-202 Faria Annexation
Description: Existing (2014) + Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	Leland Rd	San Marco Blvd to Bailey Rd	60.7	53.6	55.8	62.5
2	Leland Rd	Bailey Rd to Montevideo Dr	64.8	56.8	58.6	66.2
3	Leland Rd	Montevideo Dr to Dover Way	62.5	55.4	57.6	64.3
4	Leland Rd	Dover Way to Railroad Ave	62.2	55.0	57.2	64.0
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	61.8	53.8	55.6	63.2
6	Bailey Rd	North of Project to Leland Rd	59.2	52.9	57.0	61.8
7	Bailey Rd	South of Project to Myrtle Dr	62.9	54.3	55.8	64.1
8	Bailey Rd	Myrtle Dr to Concord Blvd	59.7	52.5	54.7	61.5
9	Bailey Rd	Concord Blvd to Clayton Rd	58.5	51.3	53.5	60.3
10	Willow Pass Rd	Avila Rd to Olivera Rd	62.5	55.4	57.5	64.3
11	Concord Blvd	West of Farm Bureau Rd	62.1	55.0	57.1	63.9
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	62.8	55.7	57.8	64.6
13	Concord Blvd	Bailey Rd to Railroad Ave	61.6	54.5	56.6	63.4
14	Clayton Rd	Babel Ln toTreat Blvd	66.1	58.2	60.0	67.6
15	Clayton Rd	Treat Blvd to Bailey Rd	66.7	58.8	60.6	68.2
16	Clayton Rd	Bailey Rd to Railroad Ave	66.2	58.3	60.1	67.7
17	Treat Blvd	North of Clayton Rd	58.4	52.2	56.3	61.1
18	Treat Blvd	Clayton Rd to Cowell Rd	64.9	56.9	58.7	66.3

Appendix C

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2013-202 Faria Annexation
Description: Existing (2014) + Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

			-------- Distances to Traffic Noise Contours --------				
Segment	Roadway Name	Segment Description	75	70	65	60	55
1	Leland Rd	San Marco Blvd to Bailey Rd	11	24	51	111	238
2	Leland Rd	Bailey Rd to Montevideo Dr	20	42	91	195	421
3	Leland Rd	Montevideo Dr to Dover Way	15	31	68	146	314
4	Leland Rd	Dover Way to Railroad Ave	14	30	64	138	296
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	12	27	57	123	266
6	Bailey Rd	North of Project to Leland Rd	10	21	46	99	214
7	Bailey Rd	South of Project to Myrtle Dr	14	31	66	142	305
8	Bailey Rd	Myrtle Dr to Concord Blvd	9	20	44	94	202
9	Bailey Rd	Concord Blvd to Clayton Rd	8	17	36	79	169
10	Willow Pass Rd	Avila Rd to Olivera Rd	15	31	67	145	313
11	Concord Blvd	West of Farm Bureau Rd	14	29	63	137	294
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	15	33	71	152	328
13	Concord Blvd	Bailey Rd to Railroad Ave	13	27	59	127	273
14	Clayton Rd	Babel Ln toTreat Blvd	24	52	112	240	518
15	Clayton Rd	Treat Blvd to Bailey Rd	26	57	123	264	569
16	Clayton Rd	Bailey Rd to Railroad Ave	25	53	114	245	528
17	Treat Blvd	North of Clayton Rd	9	19	41	89	191
18	Treat Blvd	Clayton Rd to Cowell Rd	20	43	92	198	428

Appendix C
FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2013-202 Faria Annexation
Description: Long-Term (2035) Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Leland Rd	San Marco Blvd to Bailey Rd	23,640	87		13	2.0	1.0	35	75	
2	Leland Rd	Bailey Rd to Montevideo Dr	28,640	87		13	2.0	1.0	40	75	
3	Leland Rd	Montevideo Dr to Dover Way	25,690	87		13	2.0	1.0	35	75	
4	Leland Rd	Dover Way to Railroad Ave	24,090	87		13	2.0	1.0	35	75	
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	9,610	87		13	2.0	1.0	40	75	
6	Bailey Rd	North of Project to Leland Rd	13,740	87		13	2.0	1.0	30	75	
7	Bailey Rd	South of Project to Myrtle Dr	20,250	87		13	2.0	1.0	45	75	
8	Bailey Rd	Myrtle Dr to Concord Blvd	15,000	87		13	2.0	1.0	35	75	
9	Bailey Rd	Concord Blvd to Clayton Rd	6,890	87		13	2.0	1.0	35	75	
10	Willow Pass Rd	Avila Rd to Olivera Rd	28,580	87		13	2.0	1.0	35	75	
11	Concord Blvd	West of Farm Bureau Rd	16,650	87		13	2.0	1.0	35	75	
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	20,050	87		13	2.0	1.0	35	75	
13	Concord Blvd	Bailey Rd to Railroad Ave	14,600	87		13	2.0	1.0	35	75	
14	Clayton Rd	Babel Ln toTreat Blvd	37,240	87		13	2.0	1.0	40	75	
15	Clayton Rd	Treat Blvd to Bailey Rd	39,410	87		13	2.0	1.0	40	75	
16	Clayton Rd	Bailey Rd to Railroad Ave	37,960	87		13	2.0	1.0	40	75	
17	Treat Blvd	North of Clayton Rd	14,790	87		13	2.0	1.0	30	75	
18	Treat Blvd	Clayton Rd to Cowell Rd	24,670	87		13	2.0	1.0	40	75	

