APPENDIX A

CalEEMod Results

Phase 1 - Offloading Facility Construction - 1 Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phase 1 - Offloading Facility Construction - 1
Construction Start Date	2/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	2.20
Location	34.240025, -119.263118
County	Ventura
City	Ventura
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3415
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	—
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	3.36	1000sqft	0.08	3,360	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.29	2.04	11.4	17.1	0.03	0.47	2.30	2.76	0.43	1.06	1.48	—	2,855	2,855	0.11	0.04	0.88	2,868
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.56	1.31	11.5	14.7	0.02	0.47	2.30	2.76	0.43	1.06	1.48	—	2,653	2,653	0.10	0.04	0.02	2,668
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.49	0.41	3.30	4.65	0.01	0.12	0.29	0.42	0.11	0.13	0.24	—	815	815	0.03	0.01	0.07	819
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.08	0.60	0.85	< 0.005	0.02	0.05	0.08	0.02	0.02	0.04	—	135	135	0.01	< 0.005	0.01	136

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.29	2.04	11.4	17.1	0.03	0.47	2.30	2.76	0.43	1.06	1.48	—	2,855	2,855	0.11	0.04	0.88	2,868

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.56	1.31	11.5	14.7	0.02	0.47	2.30	2.76	0.43	1.06	1.48	—	2,653	2,653	0.10	0.04	0.02	2,668
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.49	0.41	3.30	4.65	0.01	0.12	0.29	0.42	0.11	0.13	0.24	—	815	815	0.03	0.01	0.07	819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.09	0.08	0.60	0.85	< 0.005	0.02	0.05	0.08	0.02	0.02	0.04	—	135	135	0.01	< 0.005	0.01	136

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.49	1.25	11.2	13.9	0.02	0.46	—	0.46	0.43	—	0.43	—	2,364	2,364	0.10	0.02	—	2,372
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	1.49	1.25	11.2	13.9	0.02	0.46	—	0.46	0.43	—	0.43	—	2,364	2,364	0.10	0.02	—	2,372
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.36	1.68	< 0.005	0.06	—	0.06	0.05	—	0.05	—	285	285	0.01	< 0.005	—	286
Dust From Material Movement	—	—	—	—	—	—	0.25	0.25	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.25	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.2	47.2	< 0.005	< 0.005	—	47.3
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	193	193	< 0.005	0.01	0.67	196

Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.13	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	104	104	< 0.005	0.02	0.21	109
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.74	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	185	185	< 0.005	0.01	0.02	187
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	104	104	< 0.005	0.02	0.01	109
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	22.4	22.4	< 0.005	< 0.005	0.03	22.7
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.71	3.71	< 0.005	< 0.005	0.01	3.76
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.08	2.08	< 0.005	< 0.005	< 0.005	2.18

3.3. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.73	6.77	10.2	0.02	0.23	—	0.23	0.21	—	0.21	—	1,756	1,756	0.07	0.01	—	1,762
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.18	1.63	2.45	< 0.005	0.06	—	0.06	0.05	—	0.05	—	423	423	0.02	< 0.005	—	425
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	70.1	70.1	< 0.005	< 0.005	—	70.3
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.2	18.2	< 0.005	< 0.005	0.06	18.4
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.4	16.4	< 0.005	< 0.005	0.04	17.1
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.22	4.22	< 0.005	< 0.005	0.01	4.28
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.95	3.95	< 0.005	< 0.005	< 0.005	4.13
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.70	0.70	< 0.005	< 0.005	< 0.005	0.71
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.65	0.65	< 0.005	< 0.005	< 0.005	0.68
Hauling	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	0.00

3.5. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	0.43	3.74	4.99	0.01	0.15	—	0.15	0.14	—	0.14	—	767	767	0.03	0.01	—	769
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.23	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.2	46.2	< 0.005	< 0.005	—	46.4
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.65	7.65	< 0.005	< 0.005	—	7.68
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.69	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	161	161	< 0.005	0.01	0.56	163
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.34	9.34	< 0.005	< 0.005	0.01	9.47
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.55	1.55	< 0.005	< 0.005	< 0.005	1.57
Vendor	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	0.00
Hauling	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	0.00

3.7. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.71	0.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.07
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.33	1.33	< 0.005	< 0.005	—	1.34
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.63	3.63	< 0.005	< 0.005	0.01	3.69
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.04
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	2/1/2027	4/1/2027	5.00	44.0	—
Building Construction	Building Construction	4/2/2027	8/3/2027	5.00	88.0	Southeast offloading facility/loading platform
Paving	Paving	7/3/2027	8/3/2027	5.00	22.0	—
Architectural Coating	Architectural Coating	7/3/2027	8/3/2027	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	7.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38

Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	1.57	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	1.41	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	0.55	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.28	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	5,040	1,680	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	550	—	44.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Phase 1 activities will construct one of two 7-bay offloading facilities proposed with the Project. No demo proposed. This phase has been anticipated to commence as early as 2027 and to be completed within 6 months of the start date.
Land Use	Unrefrigerated warehouse-no rail used to represent the offloading facility/loading platform. While the footprint of the proposed offloading facility is not 2.9 acres, the Project is conservatively assessed as the entire project site (2.9 acres).
Construction: Off-Road Equipment	Equipment represents a typical construction fleet mix for a 3-5 acre project site, per the CalEEMod User Guide, Page G-9.

Phase 2 - Demo of Existing Commercial Fishing Building Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phase 2 - Demo of Existing Commercial Fishing Building
Construction Start Date	8/4/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	2.20
Location	34.239903, -119.262728
County	Ventura
City	Ventura
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3415
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	—
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Supermarket	5.00	1000sqft	0.11	5,000	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.56	0.46	4.21	6.16	0.01	0.12	0.33	0.45	0.11	0.07	0.18	—	1,156	1,156	0.04	0.04	0.80	1,169
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.03	0.25	0.37	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	—	69.4	69.4	< 0.005	< 0.005	0.02	70.1
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.01	0.05	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	< 0.005	11.6

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.56	0.46	4.21	6.16	0.01	0.12	0.33	0.45	0.11	0.07	0.18	—	1,156	1,156	0.04	0.04	0.80	1,169
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2027	0.03	0.03	0.25	0.37	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	—	69.4	69.4	< 0.005	< 0.005	0.02	70.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.01	0.01	0.05	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	< 0.005	11.6

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	0.42	3.94	5.55	0.01	0.12	—	0.12	0.11	—	0.11	—	852	852	0.03	0.01	—	855
Demolition	—	—	—	—	—	—	0.15	0.15	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.50	8.50	< 0.005	< 0.005	—	8.53
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.55	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	< 0.005	< 0.005	0.45	131
Vendor	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	0.00
Hauling	0.01	< 0.005	0.22	0.06	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	175	175	< 0.005	0.03	0.36	184
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.47	7.47	< 0.005	< 0.005	0.01	7.58
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.5	10.5	< 0.005	< 0.005	0.01	11.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.25
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.83

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	8/4/2027	9/2/2027	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	2.64	20.0	HHDT

Demolition	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,000	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Supermarket	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Demolition only proposed for this phase.

Phase 3.1 - New Fish Bldg, Restaurant, and Restrooms Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phase 3.1 - New Fish Bldg, Restaurant, and Restrooms
Construction Start Date	9/3/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	2.20
Location	34.239903, -119.262728
County	Ventura
City	Ventura
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3415
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	—
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Supermarket	4.90	1000sqft	0.11	4,900	0.00	—	—	—

High Turnover (Sit Down Restaurant)	2.54	1000sqft	0.06	2,544	0.00	—	—	Restaurant and restrooms square footages combined

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.55	1.31	11.4	14.8	0.02	0.47	2.28	2.75	0.43	1.05	1.48	—	2,608	2,608	0.10	0.03	0.77	2,622
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.27	3.00	12.1	19.0	0.03	0.47	2.28	2.75	0.43	1.05	1.48	—	3,214	3,214	0.12	0.04	0.02	3,228
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.73	0.62	5.55	8.47	0.01	0.18	0.54	0.65	0.17	0.25	0.35	—	1,496	1,496	0.06	0.02	0.08	1,502
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.13	0.11	1.01	1.55	< 0.005	0.03	0.10	0.12	0.03	0.05	0.06	—	248	248	0.01	< 0.005	0.01	249

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.55	1.31	11.4	14.8	0.02	0.47	2.28	2.75	0.43	1.05	1.48	—	2,608	2,608	0.10	0.03	0.77	2,622
2028	0.97	0.82	7.42	11.6	0.02	0.24	0.04	0.28	0.22	0.01	0.23	—	2,037	2,037	0.08	0.02	0.18	2,046
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.55	1.31	11.4	14.7	0.02	0.47	2.28	2.75	0.43	1.05	1.48	—	2,600	2,600	0.10	0.03	0.02	2,612
2028	1.52	1.28	11.0	14.7	0.02	0.44	2.28	2.72	0.41	1.05	1.46	—	2,596	2,596	0.10	0.03	0.02	2,608
2029	3.27	3.00	12.1	19.0	0.03	0.38	0.25	0.63	0.35	0.06	0.41	—	3,214	3,214	0.12	0.04	0.02	3,228
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.36	0.31	2.67	3.45	0.01	0.11	0.54	0.65	0.10	0.25	0.35	—	611	611	0.02	0.01	0.08	614
2028	0.73	0.62	5.55	8.47	0.01	0.18	0.18	0.36	0.17	0.08	0.25	—	1,496	1,496	0.06	0.02	0.07	1,502
2029	0.21	0.19	0.83	1.31	< 0.005	0.03	0.02	0.04	0.02	< 0.005	0.03	—	222	222	0.01	< 0.005	0.02	223
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.07	0.06	0.49	0.63	< 0.005	0.02	0.10	0.12	0.02	0.05	0.06	—	101	101	< 0.005	< 0.005	0.01	102
2028	0.13	0.11	1.01	1.55	< 0.005	0.03	0.03	0.07	0.03	0.01	0.04	—	248	248	0.01	< 0.005	0.01	249
2029	0.04	0.03	0.15	0.24	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	0.01	—	36.8	36.8	< 0.005	< 0.005	< 0.005	37.0

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.49	1.25	11.2	13.9	0.02	0.46	—	0.46	0.43	—	0.43	—	2,364	2,364	0.10	0.02	—	2,372
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.49	1.25	11.2	13.9	0.02	0.46	—	0.46	0.43	—	0.43	—	2,364	2,364	0.10	0.02	—	2,372
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.29	2.64	3.27	0.01	0.11	—	0.11	0.10	—	0.10	—	555	555	0.02	< 0.005	—	557
Dust From Material Movement	—	—	—	—	—	—	0.49	0.49	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.48	0.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	91.9	91.9	< 0.005	< 0.005	—	92.2

Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	193	193	< 0.005	0.01	0.67	196
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.7	50.7	< 0.005	0.01	0.10	53.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.74	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	185	185	< 0.005	0.01	0.02	187
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.7	50.7	< 0.005	0.01	< 0.005	53.1
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	43.7	43.7	< 0.005	< 0.005	0.07	44.3
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.9	11.9	< 0.005	< 0.005	0.01	12.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.23	7.23	< 0.005	< 0.005	0.01	7.33
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.97	1.97	< 0.005	< 0.005	< 0.005	2.07

3.3. Grading (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.46	1.23	10.9	14.0	0.02	0.44	—	0.44	0.41	—	0.41	—	2,365	2,365	0.10	0.02	—	2,373
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.73	0.93	< 0.005	0.03	—	0.03	0.03	—	0.03	—	157	157	0.01	< 0.005	—	158
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.17	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	26.1	26.1	< 0.005	< 0.005	—	26.1

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.70	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	181	181	< 0.005	0.01	0.02	184
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.4	49.4	< 0.005	0.01	< 0.005	51.8
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.02	12.3
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.28	3.28	< 0.005	< 0.005	< 0.005	3.45
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.04
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.54	0.54	< 0.005	< 0.005	< 0.005	0.57

3.5. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.81	7.37	11.4	0.02	0.24	—	0.24	0.22	—	0.22	—	1,969	1,969	0.08	0.02	—	1,975
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.81	7.37	11.4	0.02	0.24	—	0.24	0.22	—	0.22	—	1,969	1,969	0.08	0.02	—	1,975
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.52	4.79	7.41	0.01	0.15	—	0.15	0.14	—	0.14	—	1,279	1,279	0.05	0.01	—	1,283
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.10	0.87	1.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	212	212	0.01	< 0.005	—	212
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	33.3	33.3	< 0.005	< 0.005	0.11	33.8
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.4	35.4	< 0.005	0.01	0.07	37.0
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.9	31.9	< 0.005	< 0.005	< 0.005	32.3
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.4	35.4	< 0.005	0.01	< 0.005	36.9
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.9	20.9	< 0.005	< 0.005	0.03	21.1
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.0	23.0	< 0.005	< 0.005	0.02	24.0
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.45	3.45	< 0.005	< 0.005	< 0.005	3.50
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.81	3.81	< 0.005	< 0.005	< 0.005	3.98
Hauling	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	0.00

3.7. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.94	0.78	7.12	11.4	0.02	0.22	—	0.22	0.20	—	0.20	—	1,968	1,968	0.08	0.02	—	1,975
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.53	0.85	< 0.005	0.02	—	0.02	0.01	—	0.01	—	146	146	0.01	< 0.005	—	147
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.2	24.2	< 0.005	< 0.005	—	24.3
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.3	31.3	< 0.005	< 0.005	< 0.005	31.7
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	< 0.005	0.01	< 0.005	36.0
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.35	2.35	< 0.005	< 0.005	< 0.005	2.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.56	2.56	< 0.005	< 0.005	< 0.005	2.68
Hauling	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.44
Hauling	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	0.00

3.9. Paving (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.48	4.09	5.69	0.01	0.15	—	0.15	0.14	—	0.14	—	862	862	0.03	0.01	—	865
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.25	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	52.0	52.0	< 0.005	< 0.005	—	52.2
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.60	8.60	< 0.005	< 0.005	—	8.63
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.65	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	178	178	< 0.005	0.01	0.01	180
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.8	10.8	< 0.005	< 0.005	0.01	11.0
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.79	1.79	< 0.005	< 0.005	< 0.005	1.81
Vendor	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	0.00
Hauling	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	0.00

3.11. Architectural Coating (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	1.57	1.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.07
Architectural Coatings	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.33	1.33	< 0.005	< 0.005	—	1.34
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.26	6.26	< 0.005	< 0.005	< 0.005	6.34
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.39
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	9/3/2027	2/3/2028	5.00	110	—
Building Construction	Building Construction	2/4/2028	2/7/2029	5.00	264	—
Paving	Paving	1/9/2029	2/7/2029	5.00	22.0	—
Architectural Coating	Architectural Coating	1/9/2029	2/7/2029	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	7.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	2.00	7.00	36.0	0.38

Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.76	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	2.64	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	1.22	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.53	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	11,166	3,722	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	670	—	82.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Supermarket	0.00	0%
High Turnover (Sit Down Restaurant)	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	532	0.03	< 0.005
2028	0.00	532	0.03	< 0.005
2029	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Grading anticipated to take five months, building construction to take one year. Paving and architectural coating presumed to take place concurrently in the final month of building construction.
Construction: Off-Road Equipment	Equipment mix representative of a 3-5 acre project site, per CalEEMod User Guide Page G-9.

Phase 3.2 - Offloading Facility Construction - 2 Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phase 3.2 - Offloading Facility Construction - 2
Construction Start Date	9/3/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	2.20
Location	34.239903, -119.262728
County	Ventura
City	Ventura
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3415
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	—
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	3.45	1000sqft	0.08	3,450	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.47	2.19	12.4	19.1	0.03	0.47	2.33	2.79	0.43	1.06	1.49	—	3,193	3,193	0.12	0.06	1.09	3,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.56	1.31	11.6	14.7	0.02	0.47	2.33	2.79	0.43	1.06	1.49	—	2,757	2,757	0.10	0.06	0.03	2,777
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	0.38	3.02	4.68	0.01	0.10	0.14	0.22	0.09	0.07	0.13	—	808	808	0.03	0.01	0.04	811
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.07	0.55	0.85	< 0.005	0.02	0.03	0.04	0.02	0.01	0.02	—	134	134	0.01	< 0.005	0.01	134

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.56	1.31	11.6	14.8	0.02	0.47	2.33	2.79	0.43	1.06	1.49	—	2,766	2,766	0.10	0.06	1.09	2,787

2028	2.47	2.19	12.4	19.1	0.03	0.41	0.22	0.63	0.38	0.05	0.43	—	3,193	3,193	0.12	0.03	0.71	3,207
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.56	1.31	11.6	14.7	0.02	0.47	2.33	2.79	0.43	1.06	1.49	—	2,757	2,757	0.10	0.06	0.03	2,777
2028	0.97	0.81	7.39	11.5	0.02	0.24	0.02	0.26	0.22	0.01	0.22	—	2,003	2,003	0.08	0.02	< 0.005	2,010
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.27	0.22	2.03	2.87	< 0.005	0.07	0.14	0.22	0.07	0.07	0.13	—	511	511	0.02	0.01	0.04	514
2028	0.45	0.38	3.02	4.68	0.01	0.10	0.02	0.12	0.09	< 0.005	0.09	—	808	808	0.03	0.01	0.03	811
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.05	0.04	0.37	0.52	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	—	84.6	84.6	< 0.005	< 0.005	0.01	85.1
2028	0.08	0.07	0.55	0.85	< 0.005	0.02	< 0.005	0.02	0.02	< 0.005	0.02	—	134	134	0.01	< 0.005	0.01	134

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.49	1.25	11.2	13.9	0.02	0.46	—	0.46	0.43	—	0.43	—	2,364	2,364	0.10	0.02	—	2,372
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—

Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.49	1.25	11.2	13.9	0.02	0.46	—	0.46	0.43	—	0.43	—	2,364	2,364	0.10	0.02	—	2,372
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.68	0.84	< 0.005	0.03	—	0.03	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.15	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	23.6	23.6	< 0.005	< 0.005	—	23.7
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	193	193	< 0.005	0.01	0.67	196
Vendor	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	0.00
Hauling	0.01	< 0.005	0.26	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	208	208	0.01	0.03	0.43	218
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.74	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	185	185	< 0.005	0.01	0.02	187
Vendor	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	0.00
Hauling	0.01	< 0.005	0.27	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	208	208	0.01	0.03	0.01	218
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.02	11.4
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.86	1.86	< 0.005	< 0.005	< 0.005	1.88
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.08	2.08	< 0.005	< 0.005	< 0.005	2.18

3.3. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00	0.84	7.71	11.4	0.02	0.27	—	0.27	0.24	—	0.24	—	1,968	1,968	0.08	0.02	—	1,975
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.33	1.96	< 0.005	0.05	—	0.05	0.04	—	0.04	—	339	339	0.01	< 0.005	—	340
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.36	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.1	56.1	< 0.005	< 0.005	—	56.3
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.8	17.8	< 0.005	< 0.005	< 0.005	18.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	16.8	16.8	< 0.005	< 0.005	< 0.005	17.6
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.09	3.09	< 0.005	< 0.005	< 0.005	3.14
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.89	2.89	< 0.005	< 0.005	< 0.005	3.03
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.52
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.48	0.48	< 0.005	< 0.005	< 0.005	0.50
Hauling	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	0.00

3.5. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.81	7.37	11.4	0.02	0.24	—	0.24	0.22	—	0.22	—	1,969	1,969	0.08	0.02	—	1,975
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.81	7.37	11.4	0.02	0.24	—	0.24	0.22	—	0.22	—	1,969	1,969	0.08	0.02	—	1,975
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.35	0.30	2.71	4.19	0.01	0.09	—	0.09	0.08	—	0.08	—	724	724	0.03	0.01	—	727
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.49	0.77	< 0.005	0.02	—	0.02	0.01	—	0.01	—	120	120	< 0.005	< 0.005	—	120
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.3	18.3	< 0.005	< 0.005	0.06	18.6
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.4	16.4	< 0.005	< 0.005	0.03	17.1
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.5	17.5	< 0.005	< 0.005	< 0.005	17.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.4	16.4	< 0.005	< 0.005	< 0.005	17.1
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.49	6.49	< 0.005	< 0.005	0.01	6.58
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.03	6.03	< 0.005	< 0.005	0.01	6.30
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.09
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.04

Hauling	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	0.00

3.7. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.49	4.17	5.69	0.01	0.16	—	0.16	0.15	—	0.15	—	862	862	0.03	0.01	—	865
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.25	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	52.0	52.0	< 0.005	< 0.005	—	52.2
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.61	8.61	< 0.005	< 0.005	—	8.64
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.77	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.60	192
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.02	11.2
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.82	1.82	< 0.005	< 0.005	< 0.005	1.85
Vendor	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	0.00
Hauling	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	0.00

3.9. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.73	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.08
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.33	1.33	< 0.005	< 0.005	—	1.34
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.66	3.66	< 0.005	< 0.005	0.01	3.72
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.22
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	9/3/2027	10/4/2027	5.00	22.0	—
Building Construction	Building Construction	10/5/2027	7/6/2028	5.00	198	—
Paving	Paving	6/7/2028	7/6/2028	5.00	22.0	—
Architectural Coating	Architectural Coating	6/7/2028	7/6/2028	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	7.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	2.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	3.14	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	1.45	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	0.57	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.29	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	5,175	1,725	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	550	—	82.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	532	0.03	< 0.005
2028	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Grading anticipated to take one month, building construction to take over nine months. Paving and architectural coating presumed to take place concurrently in the final month of building construction.
Construction: Off-Road Equipment	Equipment mix representative of a 3-5 acre project site, per CalEEMod User Guide Page G-9.
Construction: Dust From Material Movement	Import of 550 cubic yards of soil during the grading phase

Phase 4 - Demo of PoH Offloading Facility Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phase 4 - Demo of PoH Offloading Facility
Construction Start Date	7/7/2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	2.20
Location	34.239903, -119.262728
County	Ventura
City	Ventura
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3415
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	—
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	5.50	1000sqft	0.13	5,500	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.53	0.45	3.90	6.07	0.01	0.11	0.15	0.26	0.10	0.03	0.13	—	994	994	0.04	0.01	0.43	1,000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.53	0.45	3.90	6.02	0.01	0.11	0.15	0.26	0.10	0.03	0.13	—	988	988	0.04	0.01	0.01	994
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	0.16	1.42	2.25	< 0.005	0.04	0.06	0.09	0.03	0.01	0.05	—	371	371	0.01	0.01	0.07	373
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.03	0.26	0.41	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	61.4	61.4	< 0.005	< 0.005	0.01	61.7

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.53	0.45	3.90	6.07	0.01	0.11	0.15	0.26	0.10	0.03	0.13	—	994	994	0.04	0.01	0.43	1,000

2029	0.52	0.44	3.78	6.03	0.01	0.10	0.15	0.25	0.09	0.03	0.12	—	991	991	0.04	0.01	0.39	997
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.53	0.45	3.90	6.02	0.01	0.11	0.15	0.26	0.10	0.03	0.13	—	988	988	0.04	0.01	0.01	994
2029	0.52	0.43	3.79	5.98	0.01	0.10	0.15	0.25	0.09	0.03	0.12	—	986	986	0.04	0.01	0.01	991
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.18	0.16	1.36	2.10	< 0.005	0.04	0.05	0.09	0.03	0.01	0.05	—	345	345	0.01	< 0.005	0.07	346
2029	0.19	0.16	1.42	2.25	< 0.005	0.04	0.06	0.09	0.03	0.01	0.05	—	371	371	0.01	0.01	0.06	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.03	0.03	0.25	0.38	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	57.1	57.1	< 0.005	< 0.005	0.01	57.4
2029	0.04	0.03	0.26	0.41	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	61.4	61.4	< 0.005	< 0.005	0.01	61.7

3. Construction Emissions Details

3.1. Demolition (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.41	3.84	5.55	0.01	0.11	—	0.11	0.10	—	0.10	—	852	852	0.03	0.01	—	855
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.41	3.84	5.55	0.01	0.11	—	0.11	0.10	—	0.10	—	852	852	0.03	0.01	—	855
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.34	1.93	< 0.005	0.04	—	0.04	0.03	—	0.03	—	297	297	0.01	< 0.005	—	298
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	49.1	49.1	< 0.005	< 0.005	—	49.3
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.52	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	126	126	< 0.005	< 0.005	0.40	128
Vendor	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	0.00

Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.7	15.7	< 0.005	< 0.005	0.03	16.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.47	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	121	121	< 0.005	< 0.005	0.01	122
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.7	15.7	< 0.005	< 0.005	< 0.005	16.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.16	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.4	42.4	< 0.005	< 0.005	0.06	43.0
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.46	5.46	< 0.005	< 0.005	< 0.005	5.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.02	7.02	< 0.005	< 0.005	0.01	7.11
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.90	0.90	< 0.005	< 0.005	< 0.005	0.95

3.3. Demolition (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48	0.40	3.73	5.54	0.01	0.10	—	0.10	0.09	—	0.09	—	852	852	0.03	0.01	—	854
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48	0.40	3.73	5.54	0.01	0.10	—	0.10	0.09	—	0.09	—	852	852	0.03	0.01	—	854
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.40	2.08	< 0.005	0.04	—	0.04	0.03	—	0.03	—	320	320	0.01	< 0.005	—	321
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.26	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.0	53.0	< 0.005	< 0.005	—	53.2
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.48	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	124	124	< 0.005	< 0.005	0.36	126
Vendor	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	0.00

Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	0.03	16.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.43	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	119	119	< 0.005	< 0.005	0.01	120
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	< 0.005	16.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.16	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	44.9	44.9	< 0.005	< 0.005	0.06	45.6
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.73	5.73	< 0.005	< 0.005	< 0.005	6.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.44	7.44	< 0.005	< 0.005	0.01	7.54
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.95	0.95	< 0.005	< 0.005	< 0.005	0.99

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	7/7/2028	7/11/2029	5.00	264	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.24	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,500	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00	532	0.03	< 0.005
2029	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Demolition only proposed for this phase. Demolition proposed to take 12 months to complete.

Operations at Ventura Harbor Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Operations at Ventura Harbor
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	2.20
Location	34.240115, -119.263338
County	Ventura
City	Ventura
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3415
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	—
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Supermarket	4.90	1000sqft	0.11	4,900	0.00	—	—	—
High Turnover (Sit Down Restaurant)	1.34	1000sqft	0.03	1,344	0.00	—	—	—

Unrefrigerated Warehouse-No Rail	3.45	1000sqft	0.08	3,450	0.00	—	—	—
Unrefrigerated Warehouse-No Rail	3.36	1000sqft	0.08	3,360	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.32	4.91	3.94	37.4	0.10	0.07	9.49	9.56	0.07	2.41	2.47	31.9	10,380	10,412	3.60	0.41	1,049	11,672
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.18	4.77	4.38	35.8	0.09	0.07	9.49	9.56	0.07	2.41	2.47	31.9	10,038	10,070	3.63	0.43	1,019	11,309
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.43	3.23	2.19	18.0	0.04	0.04	4.20	4.24	0.04	1.07	1.10	31.9	4,797	4,828	3.45	0.22	1,024	6,004
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.59	0.40	3.28	0.01	0.01	0.77	0.77	0.01	0.19	0.20	5.28	794	799	0.57	0.04	170	994

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.91	4.52	3.84	36.7	0.10	0.06	9.49	9.55	0.06	2.41	2.47	—	9,889	9,889	0.36	0.39	30.7	10,045
Area	0.40	0.39	< 0.005	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.33	2.33	< 0.005	< 0.005	—	2.34
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	463	463	0.03	< 0.005	—	465
Water	—	—	—	—	—	—	—	—	—	—	—	4.96	25.7	30.6	0.51	0.01	—	47.0
Waste	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.69	0.00	—	94.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,018	1,018
Total	5.32	4.91	3.94	37.4	0.10	0.07	9.49	9.56	0.07	2.41	2.47	31.9	10,380	10,412	3.60	0.41	1,049	11,672
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.87	4.47	4.28	35.7	0.09	0.06	9.49	9.55	0.06	2.41	2.47	—	9,550	9,550	0.39	0.42	0.80	9,685
Area	0.30	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	463	463	0.03	< 0.005	—	465
Water	—	—	—	—	—	—	—	—	—	—	—	4.96	25.7	30.6	0.51	0.01	—	47.0
Waste	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.69	0.00	—	94.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,018	1,018
Total	5.18	4.77	4.38	35.8	0.09	0.07	9.49	9.56	0.07	2.41	2.47	31.9	10,038	10,070	3.63	0.43	1,019	11,309
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.07	2.88	2.08	17.6	0.04	0.03	4.20	4.23	0.03	1.07	1.09	—	4,307	4,307	0.21	0.20	5.87	4,379
Area	0.35	0.34	< 0.005	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.15	1.15	< 0.005	< 0.005	—	1.16
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	463	463	0.03	< 0.005	—	465
Water	—	—	—	—	—	—	—	—	—	—	—	4.96	25.7	30.6	0.51	0.01	—	47.0
Waste	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.69	0.00	—	94.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,018	1,018
Total	3.43	3.23	2.19	18.0	0.04	0.04	4.20	4.24	0.04	1.07	1.10	31.9	4,797	4,828	3.45	0.22	1,024	6,004
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.56	0.53	0.38	3.21	0.01	0.01	0.77	0.77	0.01	0.19	0.20	—	713	713	0.04	0.03	0.97	725
Area	0.06	0.06	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.19	0.19	< 0.005	< 0.005	—	0.19
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	76.6	76.6	0.01	< 0.005	—	76.9
Water	—	—	—	—	—	—	—	—	—	—	—	0.82	4.25	5.07	0.08	< 0.005	—	7.79
Waste	—	—	—	—	—	—	—	—	—	—	—	4.46	0.00	4.46	0.45	0.00	—	15.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	169	169
Total	0.63	0.59	0.40	3.28	0.01	0.01	0.77	0.77	0.01	0.19	0.20	5.28	794	799	0.57	0.04	170	994

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	3.98	3.66	3.11	29.8	0.08	0.05	7.69	7.74	0.05	1.95	2.00	—	8,015	8,015	0.29	0.32	24.9	8,141
High Turnover (Sit Down Restaurant)	0.88	0.81	0.69	6.55	0.02	0.01	1.69	1.70	0.01	0.43	0.44	—	1,765	1,765	0.06	0.07	5.48	1,793
Unrefrigerated Warehouse-No Rail	0.05	0.05	0.04	0.41	< 0.005	< 0.005	0.10	0.11	< 0.005	0.03	0.03	—	109	109	< 0.005	< 0.005	0.34	111
Total	4.91	4.52	3.84	36.7	0.10	0.06	9.49	9.55	0.06	2.41	2.47	—	9,889	9,889	0.36	0.39	30.7	10,045

