

Attachment 1

Air Quality Modeling Results

Seaside County Sanitation District - North Central Coast Air Basin, Annual

Seaside County Sanitation District North Central Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	14.81	1000sqft	0.34	14,805.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.8	Precipitation Freq (Days)	53
Climate Zone	4			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Number of working days provided by SCSD

Off-road Equipment - Fleet based on similar project

Off-road Equipment - Fleet based on similar project

Off-road Equipment - Fleet based on similar project

Grading - Graded acres assumed to be disturbance area for each

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	33.00

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tblConstructionPhase	NumDays	2.00	135.00
tblConstructionPhase	NumDays	2.00	31.00
tblConstructionPhase	PhaseEndDate	7/24/2019	8/20/2019
tblConstructionPhase	PhaseStartDate	7/23/2019	7/5/2019
tblGrading	AcresOfGrading	30.94	0.06
tblGrading	AcresOfGrading	126.56	0.22
tblGrading	AcresOfGrading	29.06	0.06
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders

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tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

2.0 Emissions Summary

Unmitigated Construction

Mitigated Construction

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-8-2019	10-7-2019	0.9314	0.9314
2	10-8-2019	1-7-2020	0.9267	0.9267
3	1-8-2020	4-7-2020	0.8462	0.8462
4	4-8-2020	7-7-2020	0.0093	0.0093
		Highest	0.9314	0.9314

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2800e-003	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2800e-003	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2800e-003	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2800e-003	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Canyon Del Rey	Grading	7/5/2019	8/20/2019	5	33	
2	Del Monte Ave	Grading	8/21/2019	2/25/2020	5	135	
3	Tioga Ave	Grading	2/26/2020	4/8/2020	5	31	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.34

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Del Monte Ave	Concrete/Industrial Saws	0	8.00	81	0.73
Tioga Ave	Concrete/Industrial Saws	0	8.00	81	0.73
Del Monte Ave	Rubber Tired Dozers	1	1.00	247	0.40
Canyon Del Rey	Concrete/Industrial Saws	0	8.00	81	0.73
Tioga Ave	Rubber Tired Dozers	1	1.00	247	0.40
Del Monte Ave	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Tioga Ave	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Canyon Del Rey	Excavators	1	5.00	158	0.38
Canyon Del Rey	Graders	1	5.00	187	0.41
Canyon Del Rey	Scrapers	1	5.00	367	0.48
Canyon Del Rey	Rubber Tired Dozers	1	1.00	247	0.40
Canyon Del Rey	Rollers	1	5.00	80	0.38
Canyon Del Rey	Dumpers/Tenders	1	5.00	16	0.38
Canyon Del Rey	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Canyon Del Rey	Off-Highway Trucks	1	5.00	402	0.38
Canyon Del Rey	Pumps	1	5.00	84	0.74
Del Monte Ave	Excavators	1	5.00	158	0.38
Del Monte Ave	Graders	1	5.00	187	0.41

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Del Monte Ave	Scrapers	1	5.00	367	0.48
Del Monte Ave	Rollers	1	5.00	80	0.38
Del Monte Ave	Dumpers/Tenders	1	5.00	16	0.38
Del Monte Ave	Off-Highway Trucks	1	5.00	402	0.38
Del Monte Ave	Pumps	1	5.00	84	0.74
Tioga Ave	Excavators	1	5.00	158	0.38
Tioga Ave	Graders	1	5.00	187	0.41
Tioga Ave	Scrapers	1	5.00	367	0.48
Tioga Ave	Rollers	1	5.00	80	0.38
Tioga Ave	Dumpers/Tenders	1	5.00	16	0.38
Tioga Ave	Off-Highway Trucks	1	5.00	402	0.38
Tioga Ave	Pumps	1	5.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Del Monte Ave	9	23.00	0.00	0.00	12.30	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Tioga Ave	9	23.00	0.00	0.00	12.30	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Canyon Del Rey	9	23.00	0.00	0.00	12.30	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Canyon Del Rey - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0125	0.0000	0.0125	6.8300e-003	0.0000	6.8300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0392	0.4248	0.2760	5.7000e-004		0.0188	0.0188		0.0175	0.0175	0.0000	51.1674	51.1674	0.0146	0.0000	51.5328
Total	0.0392	0.4248	0.2760	5.7000e-004	0.0125	0.0188	0.0312	6.8300e-003	0.0175	0.0243	0.0000	51.1674	51.1674	0.0146	0.0000	51.5328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-003	1.9100e-003	0.0169	4.0000e-005	3.4400e-003	3.0000e-005	3.4700e-003	9.1000e-004	3.0000e-005	9.4000e-004	0.0000	3.2808	3.2808	1.5000e-004	0.0000	3.2846
Total	2.0000e-003	1.9100e-003	0.0169	4.0000e-005	3.4400e-003	3.0000e-005	3.4700e-003	9.1000e-004	3.0000e-005	9.4000e-004	0.0000	3.2808	3.2808	1.5000e-004	0.0000	3.2846