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FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2013-202 Faria Annexation
Description: Long-Term (2035) Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	Leland Rd	San Marco Blvd to Bailey Rd	63.6	56.4	58.6	65.4
2	Leland Rd	Bailey Rd to Montevideo Dr	66.1	58.2	60.0	67.6
3	Leland Rd	Montevideo Dr to Dover Way	64.0	56.8	59.0	65.8
4	Leland Rd	Dover Way to Railroad Ave	63.7	56.5	58.7	65.5
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	61.4	53.4	55.2	62.8
6	Bailey Rd	North of Project to Leland Rd	59.3	53.0	57.1	62.0
7	Bailey Rd	South of Project to Myrtle Dr	66.1	57.5	59.0	67.3
8	Bailey Rd	Myrtle Dr to Concord Blvd	61.6	54.5	56.6	63.4
9	Bailey Rd	Concord Blvd to Clayton Rd	58.2	51.1	53.3	60.0
10	Willow Pass Rd	Avila Rd to Olivera Rd	64.4	57.3	59.4	66.2
11	Concord Blvd	West of Farm Bureau Rd	62.1	54.9	57.1	63.9
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	62.9	55.7	57.9	64.7
13	Concord Blvd	Bailey Rd to Railroad Ave	61.5	54.3	56.5	63.3
14	Clayton Rd	Babel Ln toTreat Blvd	67.2	59.3	61.1	68.7
15	Clayton Rd	Treat Blvd to Bailey Rd	67.5	59.6	61.4	69.0
16	Clayton Rd	Bailey Rd to Railroad Ave	67.3	59.4	61.2	68.8
17	Treat Blvd	North of Clayton Rd	59.6	53.4	57.5	62.3
18	Treat Blvd	Clayton Rd to Cowell Rd	65.5	57.5	59.3	66.9

Appendix C

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2013-202 Faria Annexation
Description: Long-Term (2035) Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

			-------- Distances to Traffic Noise Contours --------				
Segment	Roadway Name	Segment Description	75	70	65	60	55
1	Leland Rd	San Marco Blvd to Bailey Rd	17	37	80	172	370
2	Leland Rd	Bailey Rd to Montevideo Dr	24	52	111	240	517
3	Leland Rd	Montevideo Dr to Dover Way	18	39	84	181	391
4	Leland Rd	Dover Way to Railroad Ave	17	37	81	174	374
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	12	25	54	116	250
6	Bailey Rd	North of Project to Leland Rd	10	22	47	101	219
7	Bailey Rd	South of Project to Myrtle Dr	23	50	107	231	497
8	Bailey Rd	Myrtle Dr to Concord Blvd	13	27	59	127	273
9	Bailey Rd	Concord Blvd to Clayton Rd	8	16	35	75	162
10	Willow Pass Rd	Avila Rd to Olivera Rd	19	42	90	195	419
11	Concord Blvd	West of Farm Bureau Rd	14	29	63	136	293
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	15	33	71	154	331
13	Concord Blvd	Bailey Rd to Railroad Ave	12	27	58	124	268
14	Clayton Rd	Babel Ln toTreat Blvd	29	62	133	286	616
15	Clayton Rd	Treat Blvd to Bailey Rd	30	64	138	297	640
16	Clayton Rd	Bailey Rd to Railroad Ave	29	62	135	290	624
17	Treat Blvd	North of Clayton Rd	11	23	49	107	230
18	Treat Blvd	Clayton Rd to Cowell Rd	22	47	101	217	468