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	3.95	3.62	3.47	29.0	0.08	0.05	7.69	7.74	0.05	1.95	2.00	—	7,740	7,740	0.32	0.34	0.64	7,849
High Turnover (Sit Down Restaurant)	0.87	0.80	0.76	6.38	0.02	0.01	1.69	1.70	0.01	0.43	0.44	—	1,705	1,705	0.07	0.07	0.14	1,729
Unrefrigerated Warehouse-No Rail	0.05	0.05	0.05	0.39	< 0.005	< 0.005	0.10	0.11	< 0.005	0.03	0.03	—	105	105	< 0.005	< 0.005	0.01	107
Total	4.87	4.47	4.28	35.7	0.09	0.06	9.49	9.55	0.06	2.41	2.47	—	9,550	9,550	0.39	0.42	0.80	9,685
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	0.44	0.41	0.30	2.51	0.01	< 0.005	0.60	0.60	< 0.005	0.15	0.16	—	559	559	0.03	0.03	0.76	568
High Turnover (Sit Down Restaurant)	0.11	0.11	0.07	0.63	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	137	137	0.01	0.01	0.19	139
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.01	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	17.5	17.5	< 0.005	< 0.005	0.02	17.8
Total	0.56	0.53	0.38	3.21	0.01	0.01	0.77	0.77	0.01	0.19	0.20	—	713	713	0.04	0.03	0.97	725

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	232	232	0.01	< 0.005	—	233
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	67.0	67.0	< 0.005	< 0.005	—	67.3
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	< 0.005	< 0.005	—	46.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	345	345	0.02	< 0.005	—	346
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	232	232	0.01	< 0.005	—	233
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	67.0	67.0	< 0.005	< 0.005	—	67.3
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	< 0.005	< 0.005	—	46.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	345	345	0.02	< 0.005	—	346
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	38.4	38.4	< 0.005	< 0.005	—	38.5

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	11.1	11.1	< 0.005	< 0.005	—	11.1
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	7.66	7.66	< 0.005	< 0.005	—	7.69
Total	—	—	—	—	—	—	—	—	—	—	—	—	57.1	57.1	< 0.005	< 0.005	—	57.3

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.1	26.1	< 0.005	< 0.005	—	26.2
High Turnover (Sit Down Restaurant)	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	49.5	49.5	< 0.005	< 0.005	—	49.7
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	42.3	42.3	< 0.005	< 0.005	—	42.4
Total	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.1	26.1	< 0.005	< 0.005	—	26.2

High Turnover (Sit Down Restaurant)	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	49.5	49.5	< 0.005	< 0.005	—	49.7
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	42.3	42.3	< 0.005	< 0.005	—	42.4
Total	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.33	4.33	< 0.005	< 0.005	—	4.34
High Turnover (Sit Down Restaurant)	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.20	8.20	< 0.005	< 0.005	—	8.22
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.00	7.00	< 0.005	< 0.005	—	7.02
Total	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.5	19.5	< 0.005	< 0.005	—	19.6

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Product	0.28	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.09	< 0.005	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.33	2.33	< 0.005	< 0.005	—	2.34
Total	0.40	0.39	< 0.005	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.33	2.33	< 0.005	< 0.005	—	2.34
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.28	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.30	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.19	0.19	< 0.005	< 0.005	—	0.19
Total	0.06	0.06	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.19	0.19	< 0.005	< 0.005	—	0.19

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	1.16	5.99	7.15	0.12	< 0.005	—	11.0
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.78	4.05	4.83	0.08	< 0.005	—	7.42
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.02	15.6	18.6	0.31	0.01	—	28.6
Total	—	—	—	—	—	—	—	—	—	—	—	4.96	25.7	30.6	0.51	0.01	—	47.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	1.16	5.99	7.15	0.12	< 0.005	—	11.0
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.78	4.05	4.83	0.08	< 0.005	—	7.42
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.02	15.6	18.6	0.31	0.01	—	28.6

Total	—	—	—	—	—	—	—	—	—	—	—	4.96	25.7	30.6	0.51	0.01	—	47.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	0.19	0.99	1.18	0.02	< 0.005	—	1.82
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.13	0.67	0.80	0.01	< 0.005	—	1.23
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.50	2.59	3.09	0.05	< 0.005	—	4.74
Total	—	—	—	—	—	—	—	—	—	—	—	0.82	4.25	5.07	0.08	< 0.005	—	7.79

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	14.9	0.00	14.9	1.49	0.00	—	52.1
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	8.62	0.00	8.62	0.86	0.00	—	30.2

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.45	0.00	3.45	0.34	0.00	—	12.1
Total	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.69	0.00	—	94.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	14.9	0.00	14.9	1.49	0.00	—	52.1
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	8.62	0.00	8.62	0.86	0.00	—	30.2
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.45	0.00	3.45	0.34	0.00	—	12.1
Total	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.69	0.00	—	94.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	2.47	0.00	2.47	0.25	0.00	—	8.63
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	1.43	0.00	1.43	0.14	0.00	—	4.99
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.57	0.00	0.57	0.06	0.00	—	2.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.46	0.00	4.46	0.45	0.00	—	15.6

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,016	1,016
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,018	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,016	1,016
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,018	1,018
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	168	168
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	169	169

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Supermarket	513	870	816	221,771	2,311	10,883	10,199	1,701,882
High Turnover (Sit Down Restaurant)	151	165	192	57,882	707	2,057	2,397	416,447
Unrefrigerated Warehouse-No Rail	6.00	6.00	6.00	2,191	75.1	75.1	75.1	27,397
Unrefrigerated Warehouse-No Rail	5.85	5.85	5.85	2,134	73.1	73.1	73.1	26,683

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	19,581	6,527	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Supermarket	158,980	532	0.0330	0.0040	81,518
High Turnover (Sit Down Restaurant)	45,987	532	0.0330	0.0040	154,504
Unrefrigerated Warehouse-No Rail	16,090	532	0.0330	0.0040	66,818
Unrefrigerated Warehouse-No Rail	15,670	532	0.0330	0.0040	65,075

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Supermarket	604,014	0.00
High Turnover (Sit Down Restaurant)	407,949	0.00
Unrefrigerated Warehouse-No Rail	797,813	0.00
Unrefrigerated Warehouse-No Rail	777,000	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Supermarket	27.6	—
High Turnover (Sit Down Restaurant)	16.0	—
Unrefrigerated Warehouse-No Rail	3.24	—

Unrefrigerated Warehouse-No Rail	3.16	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Supermarket	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Supermarket	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trips represented in this analysis do not conflict with the VMT Analysis prepared by CR Associates. The VMT Analysis only considers the employee trips from the relocation from Port of Hueneme to the Ventura Harbor. This is a conservative estimate that does not include existing trips.

APPENDIX B

Biological Resources Technical Report

Biological Resources Technical Report

Port of Hueneme's Squid Relocation to Ventura Port District's Commercial Fishing Modernization Project
City of Ventura, Ventura County, California

Prepared For: Oxnard Harbor District & Ventura Port District

Report Date: April 2025

BARGAS
Environmental Consulting

Sacramento Valley ▰ Inland Empire ▰ Greater Los Angeles ▰ San Diego ▰ San Francisco Bay Area
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Table of Contents

List of Tables

List of Figures

Appendices

A. Floral & Faunal Compendia

B. Site Photographs

1 Introduction

Bargas Environmental Consulting, LLC (Bargas) prepared this Biological Resources Technical Report (hereafter, Report) on behalf of Impact Sciences (Applicant), for the Ventura Port District for the Ventura Harbor Commercial Fishing Relocation Project (Project). This Report documents the existing biological conditions at the proposed Ventura Harbor site (Project site) and evaluates potential impacts to sensitive biological resources with respect to federal, state, and local policies. This Report provides the biological resources technical documentation necessary for Project review under the California Environmental Quality Act (CEQA) by the Lead Agency, which is the Oxnard Harbor District/Port of Hueneme ("Port").

1.1 Project Location

The Project site is located approximately 1.5 miles south of the US Route 101, immediately west of East Harbor Boulevard, at 1449 Spinnaker Drive in the City of Ventura (City), within Ventura County (County), California. The site is located within Assessor's Parcel Numbers (APNs) 080-024-024-000, -026-000, -028-000, -031-000, 138-005-015-000, and -011-000, in Section 23, Township 2 North, Range 27 West, on the U.S. Geological Survey (USGS) 7.5-minute Oxnard quadrangle map (**Figure 1**).

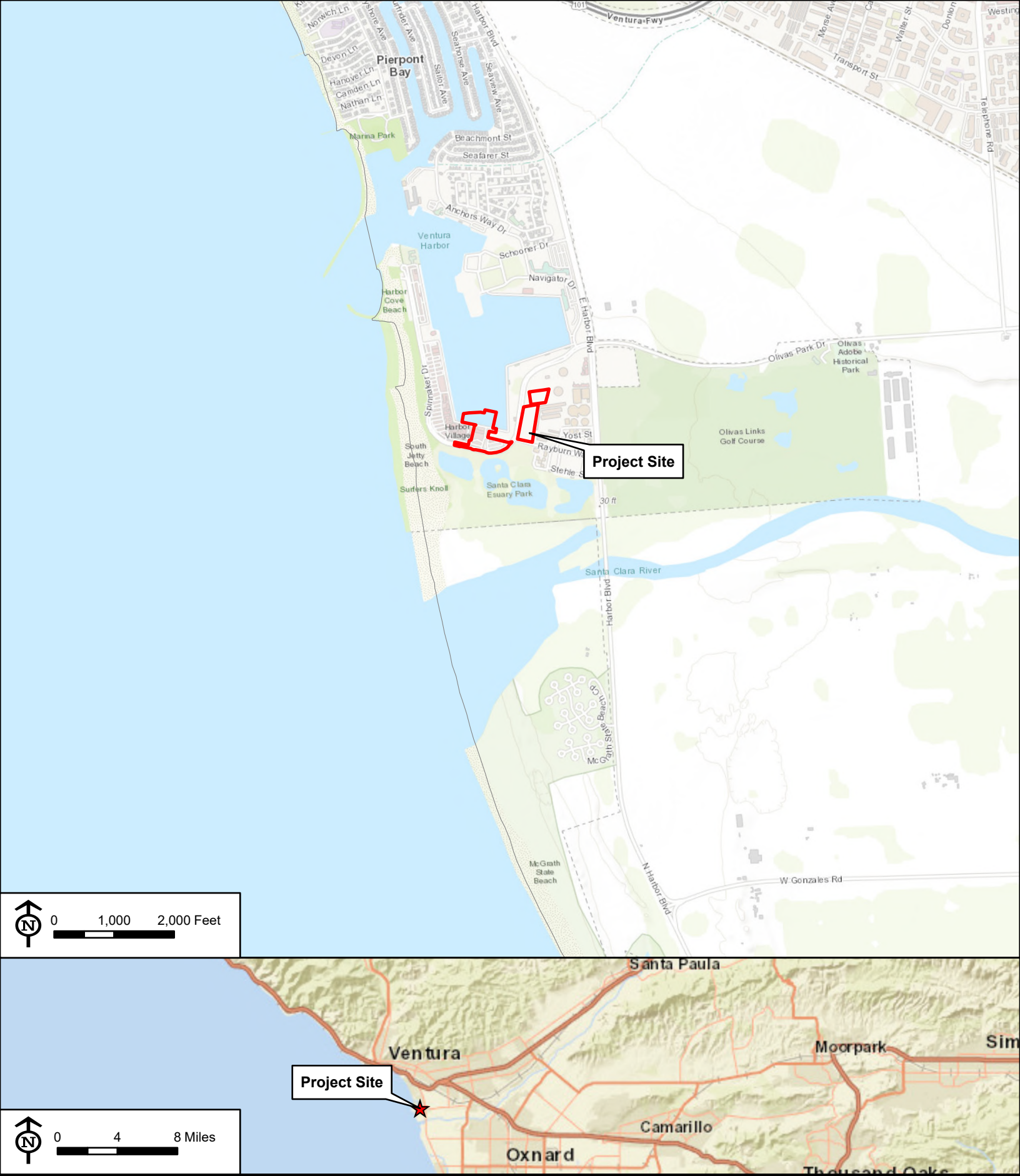
1.2 Project Description

The Project proposes the relocation of the Port of Hueneme's current commercial fishing operation to the Ventura Harbor, and subsequent expansion of the Port of Ventura's offloading facilities. This report focuses on the potential impacts to biological resources associated with Phase I (i.e., Ventura Harbor site) of the proposed Project, which generally includes the expansion and modernization of commercial offloading facilities at Ventura Harbor to accommodate both the Port of Hueneme's relocated offloading operations as well as Ventura Harbor's existing offloading operations. The existing offloading facility at Ventura Harbor (harbor) will be expanded to handle more trucks due to increased commercial fish and squid (*Doryteuthis opalescens*) offloading. This expansion includes a reconstructed 7,444 square foot commercial fish building, which involves demolishing and rebuilding the existing structure. Additionally, there will be two new loading facilities, one measuring 3,450 square feet and the other 3,360 square feet, along with three new stick water tanks and associated ancillary piping. All proposed Project activities would occur on the landside portion of the Project site (i.e., not in the open water of the harbor). Furthermore, to facilitate truck access at the site, two landscaping islands in the parking lot will be removed, resulting in the removal of a total of 14 ornamental landscaping trees.

1.3 Definitions

The following definitions for areas of the Project will be followed throughout this Report:

- **Project site:** The approximate 11.94-acre site; consisting of 6.50 acres proposed for facility expansion, the surrounding areas, and two (2) Project staging areas.
- **Study Area:** The Project site and a surrounding 150-foot radius (**Figure 2**).
- **Regional Area:** The Project site and a surrounding 5-mile radius.



Source: ESRI ArcGIS Online Basemap - World Topographic Map, World Street Map

Public Land Survey System (PLSS):
San Bernardino, Township 2N, Range 23W, Section 23

USGS Quad(s): Oxnard (n.d.)

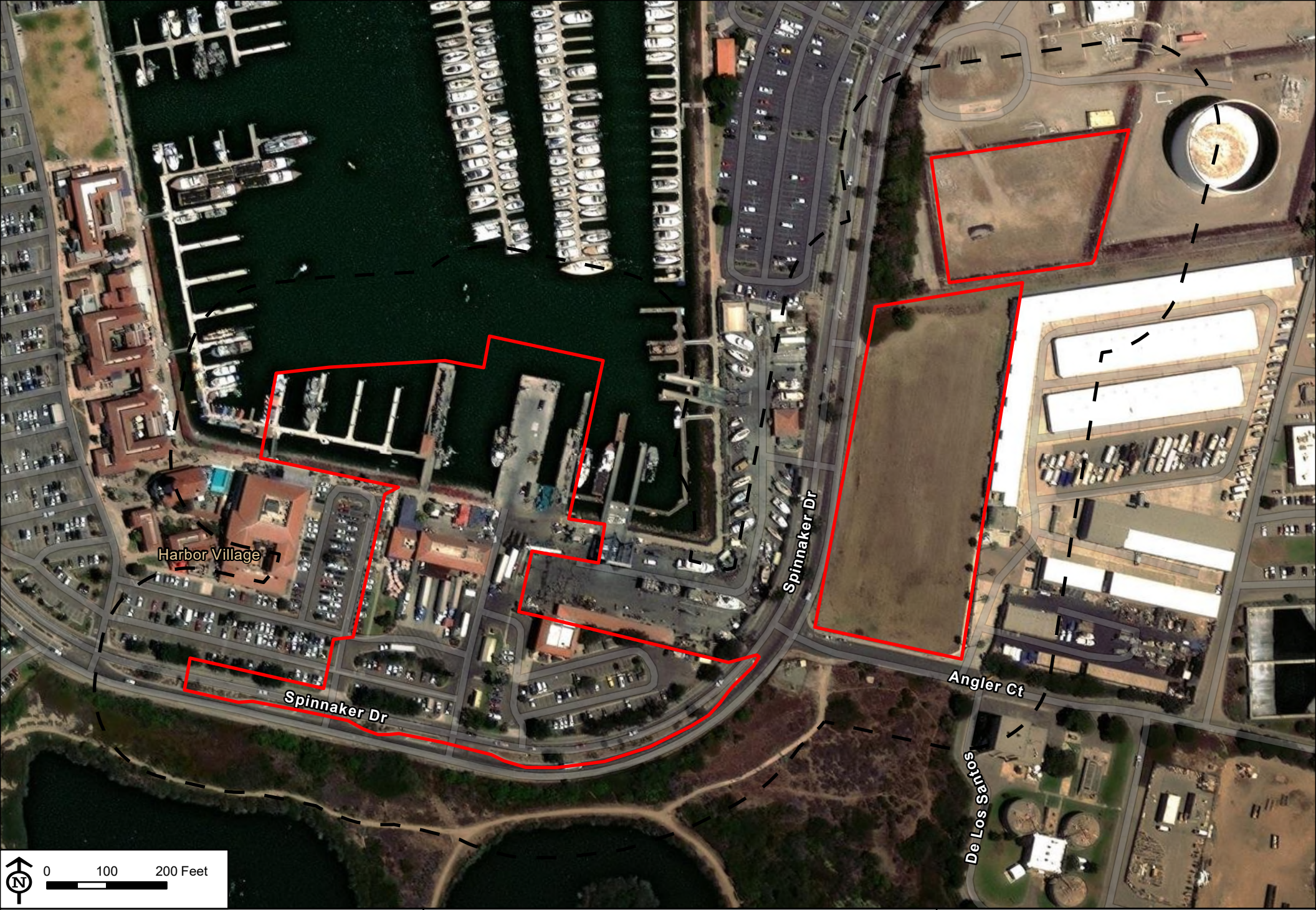
Project Site Coordinates: 119°15'42"W 34°14'18"N

Figure 1 Project Site and Vicinity

Port of Hueneme's Squid Relocation to Ventura Port District's Commercial Fishing Modernization Project

BARGAS Environmental Consulting

Map Created: 2/26/2025, Map Revised: N/A, Bargas Project Number: 1897-23



Source: ESRI ArcGIS Online Basemap - World Imagery Hybrid (08/2022)

BARGAS Environmental Consulting

Project Site

Study Area

Figure 2 Study Area

Port of Hueneme's Squid Relocation to Ventura Port District's Commercial Fishing Modernization Project

Map Created: 2/26/2025, Map Revised: N/A, Bargas Project Number: 1897-23

2 Regulatory Setting

The Project could be subject to regulatory review by federal, State, and local agencies. Pertinent biological resources-related laws and other regulations that could apply to the Project are summarized below.

2.1 Federal

2.1.1 Endangered Species Act

The Federal Endangered Species Act (FESA) is the federal government's primary regulation protecting rare and declining plant and wildlife species. FESA is jointly implemented by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS, addressing marine resources only). FESA protects species using the following status designations:

- A federally **endangered** species is a species of invertebrate, plant, or wildlife formally listed by the USFWS under FESA as facing extinction throughout all or a significant portion of its geographic range.
- A federally **threatened** species is one formally listed by the USFWS as likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
- A **proposed** threatened or endangered species is one officially proposed by the USFWS for addition to the federal threatened or endangered species list.
- **Candidate** species are "plants and animals for which the USFWS has sufficient information on their biological status and threats to propose them as endangered or threatened under FESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities" (USFWS 2017).

"Take" of a federally endangered or threatened species or its habitat is prohibited by federal law without a special permit. The term "take," under FESA, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Harm" is defined by the USFWS to encompass "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR § 17.3).

Section 10(a)(1)(B) of the FESA allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the USFWS and a Section 10(a) incidental take permit has been issued to an applicant. For federal projects (including those involving federal funding), Section 7 of the FESA allows for consultation between the affected agency and the USFWS to determine what measures may be necessary to compensate for the incidental take of a listed species. A federal project is any project that is proposed by a federal agency or is at least partially funded or authorized by a federal agency. Additionally, if the listed species or its habitat occurs in a portion of the project subject to federal jurisdiction (such as waters of the United States by the United States Army Corps of Engineers [USACE] under Section 404 CWA), then consultation under Section 7 of the FESA is usually permissible and may be required.

FESA also requires the USFWS to consider whether there are areas of habitat essential to conservation for each listed species. Critical habitat designations protect these areas, including habitat that is currently unoccupied but may be essential to the recovery of a species. An area is designated as critical habitat after the USFWS publishes a proposed federal regulation in the Federal Register and then receives and considers public comments on the proposal. The final boundaries of critical habitat are officially designated when published in the Federal Register.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) is a federal law governing the taking, killing, possession, transportation, and importation of various birds, their eggs, parts, and nests. The take of any number of a bird species listed as protected on any one of four treaty lists is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over utilization. The MBTA also prohibits taking, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, certain bird species, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11).

2.1.3 Clean Water Act of the United States

The regulatory setting with regards to aquatic resources is framed by current enabling legislation and case law. Under Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and fill materials into "waters of the U.S." Jurisdictional waters of the U.S. include "territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide; tributaries; lakes and ponds, and impoundments of jurisdictional waters; and adjacent wetlands" (33 CFR § 328.3). Certain waters of the U.S. are considered "special aquatic sites" because they are generally recognized as having ecological value; such sites include sanctuaries and refuges, wetlands, mudflats, vegetated shallows, and riffle and pool complexes (40 CFR § 230). Special aquatic sites are defined by the U.S. Environmental Protection Agency (USEPA) and may be afforded additional consideration in a project's permit process.

Recent federal rulemaking has modified how the USACE defines certain waters of the U.S. As a result of the Supreme Court's May 25, 2023 decision in Sackett v. Environmental Protection Agency, the USACE is now interpreting waters of the U.S. consistent with the Supreme Court's decision, which ruled that the federal Clean Water Act extends to only those "wetlands with a continuous surface connection to bodies that are 'waters of the United States' in their own right," so that they are "indistinguishable" from those waters. Projects that place fill in jurisdictional wetlands and non-wetland waters of the U.S. require a permit from the USACE under Section 404 of the CWA. The USACE issues nationwide permits for specific types of activities with minimal individual or cumulative adverse environmental impacts. Individual permits are required for large and/or complex projects or projects that exceed the impact threshold for nationwide permits.

2.1.4 Rivers and Harbors Act

The USACE also regulates navigable waters under Section 10 of the Rivers and Harbors Act of 1899. Navigable waters are defined as "… those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce" (33 CFR § 322.2). Section 10 applies to all projects, regardless of entity, that propose activities potentially obstructing any navigable water of the U.S.

2.1.5 Magnuson-Stevens Fishery Conservation and Management Act

In 1976, the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) enacted the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). The MSFCMA manages fisheries at a federal level, with a goal of maintaining long term economic and biological sustainability. MSFCMA's objectives are to prevent overfishing, protect fish habitats, rebuild overfished stocks, and maintain a long-term seafood supply. Although the initial purpose of the MSFCMA was to manage fishing within 200 nautical miles of the United States, the Sustainable Fisheries Act of 1996 and the Magnuson-Stevens Act Reauthorization Act of 2007 have refined and additional mandates to the MSFCMA. Under the MSFCMA, fisheries are required to develop federal fisheries management plans that identify and define Essential Fish Habitat (EFH) and designate Habitat Areas of Particular Concern (HAPC).

2.1.6 Coastal Zone Management Act of the United States

NOAA enacted the Coastal Zone Management Act (CZMA) of 1972 to protect the United States' coastal resources amid continuing land development. The CZMA establishes coastal zones which are defined as the area between the state's outer jurisdictional limit, usually 1,000 yards from high tide, to a maximum of five miles inland. Within the Coastal Zone, states are responsible for developing Coastal Zone Management Plans (CZMP), designed to enhance collaboration between federal, state, and local agencies.

2.2 State of California

2.2.1 California Environmental Quality Act

CEQA is a public disclosure process codified by California Public Resources Code 21000, requiring decision-makers to analyze the environmental impacts of a project, disclose those impacts to the public, and mitigate environmental impacts to the extent feasible. The state or local lead agency provides an evaluation of project effects on biological resources; determining the significance of those effects is guided by Appendix G of the CEQA Guidelines (AEP 2025). These evaluations must consider direct effects on a biological resource within the project site itself, indirect effects on adjacent resources, and cumulative effects within a larger area or region. Effects can be locally important but not significant according to CEQA if they would not substantially affect the regional population of the biological resource.

2.2.2 California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the take of state-listed threatened and endangered species. Under CESA, state agencies are required to consult with CDFW when preparing CEQA documents. Under CESA, CDFW is responsible for maintaining a list of rare, threatened, and endangered species designated under state law (California Fish and Game Code [CFGC] § 2070-2079). CDFW also maintains lists of candidate species, SSC, and fully-protected species. Candidate species are those taxa that have been formally recognized by the CDFW and are under review for addition to the state threatened and endangered list. Species of special concern are those taxa that are considered sensitive, and this list serves as a "watch list." The CDFW can authorize "take" if an incidental take permit is issued by the Secretary of the Interior or of Commerce in compliance with FESA, or if the director of the CDFW issues a permit under Section 2080 in those cases where it is demonstrated that the impacts are minimized and mitigated.

2.2.3 California Fish and Game Code

Section 1600 et seq. – Lake and Streambed Alteration Agreement. Section 1600 provides provisions for protecting riparian systems, including the bed, banks, and riparian habitat of lakes, seasonal and perennial streams, and rivers. This section requires an applicant to notify CDFW and obtain a Lake and Streambed Alteration Agreement (LSAA) if their project would divert or obstruct the natural flow of any river, stream, or lake; change the bed, channel, or bank of any river, stream, or lake; use material from any river, stream, or lake; or deposit or dispose of material into any river, stream, or lake.

Section 2050 et seq. – California Endangered Species Act. CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA is administered by CDFW and prohibits the take of any species that the California Fish and Game Commission determines to be a threatened or endangered species. CESA also mandates that "state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered species or threatened species" if reasonable and prudent alternatives are available that would avoid jeopardy. CDFW administers CESA and authorizes take through CFGC 2081 Incidental Take Permits or through Section 2080.1. (For species also listed under FESA, consistency determination is with a USFWS Biological Opinion).

Section 3511 – Fully Protected Species. The legislature of the State of California designated certain species as "fully protected" prior to the creation of CESA. Section 3511 states that "fully protected" birds or parts thereof may not be taken or possessed at any time. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, mammals, amphibians and reptiles, and birds. Most fully protected species have since been listed as threatened or endangered under CESA and/or FESA.

Sections 3503, 3503.5, 3505, 3513 — Birds. These CFGC sections protect all birds, including birds of prey and all nongame birds, as well as their eggs and nests, for species that are not already listed as fully protected and that occur naturally within the state. Sections 3503 and 3503.5 of the CFGC stipulate the following regarding eggs and nests: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by CFGC or any regulation made pursuant thereto; and Section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by CFGC or any regulation adopted pursuant thereto. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

2.2.4 California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code § 1900-1913) affords the CDFW Commission the authority to designate native plants as endangered or rare and protect them from "take." The California Native Plant Society (CNPS) maintains a list of sensitive plant species native to California and assigns each a rank in the California Rare Plant Rank (CRPR) system:

- 1A: Plants presumed extirpated in California and either rare or extinct elsewhere;
- 1B: Plants are rare, threatened, or endangered in California and elsewhere;

- 2A: Plants presumed extirpated in California, but more common elsewhere;
- 2B: Plant are rare, threatened, or endangered in California, but more common elsewhere;
- 3: Plants about which more information is needed (on a review list);
- 4: Plants of limited distribution (on a watch list).

This CRPR system is further defined as described below:

- 0.1: Seriously threatened in California, meaning there is a high degree (over 80% of occurrences) and immediacy of threat;
- 0.2: Moderately threatened in California, meaning there is a moderate degree (20-80% of occurrences) and immediacy of threat;
- 0.3: Not very threatened in California, meaning there is a low degree (less than 20% of occurrences) and immediacy of threat.

Plants with a CRPR of 1 and 2 meet the standards for state listing under the CEQA Guidelines (14 CCR § 15380). While CNPS considers plants with a CRPR 1 or 2 as highly sensitive, CNPS recommends that plants of a CRPR of 3 and 4 also be evaluated for consideration under CEQA.

2.2.5 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 established the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB), collectively referred to as the Water Boards, and authorized them to provide oversight for water rights and water quality. It uses the National Pollutant Discharge Elimination System (NPDES) to monitor point source discharges into the waters of the State to prevent water quality degradation. It also protects wetlands, surface waters, and groundwater from both point and nonpoint sources of pollution.

2.2.6 State Wetland Definition and Procedures

The SWRCB adopted the State Wetland Definition and Procedures for Discharges or Fill Material to Waters of the State in 2019 and completed revisions to this set of procedures in 2021 (SWRCB 2021).

1. Wetland definition:

An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration such saturation is sufficient to cause anaerobic conditions in the upper substrate; and 3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

2. Framework for determining waters of the state:

Waters of the state are broadly defined by the Porter-Cologne Water Quality Control Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The 2021 procedures expand upon this definition to clearly include natural wetlands, wetlands created by modification of a surface water of the state, and artificial wetlands meeting specific criteria.

The criteria for an artificial wetland include wetlands created for agency-approved compensatory mitigation; those identified in a water quality control plan; and those greater than or equal to one acre in size unless they

are constructed and maintained for wastewater treatment or disposal, sediment settling, stormwater permitting program pollutant or runoff management, surface water treatment, agricultural crop irrigation or stock watering, fire suppression, industrial processing and cooling, active surface mining, log storage, recycled water management, maximizing groundwater recharge, or rice paddies.

3. Wetland delineation procedures:

USACE-defined procedures for aquatic resources delineation assess the presence or absence of hydrophytic vegetation, hydric soils, and wetland hydrology are required by the SWRCB to delineate waters of the state, with one modification being that "the lack of vegetation does not preclude the determination of such an area that meets the definition of wetland."

2.2.7 California Coastal Act

In 1976, the California Coastal Commission (CCC) enacted the California Coastal Act (CCA), requiring local governments located within the California Coastal Zone to protect coastal resources and implement state policies through the creation of local land use plans. The CCA is California's coastal zone management program under the CZMA, discussed above. The CCA establishes the CCC as the authority over California's coastal zone. It defines environmentally sensitive habitat areas as regions where plant or animal life, or their habitats, are rare or especially valuable due to their unique nature or role in the ecosystem, and are easily disturbed or degraded by human activities and developments. Compliance with the CCA for development projects in the coastal zone is ensured through the issuance of a Coastal Development Permit (CDP). In most incorporated areas within the coastal zone, local governments regulate compliance through certified Local Coastal Programs (LCPs), issuing CDPs and implementing their approved LCPs to manage developments. The CCC is one of three designated coastal management agencies that administer the federal Coastal Zone Management Act in California, under the State's federally-approved Coastal Management Program.

2.3 Local Policies and Ordinances

2.3.1 City of Ventura Comprehensive General Plan

The Project site is located within the Coastal Zone and is therefore subject to the most recent governing document certified by the CCC, in this case, the City's 1989 Comprehensive General Plan (Comprehensive Plan). This plan outlines goals, objectives, and policies designed to guide long-term decision-making regarding land use, development, and natural resource preservation, and as well as implement City of Ventura's LCP policies. Projects within the Coastal Zone must adhere to the Plan's policies and land use designations (City of Ventura 1989).

2.3.2 Municipal Code Chapter 20.150 Street Trees

The City maintains one ordinance pertaining to the maintenance and removal of street trees, or trees along public streets. Tree trimming and removal in public parkways by the parks manager is approved in cases of severe physical decline or when the tree poses a risk to public safety or travel. In other cases, however, this ordinance requires that an applicant obtain a permit from the parks manager prior to planting, trimming, or removing trees or shrubs on any city street. Should permitted tree removal occur, within 40 days of issuance, the permittee must plant a replacement tree of the kind and size specified in the permit (City of San Buenaventura 2024)

2.3.3 Municipal Code Chapter 24.310 Coastal Protection Overlay Zone

The Project site is located within the City's coastal zone area, established by Municipal Code (MC) Section 4.238.010, titled Overlay Zone Regulations. Within this area, a zoning clearance, development permit (i.e., CDP) shall be required for all development (MC 24.310.020). Exceptions to the CDP permit requirement include instances where activities follow for the primary permitted uses outlined those commercial and industrial zones (City of San Buenaventura 2024).

2.3.4 Municipal Code Chapter 24.320 Floodplain Overlay Zone

The Project site falls within the Floodplain Overlay Zone . This section regulates land use in areas where impacts may not match existing zoning district boundaries due to their topography, location, or other special circumstances; As a result, additional regulations are required. Within the floodplain overlay zone, certain use types not expressly permitted by Section 24.320.080 or 24.320.100 shall be prohibited. Additionally, all construction activities and development within the Floodplain Overlay Zone shall comply with floodplain regulations (City of San Buenaventura 2024).

2.3.5 Municipal Code Chapter 24.238 Harbor Commercial Zone

The City has adopted a zoning ordinance to facilitate and safe appropriate uses of land compatible with the Comprehensive Plan. MC 24.238.010 designates the Project site as Harbor Commercial (HC); within this zone, the Project is subject to the regulations and prescribed use types (e.g. parking, commercial boating and fishing, harbor sales and services, fish receiving, and other harbor-related activities) associated with this zone (City of San Buenaventura 2024).

3 Methods

This Report is informed by data from a comprehensive desktop analysis of the literature, maps, and numerous resource databases pertaining to biological resources, as well as a field survey at the Project Site. Additional details on the methods employed are described below.

3.1 Desktop Review

Prior to conducting the field survey, Bargas conducted an initial review of literature and data sources to characterize biological setting of the site and to compile records of sensitive biological resources known to occur in the Regional Area.

3.1.1 Biological Setting

The biological setting includes terrain, hydrology, soils, land uses, and other features that support or inhibit biological resources in an area. To better understand the biological setting of the Project site, the following resources were reviewed in detail:

- U.S. Department of Agriculture National Resource Conservation Service *Web Soil Survey* (NRCS 2025);
- Google Earth Pro (Google 2025);
- San Francisco Estuary Institute (SFEI) *California Aquatic Resources Inventory* (CARI), 2025;

3.1.2 Special-Status Species & Habitats

It is important to identify a well-defined list of habitats and species that could reasonably be expected to occur on the Project site in order to analyze potential Project effects on such species and their habitats. The following describes how the list of potentially occurring special-status biological resources was assembled.

3.1.2.1 Data Sources

Records of species and habitat occurrences were queried from the following resources:

- USFWS's *Information for Planning and Consultation* portal (IPaC) (USFWS 2025), for a list of federally listed species and designated critical habitat recommended for impact analysis consideration, based on an upload of the Project site limits.
- California Department of Fish and Wildlife's *California Natural Diversity Database* (CNDDB) (CDFW 2025) for special-status species records within the Regional Area
- CNPS's *Inventory of Rare and Endangered Plants* (CNPS 2025), for a list of special-status plant species occurrences within the USGS 7.5-minute quadrangle that overlaps the Regional Study Area.

3.1.2.2 Special-Status Designations Considered

A variety of agencies and respected non-profit organizations assess the conservation status of plant and wildlife species; however, not all are applicable to this Report. The following are primary special-status designations considered when determining special-status species to be discussed in this Report:

- **Federal Status:** Species listed as Endangered (FE) or Threatened (FT), as well as species Proposed as Endangered (FPE), Proposed as Threatened (FPT), Proposed for Delisting (FPD), and Candidates (FC) for listing under the FESA.
- **California Status:** Species listed as Endangered (CE) or Threatened (CT), as well as species that are Candidates for Endangered (CCE) status, Threatened (CCT) status, or Delisting (CCD) under the California Endangered Species Act. Also considered are species listed as Fully Protected (FP) and Species of Special Concern (SSC).
- **CNPS Status:** All California Rare Plant Ranks (CRPR) maintained by the CNPS *Inventory of Rare and Endangered Plants*.

3.2 Field Survey

A Bargas biologist, William Ramirez-Watson, conducted a general biological survey of the site on February 27, 2025. Weather was warm for the season, with temperatures ranging from 53 degrees Fahrenheit (°F) to 80°F, sunny skies, no precipitation, and 20 miles per hour (mph) winds. The survey occurred within the typical nesting bird season (February 15 - August 31) and within the blooming period for one of the special-status plant species [(Coulter's saltbush (*Atriplex coulteri*)] identified in the literature and database reviews.

The site was surveyed on foot, walking meandering transects throughout the area proposed for expansion and accessible parts of the staging areas. Inaccessible areas and adjacent areas within the Study Area were scanned with binoculars. During the survey, Esri Field Maps connected to an EOS Arrow Global Positioning System (GPS) was used to map vegetation communities and landcover types and record locations of special-status plant and wildlife species, if present. The site was evaluated for the presence of habitat components that could support

special-status wildlife and plant species identified during the literature and database review. Habitats considered to be potential habitat for a special-status species were further assessed for suitability. Mr. Ramirez-Watson mapped vegetation communities and land covers on-site, which generally followed classifications and descriptions from the Manual of California Vegetation (MCV): Second Edition (CNPS 2025b) and California Wildlife Habitat Relationships System (CWHR) (CDFW 2021) as applicable.

The survey was comprehensive but did not equate to protocol–level surveys or focused surveys defined by the USFWS, CDFW, CNPS, or other local resource protection agencies. A formal jurisdictional delineation was not conducted; however, aquatic features observed on-site were preliminarily mapped. Seasonal and temporal factors may have influenced species detection during the survey. Because the survey was conducted in February, it may have missed the seasonal detection period to identify potentially occurring migrant birds, insect species, or annual plant species outside of their blooming period. In addition, the surveys were performed during the day and were limited to diurnal wildlife species. Throughout the survey, plant and animal species detected on-site were recorded (**Appendix A**). Photographs were also taken throughout the Project site to capture the existing conditions **(Appendix B)**.

3.3 Occurrence Potential

Following the desktop review, field survey, and habitat analyses, Bargas assessed the potential for the occurrence of special-status species at the Project site. Biological conditions (e.g. vegetation communities, wildlife habitats, disturbances, etc.) as well as the habitat and life cycle requirements of special-status species identified for analysis in the desktop review were considered. "Recent" occurrences are defined as observed within the past 30 years. Based on these considerations, species were assigned to the following categories:

- **Present:** Species was detected during recent biological survey conducted for the Project by Bargas.
- **High:** Species with recorded occurrence(s) within or near the Study Area and suitable habitat (e.g., appropriate elevation, hydrology, soils, cover, habitat type, food resources, and etc.) exists in the Project site; however, the species was not observed during biological surveys for the Project.
- **Moderate:** Species with no known recorded occurrence(s) within or near the Study Area and the species was not observed during biological surveys for the Project. However, habitat within the Project site is suitable to support the species.
- **Not Expected:** Species with no known recorded occurrence(s) within or near the Study Area. No suitable habitat present on-site; or habitat is within the Project site, but habitat on-site is substantially disturbed, fragmented, or is small in extent such that is very unlikely to support the species.
- **Presumed Absent**: There are no records of the species occurring within or near the Study Area, the Project site is not within the known geographic range for the species, and/or suitable habitat (e.g., soil, vegetation, elevational range, etc.) was not found during the field surveys conducted for the Project. The species is detectable year-round and would have been detected during surveys, but was not detected, or focused surveys were conducted for the species and the species was not detected.

The potential for bird species were further distinguished into those that may: 1) nest within or near the Project site; 2) forage within or near the Project site; and/or 3) occur on or near the Project site only as transients during migratory flights or other dispersal events.

3.4 Taxonomy and Nomenclature

Naming standards used in this Report are those commonly recognized by the scientific community. Some common names used in this report may not be the same as those used by the underlying data sources for species records.

- **Birds** – Cornell Lab of Ornithology, All About Birds (2024).
- **Mammals** – The reference list in the CDFW's California Wildlife Habitats Relationships Database (CDFW 2024, with updates based on the American Society of Mammologists Mammal Diversity Database (ASM 2024).
- **Reptiles and Amphibians** – The technical website californiaherps.com (Nafis 2024).
- **Fish** – Common and Scientific Names of Fishes from the United States, Canada, and Mexico, 7th edition (AFS 2023).
- **Invertebrates** – The reference list in the CDFW's CWHR Database (CDFW 2025) for special-status invertebrates.
- **Plants** – The Jepson eFlora database (Jepson Flora Project 2024).

4 Results

This section discusses in detail what is known about biological resources in the Project site based on information from a field survey, 32 CNDDB records, five (5) CNPS records, and thirteen (13) IPaC records from in the Regional Area. The information, analyses, and discussions in the following sections primarily focus on the Project site; additional areas within the buffer surrounding the Project site (i.e., Study Area and Regional Area) were reviewed for adjacency context only, are generally summarized herein, but are not discussed in detail.

4.1 Existing Conditions and Land Uses

When viewing the Project site and surrounding Regional Area in its entirety on aerial photography, the primary land use of the region is semi-rural, containing suburban areas associated with the City of Ventura, rural agricultural areas southeast of the Project site, and open water of the Pacific Ocean west of the site.

The Project site is mostly developed as part of the existing Ventura Harbor facilities, but does support disturbed annual grassland in one proposed alternative staging area. Elevations on-site range from approximately 0 feet above mean sea level (AMSL) in the northwest portion of the site and up to 15 feet AMSL in the southern portion of the site. The land uses in the surrounding area are primarily developed, containing parking lots, boat storage facilities, and commercial buildings associated with Harbor Village Shopping Center. Open space containing the man-made Ventura Settling Ponds are located immediately south of Spinnaker Drive (Birding Hotspots). The site is a part of the Santa Clara watershed, Hydrologic Unit Code-8 18070102.

4.2 Soils

One soil series, Fill Land, is mapped on-site (NRCS 2025). A map of soils within the Project site is shown in **Figure 3.**

4.3 Vegetation Communities and Land Cover Types

Seven (7) vegetation communities and land cover types were identified and mapped by Bargas within the Project site, including Annual Grassland, Barren, Developed, Disturbed, Ice plant mats, Urban, and Open water. The acreages of these vegetation and land cover types on-site are summarized below in **Table 1.** The spatial distribution of vegetation and land cover mapping of the site is presented on **Figure 4.** Photographs showing representative vegetation conditions during the field survey are attached as an Appendix to this Report**.**

Table 1. On-Site Vegetation Community and Land Cover Summary

Vegetation Community or Land Cover Type	Acres On-Site
Annual Grassland	2.20
Barren	0.66
Developed	4.59
Disturbed	1.71
Ice plant mats	0.09
Open Water (Marine)	1.93
Urban	0.76
TOTAL	**11.94**

Source: ESRI ArcGIS Online Basemap - World Imagery (08/2022)

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Project Site

Study Area

SSURGO Soils

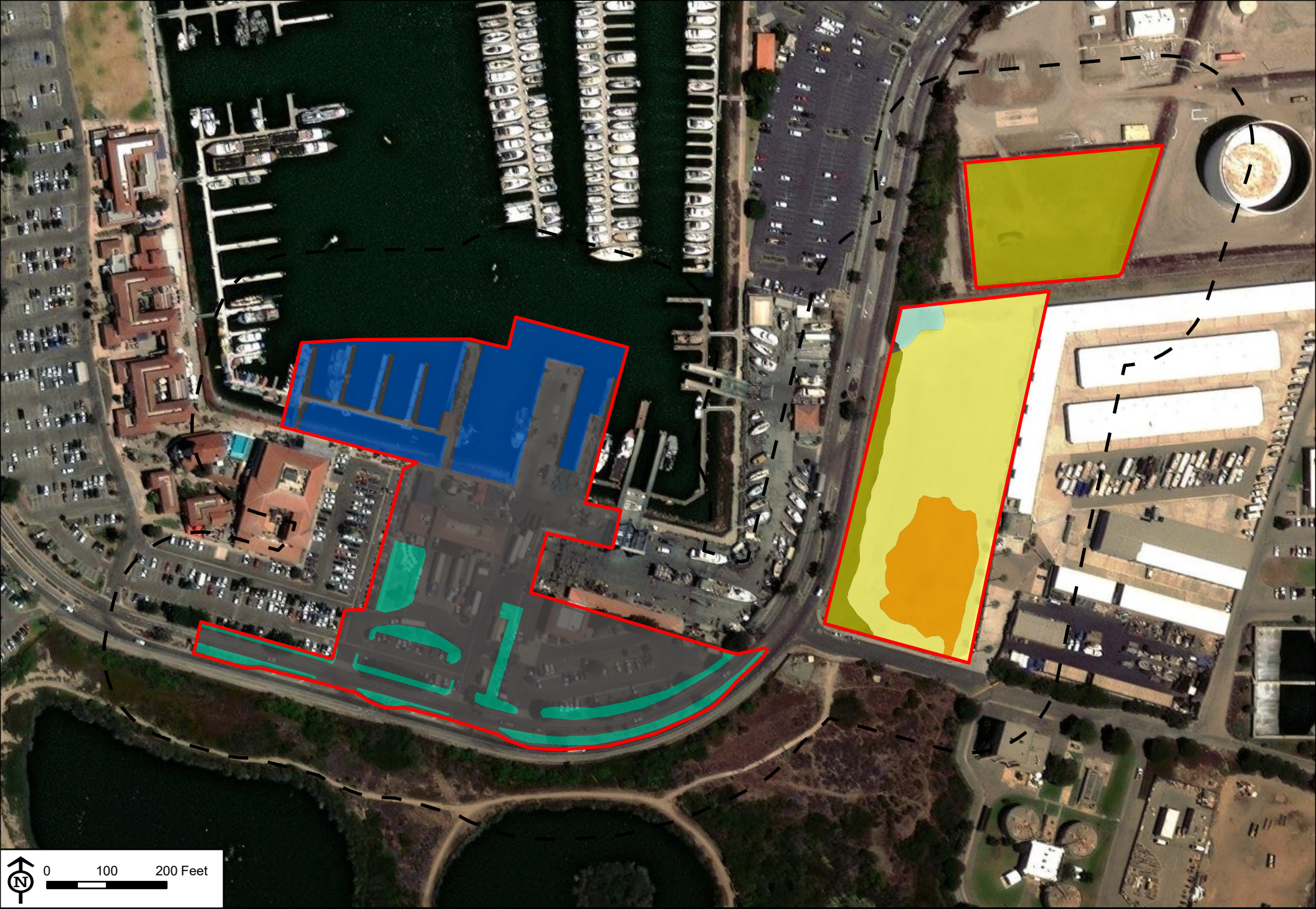
Fd - Fill Land

W - Water

Figure 3 Soils Map

Port of Hueneme's Squid Relocation to Ventura Port District's Commercial Fishing Modernization Project

Map Created: 2/26/2025, Map Revised: N/A, Bargas Project Number: 1897-23



Source: ESRI ArcGIS Online Basemap - World Imagery Hybrid (08/2022)

BARGAS Environmental Consulting

Figure 6 Vegetation and Land Cover
Port of Hueneme's Squid Relocation to Ventura Port District's Commercial Fishing Modernization Project

Map Created: 3/6/2025, Map Revised: N/A, Bargas Project Number: 1897-23

4.3.1 Annual Grassland

Annual grassland, classified by MCV as wild oats and annual brome grasslands (*Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance), was identified in the Project site. Per MCV, this community is found in foothills, rangelands, and wastelands in a broad range of topographic settings, and is characterized by a dominance or co-dominance of wild oat and brome species, with other non-native species in the herbaceous layer (CNPS 2025b). During the field survey, annual grassland was observed in an open field in the southeastern portion of the Project site, proposed as a staging area for the Project. The dominant plant species observed on-site in this area include slender wild oat (*Avena barbata*), common barley (*Hordeum vulgare)*, Bermuda grass (*Cynodon dactylon*), and castor bean (*Ricinus communis*).

4.3.2 Barren

The Project site contains one area classified as Barren. According to CWHR, this land cover type reflects a lack of vegetation, containing less than 2% total vegetation cover by herbaceous and non-wildland species, and less than 10% cover by trees and shrubs (CDFW 1988). On-site, one barren area was observed amidst the annual grassland, present in the open field in the southeastern portion of the Project site. Although this community primarily lacked vegetation, a few species observed include nettleleaf goosefoot (*Chenopodiastrum murale*) and telegraph weed (*Heterotheca grandiflora*).

4.3.3 Developed

Developed land is present in the southwestern portion of the Project site. This landcover type is comprised of parking lots, paved roadways, loading docks, and multiple buildings associated with Harbor Village. One paved roadway, Spinnaker Drive, bisects the Project Site. The Harbor Village buildings include Andria's seafood restaurant, Ventura Fisherman's Market, office buildings, and the existing Ventura Harbor fish and squid offloading facilities.

4.3.4 Disturbed

On-site, disturbed areas are present, which are characterized by weedy, non-native vegetation, and evidence of frequent anthropogenic disturbance. This area was observed along Spinnaker Drive, as well as an open area in the northeastern portion of the Project site also proposed as a Project staging area. Historic aerial imagery of the northeastern portion of the Project site going back to 2002 suggests that this area is disturbed, due to the evident tire tracks throughout the open area (Google Earth 2025). The heavy disturbance associated with the vehicle and foot traffic likely allows non-native species to dominate this community, outcompeting annual grassland species and native vegetation. The species observed on-site in the roadside area includes shortpod mustard (*Hirschfeldia incana*), telegraph weed, and common mallow (*Malva parviflora*).

4.3.5 Ice Plant Mats

The Project site supports multiple areas dominated by Ice plant mats (*Mesembryanthemum spp. - Carpobrotus spp. Herbaceous Semi-Natural Alliance*). As defined by MCV, this community is found in coastal bluffs, sand dunes, and disturbed lands, and is characterized by the dominance of ice plant taxa in the herbaceous layer (CNPS 2025b). Ice plant mats were observed during the field survey in the northwestern corner of an open field in the southeastern portion of the Project site. The dominant plant species observed on-site in this area is ice plant (*Carpobrotus edulis*).

4.3.6 Open Water (Marine)

Open water, classified as Marine by CWHR, is present on the Project site. This community is characterized by four zones; the subtidal and pelagic zone which are associated with depths sufficient to support canopy-forming kelps and greater up to the twelve (12)-mile contiguous zone, and the intertidal and shore zone which include marine habitats between exposed low-tide areas and the upper limit of terrestrial vegetation (CDFW 1988). During the field survey, the Project site was observed to overlap the subtidal and intertidal zone, containing open water, as well as the shore zone, which was primarily comprised of un-vegetated rocky area along the water's edge of the harbor. To account for tidal flux, this area was entirely mapped as open water. Although primarily un-vegetated, one terrestrial plant species, bougainvillea (*Bougainvillea spectabilis*), was observed growing within the rocky shoreline.

4.3.7 Urban

The Project site contains landscaped areas, classified as Urban by CWHR. CWHR defines this community as lawns, street strips, shade trees, groves, and other urban vegetation. Vegetation cover, structure, and spacing is dependent on species-specific design considerations, and the level of urbanization in the surrounding areas (CDFW 1988). Urban landscaped areas were observed on-site in the southwestern portion of the Project site, throughout the developed areas in Harbor Village. The landscaped areas provide a separation between roadways and parking lots, and contribute to the general aesthetics of the area. The species observed on-site in this area include cypress (*Cupressus spp.*), natal plum (*Carissa macrocarpa*), Mexican fan palm (*Washingtonia robusta*), foxtail agave (*Agave attenuate*).

4.3.8 Sensitive Vegetation Communities

Sensitive vegetation communities reflect lands that support unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants. The field survey found that the Project site does not support any vegetation community alliances identified by CDFW and CNPS as a sensitive community (CNPS 2025a).

4.4 Aquatic Resources

Open water was observed on-site within Ventura Harbor that outlets into the Pacific Ocean approximately 0.60 miles northwest of the Project site. This saltwater feature spans approximately 1.93 acres in the northwestern portion of the Project site and functionally contributes to the recreational and commercial activities in Ventura Harbor. The open water of the Harbor has been developed to meet the needs of Ventura Harbor, containing dams, bridges, revetments, and other infrastructure, as well as supporting vessel traffic. This feature experiences frequent human disturbance on a day-to-day basis.

The open water in Ventura Harbor experiences tidal influence; thus, is considered a navigable water of the U.S. subject to Section 10 of the Rivers and Harbors Act. As a water of the U.S., this feature is also potentially jurisdictional, subject to USACE regulation pursuant to Section 404 of the CWA. Waters of the U.S. are also considered waters of the State subject to regulation by the Los Angeles Regional Water Quality Control Board (LARWQCB). Additionally, given the location of this aquatic feature in the coastal zone, this open water is subject to regulation by the CCC under the CCA.

4.5 Plants

4.5.1 Plant Diversity

A total 40 plant taxa were detected during the field survey. A list of plants detected during the field survey is provided in **Appendix A**. Areas heavily disturbed by anthropogenic activities such as rural and urban development are expected to have lower floral diversity than areas containing intact natural plant communities.

4.5.2 Special-Status Plants

Special-status plant species have been afforded special-status and/or recognition by the USFWS, CDFW, and CNPS. A species or subspecies is considered sensitive if listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the Federal Endangered Species Act, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations. Additionally, a plant species meets the standards for state listing under the CEQA Guidelines (14 CCR § 15380) and is considered to be sensitive if it is included in the CNPS Inventory of Rare and Endangered Plants with an assigned CRPR of 2 or lower (CNPS 2024). Species with higher, less sensitive, CRPR (i.e., CRPR 3 and 4 species) also may be considered sensitive species by local jurisdictions.

No special-status plant species have been recorded on-site or were observed within the site during the biological survey conducted by Bargas for the Project in 2025. The desktop review found that eight (8) plant taxon with special-status had been documented as occurring within the Regional Area (**Table 2**). Habitat preferences for these species were sourced from the CNPS Inventory of Rare Plants (CNPS 2025a). As reflected below in Table 2, all of these special-status plant taxa from desktop analysis were determined to have no potential to occur on the Project site due to lack of required or preferred suitable habitat components habitat components to support these species. Overall, no special-status plant species were observed within the site during the biological survey conducted by Bargas for the Project in February of 2025 and none are expected to occur at the Project site.

Table 2. Special-Status Plant Species and Potential for Occurrence

Common Name	Scientific Name	Source	Status	Habitat Preferences	Soils On-site	Potential To Occur On-Site
Ventura Marsh milk-vetch	*Astragalus pycnostachyus var. lanosissimus*	CNPS, CNDDB	CRPR 1B.1	This species is known to exist in coastal dunes, coastal scrub, marshes and swamps (edges, coastal salt, and brackish). This species blooms from August through October and is found within elevations ranging from 5 to 115 feet AMSL.	No	**Presumed Absent.** Clay soils, coastal scrub, and swampy areas preferred by this species are not present within the Project site.
Davidson's saltscale	*Atriplex serenana var. davidsonii*	CNPS	CRPR 1B.2	This species is known to exist in coastal bluff scrub and coastal scrub with associated alkaline soils. This species blooms from April through October and is found within elevations ranging from 35 to 655 feet AMSL.	No	**Presumed Absent.** The Project site is located outside of the suitable elevation range for this species.
Salt marsh bird's-beak	*Chloropyron maritimum ssp. maritimum*	CNPS	CRPR 1B.2	This species is known to exist in coastal dunes, marshes and swamps (coastal salt). This species blooms from May	No	**Presumed Absent.** The Project site is located outside of the

Common Name	Scientific Name	Source	Status	Habitat Preferences	Soils On-site	Potential To Occur On-Site
				through October and is found within elevations ranging from 30 to 100 feet AMSL.		suitable elevation range for this species.
Coulter's goldfields	*Lasthenia glabrata ssp. Coulteri*	CNPS, CNDDB	CRPR 1B.1	This species is known to exist in marshes and swamps (coastal salt), playas, and vernal pools. This species blooms from February through June and is found within elevations ranging from 5 to 4,005 feet AMSL.	No	**Presumed Absent.** Marshes and wetland areas preferred by this species are not present within the Project site. This species was not detected during the field survey, conducted during the blooming period for this species.
White rabbit-tobacco	*Pseudognaphalium leucocephalum*	CNPS, CNDDB	CRPR 1B.1	This species is known to exist in chaparral, cismontane woodland, coastal scrub, and riparian woodland with associated gravelly, sandy soils. This species blooms from August through November and is found within elevations ranging from 0 to 6,890 feet AMSL.	No	**Presumed Absent.** The chaparral, woodland, riparian, coastal scrub habitat preferred by this species is not present within the Project site. Additionally, the Project site does not contain gravelly or sandy soils.
Coulter's saltbush	*Atriplex coulteri*	CNDDB	CRPR 1B.2	This species is known to exist in coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland, sometimes with associated alkaline or clay soils. This species blooms from March through October and is found within elevations ranging from 10 to 1,510 feet AMSL.	No	**Presumed Absent.** Although the Project site contains annual grassland, the Project site is not located within a valley or foothills. Additionally, the Project site does not contain alkaline or clay soils.
California Orcutt Grass	*Orcuttia californica*	IPaC	1B.1	This species is known to exist in vernal pools. This species blooms from April through August and is found within elevations ranging from 50 to 2,165 feet AMSL.	No	**Presumed Absent.** The Project site is located outside of the suitable elevation range for this species.
Spreading Navarretia	*Navarretia fossalis*	IPaC	CRPR 1B.1	This species is known to exist in Chenopod scrub, Marshes and swamps, Playas, Vernal pools. This species blooms from April through June and is found within elevations ranging from 100 to 2,150 feet AMSL.	No	**Presumed Absent.** The Project site is located outside of the suitable elevation range for this species.

4.5.2.1 Taxa Confirmed Present

No special-status plant taxa from desktop analysis were determined to be **Present** in the Project site and none are expected to occur.

4.5.2.2 Taxa With High Potential for Occurrence

No special-status plant taxa from desktop analysis were determined to have **High** potential for occurrence on the Project site and none are expected to occur.

4.5.2.3 Taxa with Moderate Potential for Occurrence

No special-status plant taxa from desktop analysis were determined to have **Moderate** potential for occurrence on the Project site and none are expected to occur.

4.5.2.4 Taxa Not Expected to Occur

No special-status plant taxa from desktop analysis were determined as **Not Expected** to occur in the Project site.

4.5.2.5 Taxa to be Presumed Absent

All eight (8) special-status plant taxa identified from desktop analysis were determined to be **Presumed Absent** from the Project Site. As presented above in **Table 3**, the Project site lacks suitable habitat conditions and appropriate soils to support these species.

4.6 Wildlife

4.6.1 Wildlife Diversity

A total of 28 wildlife taxa were detected during the field survey. Given the semi-urban setting of the site, lack of habitat diversity, and development/disturbance on-site, low diversity of wildlife species is expected. A list of wildlife taxa detected during the field survey is provided in **Appendix A**.

4.6.2 Special-Status Wildlife

Special-status animal species are those that have been afforded special-status recognition by the USFWS and CDFW. A species or subspecies is considered special-status when designated as endangered, threatened, proposed for listing, or as a candidate for listing at the state or federal level. Additional state and local protections can designate species as special-status as well.

No special-status wildlife species have been recorded on-site or were observed within the site during the biological surveys conducted by Bargas for the Project in 2025. The desktop review found that fifteen (15) wildlife taxa with special-status had been documented as occurring within the Regional Study Area. Of these, twelve (12) species were determined to be presumed absent from the Project site due to lack of required habitat and three (3) species were determined to be not expected to occur due to the frequent human disturbance and fragmentation of foraging and nesting/roosting habitat on-site. Habitat preferences are sourced from the CDFW California Wildlife Habitat Relationships database and USFWS Species Search. These fifteen (15) taxa and their occurrence potential within the Project site are summarized in **Table 3**. Overall, no special-status animal species are expected to occur at the Project site.

Table 3. Special-Status Wildlife Species and Potential for Occurrence

Common Name	Scientific Name	Source(s)	Status	Habitat Preferences	Potential to Occur On-Site
California least tern	*Sternula antillarum browni*	CNDDB, IPaC	Federal Endangered, California Endangered	Feeds primarily in shallow estuaries or lagoons where small fish are abundant. Considerable feeding also takes place near shore in the open ocean, especially where lagoons are nearby, or at mouths of bays. Nests in loose colonies in areas relatively free of human or predatory disturbance, on open, sandy or gravelly shores near shallow-water feeding areas in estuaries. Requires unpolluted feeding areas in lagoons and estuaries all year (CWHR 2021).	**Not Expected:** The Project site does contain shoreline and open water within Ventura Harbor; however, this area experiences frequent human disturbance and the marginal gravelly shores are not suitable for nesting. Additionally, the Project site does not support foraging and feeding for this species due to low water quality associated with commercial fishing operations.
Burrowing Owl	*Athene cunicularia*	CNDDB	California Candidate	A yearlong resident of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of Pinyon-Juniper and Ponderosa Pine (*Pinus ponderosa*) habitats. Usually nests in old burrow of ground squirrel (*Otospermophilus beecheyi*), or other small mammals. May dig own burrow in soft soil. Pipes, culverts, and nest boxes used where burrows scarce (CWHR 2021).	**Not Expected.** The Project site contains fragmented, non-contiguous annual grassland adjacent to development that could potentially support this species. However, soil was compacted on-site, and no burrows were detected. Additionally, there are no recent records for this species occurring within or near the Study Area.
Least Bell's vireo	*Vireo bellii pusillus*	CNDDB, IPaC	Federal Endangered, California Endangered	A rare, local, summer resident below about 600 m (2,000 ft) in willows (*Salix spp.*) and other low, dense valley foothill riparian habitat and lower portions of canyons mostly in San Benito and Monterey counties; in coastal southern California from Santa Barbara County south; and along the western edge of the deserts in desert riparian habitat (CWHR 2021).	**Presumed Absent:** The Project site does not contain dense valley foothill riparian habitats or ponded water to support this species. There are no recent records for this species occurring within or near the Study Area.
Santa Ana sucker	*Catostomus santaanae*	CNDDB	Federal Threatened	Occur in the watersheds draining the San Bernardino and San Gabriel Mountains of southern California. Occupy mountain streams and rivers in alluvial floodplains, perennial streams with water ranging in depth from a few inches to several feet and with currents ranging from slight to swift. Perennial flows with suitable water quality and	**Presumed Absent.** This species relies on perennial flows that are not present within the open water on-site. The project site is not located in an alluvial floodplain or in the mountains where this species is generally found. Heavy human disturbance associated with harbor activities would discourage breeding, feeding, and sheltering on-site.