Appendix C
FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2013-202 Faria Annexation
Description: Long-Term (2035) + Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Leland Rd	San Marco Blvd to Bailey Rd	24,090	87		13	2.0	1.0	35	75	
2	Leland Rd	Bailey Rd to Montevideo Dr	29,990	87		13	2.0	1.0	40	75	
3	Leland Rd	Montevideo Dr to Dover Way	27,050	87		13	2.0	1.0	35	75	
4	Leland Rd	Dover Way to Railroad Ave	25,290	87		13	2.0	1.0	35	75	
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	13,330	87		13	2.0	1.0	40	75	
6	Bailey Rd	North of Project to Leland Rd	19,870	87		13	2.0	1.0	30	75	
7	Bailey Rd	South of Project to Myrtle Dr	23,620	87		13	2.0	1.0	45	75	
8	Bailey Rd	Myrtle Dr to Concord Blvd	18,220	87		13	2.0	1.0	35	75	
9	Bailey Rd	Concord Blvd to Clayton Rd	8,120	87		13	2.0	1.0	35	75	
10	Willow Pass Rd	Avila Rd to Olivera Rd	29,480	87		13	2.0	1.0	35	75	
11	Concord Blvd	West of Farm Bureau Rd	18,000	87		13	2.0	1.0	35	75	
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	21,400	87		13	2.0	1.0	35	75	
13	Concord Blvd	Bailey Rd to Railroad Ave	15,050	87		13	2.0	1.0	35	75	
14	Clayton Rd	Babel Ln toTreat Blvd	37,550	87		13	2.0	1.0	40	75	
15	Clayton Rd	Treat Blvd to Bailey Rd	40,760	87		13	2.0	1.0	40	75	
16	Clayton Rd	Bailey Rd to Railroad Ave	37,960	87		13	2.0	1.0	40	75	
17	Treat Blvd	North of Clayton Rd	14,790	87		13	2.0	1.0	30	75	
18	Treat Blvd	Clayton Rd to Cowell Rd	25,720	87		13	2.0	1.0	40	75	

Appendix C

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2013-202 Faria Annexation
Description: Long-Term (2035) + Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	Leland Rd	San Marco Blvd to Bailey Rd	63.7	56.5	58.7	65.5
2	Leland Rd	Bailey Rd to Montevideo Dr	66.3	58.4	60.2	67.8
3	Leland Rd	Montevideo Dr to Dover Way	64.2	57.0	59.2	66.0
4	Leland Rd	Dover Way to Railroad Ave	63.9	56.7	58.9	65.7
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	62.8	54.9	56.7	64.3
6	Bailey Rd	North of Project to Leland Rd	60.9	54.6	58.7	63.6
7	Bailey Rd	South of Project to Myrtle Dr	66.7	58.1	59.6	68.0
8	Bailey Rd	Myrtle Dr to Concord Blvd	62.5	55.3	57.5	64.3
9	Bailey Rd	Concord Blvd to Clayton Rd	59.0	51.8	54.0	60.7
10	Willow Pass Rd	Avila Rd to Olivera Rd	64.6	57.4	59.6	66.3
11	Concord Blvd	West of Farm Bureau Rd	62.4	55.3	57.4	64.2
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	63.2	56.0	58.2	65.0
13	Concord Blvd	Bailey Rd to Railroad Ave	61.6	54.5	56.7	63.4
14	Clayton Rd	Babel Ln toTreat Blvd	67.3	59.3	61.2	68.8
15	Clayton Rd	Treat Blvd to Bailey Rd	67.6	59.7	61.5	69.1
16	Clayton Rd	Bailey Rd to Railroad Ave	67.3	59.4	61.2	68.8
17	Treat Blvd	North of Clayton Rd	59.6	53.4	57.5	62.3
18	Treat Blvd	Clayton Rd to Cowell Rd	65.6	57.7	59.5	67.1

Appendix C

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2013-202 Faria Annexation

Description: Long-Term (2035) + Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

			-------- Distances to Traffic Noise Contours --------				
Segment	Roadway Name	Segment Description	75	70	65	60	55
1	Leland Rd	San Marco Blvd to Bailey Rd	17	37	81	174	374
2	Leland Rd	Bailey Rd to Montevideo Dr	25	53	115	248	534
3	Leland Rd	Montevideo Dr to Dover Way	19	40	87	188	404
4	Leland Rd	Dover Way to Railroad Ave	18	39	83	179	387
5	San Marco Blvd	Leland Rd to Santa Teresa Dr	14	31	67	144	311
6	Bailey Rd	North of Project to Leland Rd	13	28	60	130	280
7	Bailey Rd	South of Project to Myrtle Dr	26	55	119	256	550
8	Bailey Rd	Myrtle Dr to Concord Blvd	14	31	67	144	311
9	Bailey Rd	Concord Blvd to Clayton Rd	8	18	39	84	181
10	Willow Pass Rd	Avila Rd to Olivera Rd	20	43	92	199	428
11	Concord Blvd	West of Farm Bureau Rd	14	31	66	143	308
12	Concord Blvd	Farm Bureau Rd to Bailey Rd	16	35	75	161	346
13	Concord Blvd	Bailey Rd to Railroad Ave	13	27	59	127	274
14	Clayton Rd	Babel Ln toTreat Blvd	29	62	134	288	620
15	Clayton Rd	Treat Blvd to Bailey Rd	30	65	141	304	655
16	Clayton Rd	Bailey Rd to Railroad Ave	29	62	135	290	624
17	Treat Blvd	North of Clayton Rd	11	23	49	107	230
18	Treat Blvd	Clayton Rd to Cowell Rd	22	48	104	224	482