Common Name	Scientific Name	Source(s)	Status	Habitat Preferences	Potential to Occur On-Site
				substrate are needed to support breeding, feeding, and sheltering (USFWS 2017).	
Tidewater goby	*Eucyclogobius newberryi*	CNDDB	Federal Endangered	Tidewater gobies inhabit lagoons, estuaries, marshes and freshwater tributaries. These habitats have shallow, still, but not stagnant, water. These habitats are freshwater or brackish water, a varying mixture of fresh and saltwater, much of the year. Although they may range upstream a short distance into freshwater, and downstream into saltwater with a salinity of 28 parts per thousand, this species is typically found in salinities of less than 12 parts per thousand. When their habitat experiences an influx of salt water, juvenile and adult tidewater gobies often congregate where freshwater enters the lagoon or estuary (USFWS 2025c).	**Presumed Absent.** The Project site does not contain any marshes or freshwater tributaries that would support breeding or foraging for this species. Additionally, the open water present on-site is saltwater and does not contain a freshwater confluence preferred by this species.
Southwestern pond turtle	*Actinemys pallida*	CNDDB, IPaC	Federal Proposed Threatened	Elevation range extends from near sea level to 1,430 meters (4,690 feet). Associated with permanent or nearly permanent water in a wide variety of habitat types. Pond turtles require basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks. Turtles slip from basking sites to underwater retreats at the approach of humans or potential predators. Along large slow-moving streams, eggs are deposited in nests constructed in sandy banks. Hibernation in colder areas is passed underwater in bottom mud (CDFW 2014).	**Presumed Absent.** Although the Project site contains open water, this feature is saltwater and does not support floating basking sites or open mud banks within the harbor required by this species. The Project site does not contain slow-moving streams that could support breeding and nesting for this species.
Crotch's bumble bee	*Bombus crotchii*	CNDDB	California Candidate	Crotch's Bumblebee inhabits open grasslands and scrub habitats, nesting underground. Nests are often underground or in abandoned animal burrows. Bumble bees forage from diverse plants (Hatfield et al. 2015).	**Not Expected**: The Project site contains flowering plants within the annual grassland and landscaped areas that have the potential to support foraging (i.e., nectar collection). However, annual grassland area is unlikely to support nesting for this species due to human disturbance along Spinnaker Road, and a lack of suitable burrows. Crotch's bumble bee may only be

Common Name	Scientific Name	Source(s)	Status	Habitat Preferences	Potential to Occur On-Site
					present as a transient species foraging during the flowering period. There are no recent records for this species occurring within or near the Study Area.
Monarch Butterfly	*Danaus plexippus*	CNDDB, IPaC	Federal Candidate	Milkweed (*Asclepias spp*.) and flowering plants are needed for monarch habitat. Adult monarchs feed on the nectar of many flowers during breeding and migration, but they lay eggs on milkweed plants. For overwintering monarchs, habitat with a specific microclimate is needed for protection from the elements, as well as moderate temperatures to avoid freezing. Monarchs living west of the Rocky Mountains in North America primarily overwinter in California at sites along the Pacific Coast, roosting in eucalyptus (*Eucalyptus sp*.), Monterey pines (*Pinus radiata*) and Monterey cypress (*Cupressus macrocarpa*) trees (USFWS 2025c).	**Presumed Absent.** As a migratory species with flight capability, this species has potential to occur anywhere during movements. The Project site did not contain any milkweed to support foraging monarchs during the time of the survey. Roosting monarchs are also not expected to occur on the Project site due to the lack of larval host plants.
California Condor	*Gymnogyps californianus*	IPaC	Federal Endangered, California Endangered, California Fully Protected	Endangered, permanent resident of the semi-arid, rugged mountain ranges surrounding the southern San Joaquin Valley. Forages over wide areas of open rangelands, roosts on cliffs and in large trees and snags. Occurs mostly between sea-level and 2,700 m (0-9,000 ft), and nests from 610-1,372 m (2,000-6,500 ft) (CWHR 2021).	**Presumed Absent**: The Project site lacks the open rangelands and rugged mountain habitats to support foraging for this species. The Project site is not located within the required elevations to support nesting for this species.
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	IPaC	Federal Endangered, California Endangered	For nesting, the southwestern willow flycatcher requires dense riparian habitats with cottonwood (*Populus spp.*)/willow and tamarisk (*Tamarix spp*.) vegetation and microclimatic conditions that are dictated by the local surroundings. Saturated soils, standing water or nearby streams, pools, or cienegas are a component of nesting habitat that also influences the microclimate and density vegetation component. Habitat not suitable for nesting may be	**Presumed Absent:** The Project site does not contain dense riparian habitats or ponded water to support nesting for this species. Although habitat not suitable for nesting may be used for migration and foraging, heavy human disturbance associated with vehicle activity along Spinnaker Road and activities within Harbor Village would discourage this species from using the Project site for foraging or migration. Additionally, there are no recent records for this species

Common Name	Scientific Name	Source(s)	Status	Habitat Preferences	Potential to Occur On-Site
				used for migration and foraging. Recurrent flooding and a natural hydrograph are important to withstand invading non-native species like tamarisk. The southwestern willow flycatcher is typically found below 8,500 feet of elevation (USFWS 2025a).	occurring within or near the study area.
Yellow-billed Cuckoo	*Coccyzus americanus*	IPaC	Federal Threatened	An uncommon to rare summer resident of valley foothill and desert riparian habitats in scattered locations in California. Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, and which abut on slow-moving watercourses, backwaters, or seeps. Willow almost always a dominant component of the vegetation. Nests typically in sites with at least some willow, dense low-level or understory foliage, high humidity, and wooded foraging spaces in excess of 93 m (300 ft) in width and 10 ha (25 ac) in area (CWHR 2021).	**Presumed Absent**: The Project site does not contain slow moving watercourses or valley foothill and desert riparian habitats with dense foliage to support nesting or foraging for this species. Additionally, there are no recent records for this species occurring within or near the Study Area.
Foothill Yellow-legged Frog	*Rana boylii*	IPaC	Federal Endangered, California Endangered	This species is found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types. Adults often bask on exposed rock surfaces near streams. Egg clusters are attached to gravel or rocks in moving water near stream margins (CWHR 2021).	**Presumed Absent**: The Project site does not contain valley foothill, coastal scrub, chaparral, or riparian habitats to support foraging for this species. Additionally, the Project site does not contain slow-moving streams that could support breeding and basking for this species.
Western Spadefoot	*Spea hammondii*	IPaC	Federal Proposed Threatened	Ranges throughout the Central Valley and adjacent foothills, and is usually quite common where it occurs. Elevations of occurrence extend from near sea level to 4,460 feet AMSL in the southern Sierra foothills. This species occurs primarily in grasslands, but occasional populations also occur in valley-foothill hardwood woodlands. Most of the year is spent in underground burrows up	**Presumed Absent**: The Project site does contain annual grasslands, however, this habitat is of low quality due to frequent human disturbance and is unlikely to support foraging for this species. Additionally, the Project site lacks the required habitat components, such as burrows and pooled water to support breeding and juvenile metamorphoses. There are no recent records for this species

Common Name	Scientific Name	Source(s)	Status	Habitat Preferences	Potential to Occur On-Site
				to 0.9 m (36 in) deep. Some individuals also use mammal burrows. Recently metamorphosed juveniles seek refuge in the immediate vicinities of breeding ponds for up to several days after transformation (CWHR 2021).	occurring within or near the Study Area.
Riverside Fairy Shrimp	*Streptocephalus wootton*	IPaC	Federal Endangered	Riverside Fairy Shrimp are small aquatic crustaceans located in Ventura, Orange, Riverside, and San Diego counties in California. Their habitat is vernal pools and other non-vegetated ephemeral pools. It is estimated that there are 40 vernal pool complexes occupied by Riverside Fairy Shrimp (USFWS 2025c).	**Presumed Absent**: The Project site does not contain vernal pools or ephemeral ponds to support this species. There are no recent records for this species occurring within or near the Study Area.
Vernal Pool Fairy Shrimp	*Branchinecta lynchi*	IPaC	Federal Endangered, PCCP Covered Species	Vernal pool fairy shrimp are found only in ephemeral freshwater habitats, in a wide range of vernal pools, and have life histories adapted to the environmental conditions of these habitats. Branchinecta lynchi can be found in extremely small or marginal vernal pools (from a small puddle only 3cm deep and covering 0.56m^2 to 10 ha) that fill with water for just long enough to allow the individuals to hatch from cysts, reach sexual maturity, reproduce, and die (USFWS 2025c).	**Presumed Absent**: The Project site does not contain freshwater, vernal pools, or grass bottomed swales to support this species. There are no recent records for this species occurring within or near the Study Area.

4.6.2.1 Taxa Confirmed Present

No special-status wildlife taxa from desktop analysis were determined to be **Present** in the Project site.

4.6.2.2 Taxa With High Potential for Occurrence

No special-status wildlife taxa were determined to have **High** potential for occurrence in the Project site.

4.6.2.3 Taxa With Moderate Potential for Occurrence

No special-status wildlife taxa were determined to have **Moderate** potential for occurrence in the Project site.

4.6.2.4 Taxa Not Expected to Occur

Three (3) special-status wildlife taxa from the desktop analysis were determined as **Not Expected** to occur based on lack of suitable habitat at the Project site: California least tern, burrowing owl, and Crotch's bumble bee.

4.6.2.5 Taxa to be Presumed Absent

Twelve (12) special-status wildlife taxa from the desktop analysis were determined to be **Presumed Absent** from the Project site: Least Bell's vireo, Santa Ana sucker, tidewater goby, southwestern pond turtle, monarch Butterfly, California condor, southwestern willow flycatcher, yellow-billed cuckoo, foothill yellow-legged frog, western spadefoot, Riverside fairy shrimp, and vernal pool fairy shrimp.

4.7 Other Considerations

4.7.1 Wildlife Movement

Effects on wildlife movement are an important consideration when assessing the potential anthropogenic effects of any project. At a small enough scale, a project or activity can potentially affect the movement of wildlife if wildlife are present at all. In general, however, the term "wildlife movement corridor" means an area of habitat that is important for the movement of wildlife between larger habitat areas. Wildlife movement corridors are important for maintaining population levels and genetic diversity.

Wildlife require space to roam in search of food, shelter, mates, or for seasonal migration. Fragmentation of wildlife movement from human development can disrupt the normal flow of essential ecosystem functions. The extent of habitat movement requirements is dependent on the taxa and is crucial to the survival of many species. Overall wildlife movement has become restricted due to man-made barriers, such as roads, structures, development, walls or fencing, and even agricultural fields. It is particularly important to maintain habitat and landscape connectivity and wildlife movement between regional habitat blocks for wide-ranging and low-density mammalian carnivores that require a large home range for survival, including Bobcat (*Lynx rufus*), Coyote (*Canis latrans*), and Mountain Lion (*Puma concolor*).

The fully developed, southwestern corner of the Project site marginally overlaps the outer boundary of the Santa Monica Sierra Madre Connection, which is a linkage of open spaces from the coastal Santa Monica mountains to the Sierra Madre and Santa Susana Mountain Ranges (Penrod et al., 2006) **(Figure 5)**. However, the southwestern portion of the Project site, which was identified as part of this connection, is fully developed and does not contain native natural habitat to facilitate wildlife movement. Furthermore, the entire Project site does not function as a movement corridor for terrestrial wildlife. Residential roads and buildings exist throughout the Study area and may deter wildlife during high activity. Despite the disturbance from the commercial fishing offloading operations, there are opportunities for common coastal wildlife species to forage in the open water and along the rocky shoreline. Common bird species were observed foraging throughout the site.

Additionally, the open water of Ventura Harbor supports a variety of marine species. According to NOAA's Essential Fish Habitat Mapper, the open water within Ventura Harbor is considered EFH for Groundfish, Finfish, and Coastal Pelagic Species. Species such as Blue rockfish (*Seabastes mystinus*), California Scorpionfish (Sco*rpaena guttata*), and Pacific Sardine (*Sardinops sagax*) are likely to use the open water within the Project site. These species, along with many others, are protected by Fishery Management Plans (FMPs). The FMPs that protect fisheries resources within Ventura Harbor include the Pacific Coast Groundfish FMP (2024) and the Coastal Pelagic Species FMP (2019).

Overall, while the Project site marginally supports localized use, particularly by common bird and marine species, it does not serve as a regional wildlife corridor or support the nearby habitat linkage due to its relatively small

size, high level of human disturbance, and lack of suitable open space. Marine life in the harbor is presumed to be abundant, but given the semi-isolated nature of the harbor, and lack of complete connectivity with the surrounding water of the open ocean, this open water feature is unlikely to support the movement of marine species between larger habitats. The ability of the Project site to function and facilitate terrestrial and aquatic wildlife movement in the local and regional area is limited due to the existing development and lack and dispersal habitat. Thus, the site is not considered to substantially contribute to wildlife movement in the region or provide linkage habitat to serve as a wildlife corridor.

4.7.2 Nesting Birds

Birds, including native species protected by the MBTA and CDFW FGC, have the potential to nest in nearly any environment, including those heavily altered by anthropogenic activity and developed areas. The trees on-site may provide suitable nesting habitat for birds, and bare ground present within the eastern portion of the Project site may support bird species with those nesting substrate preferences. The Project site is unlikely to support nesting raptors due to the lack of mature trees of a suitable height or overhead utility poles, which are commonly used for nesting by raptors. During the on-site survey, which was conducted during the breeding season, neither nests nor nesting activity were observed.

Source: ESRI ArcGIS Online Basemap - World Imagery Hybrid (08/2022)

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Project site

Study Area

Habitat Connectivity

Santa Monica - Sierra Madre Linkage

Essential Fish Habitat

Coastal Pelagic Species, Finfish, and Groundfish

Figure 5 Habitat Connectivity and EFH
Port of Hueneme's Squid Relocation to Ventura Port District's Commercial Fishing Modernization Project

Map Created: 3/10/2025, Map Revised: N/A, Bargas Project Number: 1897-23

5 Project Effects

5.1 Thresholds of Significance

Appendix G of the CEQA Guidelines (as amended through January 2019) is frequently cited by public agencies to determine whether a project may have a significant impact on biological resources. Under Appendix G, a project may have a significant impact on biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by the CDFW or USFWS.

2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

3. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

5. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.

6. Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.

5.2 Key Metrics for Assessing Project Effects

Prior to assessing the significance of Project effects on biological resources, it is important to understand the factors to be considered in the analysis. Primary among these are direct impacts to vegetation communities and other land cover types, such as open water, which may provide habitat for special-status species or support jurisdictional aquatic resources. Direct impacts to vegetation communities and other land cover types are typically associated with site grading and or construction of development, which often result in a 100% loss of habitat on-site.

Current plans for the Project propose to directly impact approximately 1.95 acres of existing vegetation communities and land cover as a result of site development; specifically, developed and urban land (**Figure 6**). The land within the two potential staging areas may also be impacted, which are unknown at this time, but considered for this assessment of Project effects. Approximate impacts are presented below in Table 4. Given the proposed work, adverse indirect effects or cumulative effects on sensitive biological resources are not expected.

Table 4. Project Impacts to Vegetation and Land Cover

Vegetation Communities and Land Covers	Acres Impacted
Developed	1.72
Urban	0.23
TOTAL	**1.95**

Following CEQA Appendix G, proposed Project effects on biological resources are assessed. If potential substantial adverse effects on biological resources are identified, these effects are then be evaluated for their significance. Determining whether a biological resource would experience substantial adverse (i.e., significant) effects is generally based upon the sensitivity/rarity of the resource in question as well as the proposed Project activity. If a Project effect is deemed significant, certain feasible and practicable avoidance, minimization, and mitigation measures appropriate for the Project can be identified. The implementation of these measures are designed to reduce effects on identified sensitive biological resources to less than significant. Below discusses the Project effects relevant to CEQA Appendix G Checklist, specifically Section IV. Biological Resources.

5.3 Project Effects on Candidate, Sensitive, or Special-Status Species

This section addresses the portion of the CEQA Guidelines requiring an assessment of whether the Project would ***have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by the CDFW or USFWS***.

5.3.1 Summary of Effects

No special-status species (i.e., plants or animals) were determined to have moderate or higher potential to occur on-site. Special-status species evaluated were determined to be not expected or presumed absent on the Project site. Although no special-status fish species are expected to occur at the Project site, common and managed fish species may occur, including Blue rockfish, California Scorpionfish, Pacific Sardine, and a few Pacific coast groundfish species. Implementation of the Project includes the implementation of appropriate Construction Best Management Practices (BMPs) to protect water quality at the Project, which ultimately correlates to protecting fish. Furthermore, given that the improvements are designed to fully avoid open water, the implementation of the Project is not expected to impact EFH. Ultimately, special-status species would not be adversely affected by implementation of the Project.

5.3.2 Significance Statement

The Project as proposed is expected to have **no impact** on special-status species.

5.4 Project Effects on Riparian Habitat or Other Sensitive Natural Communities

This section addresses the portion of the CEQA Guidelines requiring an assessment of whether the Project would ***have a substantial adverse effect on riparian habitat or other sensitive natural communities identified locally, regionally, or by the CDFW or USFWS***.

5.4.1 Summary of Effects

The Project site does not contain riparian habitat or support sensitive natural communities recognized by CDFW and CNPS (CNPS 2025a). The Project site does contain open water; however, under CEQA, this feature is not considered a natural community. Discussed separately in Sections 5.3 and 5.5, Project impacts to open water are not anticipated. Overall, the Project is not expected to impact any riparian habitat or sensitive natural communities as a result of implementation (**Figure 6**).

5.4.2 Significance Statement

The Project as proposed is expected to have **no impact** on riparian habitat or other sensitive natural communities.

5.5 Project Effects on State or Federally Protected Wetlands

This section addresses the portion of the CEQA Guidelines requiring an assessment of whether the Project would ***have a substantial adverse effect federally protected wetlands defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means***.

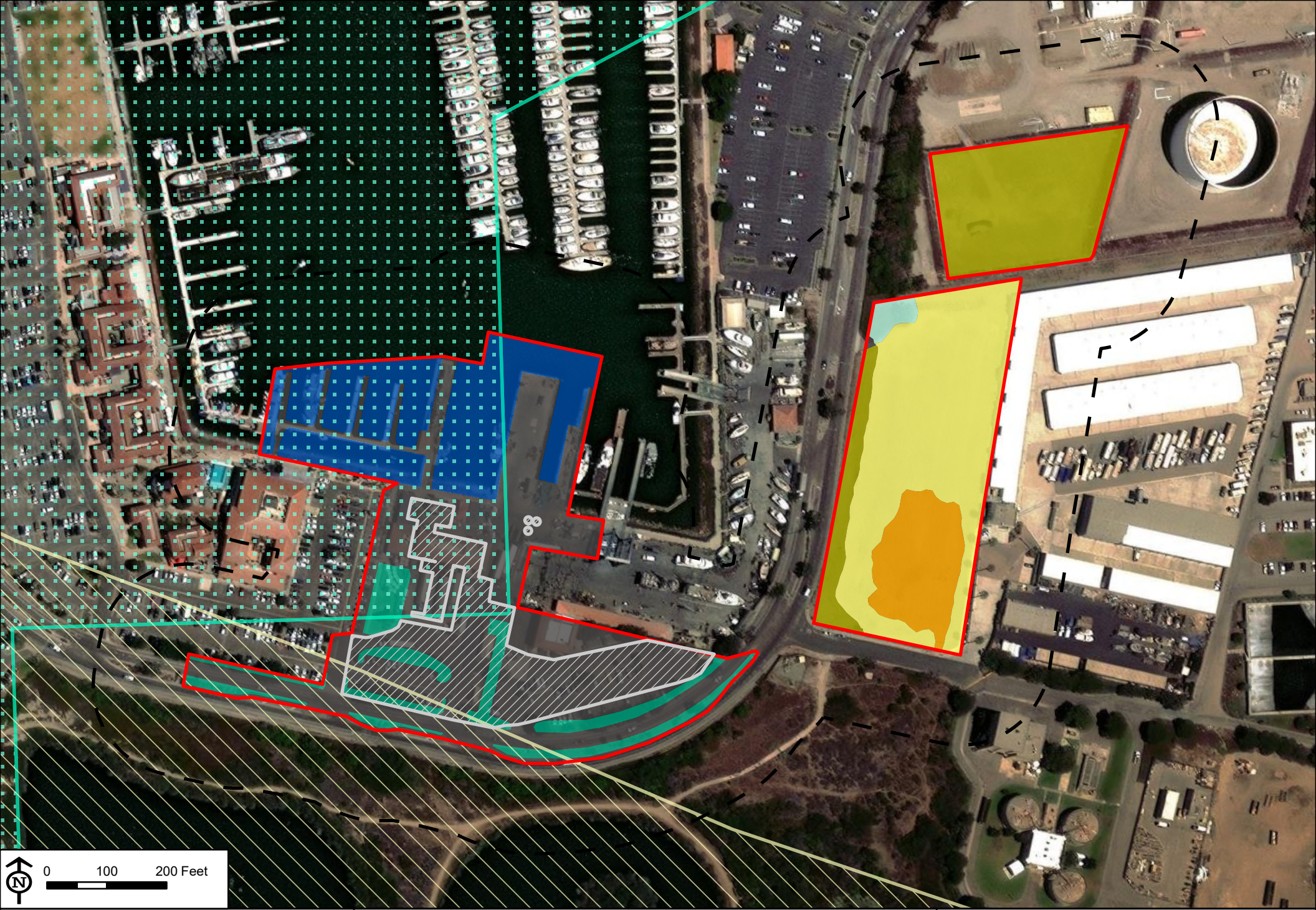
5.5.1 Summary of Effects

The open water feature located on-site within Ventura Harbor is considered part of the Pacific Ocean and is subject to tidal influence. Thus, the USACE recognizes this feature as a TNW, which is potentially subject to regulation by USACE under Section 10 of the Rivers and Harbors Act. Waters subject to Section 10 of the Rivers and Harbors Act are also considered waters of the U.S. subject to regulation by USACE under Section 404 of the CWA. Waters of the U.S. may also be considered waters of the State, regulated by the LARWQCB.

The proposed Project was purposefully designed and sited to be set-back and away from the open water of Ventura Harbor; no in-water work is proposed as part of the Project. Thus, impacts to open water of the Ventura Harbor would be avoided (**Figure 6**). The proposed Project is not expected to have adverse effects to federally protected aquatic resources defined by Section 404 of the CWA.

5.5.2 Significance Statement

The Project as proposed is expected to have **no impact** on federally or state protected wetlands/waters.



Source: ESRI ArcGIS Online Basemap - World Imagery Hybrid (08/2022)

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Figure 6 Project Impacts

Port of Hueneme's Squid Relocation to Ventura Port District's Commercial Fishing Modernization Project

Map Created: 4/9/2025, Map Revised: N/A, Bargas Project Number: 1897-23

5.6 Project Effects on Wildlife Movement and Nursery Sites

This section addresses the portion of the CEQA Guidelines requiring an assessment of whether the Project ***would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites***.

5.6.1 Summary of Effects

The southwestern corner of the Project site marginally overlaps the outer boundary of the Santa Monica Sierra Madre Connection (**Figure 6**). Although identified as part of the Santa Monica Sierra Madre Connection, this mapping over the southwestern portion of the Project site is fully developed and does not contain native natural habitat to facilitate wildlife movement. The Project site itself does not function as a wildlife corridor to terrestrial and aquatic wildlife, such as common bird species, coastal pelagic species, finfish, and groundfish species, due to being bound by roads, experiencing frequent disturbance within the harbor, maintaining minimal connectivity with the Pacific Ocean, and its setting within semi-urban development. Overall, the site is not considered to serve as a corridor and does not facilitate terrestrial or aquatic wildlife movement; implementation of the Project would not interfere with habitat connectivity or with a local or regional wildlife corridor or linkage.

With respect to nursery sites, the Project site does not provide adequate habitat for wildlife use as a nursery site or use by colonial avian nesters such as great blue heron (*Ardea Herodias*) or great egret (*Ardea alba*). The Project site does contain suitable nesting and foraging habitat for common urban bird species. Implementation of the Project would partially modify some habitats present on-site and may reduce (temporarily during construction) the attractiveness of the Project site to birds moving about. Construction generated noise may also temporarily deter movement from the adjacent vacant lots and off-site habitat south of the Project site, however, the Project site is already subject to a degree of commercial-industrial related noises; thus, implementation of the Project is not anticipated to substantially increase noise at the Project site relative to the pre-project condition. Furthermore, construction would be limited to daylight hours and wildlife would not be disturbed during the times they typically travel (i.e., dawn, dusk, and night). Although impacts to wildlife movement or nursery sites are not expected, the Project could result in impacts to nesting birds, particularly common urban-adapted bird species.

The open water within Ventura Harbor is considered EFH for Pacific groundfish and coastal pelagic species. However, the proposed Project footprint was purposefully designed and sited to be set-back and away from the open water of Ventura Harbor. Because no in-water work is associated with the Project, resident fish species within the Project site would be avoided (**Figure 6**).

5.6.2 Significance Statement

The Project as proposed is expected to have **no impact** on wildlife movement and nursery sites, including EFH.

Although no impacts to wildlife movement or nursery sites are expected, the Project could result in impacts to nesting birds protected by the federal MBTA. As such, appropriate avoidance and minimization measures are recommended to comply with the MBTA and CFGC to address potential impacts to nesting birds during implementation of the Project. With the implementation of the Project's proposed avoidance and minimization measures below, as well as compliance with State and Federal regulations pertaining nesting birds, potential impacts would be **less than significant**.

5.6.3 Nesting Birds Avoidance and Minimization

- **Nesting Bird Survey:** If Project work is to occur during the typical nesting season (between February 1 and September 31), a nesting bird survey shall be conducted by a biologist within the Project site and a 300-foot buffer, as accessible, prior to commencing work for the Project. The nesting bird survey must be completed no more than five (5) days prior to work. If work does not begin within five (5) days of the survey date a subsequent survey must be conducted. If an active nest is discovered, the biologist shall establish an avoidance buffer around the nest until the young have fledged.
- **Nest Avoidance Buffer:** If nesting birds are identified during the surveys, the biologist shall determine an appropriate disturbance-free (i.e., no-work-zone) buffer (typically between 100 and 500 feet) depending on the species and Project activities. Buffer zones should be clearly demarcated in the field for avoidance by construction activities. The size of an established buffer may be altered if the biologist conducts behavioral observations and determines the nesting birds would not be affected by the Project activities. If this occurs, the biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting birds. If the buffer is reduced, the biologist shall remain on site to monitor the behavior of the nesting birds during construction in order to ensure that the reduced buffer does not result in take of eggs or nestlings. No construction or earth-moving activity shall occur within the established buffer until it is determined by the biologist that the young have fledged (are no longer dependent on the nest or the adults for feeding) and have attained sufficient flight skills to avoid project construction zones. If a biologist is not hired to monitor the nest, then the full buffer(s) shall be maintained in place from February 1 to September 31. The buffer may be removed, and work may proceed as otherwise planned within the buffer on October 1.

5.7 Project Effects on Local Policies or Ordinances Protecting Biological Resources

This section addresses the portion of the CEQA Guidelines requiring an assessment of whether the Project would ***conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance*.**

5.7.1 Summary of Effects

The City maintains governing documents and municipal codes that prescribe protections for biological resources, including the City of Ventura Comprehensive General Plan and MC Chapters 20.150, 24.320, 24.238, and 24.310. As part of development approvals with the City, the Project is required to be consistent with these local documents and ordinances; thus, the Project would not conflict with any local policies or ordinances protecting biological resources. Applicable local policies and ordinances pertinent to the Project are summarized below.

City of Ventura Comprehensive General Plan

Given the Project proposes the expansion and improvement of existing facilities on land within the City of Ventura, the Applicant would be required to comply with the 1989 Comprehensive General Plan, which is the most recent governing document certified by the CCC. Furthermore, implementation of the Project would require issuance of a CDP by CCC. Given the Project is expansion and replacement of and existing facility for the same use, the proposed Project is anticipated to be consistent with the City's Comprehensive General Plan (City of Ventura 1989).

Municipal Code Chapter 20.150 Street Trees

Tree trimming and removal of fourteen (14) ornamental landscaping trees is anticipated as part of implementation of the proposed Project. As a result, the Project is may be required to obtain a tree permit from the parks manager prior to the removal of trees along City streets (2024f). By coordinating with the parks manager and obtaining a permit for trees, if deemed required, for the trees to be removed along Spinnaker Drive, the Project would demonstrates compliance with the City's Street Tree ordinance (City of San Buenaventura 2024).

Municipal Code Chapter 24.320 Floodplain Overlay Zone

The Project site is located within the floodplain overlay zone; as a result, construction activities and development shall comply with floodplain regulations. These floodplain regulations require that the City's planning division be consulted regarding a floodplain overlay zone development permit prior to the development within this zone, meeting the criteria outlined in Section 12.440.020 (2024b). Because the Project is expansion and replacement of and existing development facility, intended for the same uses, the proposed Project is anticipated to be consistent with the regulations established by this overlay zone (City of San Buenaventura 2024).

Municipal Code 19. Chapter 24.238 Harbor Commercial Zone

The land within the Project site is zoned as Harbor Commercial and is therefore subject to zone-specific prescribed use types and other regulations. The proposed Project falls within the prescribed use types outlined in Section 24.238.020, which include boating and harbor activities, (e.g. commercial boating and fishing, harbor sales and services), dining establishments, as well as recreation, retail, and safety services. Regardless of use type, however, the Project may be need to obtain a Development permit pursuant to Chapter 24.525, and undergo design review approval per Chapter 24.545 (2024d). Because the Project is expansion and replacement of and existing development facility, intended for the same uses, the proposed Project is anticipated to be consistent with the regulations established by this Harbor Commercial zone (City of San Buenaventura 2024).

Municipal Code 19. Chapter 24.310 Coastal Protection Overlay Zone

The Project site is also located within the coastal protection overlay zone. The regulations established within this zone incorporate the policies and provisions of the LCP and guide development within the City's coastal zone (2024b). Thus, development must comply with the provisions coastal permit procedure set forth in Chapter 24.515, which requires that a CDP is obtained for any non-exempt development (pursuant to Section 24.515.050) in the coastal zone (2024a). It is anticipated that implementation of the Project would require issuance of a CDP by CCC, which would demonstrate consistency with the regulations established by this overlay zone (City of San Buenaventura 2024).

5.7.2 Significance Statement

The Project would be required by the CCC and City, as part of the development approvals, to adhere to applicable provisions, policies, and ordinances; therefore, the Project would not conflict with local policies or ordinances projecting biological resources. **No impact** would occur.

5.8 Project Effects on the Provisions of an Adopted Habitat Conservation Plan

This section addresses the portion of the CEQA Guidelines requiring an assessment of whether the Project would ***conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan*.**

5.8.1 Summary of Effects

The Project site is not within the boundaries of an adopted Habitat Conservation Plan or Natural Community Conservation Plan; therefore, no impacts are expected as a result of the implementation of the Project

5.8.2 Significance Statement

Implementation of the Project would not conflict with any adopted HCP/NCCP. **No impact** would occur.

6 Literature Cited

AEP. 2025 California Environmental Quality Act (CEQA) Statute & Guidelines. AEP (eds.). 2025. CEQA Handbook, p. 405. www.califaep.org/docs/CEQA_Handbook_2025combined.pdf

American Fisheries Society (AFS). 2013. *Common and Scientific Names of Fishes from the United States, Canada, and Mexico, 7th edition*. Special Publication 34.

Birding Hotspots. (n.d.). Ventura River Estuary (Ventura County). Available online at https://birdinghotspots.org/hotspot/L351584. Accessed April 2025.

Cornell Lab of Ornithology. 2025. All About Birds. Cornell Lab of Ornithology, Ithaca, New York. Available online at https://www.allaboutbirds.org. Accessed March 2025.

American Society of Mammologists. 2020. Mammal Diversity Database (Version 1.2) [Data set]. Zenodo. http://doi.org/10.5281/zenodo.4139818.

California Coastal Commission (CCC). 2024a. Section 30610: Developments authorized without permit (p. 136). In California Coastal Act. Available online at https://www.coastal.ca.gov/coastact.pdf. Accessed April 2025.

2024b. W15a Staff Report: Local Coastal Program Amendment. Available online at https://documents.coastal.ca.gov/reports/2024/11/W15a/W15a-11-2024-report.pdf. Accessed April 2025.

2019. Local Coastal Program (LCP) Information. Available online at https://www.coastal.ca.gov/lcp/lcp-info/#:~:text=LCPs%20are%20land%20use%20planning,the%20Coastal%20Commission%20for%20certification. Accessed March 2025.

(n.d.). California's Coastal Zone. Available online at https://documents.coastal.ca.gov/assets/our-mission/Coastal_Zone_Slide_Show.pdf. Accessed March 2025

California Department of Fish and Wildlife (CDFW), 2025. *California Natural Diversity Database*. Available online at https://wildlife.ca.gov/Data/CNDDB . Accessed March 2025.

2021. Biogeographic Data Branch. California Wildlife Habitat Relationship System, Version 10.1.29. Sacramento, CA. Accessed March 2025.

2014. California Interagency Wildlife Task Group. CWHR version 9.0 personal computer program. Sacramento, CA.CDFW. 2024. California Natural Diversity Database. Available online at https://wildlife.ca.gov/Data/CNDDB. Accessed March 2025.

1988. Biogeographic Data Branch. Wildlife Habitats - California Wildlife Habitat Relationships System. Available online at https://wildlife.ca.gov/Data/CWHR/Wildlife-Habitats. Accessed March 2025.

City of San Buenaventura. 2024. San Buenaventura Municipal Code § 20.150-24.238. Available online at https://sanbuenaventura.municipal.codes/SBMC. Accessed April 2025.

City of Ventura. (2024). City of Ventura GIS Web Map. Available online at https://map.cityofventura.net/java/map/. Accessed April 2025.

1989. *Comprehensive plan update to the year 2010*. https://www.cityofventura.ca.gov/DocumentCenter/View/1801/Comprehensive-Plan-Update-to-the-Year-2010-PDF

(n.d.). LCPA amendments. Available online at https://www.cityofventura.ca.gov/DocumentCenter/View/37394/LCPA-Amendments. Accessed April 2025.

(n.d.). Notice of availability – LCP Land Use Plan update. Available online at https://www.cityofventura.ca.gov/DocumentCenter/View/37395/Notice-of-Availability-LCP-LUP-Front. Accessed April 2025.

California Native Plant Society (CNPS). 2025a. Inventory of Rare and Endangered Plants. Available online at https://rareplans.cnps.org . Accessed March 2025.

CNPS. 2025b. A Manual of California Vegetation, Online Edition. Available online at http://www.cnps.org/cnps/vegetation/; California Native Plant Society, Sacramento, CA. Accessed March 2025.

Google Earth Pro 7.3.6.10201. Available online at https://earth.google.com/web. Accessed April 2025

Hatfield, R., Jepsen, S., Thorp, R., Richardson, L. & Colla, S. 2015. Bombus crotchii. The IUCN Red List of Threatened Species 2015: e.T44937582A46440211. Available online at: https://www.iucnredlist.org/species/44937582/46440211. Accessed March 2025.

Jepson Flora Project (eds.) 2024. Jepson eFlora, https://ucjeps.berkeley.edu/eflora/ Accessed March 2025.

McDaniel, J. D., Hill, K. T., & Crone, P. R. (2016). Evidence that the migration of the northern subpopulation of Pacific Sardine (Sardinops sagax) is opportunistic. NOAA Southwest Fisheries Science Center. Available Online at: https://swfsc-publications.fisheries.noaa.gov/publications/CR/2016/2016McDaniel.pdf. Accessed April 2025.

Nafis, G. (2000-2024) California Herps - A Guide to the Amphibians and Reptiles of California. Available at: http://www.californiaherps.com/. Accessed March 2025.

National Oceanic and Atmospheric Administration (NOAA). 2025. Essential Fish Habitat (EFH) Mapper. NOAA Fisheries. Available online at https://www.habitat.noaa.gov/apps/efhmapper/. Accessed March 2025

(n.d.). Laws & Policies: Magnuson-Stevens Act. Available online at https://www.fisheries.noaa.gov/topic/laws-policies/magnuson-stevens-act. Accessed March 2025.

Natural Resources Conservation Service (NRCS). 2025. Web Soil Survey. Available online at https://websoilsurvey.sc.egov.usda.gov/. Accessed March 2025.

Pacific Fishery Management Council. 2024. Pacific Coast Groundfish Fishery Management Plan. Available Online at: https://www.pcouncil.org/documents/2022/08/pacific-coast-groundfish-fishery-management-plan.pdf/. Accessed April 2025.

2019. Coastal Pelagic Species Fishery Management Plan as amended through Amendment 17. Available Online at: https://www.pcouncil.org/documents/2019/06/cps-fmp-as-amended-through-amendment-17.pdf/. Accessed April 2025.

2017. Status of California Scorpionfish (Scorpaena guttata): Executive Summary. Available Online at: https://www.pcouncil.org/documents/2017/09/e8_att11_ca_scopionfish_execsummary_sept2017bb.pdf. Accessed April 2025.

2008. The 2007 assessment of Blue Rockfish (Sebastes mystinus) in California. Available Online at: https://www.pcouncil.org/documents/2008/01/the-2007-assessment-of-blue-rockfish-sebastes-mystinus-in-california-january-2008.pdf. Accessed April 2025.

Penrod, K., Cabañero, C., Beier, P., Luke, C., Spencer, W., Rubin, E., Sauvajot, R., Riley, S., & Weiss, S. (2006). South Coast missing linkages: A linkage design for the Santa Monica–Sierra Madre connection. South Coast Wildlands. http://www.scwildlands.org/reports/scml_santamonica_sierramadre.pdf

San Francisco Estuary Institute (SFEI). 2025. California Aquatic Resource Inventory (CARI) version 3.0. Accessed March 2025. Available online at https://www.sfei.org/data/california-aquatic-resource-inventorycari-version-30-gisdata.

SWRCB. 2021. State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. State Water Resources Control Board. p. 28.

USACE. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).

1987. Corps of Engineers Wetlands. Delineation Manual, Technical Report Y-87-1, U.S. Army.

USEPA. 2008. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell V. United States. Clean Water Act Jurisdiction. p. 13.

U.S. Fish and Wildlife Service (USFWS). 2025a. Environmental Conservation Online System (ECOS). Available online at https://ecos.fws.gov/ecp/. Accessed March 2025.

2025b. *Information for Planning and Consultation*. Available online at https://ipac.ecosphere.fws.gov . Accessed March 2025.

2025c. Species. Available online at https://www.fws.gov/species. Accessed March 2025.

2017. Recovery Plan for the Santa Ana sucker. U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. xii + 92 pp. Accessed March 2025.

Appendix A. Floral & Faunal Compendia

Bargas documented the presence of 40 plant taxa and 28 wildlife taxa. Taxa are presented in alphabetical order by family and scientific name.

Plants

Common Name	Scientific Name	Family	Major Clade	Native/Non-Native
Iceplant	*Carpobrotus edulis*	Aizoaceae	Eudicots	Non-native
Sea Fig*	*Carpobrotus chilensis*	Aizoaceae	Eudicots	Non-native
Big saltbrush*	*Atriplex lentiformis*	Amaranthaceae	Eudicots	Native
Nettleleaf Goosefoot	*Chenopodiastrum murale*	Amaranthaceae	Eudicots	Non-native
Natal Plum	*Carissa macrocarpa*	Apocynaceae	Eudicots	Non-native
Mexican fan palm	*Washingtonia robusta*	Arecaceae	Monocots	Non-native
Foxtail agave	*Agave attenuata*	Asparagaceae	Monocots	Non-native
Western Ragweed*	*Ambrosia psilostachya*	Asteraceae	Eudicots	Native
Coyote Brush*	*Baccharis pilularis*	Asteraceae	Eudicots	Native
trailing African daisy	*Dimorphotheca fruticosa*	Asteraceae	Eudicots	Non-native
Stinkwort	*Dittrichia graveolens*	Asteraceae	Eudicots	Non-native
Telegraph Weed	*Heterotheca grandiflora*	Asteraceae	Eudicots	Native
Black mustard*	*Brassica nigra*	Brassicaceae	Eudicots	Non-native
Pride of Madeira	*Echium candicans*	Boraginaceae	Eudicots	Non-native
Shortpod Mustard	*Hirschfeldia incana*	Brassicaceae	Eudicots	Non-native
Whitetop	*Lepidium draba*	Brassicaceae	Eudicots	Non-native
Cypress	*Cupressus* spp.	Cupressaceae	Gymnosperms	Various
Umbrella plant*	*Cyperus alternifolius*	Cyperaceae	Monocots	Non-native
Pencil Cactus	*Euphorbia tirucalli*	Euphorbiaceae	Eudicots	Non-native
Castor Bean	*Ricinus communis*	Euphorbiaceae	Eudicots	Non-native
Golden wattle	*Acacia longifolia*	Fabaceae	Eudicots	Non-native
Sweet Clover*	*Melilotus officinalis*	Fabaceae	Eudicots	Non-native

Common Name	Scientific Name	Family	Major Clade	Native/Non-Native
Common Storksbill	*Erodium cicutarium*	Geraniaceae	Eudicots	Non-native
Common Mallow	*Malva parviflora*	Malvaceae	Eudicots	Non-native
Blue gum*	*Eucalyptus globulus*	Myrtaceae	Eudicots	Non-native
Showy honey-myrtle	*Melaleuca nesophila*	Myrtaceae	Eudicots	Non-native
New Zealand Christmas Tree	*Metrosideros excelsa*	Myrtaceae	Eudicots	Non-native
Bougainvillea	*Bougainvillea spectabilis*	Nyctaginaceae	Eudicots	Non-native
Bermuda Buttercup	*Oxalis pes-caprae*	Oxalidaceae	Eudicots	Non-native
Monterey Pine	*Pinus radiata*	Pinaceae	Gymnosperms	Native
Slender Wild Oat	*Avena barbata*	Poaceae	Monocots	Non-native
Pampas Grass*	*Cortaderia selloana*	Poaceae	Monocots	Non-native
Bermuda Grass	*Cynodon dactylon*	Poaceae	Monocots	Non-native
Common Barley	*Hordeum vulgare*	Poaceae	Monocots	Non-native
Coastal Wild Buckwheat*	*Eriogonum cinereum*	Polygonaceae	Eudicots	Native
Indian Hawthorn	*Rhaphiolepis indica*	Rosace	Eudicots	Non-native
Arroyo Willow*	*Salix lasiolepis*	Salicaceae	Eudicots	Native
Ngaio*	*Myoporum laetum*	Scrophulariaceae	Eudicots	Non-native
Common cattail*	*Typha latifolia*	Typhaceae	Monocots	Native
Stinging nettle*	*Urtica dioica*	Urticaceae	Eudicots	Native

*Observed off-site

Wildlife

Common Name	Scientific Name	Family	Native/Non-Native
Red-tailed Hawk*	*Buteo jamaicensis*	Accipitridae (Hawks, Eagles, and Kites)	Native
Bushtit*	*Psaltriparus minimus*	Aegithalidae (Long-tailed Tits)	Native
Mallard*	*Anas platyrhynchos*	Anatidae (Ducks, Geese, and Waterfowl)	Native
Great Blue Heron*	*Ardea herodias*	Ardeidae (Herons, Egrets, and Bitterns)	Native

Canada Goose	*Branta canadensis*	Anatidae (Ducks, Geese, and Waterfowl)	Native
Snowy Egret*	*Egretta thula*	Ardeidae (Herons, Egrets, and Bitterns)	Native
Gadwall*	*Mareca strepera*	Anatidae (Ducks, Geese, and Waterfowl)	Native
Black-crowned Night Heron*	*Nycticorax nycticorax*	Ardeidae (Herons, Egrets, and Bitterns)	Native
Ruddy Duck*	*Oxyura jamaicensis*	Anatidae (Ducks, Geese, and Waterfowl)	Native
Northern shoveler	*Spatula clypeata*	Anatidae (Ducks, Geese, and Waterfowl)	Native
Killdeer	*Charadrius vociferus*	Charadriidae (Plovers and Lapwings)	Native
American Crow*	*Corvus brachyrhynchos*	Corvidae (Crows, Jays, and Magpies)	Native
House Finch	*Haemorhous mexicanus*	Fringillidae (Finches, Euphonias, and Allies)	Native
Great-tailed Grackle	*Quiscalus mexicanus*	Icteridae (Troupials and Allies)	Native
Western Gull	*Larus occidentalis*	Laridae (Gulls, Terns, and Skimmers)	Native
Northern Mockingbird	*Mimus polyglottos*	Mimidae (Mockingbirds and Thrashers)	Native
Orange-crowned Warbler*	*Leiothlypis celata*	Parulidae (New World Warblers)	Native
Yellow Rumped Warbler	*Setophaga petechia*	Parulidae (New World Warblers)	Native
White-crowned Sparrow	*Zonotrichia leucophrys*	Passerellidae (New World Sparrows)	Native
House Sparrow	*Passer domesticus*	Passeridae (Old World Sparrows)	Non-native
Brown Pelican*	*Pelecanus occidentalis*	Pelecanidae (Pelicans)	Native
Double-crested Cormorant*	*Nannopterum auritum*	Phalacrocoracidae (Cormorants and Shags)	Native
Pied-billed Grebe	*Podilymbus podiceps*	Podicipedidae (Grebes)	Native
Blue-gray Gnatcatcher*	*Polioptila caerulea*	Polioptilidae (Gnatcatchers)	Native
American Coot*	*Fulica americana*	Rallidae (Rails, Gallinules, and Coots)	Native
European Starling	*Sturnus vulgaris*	Sturnidae (Starlings)	Non-Native
Marsh Wren*	*Cistothorus palustris*	Troglodytidae (Wrens)	Native
Say's Phoebe	*Sayornis saya*	Tyrannidae (Tyrant Flycatchers)	Native

*Observed off-site

Appendix B. Site Photographs

Photo 1: One proposed alternative staging area containing a barren area and annual grassland in the southeast portion of the Project site.

Photo 2: Another view of the proposed alternative staging area, showing the roadside ice plant mats to the west and the second alternative staging area to the north.

Photo 3: The second inaccessible disturbed potential staging area in the northeastern portion of the Project site.

Picture 4: Another view of the second inaccessible potential staging area, showing disturbed marginal vegetation.

Picture 5: Overview of the ice plant mats in the northwestern corner of the proposed alternative staging area containing annual grassland.

Picture 6: Overview of Project site, facing west.

APPENDIX C

Cultural Resources Inventory Memorandum

March 5, 2025

Jessica Kirchner
Impact Sciences
811 W. 7th Street, Suite 200
Los Angeles, California 90017
Via email: jkirchner@impactsciences.com

Re: Cultural Resource Inventory for the Ventura Harbor Modernization Project, Ventura County, California

Dear Ms. Kirchner,

This letter report presents the results of a cultural resources inventory conducted by ASM Affiliates (ASM) for the Ventura Harbor Modernization Project (Project), Ventura, Ventura County, California. This inventory was conducted in compliance with the California Environmental Quality Act (CEQA).

The study included a records search at the South Central Coastal Information Center (SCCIC), a search of the Sacred Lands File held by the California Native American Heritage Commission (NAHC), review of other background material related to the Project area, and a pedestrian survey of the Project parcels to determine the presence or absence of historic resources. The SCCIC summary lists are included with this report as Attachment A and the NAHC response as Attachment B.

PROJECT DESCRIPTION AND LOCATION

The Project has two proposed sites, one at the Port of Hueneme and the other at Ventura Harbor, both located in central coastal Ventura County, California. The Hueneme Project area is approximately 2 acres in the southwestern portion of the Port, located within Assessor Parcel Numbers (APNs) 206002024, 206002033, and 206002034, in Section 29 within Township 1 North, Range 22 West, San Bernardino Base Meridian, as illustrated on the USGS Oxnard, California 7.5-minute topographic quadrangle (Figure 1). The Project here encompasses buildings 410, 424, and 434 and attendant facilities and structures (Figure 2). The Ventura Project area is approximately 2.78 acres at 1583 Spinnaker Drive, located at the southeast end of the Ventura Harbor complex. It is located within APNs 080024031 and 080024032, in an unsectioned area within Township 2 North, Range 23 West, San Bernardino Base Meridian, as illustrated on the USGS Oxnard OE W, California 7.5-minute topographic quadrangle (Figure 3). The Project here encompasses a pier, modern structures, landscaping, and a portion of the harbor complex parking lot (Figure 4).

CULTURAL AND ENVIRONMENTAL SETTING

Environmental Setting

The Project areas lie on the west coast of California, with the Port of Hueneme lying approximately 7.8 miles to the south of the Ventura Harbor, both within the Transverse Ranges geomorphic province. The Ventura Harbor is situated in Pierpont Bay, just north of the mouth of the Santa Clara River in the valley south of Sulfur Mountain and north of the Santa Monica Mountains. The Port of Hueneme lies approximately halfway between Point Mugu and the mouth of the Santa Clara River, with the point at Hueneme being the closest spot (at approximately 11 miles) from which to cross the Santa Barbara Channel between the mainland and Anacapa Island. Both Project areas are completely developed with structures and attendant facilities related to fish processing; in the case of the Ventura Harbor, it is surrounded by retail, restaurant, and office buildings as well.

Prehistoric Cultural Setting

The prehistoric occupation of southern California can be roughly divided into four temporal phases or periods (Wallace 1955). This chronology had been successfully applied to inland Los Angeles County (e.g., McIntyre 1990), and is now recognized as having applicability to a wide area of mesic (i.e., that area west of the xeric desert zone) Los Angeles, Ventura, Riverside, San Bernardino, and Orange counties. Due to the widespread application of this chronological scheme, Wallace's framework is employed for the purposes of this discussion.

Late Pleistocene Period (Pre-10,000 B.P.)

Wallace's chronology for southern California includes four time periods, the earliest of which (Early Man/Big Game Hunting period) was considered speculative, and correlated with the end of the Pleistocene, or Ice Age. This would represent an occupation prior to about 10,000 years before present (B.P.). Although it is likely that inhabitation of the southern California coastal region occurred during this early time period, evidence for such is currently extremely limited. To date, Late Pleistocene archaeological remains in southern California comprise two kinds of evidence. First, in the inland Mojave Desert region, petroglyphs (rock engravings) and surface stone tools have been dated back to approximately 20,000 and 30,000 B.P., respectively (Whitley and Dorn 1993). These may well reflect the initial human occupation of North America. The contexts of these dated finds provide only limited kinds of archaeological information and, while there is much more to be discovered about this earliest prehistoric culture, existing data nonetheless suggest that these earliest inland Californians may have dwelled along the shores of Pleistocene lakes; that they exploited chert quarries to make relatively crude stone chopping tools; and that they also made rock art, perhaps as part of shamanistic religious practices.

Second, a limited number of large fluted projectile points have been found in isolated locales in the Mojave Desert and along the California coast. These projectile points functioned as parts of spears and are known to date between 11,200 and 10,000 B.P., falling within what is called the Paleoindian Period on the Great Plains. On the Plains, such points are associated with the hunting of extinct Pleistocene fauna, such as the Columbian Mammoth. Although it is likely that these spear points were similarly used in southern California, the isolated nature of the

discovered artifacts precludes any certain inference about their use or function in the California region.

Uncertainty concerning these early prehistoric cultures results from the characteristic geomorphological instability of the California coastline and the general youthfulness of the southern California interior, combined with the major change in erosional/degradational regimes that occurred at the end of the Pleistocene (Whitley and Dorn 1993). These factors, singularly and in combination, are unfavorable to the preservation of remains from this period. It is therefore likely that Late Pleistocene human occupation of Los Angeles is under-represented in the local prehistoric record, simply due to problems in site preservation.

Early Millingstone Period (10,000 - 3500 B.P.)

An adaptation referred to as the Early Millingstone Period or Horizon began with the transition toward a modern environment which started approximately 9,000 to 10,000 years ago. This is particularly evident along the coast, where many such sites are found, although a few examples are known from the inland region. Most sites of this Period date to between 8,500 and 3,500 years in age.

Recent studies by Erlandson (1988; see also Erlandson and Colton 1991) provide evidence of a significant, even if small, population of coastal hunter-gatherers in the region before 7000 B.P., or essentially at the beginning of this Early Millingstone Period. He has shown that these were neither Big Game hunters, nor specialized, hard-seed gatherers, but instead generalized foragers that relied on a variety of different kinds of terrestrial, coastal and marine resources, and that they were adapted to estuarine embayments that have long since disappeared from the local environment. Further, his evidence indicates that their primary protein sources were shellfish and other marine resources. Extending a pattern first identified by Meighan (1959) on the Channel Islands, in other words, this suggests that the adaptation to the seashore is a very ancient and long-lived tradition in local prehistory.

In the inland region, perhaps the earliest evidence of the Early Millingstone Period is provided by so-called Los Angeles Woman, a female skeleton found in the La Brea Tar Pits that has been radiocarbon dated to 9000 B.P. Lacking clearly associated artifacts or other remains, it is difficult to interpret the Los Angeles Woman beyond observing simply that her discovery signals the fact that the inland region was in use shortly after the end of the Late Pleistocene.

Later Early Millingstone sites (post-dating approximately 6000 B.P.) are dominated by assemblages containing large numbers of ground stone artifacts, along with crude choppers, scraper planes, and other core/cobble tools. These are thought to represent an adaptation to gathered plant foods, especially a reliance on hard-shelled seeds. Accordingly, it has been common practice to identify any site with a dominance of these plant processing implements as Early Millingstone in age. More recently, it has also been suggested that scraper planes, in particular, may have served in the processing of agave (Kowta 1969; Salls 1985); that the association of ground stone and core/cobble tools represents a generalized plant processing toolkit, rather than one emphasizing hard seeds, per se (Whitley 1979), and that this toolkit was used in appropriate environmental settings throughout the prehistoric past. That is, that the so-

called millingstone toolkit is environmentally rather than chronologically specific and reflects localized exploitative patterns, rather than a chronologically specific adaptational strategy (Kowta 1969; Leonard 1971; McIntyre 1990). Thus, many inland sites identified as dating to the Early Millingstone Period solely on the basis of their ground stone toolkits may, in fact, not be of such age at all. However, on the coastal strip there continues to be evidence that such sites date to the earlier end of the timeframe. These sites are generally located on terraces and mesas, above the coastal verge, near permanent streams.

Although Early Millingstone Period sites are relatively common along the coast, there is little evidence for the occupation of the inland region during this early time period. That is, although the millingstone adaptation to seeds and plants, and toolkits dominated by plant processing tools, are present in the inland zone, they appear to date to a later time period, with true Early Millingstone period occupation apparently restricted to the coastal strip proper (Whitley and Beaudry 1991; cf. Leonard 1971; McIntyre 1990). Again, it is currently unclear whether this pattern reflects real differences in inland versus coastal settlement distributions or is simply a function of site preservation problems in the inland region. Whatever the cause, it is worth noting that there are currently very few reliable or plausible chronometric dates from inland sites that are Early Millingstone in age. All current temporal assignments of inland sites to the Early Millingstone Period are based on putative diagnostic artifacts, but, when these are examined critically, the verity of the early age assignments become dubious. Also, too often such early age assignments are based on functional/adaptive traits rather than stylistic criteria, thus confusing adaptive patterns for temporal ones.

A good example of the confusion of millingstone functional and adaptational patterns for Early Millingstone chronological diagnostics in inland Los Angeles County is provided by the so-called "Topanga Culture," as exemplified by excavations at CA-LAN-1, the "Tank Site" (cf. Heizer and Lemert 1947; Treganza and Bierman 1958; Treganza and Malamud 1950), located in the Santa Monica Mountains immediately south of the San Fernando Valley. This is widely regarded as "Early Millingstone" chronologically, and its base ("Phase I") has been assigned 10,000 years of age, essentially due to the large numbers of millingstones, crude choppers and "cog stones" (see Treganza and Bierman 1958:75, Table 1). However, as Johnson (1966) has rightly pointed out, Phase III of the Topanga Culture is only 3,000 years old, as demonstrated by his excavations at CA-LAN-2. That is, it is Intermediate and not Early Millingstone in age. It then must follow that the preceding Phase II can only be considered 3,500 to 3,000 years old, due to the presence of (Intermediate Period) mortars and pestles in the Phase II assemblage. That is, Phase II of the Topanga Culture also can only be Intermediate period in age. Since Phase I lies conformably and immediately below Phase II stratigraphically, it likewise must follow that it immediately predates the Intermediate period Phase II remains. At best, then, Phase I of the Topanga Culture is terminal Early Millingstone or transitional Early Millingstone/Intermediate, but not necessarily of any great antiquity.

This fact is emphasized when it is recognized that one of the key classes of temporal diagnostics said to support the very early age assignment for Phase I at the Topanga Site, the cog stones, were all recovered from the Phase II deposit, even though Treganza and Bierman (1958) incorrectly assign them to the Phase I assemblage (Eberhart 1961:366-367). Thus, there is currently no evidence to suggest any great antiquity for Phase I of the Topanga culture; instead,

it may simply be 4,000, rather than 10,000 years in age, and may represent an early manifestation of the Intermediate Period movement of a millingstone adaptation into the interior, rather than a manifestation of a coastal Early Millingstone culture in the inland zone.

Intermediate Period (3500 - 800 B.P.)

As implied above, a transitional stage followed the Early Millingstone, which is referred to as the Intermediate Period (Wallace 1955). It is believed to have begun about 3,500 years ago, and to have lasted until about 800 B.P. (according to the latest revisions; cf. Arnold 1987). It is marked on the coast by a growing exploitation of marine resources, the appearance of the hopper mortar and stone bowl/mortar, and a diversification and an increase in the number of chipped stone tools. Projectile points, in particular, are more common at sites than previously, while artifacts such as fishhooks and bone gorges also appear.

As noted above, cog stones also first appear during the Intermediate Period, although they are widely misinterpreted as Early Millingstone in age. These are relatively small, flat cobbles, about the size of a large biscuit, that were shaped to resemble a kind of mechanical cog or gear. Although the function of these is unknown, it is likely they served as ceremonial objects, and their geographical distribution has an important implication for regional prehistory. As first identified by Eberhart (1961), cog stones are only found from Los Angeles County south and eastward; that is, they are absent in the areas of the Santa Barbara Channel region (Ventura and Santa Barbara Counties) that, historically, were occupied by Chumash-speaking groups. Although speculative, this suggests that the initial distinction between the Hokan Chumash and Takic-speaking groups (which included the Gabrieliño) may have developed as early as 3,500 years ago (cf. Kowta 1969:50; McIntyre 1990:5), rather than only 1,500 years ago, as Kroeber (1925) first hypothesized. That is, the distribution of these “ceremonial” artifacts essentially follows the boundaries of ethnolinguistic groups during the historical period, suggesting that such boundaries may have been more-or-less stable for about 3,500 years. Notably, this hypothesis is supported by excavations at Intermediate Period site CA-LAN-2233, in the Santa Clara River Valley to the north. At this site, osteometric and DNA analyses indicate that the resident population was non-Chumash genetically (Waugh 1999).

As also implied above, there is growing evidence that it was at the beginning of this Intermediate Period that inland sites, such as those found in the Conejo area on the north side of the Santa Monica Mountains, the upper Santa Clarita Valley, the Antelope Valley, and western Riverside and San Bernardino counties, were first established and occupied. Whether this pattern holds for the interior Los Angeles Basin has yet to be determined, but it seems likely. This suggests the exploitation of more varied environments and perhaps an increase in population at this time and, again, it may correlate with Kroeber’s “Shoshonean Wedge” moving into mesic southern California at ca. 3500 B.P. (Kroeber 1923, 1925; cf. Whitley and Beaudry 1991). In general, however, the Intermediate Period can be argued to have set the stage for the accelerated changes that took place immediately following it.

Late Prehistoric (800 - 200 B.P.)

With the transition to the Late Prehistoric Period at 800 B.P. (A.D. 1200), we can correlate local prehistory with the ethnographic societies as described (even if in abbreviated form) by early

chroniclers and missionaries. However, this is not to suggest that local societies and cultures were in any way static, for the transition to this period was marked by the evolution and eventual dominance of a sophisticated maritime economy. Further, among the Chumash to the west, a rise in social complexity has been shown to have been associated with the development of craft specialization, involving the use of standardized micro-drills to mass produce shell beads on Santa Cruz Island (Arnold 1987), which occurred during this period. This apparently contributed to, if not caused, the appearance of a simple chiefdom in the southern Chumash region (cf. Whitley and Clewlow 1979; Whitley and Beaudry 1991).

Although we do not have evidence that the Gabrieliño developed into a chiefdom like the neighboring Chumash, this period nonetheless witnessed a fluorescence of local aboriginal culture paralleling the Chumash case. This included a substantial growth in population, the establishment of permanent settlements on the coast (and probably at favored locales in the inland area), a high degree of sociopolitical complexity, and the development of a very sophisticated maritime economy. It was during this period that the occupants of the Santa Barbara Channel and Los Angeles County region achieved levels of cultural and social sophistication perhaps unrivaled by hunter-gatherer-fisher groups anywhere else in the world (Brown 1967; Johnston 1962; Landberg 1965; Wallace 1955).

Contact/Ethnographic Background

Ventura County, including the study area, lies within the territory of the Ventureño dialect of the Chumash ethnolinguistic group (Kroeber 1925). The Chumash were Hokan speaking people, who occupied the region from Topanga Canyon northwest to approximately San Luis Obispo. Because of their location in an area of early Spanish missionization, Chumash culture and life ways were heavily disrupted prior to any modern efforts at ethnographic research, hence our knowledge of them is limited. However, based on fragmentary records and various means of inferential and analogical studies, a certain amount can be reconstructed about their way of life.

The Chumash followed a hunting-gathering-fishing subsistence pattern, which incorporated a heavy reliance on maritime resources, including pelagic and littoral fishes, and shellfish. Indeed, the bountiful sea resources that they exploited may have been a key factor in their evolutionary success (Landberg 1965). At the time of the arrival of the Spanish, the Chumash had reached levels of population density and complexities in social organization unequaled worldwide by other non-farming groups (Moratto 1984:118). These included permanent coastal villages along the Channel Islands area containing as many as 1,000 inhabitants (Brown 1967), as well as a hierarchical sociopolitical organization consisting of at least two major chiefdoms (Whitley and Beaudry 1991). Further, based on recent reconstructions using mission registers, the Chumash appear to be a matrilocal, and perhaps matrilineal, clan-based society (Johnson 1988).

The coastal Ventura County region was apparently a portion of a paramount Chumash capital at the village of Muwu, at modern Point Mugu (Whitley and Beaudry 1991; Whitley and Clewlow 1979). This served as the center of Lulapin, one of the two known historical chiefdoms, and was a domain whose limits stretched from the southeastern extreme of Chumash territory to Dos Pueblos, just beyond modern Santa Barbara. Correspondingly, the Mugu locale has been

documented, both archaeologically and ethnographically, as the center of a considerable amount of aboriginal activity (Whitley and Beaudry 1991; Whitley and Clewlow 1979).

Historical Period Overview

Spanish Period (1769 – 1822)

The exploration and interaction between Europeans and Native Americans in California during the late eighteenth and early nineteenth centuries marked significant developments in the region's history.

The missionization and Spanish colonization of the Ventura County region altered traditional Chumash society irrevocably. Although Juan Rodriguez Cabrillo stopped in the area in A.D. 1542 while exploring the coast, and Sebastían Vizcaíno sailed by in 1602 (Bancroft 1963), this historical period effectively began with the passing of the Gaspar de Portolá expedition through the area in 1769 - 1770 (Bolton 1971; Boneu 1983). Portolá was followed in quick succession by a number of other explorers, such as Juan Bautista de Anza in 1775-1776 (Bolton 1933) and José Longinos Martinez in 1792 (Simpson 1938). However, it was the establishment of the Mission of San Buenaventura, at modern Ventura, in 1782 (Triem 1985) that truly spelled the end of the aboriginal period.

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Mexican Period (1822 – 1848)

The Mexican Period commenced when news of the success of the Mexican War of Independence (1810-1821) against the Spanish crown reached California in 1822. This period saw the privatization of mission lands in California with the passage of the Secularization Act of 1833. This act federalized mission lands and enabled Mexican governors in California to distribute former mission lands to individuals in the form of land grants. Successive Mexican governors made approximately 700 land grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Shumway 2007). During this era, a class of wealthy landowners known as rancheros worked large ranches based on cattle hide and tallow production.

In 1821, when Mexico declared its independence from Spain, there were initially minimal changes for the missions. During that time, about 1,000 Native Americans lived and worked at the San Fernando Mission. However, in 1834, the Mexican government initiated the secularization of the California Missions. In 1841, Raimundo Olivas and Felipe Lorenzana were granted Rancho San Miguel for their military service (Rancho San Miguel n.d.). The adobe architecture on Rancho San Miguel was constructed throughout the mid- to late-nineteenth century by skilled Chumash workers (Rancho San Miguel n.d.). The Olivas family lived and worked on Rancho San Miguel until 1899 (Rancho San Miguel n.d.). After that, the property

operated as a hunting club and the new owner, Max Fleischmann, restored the grounds, and eventually the property was turned into a historic park (Rancho San Miguel n.d.).

American Period (1848 – present)

The Mexican Period officially ended in early January 1848 with the signing of the Treaty of Guadalupe Hidalgo, formally concluding the Mexican American War. Per the treaty, the United States agreed to pay Mexico $15 million for conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. California gained statehood in 1850, and this political shift set in motion a variety of factors that began to erode the rancho system.

After the Civil War, Euro-American settlers began coming into the region, buying land from the Mexicans or simply squatting on property. In 1866, the City of San Buenaventura was incorporated. The minutes of the first City Council meetings were recorded in Spanish, which was still the pre-dominant language of its time (City of Ventura n.d.). The city continued to grow and was eventually named the Ventura County seat when Santa Barbara and Ventura counties split in 1873 (City of Ventura n.d.). Thomas R. Bard, an early and influential settler, initially came to manage the properties of railroad tycoon, Thomas A. Scott. In time, Bard grew his own legacy and became president of the Union Oil Company by 1890 (Visit Ventura n.d.). The discovery of oil in the region led to the further growth of the City of Ventura, with the main Ventura oil field drilled in 1914; at its peak, it produced 90,000 barrels a day (Visit Ventura n.d.).

Port Hueneme Development

The Port of Hueneme is one of four deep water ports in California along with San Diego, Long Beach/Los Angeles, and San Francisco. Located approximately 60 miles northwest of Los Angeles on the Santa Barbara Channel, the port began 69 years ago with a mission to provide California's central coast agricultural community with an ocean link to the global market. It became known as "The Port the Farmers Built" (Channel Islands Maritime Museum n.d.). It also houses an operating facility of the Naval Base Ventura County (NBVC).

In the 1860s, Thomas R. Bard chose Point Hueneme as the site of a wharf to take advantage of the naturally occurring extra depth of a submarine canyon, which resulted in less surge while the boats were loading or unloading than there would have been at other locations. The 900-foot-long wharf (270 m) was constructed in 1872. Prior to this, goods had to be shuttled through the surf zone to reach vessels that were anchored offshore. As its usage grew, it soon became the largest grain-shipping port south of San Francisco and the wharf was extended to 1,500 feet (460 m) in 1897.

The Harbor District was formed April 29, 1937, with an area of about 321 acres (130 ha). The need for construction of the port became an even greater priority after a storm destroyed the earlier wharf in 1938, and the Port was completed in July 1940. The U.S. military took control of the entire harbor after the outbreak of World War II and significantly enlarged the port. Massive amounts of equipment and material were shipped from here to the war efforts in the Pacific. The

base was renamed the Naval Construction Battalion Center in 1945 and became an operating facility of Naval Base Ventura County in 2000.

Currently, the Port of Hueneme is one of the most active ports in California for food, especially bananas and other fresh produce, as well as the import and export of automobiles and other rolling stock. It has attracted well-known vehicle manufacturers such as BMW, Jaguar, Land Rover, Mazda, Mitsubishi, Saab, Suzuki, and Volvo to its customized roll-on/roll-off facility (Channel Islands Maritime Museum n.d.). Common exports include agricultural products such as onions, strawberries, and flowers (City of Port Hueneme n.d.). The Port of Hueneme Terminal and Multimodal Expansion program, completed in 1999, greatly enhanced the Port's ability to handle refrigerated containers and roll-on/roll-off cargoes, with continued expansion of these facilities planned in the future.

Ventura Harbor Development

Prior to the completion of the Pacific Coast Highway and Ventura Freeway, Ventura was a fairly isolated community, located between the Ventura River and Santa Clara River valleys (Visit Ventura n.d.). To aid in access to the area, the State of California instituted construction of the Pacific Coast Highway in the 1950s. In support of its construction, it was agreed that the state would excavate the harbor for use as highway construction fill material (USACE n.d.). The harbor was designed and maintained by Ventura, with construction completed and operations commencing on June 16, 1963. In 1968, the U.S. Army Corps of Engineers (USACE) took over responsibility for the harbor's navigation features, which it still holds today (USACE n.d.). By the 1980s, the configuration of the harbor area was similar to its current appearance.

STUDY METHODS

Methods used to assess the presence of and potential for cultural resources within the property included a search of existing records and a pedestrian field survey. ASM began the study by requesting a records search from the South Central Coastal Information Center (SCCIC), part of the California Historical Resources Information System (CHRIS), that included the Project areas and a radius of 1 mile around them. A search of the Sacred Lands File held by the NAHC was also requested. Historical aerial photographs and USGS topographic maps were assessed to discern prior land use on the Project parcels.

ASM Senior Archaeologist Sherri Andrews, M.A., RPA conducted an intensive pedestrian archaeological field survey of the Project areas on February 6, 2025, to determine the presence of any previously undocumented cultural resources.

STUDY RESULTS

Records Search Results

The SCCIC records search was completed on February 12, 2025, to determine whether the Project areas has been previously subject to systematic survey as well as the presence or absence of previously documented cultural resources. The search included all records and documents on file with the SCCIC, as well as the Office of Historic Preservation (OHP) Historic Properties Directory. The SCCIC summary lists are provided with this report as Attachment A.

Port Hueneme

A total of 21 previous studies were identified within the 1-mile records search radius (Table 1), three of which intersect with a portion of the Project area (bolded below). All of these studies were related to infrastructure or port operations.

Table 1. Previous Cultural Resource Projects Conducted within the 1-Mile Records Search Radius for Port Hueneme

Report No. (VN-)	Year	Author(s)/Affiliation	Title
00236	**1980**	**Horne, Stephen / Dames & Moore**	**Onshore Cultural Resources Assessment, Union Oil Company Platform Gina and Platform Gilda Project, Federal Leases OCS P-0202 and P-0216, Offshore Southern California**
00715	1988	MITECH	Draft Environmental Assessment Channel Islands Harbor Maintenance Dredging Six-year Program, Ventura County, California
00959	1991	Bissell, Ronald M. / RMW Paleo Associates, Inc.	Cultural Resource Reconnaissance of Five Areas on the Port Hueneme Naval Reservation, Ventura County, California
01102	1977	Singer, Clay A. / ARI	Preliminary Cultural Resource Survey and Potential Impact Assessment for Thirteen Areas in Southern Ventura County, California
01263	1976	Maxwell, Thomas J. / California Lutheran College	Supporting Letter Concerning the Archaeological Assessment of Silver Strand Drainage Project, County of Ventura, Project 4282 by Lyle A. Kenny
01506	1981	Purcell, C. W., and Pandora Snethkamp / C. W. Purcell	Cultural Resources Evaluation Along Ponoma Street and Pleasant Valley Road, City of Port Hueneme
01584	**1994**	**MacFarlane, Heather**	**Letter Report of Cultural Resources Investigations Underwater Remote Sensing Survey for the US Army Corps of Engineers, LA District Environmental Planning Division**
01947	2001	Historic American Buildings Survey National Park Service	Historic American Buildings Survey, International Longshoremen's and Warehousemen's Union Hall
02027	1998	Uribe and Associates, William Self Associates	Historic and Archaeological Resources Protection (HARP) Plan for the Years 1998-2003 for Naval Construction Battalion Center, Port Hueneme Ventura County, California
02436	2004	Dolan, Christy / EDAW, Inc.	Final Report: Evaluation of National Register of Historic Places Eligibility for Portions of Naval Base Ventura County, Port Hueneme Site, Port Hueneme, California

Report No. (VN-)	Year	Author(s)/Affiliation	Title
02684	2003	Baker, Cindy L., and John Dougherty / PAR Environmental Services, Inc.	National Register of Historic Places Evaluation of Port Hueneme Light Station, Ventura County, California
02874	2010	Wlodarski, Robert J. / Historical Environmental Archaeological Research Team	A Phase 1 Archaeological Study for the Proposed Demolition of an Existing Structure Located at 245 E. Port Hueneme Road for Future Redevelopment of the Site, City of Port Hueneme, County of Ventura, California
02893	2010	Herbert, Rand / JRP Historical Consulting, LLC	Historical Resources Inventory and Evaluation Report for Ten Buildings on Naval Base Ventura County, Port Hueneme, California Navy IDIQ Contract #N68711-04-D-3621 Task Order 0005
02922	**2008**	**Connors, Capt. C.B. / U.S. Dept. of the Navy**	**Navy Plans to conduct maintenance dredging, beach replenishment, and a Confined Aquatic Disposal (CAD) project, in partnership with the Oxnard Harbor District, at the Army Corps of Engineers maintained Turning Basin adjacent to Naval Base Ventura County**
02936	2010	Maki, Mary K. / Conejo Archaeological Consultants	November 2010-December 1, 2010 Archaeological Monitoring Results for the City of Port Hueneme's Bikeway Improvements Project, Ventura Road, Naval Base Ventura County
03000	1996	Plockmeyer, D. R. / U.S. Dept. of the Navy Naval Construction Battalion Center	Determination that Buildings 71, 322, 323, 336 and 5057, at the Naval Construction Battalion Center, Port Hueneme, CA, are Not Eligible for Inclusion on the National Register of Historic Places, and That the Proposed Undertaking, the Demolition of These Five Buildings, Will Have No Affect on a Register Listed Property
03001	1996	Wall, Louis / U.S. Dept. of Navy	Wholesite Investigation and Comprehensive Neighborhood Plan Quarters A CBC Port Hueneme, California
03008	2003	Baloian, Mary Clark, and Randy Baloian / Applied Earthworks	Archaeological Monitoring and Discovery Treatment Plan for Proposed AT/FP Measures at the Naval Construction Battalion Center Port Hueneme and Naval Air Station Point Mugu Naval Base Ventura County
03079	2010	Pumphrey, Michael, Shannon Davis, Catherine Wright, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin / ASM Affiliates	Integrated Cultural Resources Management Plan for Point Mugu and Port Hueneme, Naval Base Ventura County, CA
03124	2012	McPherson, J. W. / U.S. Coast Guard	Point Hueneme Lighthouse, decommissioning of the Fresnel lens
03189	2014	Vasquez, L. R. / U.S. Dept. of the Navy	Construction of Photovoltaic Array, Building PH-1388, Naval Base Ventura County, Port Hueneme

A total of 30 resources have been previously documented within the 1-mile records search radius, the vast majority of which are military structures (Table 2). One resource was previously documented in proximity to the Project area, a prehistoric canoe camp (bolded below), which was destroyed when the Port was originally constructed.

Table 2. Resources Previously Recorded within the 1-Mile Records Search Radius for Port Hueneme

Primary # (P-56-)	Trinomial (CA-VEN-)	Other Name	Date Recorded (Recorded by)	Description	Attribute Codes*
000663	**663**	**-**	**1979 (S. Horne)**	**Canoe camp with midden (destroyed by port construction)**	**AP15**
000975	975H	La Janelle shipwreck	1988 (S. Schwartz)	Shipwreck site	AH14
120003	-	-	1979 (S. Horne and S. Craig)	Midden; historic refuse	AH2; AH4; AP15
150015	-	Bard Memorial Cemetery	1978 (R. W. Taylor)	Ventura County Landmark #20	HP40
151837	-	Berylwood	1975 (J. Streets [NRHP Nomination])	Thomas R. Bard Estate	HP43
152287	-	Women's Improvement Club of Hueneme	1988 (J. Triem [NRHP Nomination])	Ventura County Landmark #19	HP38
152786	-	Bldg 1-1, Bldg 5	2003 (C. Dolan and A. Tomes)	Barracks/mess hall	HP34
152787	-	Bldg 1-2, Bldg 6	2003 (C. Dolan and A. Tomes)	Storage, barracks	HP34
152788	-	Bldg 1-3 and 1-5, Bldg 7	2003 (C. Dolan and A. Tomes)	Maintenance shop	HP34
152789	-	Bldg 1-4, Bldg 8	2003 (C. Dolan and A. Tomes)	Garage and shop	HP34
152790	-	Bldg 1-22, Bldg 10	2003 (C. Dolan and A. Tomes)	Communication building	HP34
152791	-	Bldg 1-7, Bldg 7	2003 (C. Dolan and A. Tomes)	Admin building	HP34
152798	-	Bldg 7-811, Bldg 462	2003 (C. Dolan and A. Tomes)	Quonset hut storage	HP34
152799	-	Bldg 488	2003 (C. Dolan and A. Tomes)	Quonset hut research and development test building	HP34
152800	-	Bldg 808	2003 (C. Dolan and A. Tomes)	Quonset hut storage	HP34
152807	-	Bldg 19	2004 (J. Hirsch)	Cafeteria	HP34
152810	-	Bldg 842	2004 (J. Hirsch)	Dynamometer shed	HP34
152811	-	Bldg 1150	2004 (J. Hirsch)	Utility building	HP34
152814	-	Bldg 1361	2004 (C. Dolan)	Heating plant	HP34
152840	-	Port Hueneme Light Station	2003 (T. Bakic)	Lighthouse	HP2; HP3; HP4; HP11; HP24; HP34
152991	-	Bldg 7-600, Bldg 444	2008 (C. Brookshear and D. Fisher)	Admin building and classroom	HP34
152992	-	Bldg 7-632	2008 (C. Brookshear and D. Fisher)	Bachelors officers' quarters	HP34
152993	-	Bldg 8-600, Bldg 447	2008 (C. Brookshear and D. Fisher)	WAVES quarters	HP34
152994	-	Bldg 7-301, Bldg 452	2008 (C. Brookshear and D. Fisher)	Mess hall; ship system integration lab	HP34

Primary # (P-56-)	Trinomial (CA-VEN-)	Other Name	Date Recorded (Recorded by)	Description	Attribute Codes*
152995	-	Bldg 1153	2008 (C. Brookshear and D. Fisher)	Admin and logistics lab	HP34
152996	-	Bldg 1214	2008 (C. Brookshear and D. Fisher)	WSI Lab	HP34
152997	-	Bldg 1215	2008 (C. Brookshear and D. Fisher)	Admin building	HP34
152998	-	Bldg 1223	2008 (C. Brookshear and D. Fisher)	Shredder	HP34
152999	-	Bldg 1325	2008 (C. Brookshear and D. Fisher)	Terrier generator building	HP34
153000	-	Bldg 5186	2008 (C. Brookshear and D. Fisher)	Terrier ship simulator	HP34

*AH2. Foundations/structure pads; AH4. Privies/dumps/trash scatters; AH14. Ships/barges; AP15. Habitation debris; HP2. Single family property; HP3. Multiple family property; HP4. Ancillary building; HP11. Engineering structure; HP24. Lighthouse; HP34. Military property; HP38. Women's property; HP40. Cemetery; HP43. Mine

Ventura Harbor

A total of 17 previous studies were identified within the 1-mile records search radius (Table 3), none of which includes the current Ventura Harbor Project area.

Table 3. Previous Cultural Resource Projects Conducted within the 1-Mile Records Search Radius for Ventura Harbor

Report No. (VN-)	Year	Author(s)/Affiliation	Title
00219	1979	Lopez, Robert	An Archaeological Reconnaissance of the Area Involved in the Lusk Homes General Plan Amendment, City of San Buenaventura, Ventura County, California (MP-33)
00236	1980	Horne, Stephen / Dames & Moore	Onshore Cultural Resources Assessment, Union Oil Company Platform Gina and Platform Gilda Project, Federal Leases OCS P-0202 and P-0216, Offshore Southern California
00590	1986	Lopez, Robert	An Archaeological Reconnaissance of the Five Areas Involved in the Off-campus Center Siting Study for the California State University, Ventura County, California (MP-33)
00982	1991	Singer, Clay A., and John E. Atwood / C.A. Singer & Associates, Inc.	Cultural Resources Survey and Impact Assessment for the Bristol Relief Sewer Phases Two and Three, in the City of Buenaventura, Ventura County, California
01140	1992	Schmidt, J., and J. Schmidt / Greenwood and Associates	Archaeological Monitoring at the Olivas Adobe, Ventura County, California
01201	1993	Skiles, Jeffery C. / Greenwood and Associates	Archaeological Monitoring at Olivas Adobe
01235	1992	Neuenschwander, Neal J. / Peak and Associates	Cultural Resource Assessment of Proposed Alternate Alignment in Refugio State Beach, Emma Wood State Beach, and Ventura, Santa Barbara and Ventura Counties, California

Report No. (VN-)	Year	Author(s)/Affiliation	Title
01475	1986	Hines, Philip, and Jan Timbrook / California State Archaeologist	Cultural Resources Survey for McGrath State Beach
01509/01733	1985	Sturm, Bradley L. / USACE Los Angeles District	Ventura Marina Dredging Project
02203	2002	USACE Los Angeles District	Environmental Assessment – Detached Breakwater Repairs at Ventura Harbor, Ventura County, California
02477	2004	Bonner, Wayne H. / Michael Brandman Associates	Cultural Resource Records Search Results and Site Visit for Cingular Telecommunications Facility Candidate Vy-530-01 (Ventura Harbor) 3410 Olivos Park Drive, Ventura, Ventura County, California
02754	2008	Schmidt, James J. / Compass Rose Archaeological, Inc.	SCE Mandalay-San Miguel 66 kV Emergency Road Grading Project, Ventura County, California
02756	2008	Brus, Kirk C., and Steve Dibble / USACE	Environmental Assessment: Detached Breakwater Repairs at Ventura Harbor, Ventura County, California
02799	2007	Maki, Mary / Conejo Archaeological Consultants	Archaeological Monitoring Results for the Olivas Park Drive Water Main Project, City of Ventura, Ventura County
02978	2004	Sharpe, Jim, and Lori Durio / CH2MHill	Groundwater Recovery Enhancement and Treatment (GREAT) Program, Cultural Resources Inventory Report
03138	2012	Greenway, Brendon / DPR	McGrath State Beach – Sewer Force Main and Sewer Lift Station Replacement and Wet Well Conversion
03242	2015	King, Chester / Topanga Anthropological Consultants	Cultural, Archaeological, and Paleontological Resources at McGrath State Beach

Two resources have been previously documented within the 1-mile records search radius (Table 4). The nearest resource, McGrath State Beach, consists of 174 single-family campsites, group camp, hike/bike camping area, three restroom/shower facilities, a day use parking lot, and a small amphitheater, constructed between 1962 and 1964, after the State of California Department of Parks and Recreation acquired the land from Rita S. McGrath in 1961.

Table 4. Resources Previously Recorded within the 1-Mile Records Search Radius for Ventura Harbor

Primary # (P-56-)	Trinomial (CA-VEN-)	Other Name	Date Recorded (Recorded by)	Description	Attribute Codes*
000815 / 150499	815H	Olivas Adobe; CHL-115, NHRP 79000570	1977 (M. Mack [NRHP Nomination]); 1985 (R. Greenwood and J. Foster)	4200 Olivas Park Drive; two standing adobes, other historical remains	AH2; AH4; AH6; AH11; AH15; HP44
001520	-	McGrath State Beach	2015 (M. Mourkas and N. Roberts)	174 campsites, group camp, hike/bike camping area, three restroom/shower facilities, a day use parking lot, and a small amphitheater	HP29

*AH2. Foundations/structure pads; AH4. Privies/dumps/trash scatters; AH6. Water conveyance system; AH11. Walls/fences; AH15. Standing structures; HP29. Landscape architecture; HP44. Adobe building/structure

Historical Image Research

Port of Hueneme

Historic aerials from 1947, 1959, 1967, 1984, 1985, 1994, 2005, 2009, 2010, 2012, 2014, 2016, 2018, 2020, and 2022 were analyzed on historicaerials.com, as were historic topographic maps dated 1904, 1911, 1925, 1940, 1943, 1947, 1951, 1956, 1966, 1974, 2012, 2015, 2018, and 2022.

Based on the 1947 aerial image, most of the present form of the Port of Hueneme had already been constructed. The homes located in the Silver Strand neighborhood to the west of the project area had not been constructed yet; they were built sometime between 1947 and 1951. By 1959, many of the buildings associated with the Naval Base to the north had already been constructed. Sometime after 1974 but before 1984, the port was expanded eastward to its present-day size. Since the mid-1980s, the Port of Hueneme has remained generally the same based on the aerial images between 1984 and 2022; however, there have been some changes to the land structures inside the port and the surrounding area.

The topographic maps show that by 1904, a wharf had already been constructed in the same area as the Port of Hueneme. The port is first mapped on the 1951 1:250,000 scale topographic map. However, it was not until the 2015 topographic map that the Port was mapped in its present form, with the eastward expansion that was first noted in the 1984 aerial being included. Since 2015, no changes have been depicted in the topographic maps until 2022 when the Beach Lighthouse Promenade West Trail was mapped out just southeast of the current Project area.

Ventura Harbor

Historic aerials from 1947, 1959, 1967, 1978, 1980, 1984, 1994, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020 were analyzed on historicaerials.com, as were historic topographic maps dated 1949, 1955, 1959, 1966, 1975, 1982, 2012, 2015, 2018, and 2022.

Based on these aerial images, in 1947 and 1959, the construction of Ventura Harbor had not yet been initiated. The shoreline was intact and agricultural fields were present just east of the beach. By 1967, however, the harbor appears on the aerial imagery, generally in its present form but lacking many of the docks and facilities that are present today. Between 1978 and 1980, the imagery is blurry, but it appears like the harbor continues to grow and develop. By 1984, much of the harbor including the proposed Project area is in its present form. Since the mid-1980s, the Ventura Harbor has remained generally the same based on the aerial images from 1984 through 2020. An additional historic aerial image shows the early harbor in 1963 with only two docks and evidence of recent construction activities. An additional aerial image from 1965 shows the harbor in a similar state of development as seen in the 1967 aerial.

The topographic maps show no development between 1949 and 1966. The harbor is first mapped on the 1975 1:250,000 scale topographic map. No changes to the harbor are noted on any topographic map between 1975 and 2020, but in 2022 the Ventura Harbor Waterfront Walk is mapped surrounding the harbor.

NAHC Sacred Lands File

A request for a search of the NAHC's Sacred Lands File (SLF) was made by ASM on February 3, 2025. This search was undertaken to supplement the SCCIC records search and to inquire as to whether resources important to local Native American groups may exist within the proposed Project areas that may not appear within the CHRIS system. The NAHC responded on that same date that the SLF check was negative. Their response included a list of eight tribal contacts representing five tribal groups who might have information about the Project area, which has been provided to the lead agency.

Pedestrian Archaeological Survey

All accessible portions of the Project areas with ground surface visibility were carefully examined by intensive pedestrian survey for the presence of cultural resources. Both of the Project areas are completely developed and extensively modified.

Port of Hueneme

The Project area at the Port of Hueneme is a fully developed processing facility built in the 1980s (Figures 5-8). All areas surrounding the extant structures are paved or covered with concrete. As a result, there is no visible or intact ground surface in this portion of the Project.

Ventura Harbor

A pier extends into the ocean at the north end of the Project (Figure 9). Several modern buildings are located in the central part of the Project (Figure 10), and the southern portion is characterized by a landscaped parking (Figure 11). Where soils are exposed in landscaped areas, the substrate is a very sandy loam. No natural ground surfaces remain within the main Project area. Two potential staging areas were also identified, located to the east of the main Project area. The northern area is currently fenced and appears to be dug out and bermed (Figure 12). The southern potential staging area is currently an open vacant field that as been heavily modified; it appears graded and mowed for vegetation control (Figure 13).

No previously undocumented cultural resources were encountered during the intensive pedestrian archaeological survey of either the Port of Hueneme or Ventura Harbor APEs.

REGULATORY FRAMEWORK

California Register of Historical Resources (CRHR) Significance Criteria

For purposes of CEQA, a historical resource is any object, building, structure, site, area, place, record, or manuscript listed in or eligible for listing in the CRHR (PRC §5024.1, Title 14 CCR, §4852). The four criteria for listing in the CRHR closely mirror the criteria for listing in the National Register of Historic Places. A resource is eligible for listing in the CRHR if it meets any of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
(2) Is associated with the lives of persons important in our past

(3) 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
(4) Has yielded, or may be likely to yield, information important to prehistory or history.

Prehistoric archaeological sites are typically evaluated only under Criterion 4 for their potential to yield data important to understanding the prehistory of the area or region. Historical archaeological sites and architectural resources may be evaluated under any of the four criteria because their features, plus available historical documentation, may be used to inform our understanding of their association with events, people, workmanship, or other important historical information. Isolates are not eligible for the listing in the CRHR because they lack association and context with other archaeological materials. Recording the physical description and location of an isolate exhausts its research potential.

California Environmental Quality Act (CEQA) Significance Criteria

CEQA requires state and local public agencies to identify the environmental impacts of proposed discretionary activities or projects, determine if the impacts will be significant, and identify alternatives and mitigation measures that will substantially reduce or eliminate significant impacts to the environment.

Historical resources are considered part of the environment, and a project that may cause a substantial adverse effect to the significance of a historical resource is a project that may have a significant effect on the environment. "Historical resource" applies to a building and/or structure that:

1) is listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code, § 5024.1, Title 14 CCR, Section 4850 et seq.); or
2) is included in a local register of historical resources, or is identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code; or
3) is a building or structure determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

Lead agencies have a responsibility to evaluate historical resources prior to making a finding as to a proposed project's impacts. Mitigation of adverse impacts is required if the proposed project will cause substantial adverse change. Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired. While demolition and destruction are fairly obvious significant impacts, it is more difficult to assess when change, alteration, or relocation crosses the threshold of substantial adverse change. The CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of an historical resource that convey its historical significance (i.e., its character-defining features) is considered to materially impair the resource's significance.

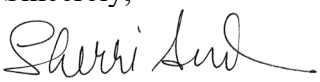
RECOMMENDATIONS

No prehistoric or historical artifacts or sites were identified during the current survey. As such, no historical resources as defined under CEQA that would require further consideration were identified within the Project areas.

However, in the event that any archaeological materials are encountered during future development activities, all activities must be suspended in the vicinity of the find until the deposits are recorded and evaluated by a qualified archaeologist. If evaluated as eligible for the CRHR and if impacts to the resource cannot be avoided, mitigation would be necessary. In addition, if significant subsurface prehistoric resources are encountered that will be subject to impacts from the project, Tribes with historic and cultural ties to the area shall be contacted.

If human remains of any kind are found during construction, the requirements of CEQA Guidelines Section 15064.5(e) and AB 2641 shall be followed. According to these requirements, all construction activities must cease immediately, and the Ventura County Coroner and a qualified archaeologist must be notified. The Coroner will examine the remains and determine the next appropriate action based on his or her findings. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the most likely descendants (MLD) to be consulted regarding treatment and/or reburial of the remains. If an MLD cannot be identified, or the MLD fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to the remains, the property owner shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Sincerely,



Sherri Andrews, Senior Archaeologist
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sandrews@asmaffiliates.com

Figure 1. Port of Hueneme location illustrated on the USGS Oxnard 7.5-minute topographic quadrangle.

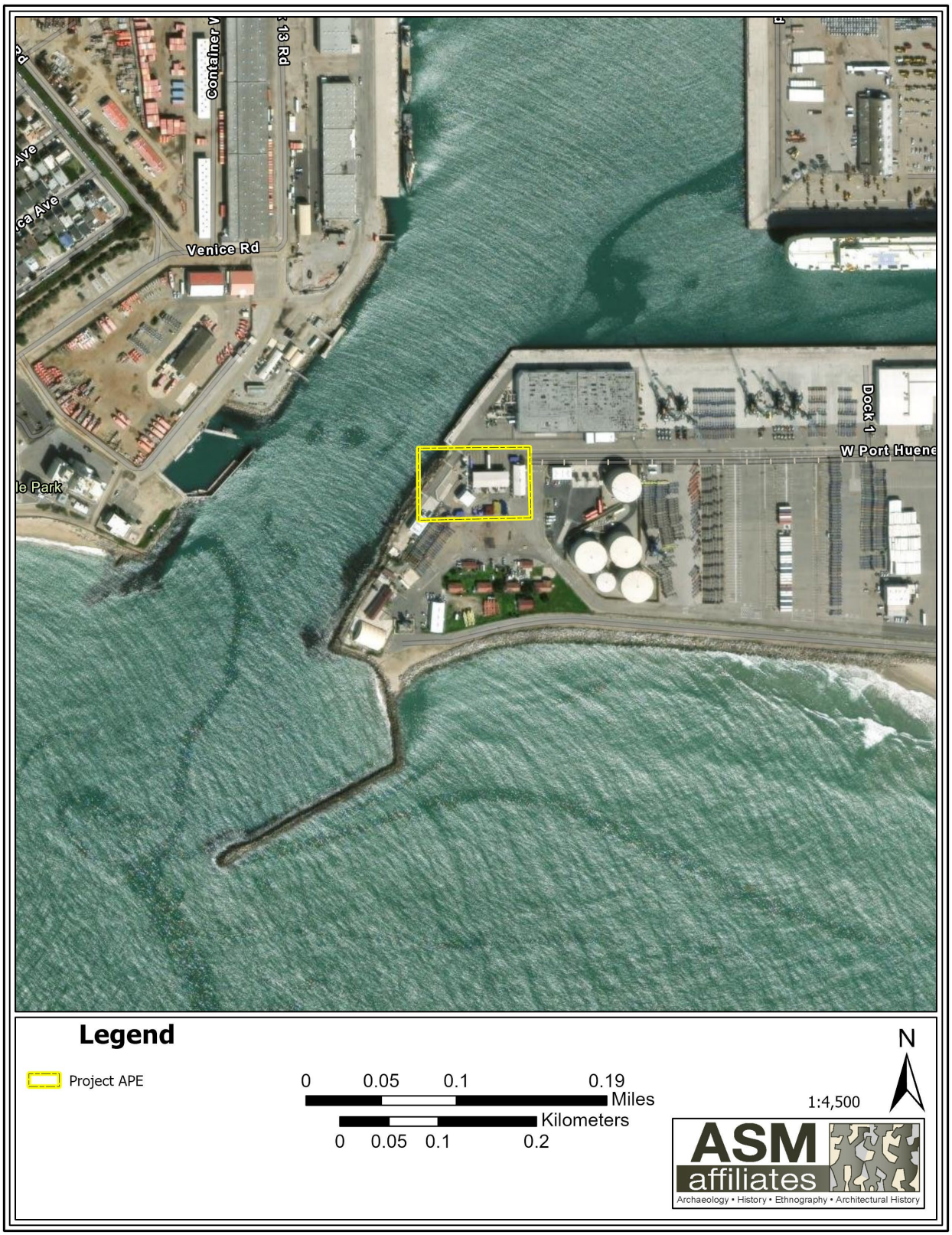


Figure 2. Aerial image of the Port of Hueneme site.

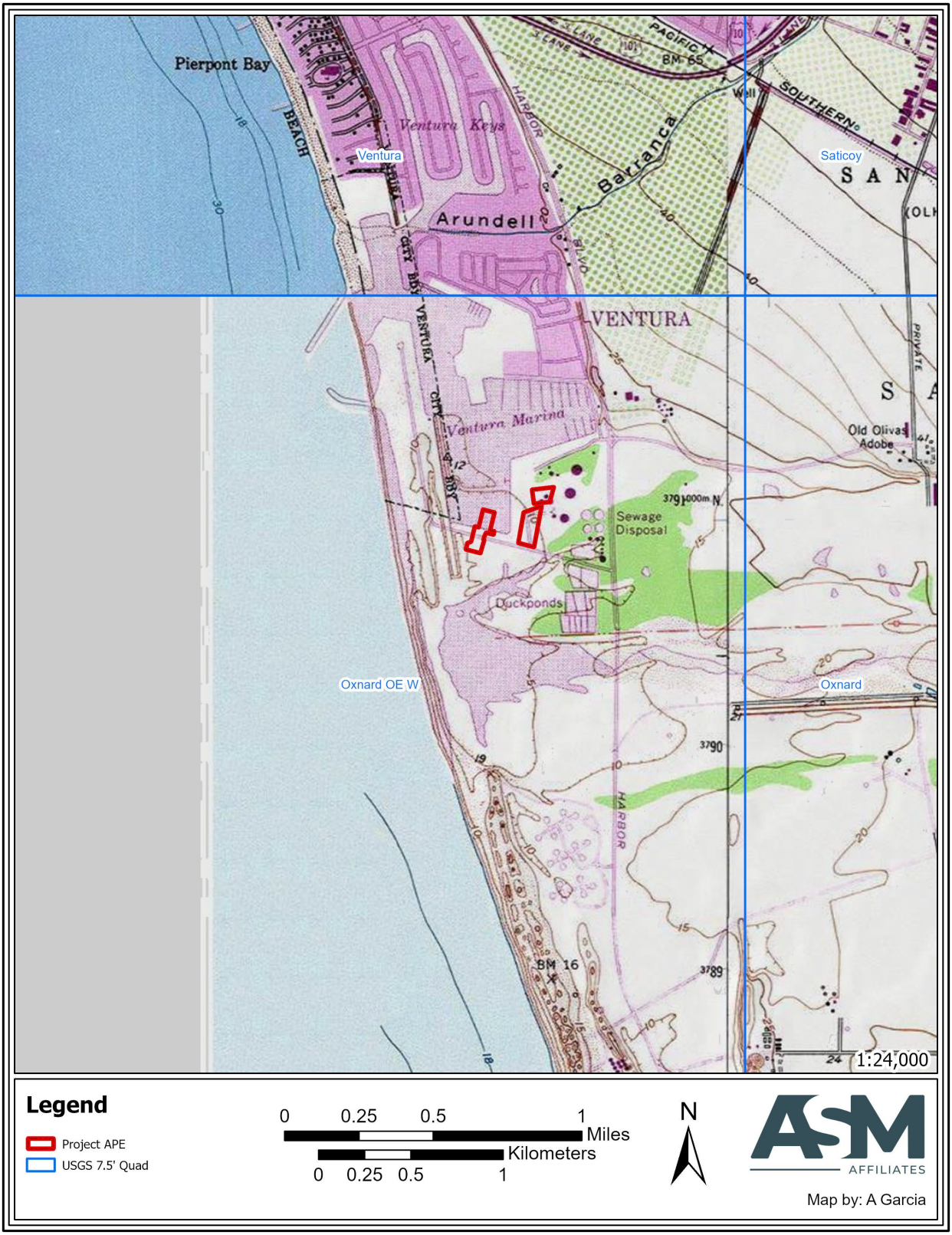


Figure 3. Ventura Harbor location illustrated on the USGS Oxnard OE W 7.5-minute topographic quadrangle.

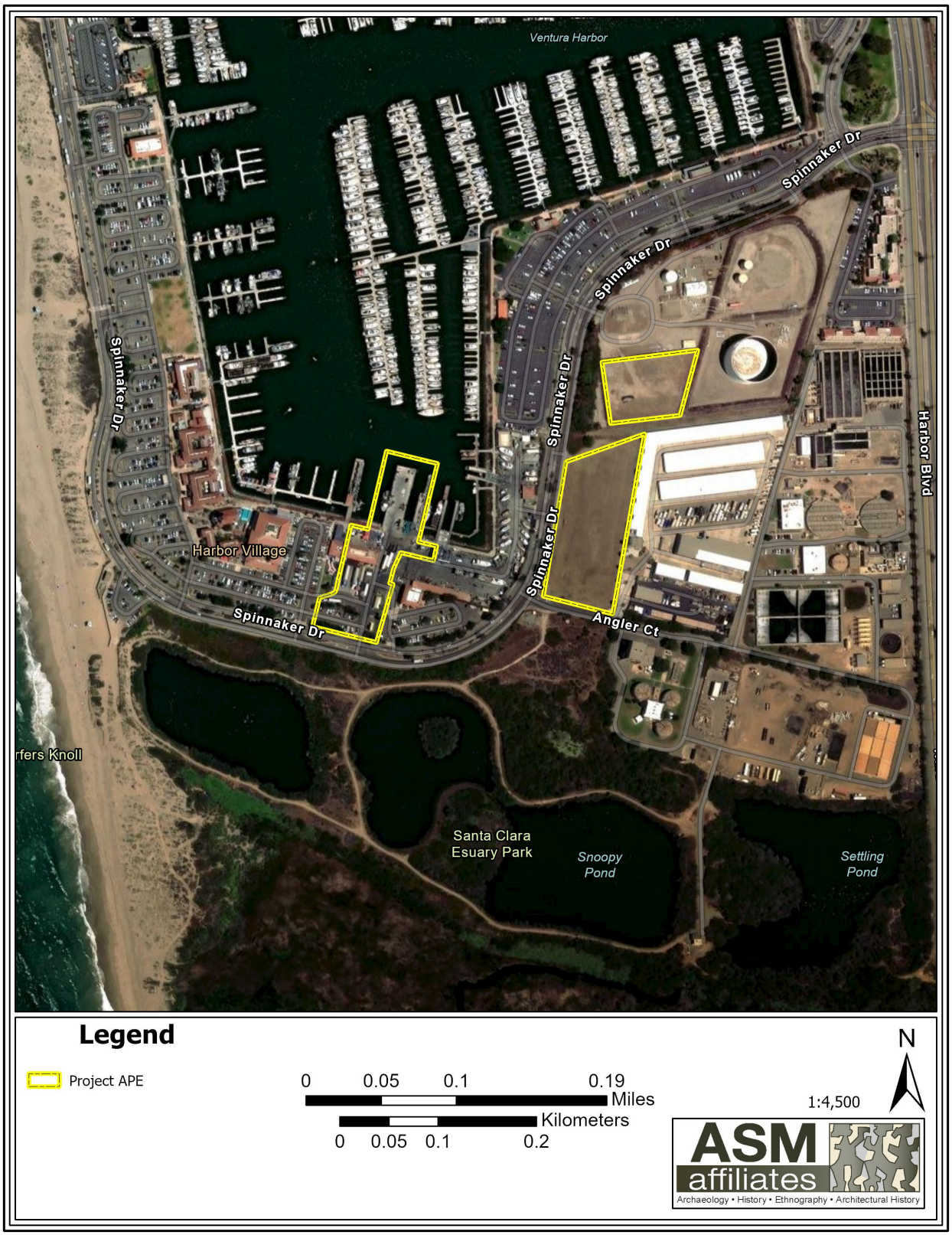


Figure 4. Aerial image of the Project site.

Figure 5. Covered work platform at Port of Hueneme processing facility, view to northeast.

Figure 6. Buildings 424 and 434 at Port of Hueneme processing facility, view to southeast.

Figure 7. Tanks at Port of Hueneme processing facility, view to southwest.

Figure 8. Building 410 at Port of Hueneme processing facility, view to north.

Figure 9. Pier at north end of Ventura Harbor Project area, view to east.

Figure 10. Central portion of Ventura Harbor Project area, view to southwest.

Figure 11. Southern portion of Ventura Harbor Project area, view to north.

Figure 12. Northern potential staging area for Ventura Harbor Project area, view to northeast.

Figure 13. Southern potential staging area for Ventura Harbor Project area, view to southeast.

REFERENCES

Arnold, J.
1987 *Craft Specialization in the Prehistoric Channel Islands, California*. University of California Publications in Anthropology No. 18. Berkeley.

Brown, A. K.
1967 *The Aboriginal Population of the Santa Barbara Channel*. University of California Archaeological Survey Reports No. 69. Berkeley.

Bolton, H. E. (editor)
1933 Font's Complete Diary: A Chronicle of the Founding of San Francisco. University of California, Berkeley.
1971 Fray Juan Crespi: Missionary Explorer on the Pacific Coast, 1769-1774. AMS Press, New York.

Boneu Companys, F.
1983 Gaspar de Portolá: Explorer and Founder of California (transl. by A. K. Brown). Lerida, Instituto de Estudios Ilerdenses.

Channel Islands Maritime Musuem
n.d. Port of Hueneme. https://www.vcmm.org/q_node/27/

City of Port Hueneme
n.d. Port of Hueneme. https://www.ci.port-hueneme.ca.us/914/The-Port-of-Hueneme

City of Ventura
n.d. Ventura's History. https://www.cityofventura.ca.gov/595/Venturas-History

Eberhart, H.
1961 The Cogged Stones of Southern California. *American Antiquity* 26:361-370.

Erlandson, J.
1988 Of Millingstones and Molluscs: The Cultural Ecology of Early Holocene Hunter-Gatherers on the California Coast. Ph.D. dissertation, University of California, Santa Barbara.

Erlandson, J., and R. Colton (editors)
1991 *Hunter-Gatherers of Early Holocene Coastal California*. Perspectives in California Archaeology Volume 1. University of California, Los Angeles.

Heizer, R. F., and E. M. Lemert
1947 Observations on archaeological sites in Topanga Canyon, California. *University of California Publications in American Archaeology and Ethnology* 44(2):237-258.

Historicaerials.com
Aerials (Port of Hueneme): 1947, 1959, 1967, 1984, 1985, 1994, 2005, 2009, 2010, 2012, 2014, 2016, 2018, 2020, and 2022.
Topos (Port of Hueneme): 1904, 1911, 1925, 1940, 1943, 1947, 1951, 1956, 1966, 1974, 2012, 2015, 2018, and 2022.
Aerials (Ventura Harbor): 1947, 1959, 1967, 1978, 1980, 1984, 1994, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020.
Topos (Ventura Harbor): 1949, 1955, 1959, 1966, 1975, 1982, 2012, 2015, 2018, and 2022.

Johnson, John R.
1988 Chumash Social Organization: An Ethnohistoric Perspective. Ph.D. dissertation, University of California, Santa Barbara.

Johnson, K. L.
1966 *Site LAN-2: A Late Manifestation of the Topanga Complex in Southern California Prehistory*. Anthropological Records No. 23. Berkeley.

Johnston, Bernice
1962 *California's Gabrielino Indians*. Southwest Museum, Los Angeles.

Kowta, M.
1969 The Sayles Complex: A Late Milling Stone Assemblage from the Cajon Pass and the Ecological Implications of Its Scraper Planes. *University of California Publications in Anthropology*, Volume 6. Berkeley.

Kroeber, Alfred L.
1925 *Handbook of Indians of California*. University of California, Berkeley.

Landberg, L.
1965 *The Chumash Indians of Southern California*. Southwest Museum Papers No. 19. Highland Park, California.

Leonard, N. N.
1971 Natural and Social Environments of the Santa Monica Mountains (6000 B.C. to 1800 A.D.). *Archaeological Survey Annual Report* 13:93-136. University of California, Los Angeles.

McIntyre, M. J.
1990 Cultural Resources of the Upper Santa Clara River Valley, Los Angeles and Ventura Counties, California. In *Archaeology and Ethnohistory of Antelope Valley and Vicinity*, edited by B. Love and W. DeWitt, pp. 1-20. Antelope Valley Archaeological Society Occasional Paper No. 2.

Meighan, Clement
1959 The Little Harbor Site, Catalina Island: An Example of Ecological Interpretation in Archaeology. *American Antiquity* 24:383-405.

Salls, R.
1985 The Scraper Plane: A Functional Interpretation. *Journal of Field Archaeology* 12(1):99-106.

Simpson, L. B. (translator)
1938 California in 1792: The Expedition of José Longinos Martinéz. Huntington Library, San Marino.

Shumway, Burgess
2007 *California Ranchos: Patented Private Land Grants Listed by County*. Borgo Publishing Press, Rockville, Maryland.

Treganza, A. E., and A. Bierman
1958 The Topanga Culture: Final Report on Excavations, 1948. *Anthropological Records* 20:2. Berkeley.

Treganza, A. E., and C. G. Malamud
1950 The Topanga Culture: First Season's Excavation of the Tank Site, 1947. *Anthropological Records* 12:4. Berkeley.

Triem, J. P.
1985 *Ventura County: Land of Good Fortune*. Windsor Publications, Chatsworth.

U.S. Army Corps of Engineers (USACE)
n.d. Ventura Harbor, California. https://www.spl.usace.army.mil/Missions/Civil-Works/Navigation/Ventura-Harbor/

Ventura Port District
2024 History: About the Ventura Port District. https://venturaharbor.com/history/.

Visit Ventura
n.d. Ventura History. https://visitventuraca.com/visit/about-ventura/.

Wallace, W. J.
1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11(3):214-230.

Waugh, G.
1999 *A Study in the Prehistory of the Santa Clara River Valley: Archaeological Data Recovery at CA-LAN-2233, Los Angeles County, California*. Manuscript on file, SCCIC.

Whitley, D. S.
1979 Subsurface Features, Toolkits and a Sweathouse Pit from the Ring Brothers Site Complex. In *Archaeological Investigations at the Ring Brothers Site Complex, Thousand Oaks, California*, edited by C. W. Clewlow, Jr., D. S. Whitley, and E. L. McCann, pp. 101-110. UCLA Institute of Archaeology Monograph 13.

Whitley, D. S., and M. P. Beaudry
1991 Chiefs on the Coast: Developing Chiefdoms in the Tiquisate Region in Ethnographic Perspective. In *The Development of Complex Civilizations in Southeastern Mesoamerica*, edited by W. Fowler, pp. 101-120. CRC, Orlando.

Whitley, D. S., and C. W. Clewlow, Jr.
1979 The Organizational Structure of the Lulapin and Humaliwo. In *The Archaeology of Oak Park, Ventura County, California*, edited by C. W. Clewlow, Jr., and D. S. Whitley, pp. 149-174. UCLA Institute of Archaeology Monograph 11.

Whitley, D. S., and R. I. Dorn
1993 New Perspectives on the Clovis vs. Pre-Clovis Controversy. *American Antiquity* 58(4):603-627.

APPENDIX D

Noise Data

NOISE MONITORING FIELD REPORT

Project Name: Commercial Fishing Modernization Live aboard to the East

Monitoring Location: Ventura Isle Marina

Date: 8/25/25 **Site Number:** (1)

Measured By: Annalie Sarrieddine

Measurement Start Time: 10:17 am

Measurement End Time: 10:32 AM

Total Measurement Time: 15 min.

Noise Meter Model: Larson Davis SoundExpert 821 **Calibration:** 94.0 (dBA)

Meter Setting: A-Weighted Sound Level (SLOW)

Session File Name: Lxt.265

Primary Noise Sources: Vehicle Traffic, Harbor Activity, Boat Activity

Site Map

Data Summary

Noise Scale	Noise Level (dBA)
L_{eq}	61.7
L_{max}	72.6
L_{min}	46.0

Other Noise Sources During Monitoring

1. _____ Time: _____
2. _____ Time: _____
3. _____ Time: _____
4. _____ Time: _____
5. _____ Time: _____

Additional Notes:

_____

_____

_____

_____

_____

IMPACT SCIENCES

Measurement Report

Report Summary

Meter's File Name	LxT_Data.265.s	Computer's File Name	LxT_0005667-20230825 101731-LxT_Data.265.ldbin
Meter	LxT1 0005667	Firmware	2.302
User		Location	
Job Description			
Note			

Start Time	2023-08-25 10:17:31	Duration	0:15:00.0		
End Time	2023-08-25 10:32:31	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-08-25 08:32:40	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	61.7 dB		
LAE	91.2 dB	SEA	--- dB
EA	147.9 µPa²h		
EA8	4.7 mPa²h		
EA40	23.7 mPa²h		
LA_{peak}	93.5 dB	2023-08-25 10:29:36	
LAS_{max}	72.6 dB	2023-08-25 10:29:16	
LAS_{min}	46.0 dB	2023-08-25 10:18:04	
LA_{eq}	61.7 dB		
LC_{eq}	70.5 dB	LC_{eq} - LA_{eq}	8.8 dB
LAI_{eq}	64.2 dB	LAI_{eq} - LA_{eq}	2.5 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApk > 135.0 dB	0	0:00:00.0
LApk > 137.0 dB	0	0:00:00.0
LApk > 140.0 dB	0	0:00:00.0

Community Noise

L_{DN}	L_{Day}	L_{Night}
--- dB	--- dB	0.0 dB

L_{DEN}	L_{Day}	L_{Eve}	L_{Night}
--- dB	--- dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	61.7 dB		70.5 dB		--- dB	
$L_{S(max)}$	72.6 dB	2023-08-25 10:29:16	--- dB	None	--- dB	None
$L_{S(min)}$	46.0 dB	2023-08-25 10:18:04	--- dB	None	--- dB	None
$L_{Peak(max)}$	93.5 dB	2023-08-25 10:29:36	--- dB	None	--- dB	None

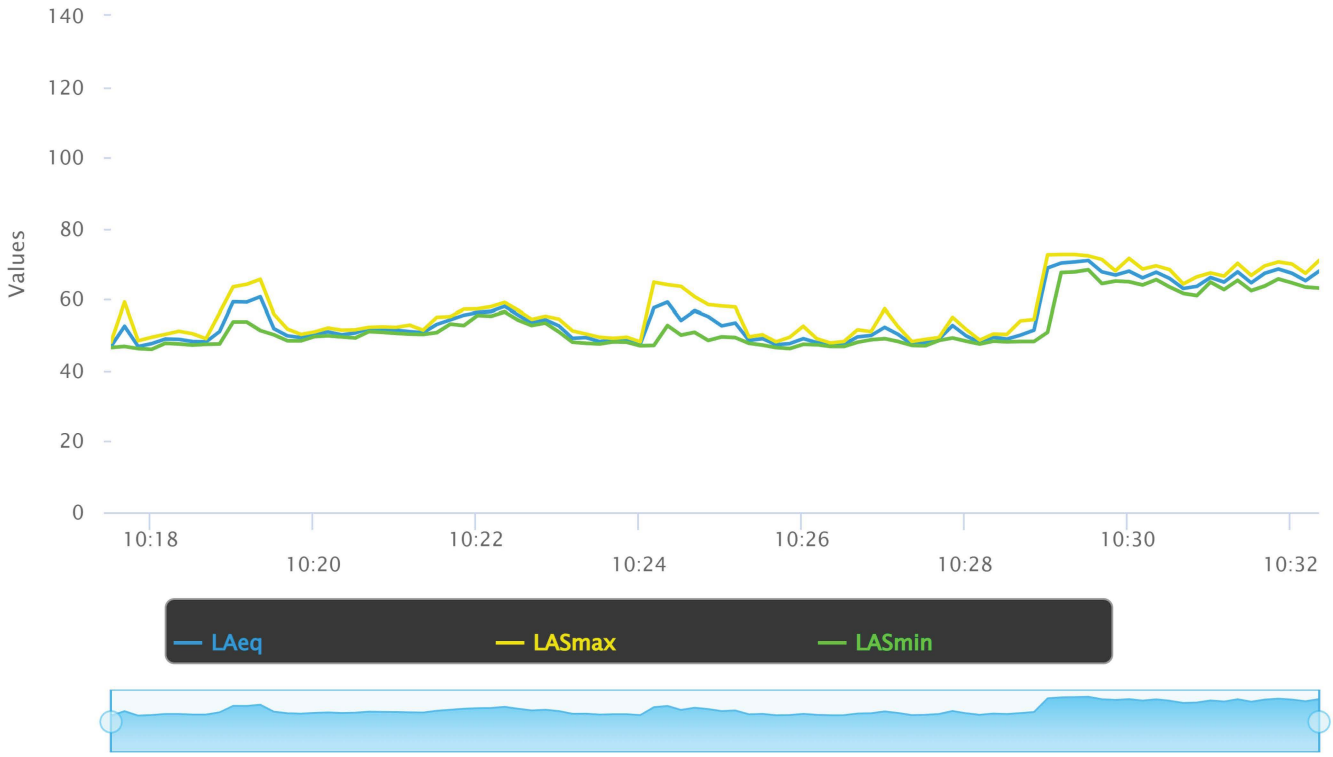
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 0.0	--- dB
LAS 0.0	--- dB
LAS 10.0	67.1 dB
LAS 33.3	55.6 dB
LAS 66.7	49.4 dB
LAS 90.0	47.6 dB

Time History



NOISE MONITORING FIELD REPORT

Site Map

Project Name: Commercial Fishing Modernization

Monitoring Location: Liveaboard to the northwest @ Ventura West Marina II

Date: 6/25/23 **Site Number:** 2

Measured By: Annalie Sarrieddine

Measurement Start Time: 11:04 AM

Measurement End Time: 11:19 AM

Total Measurement Time: 15 min.

Noise Meter Model: Larson Davis SoundExpert 821 **Calibration:** 94.0 (dBA)

Meter Setting: A-Weighted Sound Level (SLOW)

Session File Name: Lxt. 267

Primary Noise Sources: Vehicle Activity, Harbor Activity, Boat Activity

Data Summary

Noise Scale	Noise Level (dBA)
L_{eq}	63.8
L_{max}	77.8
L_{min}	46.7

Other Noise Sources During Monitoring

1. _____ Time: _____
2. _____ Time: _____
3. _____ Time: _____
4. _____ Time: _____
5. _____ Time: _____

Additional Notes:

_____

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_____

IMPACT SCIENCES

Measurement Report

Report Summary

Meter's File Name	LxT_Data.267.s	Computer's File Name	LxT_0005667-20230825 110429-LxT_Data.267.ldbin
Meter	LxT1 0005667	Firmware	2.302
User		Location	
Job Description			
Note			

Start Time	2023-08-25 11:04:29	Duration	0:15:00.0		
End Time	2023-08-25 11:19:29	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-08-25 08:32:40	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	63.8 dB		
LAE	93.3 dB	SEA	--- dB
EA	239.9 µPa²h		
EA8	7.7 mPa²h		
EA40	38.4 mPa²h		
LA_{peak}	92.1 dB	2023-08-25 11:06:19	
LAS_{max}	77.8 dB	2023-08-25 11:07:11	
LAS_{min}	46.7 dB	2023-08-25 11:14:02	
LA_{eq}	63.8 dB		
LC_{eq}	73.2 dB	LC_{eq} - LA_{eq}	9.4 dB
LAI_{eq}	66.9 dB	LAI_{eq} - LA_{eq}	3.1 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApk > 135.0 dB	0	0:00:00.0
LApk > 137.0 dB	0	0:00:00.0
LApk > 140.0 dB	0	0:00:00.0

Community Noise

L_{DN}	L_{Day}	L_{Night}
--- dB	--- dB	0.0 dB

L_{DEN}	L_{Day}	L_{Eve}	L_{Night}
--- dB	--- dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	63.8 dB		73.2 dB		--- dB	
$L_{S(max)}$	77.8 dB	2023-08-25 11:07:11	--- dB	None	--- dB	None
$L_{S(min)}$	46.7 dB	2023-08-25 11:14:02	--- dB	None	--- dB	None
$L_{Peak(max)}$	92.1 dB	2023-08-25 11:06:19	--- dB	None	--- dB	None

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 0.0	--- dB
LAS 0.0	--- dB
LAS 10.0	68.2 dB
LAS 33.3	62.0 dB
LAS 66.7	55.7 dB
LAS 90.0	50.6 dB

NOISE MONITORING FIELD REPORT

Project Name: Commercial Fishing Modernization

Monitoring Location: Portside Ventura Harbor

Date: 8/25/23 **Site Number:** 3

Measured By: Annalie Sarrieddine

Measurement Start Time: 10:32 AM

Measurement End Time: 10:52 AM

Total Measurement Time: 15 min.

Noise Meter Model: Larson Davis SoundExpert 821 **Calibration:** 94.0 (dBA)

Meter Setting: A-Weighted Sound Level (SLOW)

Session File Name: Cvt. 266

Primary Noise Sources: Vehicle Traffic, Neighborhood Activity, Harbor Activity

Site Map

Data Summary

Noise Scale	Noise Level (dBA)
L_{eq}	53.8
L_{max}	71.9
L_{min}	47.1

Other Noise Sources During Monitoring

1. _____ Time: _____
2. _____ Time: _____
3. _____ Time: _____
4. _____ Time: _____
5. _____ Time: _____

Additional Notes:

_____

_____

_____

_____

_____

IMPACT SCIENCES

Measurement Report

Report Summary

Meter's File Name	LxT_Data.266.s	Computer's File Name	LxT_0005667-20230825 103725-LxT_Data.266.ldbin
Meter	LxT1 0005667	Firmware	2.302
User		Location	
Job Description			
Note			

Start Time	2023-08-25 10:37:25	Duration	0:15:00.0		
End Time	2023-08-25 10:52:25	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-08-25 08:32:40	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	53.8 dB		
LAE	83.3 dB	SEA	--- dB
EA	24.0 µPa²h		
EA8	767.6 µPa²h		
EA40	3.8 mPa²h		
LA_{peak}	93.2 dB	2023-08-25 10:49:36	
LAS_{max}	71.9 dB	2023-08-25 10:48:33	
LAS_{min}	47.1 dB	2023-08-25 10:41:56	
LA_{eq}	53.8 dB		
LC_{eq}	73.4 dB	LC_{eq} - LA_{eq}	19.6 dB
LAI_{eq}	59.0 dB	LAI_{eq} - LA_{eq}	5.2 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApk > 135.0 dB	0	0:00:00.0
LApk > 137.0 dB	0	0:00:00.0
LApk > 140.0 dB	0	0:00:00.0

Community Noise

L_{DN}	L_{Day}	L_{Night}
--- dB	--- dB	0.0 dB

L_{DEN}	L_{Day}	L_{Eve}	L_{Night}
--- dB	--- dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	53.8 dB		73.4 dB		--- dB	
$L_{S(max)}$	71.9 dB	2023-08-25 10:48:33	--- dB	None	--- dB	None
$L_{S(min)}$	47.1 dB	2023-08-25 10:41:56	--- dB	None	--- dB	None
$L_{Peak(max)}$	93.2 dB	2023-08-25 10:49:36	--- dB	None	--- dB	None

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 0.0	--- dB
LAS 0.0	--- dB
LAS 10.0	55.6 dB
LAS 33.3	52.3 dB
LAS 66.7	50.2 dB
LAS 90.0	48.8 dB

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/18/2025
Case Descriptio Port of Hueneme Demoliton

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences to the Northwest	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	1746	0
Excavator	No	40		80.7	1746	0
Excavator	No	40		80.7	1746	0
Excavator	No	40		80.7	1746	0
Dozer	No	40		81.7	1746	0
Dozer	No	40		81.7	1746	0

Results

	Calculated (dBA)	
Equipment	*Lmax	Leq
Concrete Saw	58.7	51.7
Excavator	49.8	45.9
Excavator	49.8	45.9
Excavator	49.8	45.9
Dozer	50.8	46.8
Dozer	50.8	46.8
Total	58.7	55.6

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences to the East	Residential	60	60	60

			Equipment Spec	Actual	Receptor	Estimated

Description	Impact Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Saw	No	20		89.6	3111	0
Excavator	No	40		80.7	3111	0
Excavator	No	40		80.7	3111	0
Excavator	No	40		80.7	3111	0
Dozer	No	40		81.7	3111	0
Dozer	No	40		81.7	3111	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Concrete Saw	53.7	46.7
Excavator	44.8	40.9
Excavator	44.8	40.9
Excavator	44.8	40.9
Dozer	45.8	41.8
Dozer	45.8	41.8
Total	53.7	50.6

*Calculated Lmax is the Loudest value.

Report date: 4/18/2025
Case Description: Ventura Harbor Demoliton

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Live aboard boats to the east at Ventura Isle Marina	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	431	0
Excavator	No	40		80.7	431	0
Excavator	No	40		80.7	431	0
Excavator	No	40		80.7	431	0
Dozer	No	40		81.7	431	0
Dozer	No	40		81.7	431	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Concrete Saw	70.9	63.9
Excavator	62	58
Excavator	62	58
Excavator	62	58
Dozer	63	59
Dozer	63	59
Total	70.9	67.7

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Live aboard boats to the northwest at Ventura West Marina II	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	1939	0
Excavator	No	40		80.7	1939	0
Excavator	No	40		80.7	1939	0
Excavator	No	40		80.7	1939	0
Dozer	No	40		81.7	1939	0
Dozer	No	40		81.7	1939	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Concrete Saw	57.8	50.8
Excavator	48.9	45
Excavator	48.9	45
Excavator	48.9	45
Dozer	49.9	45.9
Dozer	49.9	45.9
Total	57.8	54.7

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Multi-family residences to the northeast at Portside Ventura	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	2064	0
Excavator	No	40		80.7	2064	0
Excavator	No	40		80.7	2064	0
Excavator	No	40		80.7	2064	0
Dozer	No	40		81.7	2064	0
Dozer	No	40		81.7	2064	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Concrete Saw	57.3	50.3
Excavator	48.4	44.4
Excavator	48.4	44.4
Excavator	48.4	44.4
Dozer	49.4	45.4
Dozer	49.4	45.4
Total	57.3	54.1

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/18/2025
Case Description: Ventura Harbor Site Prep/Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Live aboard boats to the east at Ventura Isle Marina	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	431	0
Grader	No	40	85		431	0
Tractor	No	40	84		431	0
Backhoe	No	40		77.6	431	0
Tractor	No	40	84		431	0
Dozer	No	40		81.7	431	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Excavator		62	58
Grader		66.3	62.3
Tractor		65.3	61.3
Backhoe		58.8	54.9
Tractor		65.3	61.3
Dozer		63	59
	Total	66.3	67.9

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Live aboard boats to the northwest at Ventura West Marina II	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)

Excavator	No	40		80.7	1939	0
Grader	No	40	85		1939	0
Tractor	No	40	84		1939	0
Backhoe	No	40		77.6	1939	0
Tractor	No	40	84		1939	0
Dozer	No	40		81.7	1939	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	48.9	45
Grader	53.2	49.2
Tractor	52.2	48.2
Backhoe	45.8	41.8
Tractor	52.2	48.2
Dozer	49.9	45.9
Total	53.2	54.8

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Multi-family residences to the northeast at Portside Ventura	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	2064	0
Grader	No	40	85		2064	0
Tractor	No	40	84		2064	0
Backhoe	No	40		77.6	2064	0
Tractor	No	40	84		2064	0
Dozer	No	40		81.7	2064	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	48.4	44.4
Grader	52.7	48.7
Tractor	51.7	47.7
Backhoe	45.2	41.3
Tractor	51.7	47.7

Dozer		49.4	45.4
	Total	52.7	54.3

*Calculated Lmax is the Loudest value.

Report date: 4/18/2025
Case Description: Ventura Harbor Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Live aboard boats to the east at Ventura Isle Marina	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	431	0
Tractor	No	40	84		431	0
Tractor	No	40	84		431	0
Backhoe	No	40		77.6	431	0
Generator	No	50		80.6	431	0
Welder / Torch	No	40		74	431	0
All Other Equipment > 5 HP	No	50	85		431	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Crane		61.8	53.9
Tractor		65.3	61.3
Tractor		65.3	61.3
Backhoe		58.8	54.9
Generator		61.9	58.9
Welder / Torch		55.3	51.3
All Other Equipment > 5 HP		66.3	63.3
	Total	66.3	68

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night

Live aboard boats to the northwest at Ventura West Marina II	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	1939	0
Tractor	No	40	84		1939	0
Tractor	No	40	84		1939	0
Backhoe	No	40		77.6	1939	0
Generator	No	50		80.6	1939	0
Welder / Torch	No	40		74	1939	0
All Other Equipment > 5 HP	No	50	85		1939	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	48.8	40.8
Tractor	52.2	48.2
Tractor	52.2	48.2
Backhoe	45.8	41.8
Generator	48.9	45.8
Welder / Torch	42.2	38.2
All Other Equipment > 5 HP	53.2	50.2
Total	53.2	54.9

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Multi-family residences to the northeast at Portside Ventura	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	2064	0

Tractor	No	40	84		2064	0
Tractor	No	40	84		2064	0
Backhoe	No	40		77.6	2064	0
Generator	No	50		80.6	2064	0
Welder / Torch	No	40		74	2064	0
All Other Equipment > 5 HP	No	50	85		2064	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	48.2	40.3
Tractor	51.7	47.7
Tractor	51.7	47.7
Backhoe	45.2	41.3
Generator	48.3	45.3
Welder / Torch	41.7	37.7
All Other Equipment > 5 HP	52.7	49.7
Total	52.7	54.4

*Calculated Lmax is the Loudest value.

Report date: 4/18/2025
Case Description: Ventura Harbor Paving/Architectural Coating

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Live aboard boats to the east at Ventura Isle Marina	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	431	0
Concrete Mixer Truck	No	40		78.8	431	0
Paver	No	50		77.2	431	0
Roller	No	20		80	431	0
Roller	No	20		80	431	0
Tractor	No	40	84		431	0
Compressor (air)	No	40		77.7	431	0

Results

Equipment		Calculated (dBA) *Lmax	Leq
Concrete Mixer Truck		60.1	56.1
Concrete Mixer Truck		60.1	56.1
Paver		58.5	55.5
Roller		61.3	54.3
Roller		61.3	54.3
Tractor		65.3	61.3
Compressor (air)		59	55
	Total	65.3	65.3

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Live aboard boats to the northwest at Ventura West Marina II	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	1939	0
Concrete Mixer Truck	No	40		78.8	1939	0
Paver	No	50		77.2	1939	0
Roller	No	20		80	1939	0
Roller	No	20		80	1939	0
Tractor	No	40	84		1939	0
Compressor (air)	No	40		77.7	1939	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Concrete Mixer Truck		47	43
Concrete Mixer Truck		47	43
Paver		45.4	42.4
Roller		48.2	41.2
Roller		48.2	41.2
Tractor		52.2	48.2
Compressor (air)		45.9	41.9
	Total	52.2	52.2

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Multi-family residences to the northeast at Portside Ventura	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	2064	0
Concrete Mixer Truck	No	40		78.8	2064	0
Paver	No	50		77.2	2064	0
Roller	No	20		80	2064	0
Roller	No	20		80	2064	0

Tractor	No	40	84		2064	0
Compressor (air)	No	40		77.7	2064	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Concrete Mixer Truck	46.5	42.5
Concrete Mixer Truck	46.5	42.5
Paver	44.9	41.9
Roller	47.7	40.7
Roller	47.7	40.7
Tractor	51.7	47.7
Compressor (air)	45.4	41.4
Total	51.7	51.7

*Calculated Lmax is the Loudest value.

Port of Hueneme Residences to the Northwest

Ref= Reference vibration level (PPV)

RefD= Reference distance for Reference vibration level (Feet)

Vibration PPV		
Ref=	0.2	Based on type of equipment
RefD=	25	
D=	1746	Distance from equipment to sensitive receptor
Equip=	0.000	
Annoyance VdB		
Ref=	72	Based on type of equipment
RefD=	25	
D=	1746	Distance from equipment to sensitive receptor
Equip=	17	

Peak demolition vibration based on utilizing an Impact Pile Driver.

Source: FTA Tranist Noise and Vibration Impact Assessment, 2006.

Port of Hueneme Residences to the East

Ref= Reference vibration level (PPV)

RefD= Reference distance for Reference vibration level (Feet)

Vibration PPV		
Ref=	0.2	Based on type of equipment
RefD=	25	
D=	3111	Distance from equipment to sensitive receptor
Equip=	0.000	
Annoyance VdB		
Ref=	72	Based on type of equipment
RefD=	25	
D=	3111	Distance from equipment to sensitive receptor
Equip=	9	

Peak demolition vibration based on utilizing an Impact Pile Driver.

Source: FTA Tranist Noise and Vibration Impact Assessment, 2006.

	0	Live aboard boats to the east at Ventura Isle Marina.	
Ref=	Reference vibration level (PPV)		
RefD=	Reference distance for Reference vibration level (Feet)		
	Vibration PPV		
	Ref=	0.2	Based on type of equipment
	RefD=	25	
	D=	431	Distance from equipment to sensitive receptor
	Equip=	0.003	
	Annoyance VdB		
	Ref=	72	Based on type of equipment
	RefD=	25	
	D=	431	Distance from equipment to sensitive receptor
	Equip=	35	

Peak demolition vibration based on utilizing an Impact Pile Driver.

Source: FTA Tranist Noise and Vibration Impact Assessment, 2006.

0		Live aboard boats to the northwest at Ventura West Marina II	
Ref=	Reference vibration level (PPV)		
RefD=	Reference distance for Reference vibration level (Feet)		
	Vibration PPV		
	Ref=	0.2	Based on type of equipment
	RefD=	25	
	D=	1939	Distance from equipment to sensitive receptor
	Equip=	0.000	
	Annoyance VdB		
	Ref=	72	Based on type of equipment
	RefD=	25	
	D=	1939	Distance from equipment to sensitive receptor
	Equip=	15	

Peak demolition vibration based on utilizing an Impact Pile Driver.

Source: FTA Tranist Noise and Vibration Impact Assessment, 2006.

	0		Multi-family residences to the northeast at Portside Ventura Harbor
Ref=	Reference vibration level (PPV)		
RefD=	Reference distance for Reference vibration level (Feet)		
	Vibration PPV		
	Ref=	0.2	Based on type of equipment
	RefD=	25	
	D=	2064	Distance from equipment to sensitive receptor
	Equip=	0.000	
	Annoyance VdB		
	Ref=	72	Based on type of equipment
	RefD=	25	
	D=	2064	Distance from equipment to sensitive receptor
	Equip=	14	

Peak demolition vibration based on utilizing an Impact Pile Driver.

Source: FTA Tranist Noise and Vibration Impact Assessment, 2006.

0		PPV @ 132 feet	
Ref=	Reference vibration level (PPV)		
RefD=	Reference distance for Reference vibration level (Feet)		
	Vibration PPV		
	Ref=	0.2	Based on type of equipment
	RefD=	25	
	D=	132	Distance from equipment to sensitive receptor
	Equip=	0.016	
	Annoyance VdB		
	Ref=	72	Based on type of equipment
	RefD=	25	
	D=	132	Distance from equipment to sensitive receptor
	Equip=	50	

Peak demolition vibration based on utilizing an Impact Pile Driver.

Source: FTA Tranist Noise and Vibration Impact Assessment, 2006.

APPENDIX E

VMT Analysis

TO: Jessica Kirchner, AICP; Impact Sciences

FROM: Jonathan Sanchez, PE, TE, PTOE; CR Associates

DATE: April 10, 2025

RE: Ventura Commercial Fishing Port Development – Vehicle Miles Traveled (VMT) Analysis

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The purpose of this memorandum is to document the results of the Vehicle Miles Traveled (VMT) Analysis conducted for the Ventura Commercial Fishing Port Development project (the "Proposed Project"). The analysis is based on the State of California Code of Regulations Title 14, § 15064.3 - Determining the Significance of Transportation Impacts. Under Section 15064.3, VMT, which includes the amount and distance of automobile traffic attributable to a project, is identified as the "most appropriate measure of transportation impacts". This methodology is consistent with the guidance provided in the Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018, authored by the Governor's Office of Planning and Research (OPR).

Project Description

The Ventura Port District (VPD) proposes to modernize and expand its commercial fishing infrastructure inside Ventura Harbor, a 274-acre mixed-use recreational and working waterfront. The project would create a state-of-the-art off-loading complex that (1) boosts the harbor's current squid-landing throughput and (2) provides capacity to receive landings that will be displaced from the Port of Hueneme in Oxnard when that port phases out commercial fishing. Regional and site context are shown in **Figures 1** and **2**.

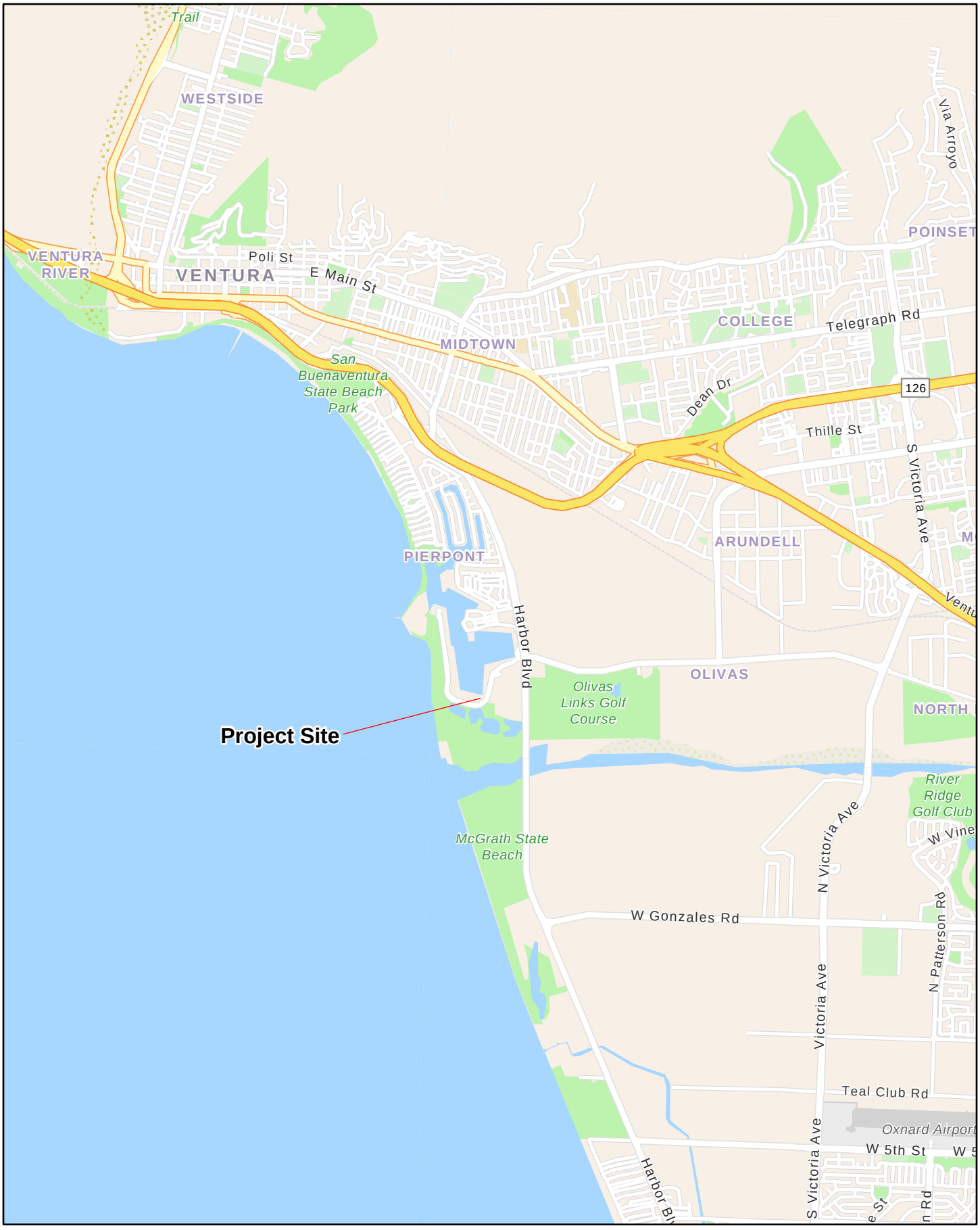
The undertaking is financed by a Port and Freight Infrastructure Program (PFIP) grant from the California State Transportation Agency. In partnership with the Port of Hueneme, the grant shifts Hueneme's fishing activity to Ventura Harbor, freeing back-land cargo space there. Because the two harbors are separate special districts, the environmental analysis in this document addresses only physical changes within the Ventura Port District.

Ventura already hosts California's leading California-market-squid fleet. In 2022, the harbor handled roughly 29,000 tons of squid—about 41 percent of statewide landings—brought in by some 34 vessels serving Del Mar Seafoods, Silver Bay Seafoods, and J. DeLuca Fish Co. The season runs May-January, with peaks in July and November.

Today squid are unloaded by pier-mounted vacuum pumps, piped ashore, de-watered, iced in totes, and trucked to processors and markets. To meet future demand and improve waterfront compatibility, the project will remove portions of the existing processing complex and replace them with purpose-built facilities that clearly separate industrial operations from visitor-oriented uses.

Existing development

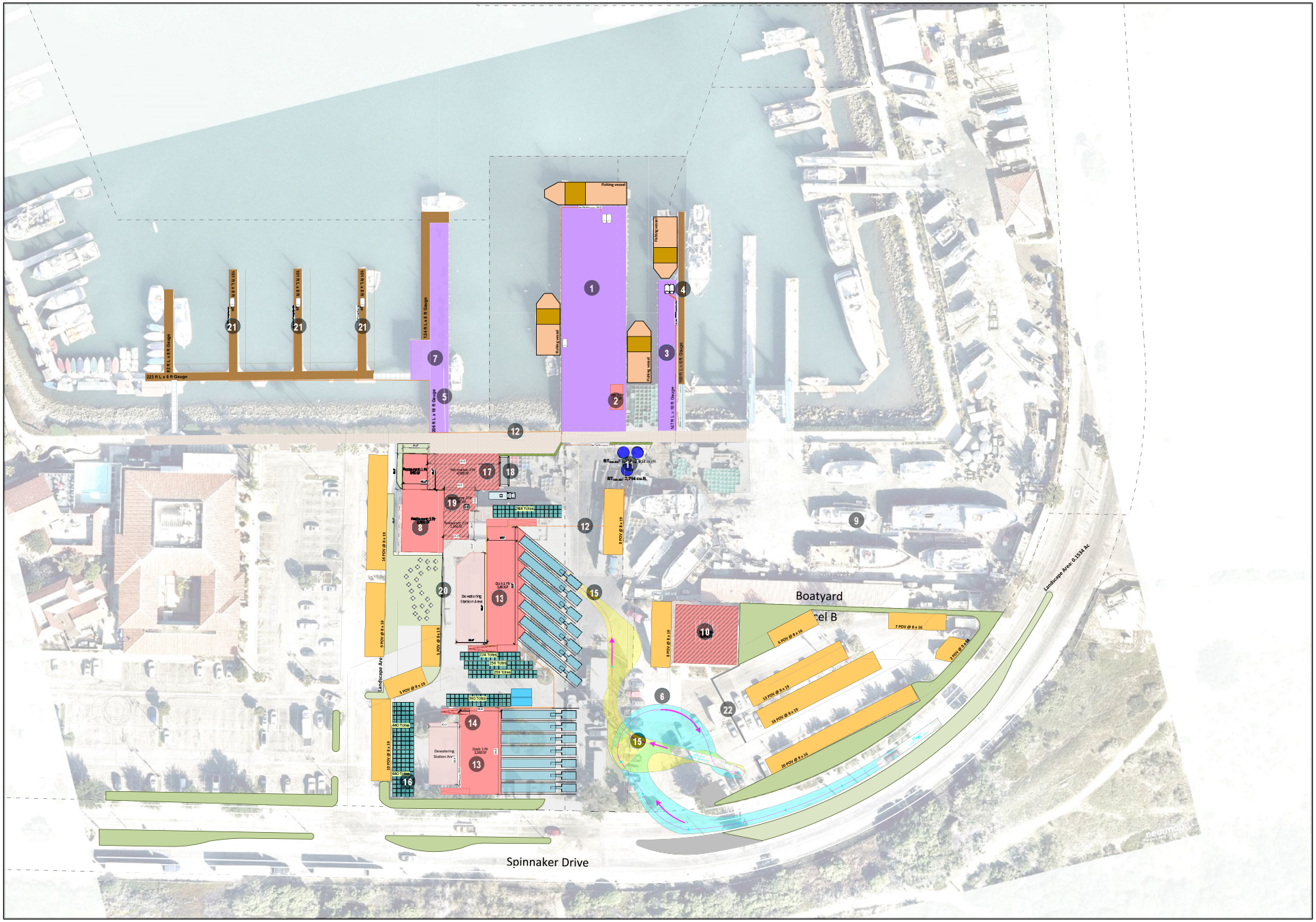
- Two-story processing building (~5,000 sq ft)
- One-story annex that houses the fish market and restaurant (~2,000 sq ft)
- Semi-permanent support structure (~1,300 sq ft)



Ventura Commercial Fishing Port Development
VMT Analysis

C+R

Figure 1
Project Regional Location



Ventura Commercial Fishing Port Development
VMT Analysis

Figure 2
Project Site Plan

Proposed improvements

- New two-story squid-processing building (~4,900 sq ft) with covered loading docks, upgraded pumps/pipelines, and consolidated tote storage
- Separate two-story visitor-serving building (~10,800 sq ft total) containing a 4,900 sq ft public fish market, 1,200 sq ft of ADA-compliant restrooms, and ~4,700 sq ft of restaurant space
- Eight-foot-high masonry sound/privacy wall buffering retail/dining areas from industrial activity
- Reconfigured parking, truck circulation, and other passive-use enhancements (see Figure 2)

With these upgrades, Ventura Harbor could accommodate up to 62,500 tons of landings per season, retain regional fishing jobs, and maintain a balanced interface between working-waterfront functions and public waterfront enjoyment.

As shown, the Project is a mixed-use development that includes three distinct components serving the Ventura Port District (VPD): (1) a new squid-processing facility equipped to accommodate additional squid landings and relocated employees from the Port of Hueneme; (2) a new fish market building designed to house the existing fish market with improved operational and storage capacity; and (3) updated restaurant spaces to accommodate the current restaurant use. Consequently, the following analysis focuses on these three land uses.

Under the California Environmental Quality Act (CEQA), per guidelines issued by the Governor's Office of Planning and Research (OPR), a Vehicle Miles Traveled (VMT) analysis only covers passenger vehicle trips and excludes freight or heavy-duty truck travel. As stated in OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018):

> *"Agencies should not analyze VMT resulting from goods movement (e.g., heavy-duty truck trips) as part of the transportation impact analysis."*

Therefore, while the environmental document presents truck-related information for reference, it remains outside the scope of the CEQA transportation impact analysis.

Transportation Impact Analysis

As noted at the outset of this memorandum, the transportation impact assessment follows the guidance in the OPR Technical Advisory. Because the Advisory designates vehicle miles traveled (VMT) as the preferred metric for transportation effects—and directs that each component of a mixed-use project be examined individually—this study addresses three distinct elements:

- Squid-processing facility (employment use) – evaluates whether the additional workforce would raise VMT per employee.
- Fish market (retail use) – analyzes whether customer trips would increase regional VMT.
- Restaurant (retail use) – likewise reviews whether patron trips would add to regional VMT.

The Advisory also supplies screening thresholds intended to streamline analysis; land uses that meet these thresholds are presumed to have a less-than-significant transportation impact under CEQA. The next section summarizes those screening criteria.

VMT Screening Criteria

The OPR Technical Advisory suggests that lead agencies may screen out VMT using project size, location, transit availability, and provision of affordable housing. Many agencies use these screening thresholds to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study, and these thresholds are identified below:

- *Small Project* – Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.
- *Map-Based Screening for Residential and Office Projects* – Residential and office projects located in areas with low VMT per capita, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT.
- *Locally Serving Retail* - "locally serving" retail are small stores or restaurants below about 50,000 square feet that draw customers from the immediate neighborhood or capture trips people are already making and is presumed to shorten or redistribute travel rather than generate new regional trips. Because these uses tend to reduce or have no net effect on Vehicle Miles Traveled (VMT), lead agencies may treat them as having a less-than-significant transportation impact and may forgo a project-level VMT analysis for the retail component.
- *Presumption of Less Than Significant Impact Near Transit Stations* – Certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less-than-significant impact on VMT.
- *Presumption of Less Than Significant Impact for Affordable Residential Development* – Adding affordable housing to infill locations generally improves jobs-housing match in turn shortening commutes and reducing VMT per capita. In areas where existing jobs-housing match is closer to optimal, affordable housing nevertheless generates less VMT than market-rate housing. Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT.

Based on the criteria presented above, the proposed Project may meet one or more of the screening criteria, thus an analysis was conducted for each of the land uses.

Squid-processing facility (employment use)

The squid-processing facility functions as an employment use. Its expansion is designed to serve vessels moving from the Port of Hueneme and the extra personnel needed to run the enlarged operation. To see whether this component meets CEQA screening thresholds, we prepared a trip-generation estimate tied to the number of employees expected to relocate. The analysis below reflects peak-season activity for the three main operators—Cal Marine, Sun Coast Calamari, and Southern Cal Seafood.

During the peak squid season (May through January), employee activity will increase to accommodate 24/7 operations. Based on data provided by the tenants, the following number of employees are anticipated during peak season:

- **Cal Marine**: 8–10 employees
- **Sun Coast Calamari**: 8 employees
- **Southern Cal Seafood**: 8 employees

During non-peak periods, staffing reduces to approximately 2 employees per operator, totaling 6 employees overall. As shown in **Table 1**, the project currently generates 52 employee daily trips during peak season.

Table 1 – Project Trip Generation

Tenants	Employees[1]	Trip Rate	ADT
Cal Marine	10	2 trips / employee	20
Sun Coast Calamari	8	2 trips / employee	16
Southern Cal Seafood	8	2 trips / employee	16
		Total ADT	**52**

Source: Cal Marine, Sun Coast Calamari, and Southern Cal Seafood (2025).

Note:
[1] Number of employees during peak season.

As shown, the total number of trips from the relocated employees would be 52 average daily trips, which is less than the 110 average daily trips under the small project threshold. Thus, the squid processing facility portion of the Project would meet the Small Project threshold, is presumed to have a less than significant impact under CEQA, and no additional analysis would be required.

Fish market (retail use)

The proposed 4,900-square-foot fish-market building squarely qualifies as "locally serving retail" under the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA. The Advisory notes that adding retail close to where people already live or recreate generally shortens shopping trips and therefore "lead agencies may presume such development creates a less-than-significant transportation impact"; only regionally oriented retail—typically stores larger than about 50,000 square feet—should undergo a project-level VMT study.

Because the fish market's floor area is an order of magnitude below that 50-k-square-foot benchmark and merely replaces (and slightly expands) an existing harbor fish market that already serves visitors, nearby residents, and on-site restaurant patrons, it will not attract substantial new regional trips. Instead, it is expected to capture or shorten trips that are already occurring in and around Ventura Harbor. Consistent with the Advisory's screening guidance, the fish-market component can therefore be presumed to have a less-than-significant transportation impact, and no additional VMT analysis is required for this portion of the project.

Restaurant (retail use)

The proposed 4,700-square-foot restaurant squarely meets the "locally serving retail" screen set out in the OPR Technical Advisory. The OPR Technical Advisory notes that small-format retail and dining uses typically shorten trip lengths or capture trips already occurring nearby, and therefore their transportation effects are presumed less than significant; it further explains that retail spaces larger than about 50,000 square feet are generally the point at which a project may be considered "regional-serving" and should undergo a full VMT study.

At just 4,700 square feet—less than one-tenth of that 50,000-square-foot benchmark—the restaurant component is clearly local in scale. It replaces and modernizes the existing harbor eatery, serving patrons who are already visiting Ventura Harbor Village or the immediate neighborhood rather than attracting diners from across the region. Because it satisfies the Advisory's local-serving retail screen, the restaurant can be presumed to have a less-than-significant transportation impact, and no additional VMT analysis is required for this element of the project under CEQA.

Conclusion

The Ventura Harbor Commercial Fishing Port Development Project would not generate any transportation-related impacts that rise to a level of significance under CEQA, for the reasons summarized below.

a) Consistency with adopted circulation plans and facilities

All improvements remain within the Harbor Commercial zoning district, a land-use designation that expressly anticipates marine-dependent activities and visitor-serving uses and therefore do not conflict with the Ventura Port District or the City of Ventura's General Plan or other circulation policies. Pedestrian and bicycle access along the waterfront promenade will stay open throughout construction and operation, and only minor geometric refinements to Spinnaker Drive—chiefly wider curb radii and, if warranted, new traffic controls—are proposed to accommodate turning movements for delivery trucks; these changes will be coordinated with the City and are consistent with local roadway design standards. No transit routes are rerouted or removed, and on-site resurfacing and re-striping will improve internal circulation for all modes. Accordingly, the project does not conflict with any program, plan, or ordinance, or policy governing the circulation system.

b) Compliance with CEQA Guidelines § 15064.3(b) (Vehicle Miles Traveled)

Under the OPR Technical, retail or restaurant spaces smaller than about 50,000 square feet are presumed "locally serving" and therefore have a less-than-significant VMT impact, while employment uses are evaluated on a per-employee basis.

- The project's 4,900-sq-ft fish market and 4,700-sq-ft restaurant both fall well below this 50 k-sq-ft threshold and simply replace existing on-site operations, capturing trips already destined for Ventura Harbor.
- The 4,900-sq-ft squid-processing building accommodates employees who are relocating from the Port of Hueneme rather than generating a new workforce; as such, regional VMT per employee will not increase and may decrease because work trips will shorten for staff who reside closer to Ventura. This component also falls under the small project threshold and thus is presumed to have a less than significant impact.

Collectively, the three land-use components therefore comply with § 15064.3(b) and no further VMT analysis is required.

c) Geometric design hazards or incompatible uses

Site design replaces temporary ramps with purpose-built, code-compliant loading docks, adds clear truck maneuvering space, and separates industrial activity from visitor areas with an 8-foot masonry wall. The modest curb-radius adjustments on Spinnaker Drive eliminate potential truck encroachment without introducing sharp curves or other hazardous features. No incompatible roadway users (e.g., farm equipment) are introduced, so the project will not substantially increase design-related hazards. Potential modifications to the intersection of the project driveway and Spinnaker Drive will be evaluated in a traffic operations assessment at a later point, and

improvements coordinated with the City of Ventura. Improvements may include, but are not limited to: signalization of the intersection, installation of stop signs, or restricting driveway access to right-in/right-out movements.

d) Emergency-access adequacy

Primary emergency access from Spinnaker Drive is maintained, and internal drive aisles are being resurfaced and re-striped to meet fire-code width and turning-radius standards. A construction-period management plan will employ temporary signage, flaggers, and, if needed, short-term lane closures to keep routes clear for emergency responders. Consequently, the project will not impede emergency access during either construction or long-term operations.

Because the project avoids conflicts with circulation policies, meets OPR VMT screening criteria, introduces no hazardous design elements, and preserves emergency access, all transportation impacts are considered less than significant under CEQA