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3.2 Canyon Del Rey - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0125	0.0000	0.0125	6.8300e-003	0.0000	6.8300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0392	0.4248	0.2760	5.7000e-004		0.0188	0.0188		0.0175	0.0175	0.0000	51.1673	51.1673	0.0146	0.0000	51.5327
Total	0.0392	0.4248	0.2760	5.7000e-004	0.0125	0.0188	0.0312	6.8300e-003	0.0175	0.0243	0.0000	51.1673	51.1673	0.0146	0.0000	51.5327

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-003	1.9100e-003	0.0169	4.0000e-005	3.4400e-003	3.0000e-005	3.4700e-003	9.1000e-004	3.0000e-005	9.4000e-004	0.0000	3.2808	3.2808	1.5000e-004	0.0000	3.2846
Total	2.0000e-003	1.9100e-003	0.0169	4.0000e-005	3.4400e-003	3.0000e-005	3.4700e-003	9.1000e-004	3.0000e-005	9.4000e-004	0.0000	3.2808	3.2808	1.5000e-004	0.0000	3.2846

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3.3 Del Monte Ave - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0359	0.0000	0.0359	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1130	1.2228	0.7946	1.6500e-003		0.0540	0.0540		0.0503	0.0503	0.0000	147.3000	147.3000	0.0421	0.0000	148.3519
Total	0.1130	1.2228	0.7946	1.6500e-003	0.0359	0.0540	0.0898	0.0197	0.0503	0.0699	0.0000	147.3000	147.3000	0.0421	0.0000	148.3519

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7500e-003	5.4900e-003	0.0486	1.0000e-004	9.9000e-003	9.0000e-005	9.9800e-003	2.6300e-003	8.0000e-005	2.7100e-003	0.0000	9.4448	9.4448	4.4000e-004	0.0000	9.4557
Total	5.7500e-003	5.4900e-003	0.0486	1.0000e-004	9.9000e-003	9.0000e-005	9.9800e-003	2.6300e-003	8.0000e-005	2.7100e-003	0.0000	9.4448	9.4448	4.4000e-004	0.0000	9.4557

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3.3 Del Monte Ave - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0359	0.0000	0.0359	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1130	1.2228	0.7946	1.6500e-003		0.0540	0.0540		0.0503	0.0503	0.0000	147.2998	147.2998	0.0421	0.0000	148.3517
Total	0.1130	1.2228	0.7946	1.6500e-003	0.0359	0.0540	0.0898	0.0197	0.0503	0.0699	0.0000	147.2998	147.2998	0.0421	0.0000	148.3517

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7500e-003	5.4900e-003	0.0486	1.0000e-004	9.9000e-003	9.0000e-005	9.9800e-003	2.6300e-003	8.0000e-005	2.7100e-003	0.0000	9.4448	9.4448	4.4000e-004	0.0000	9.4557
Total	5.7500e-003	5.4900e-003	0.0486	1.0000e-004	9.9000e-003	9.0000e-005	9.9800e-003	2.6300e-003	8.0000e-005	2.7100e-003	0.0000	9.4448	9.4448	4.4000e-004	0.0000	9.4557

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3.3 Del Monte Ave - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0152	0.0000	0.0152	8.2900e-003	0.0000	8.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0444	0.4717	0.3233	7.0000e-004		0.0205	0.0205		0.0191	0.0191	0.0000	60.8255	60.8255	0.0177	0.0000	61.2670
Total	0.0444	0.4717	0.3233	7.0000e-004	0.0152	0.0205	0.0356	8.2900e-003	0.0191	0.0274	0.0000	60.8255	60.8255	0.0177	0.0000	61.2670

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-003	2.0400e-003	0.0182	4.0000e-005	4.1700e-003	4.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.8567	3.8567	1.6000e-004	0.0000	3.8607
Total	2.2000e-003	2.0400e-003	0.0182	4.0000e-005	4.1700e-003	4.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.8567	3.8567	1.6000e-004	0.0000	3.8607

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3.3 Del Monte Ave - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0152	0.0000	0.0152	8.2900e-003	0.0000	8.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0444	0.4717	0.3233	7.0000e-004		0.0205	0.0205		0.0191	0.0191	0.0000	60.8254	60.8254	0.0177	0.0000	61.2669
Total	0.0444	0.4717	0.3233	7.0000e-004	0.0152	0.0205	0.0356	8.2900e-003	0.0191	0.0274	0.0000	60.8254	60.8254	0.0177	0.0000	61.2669

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-003	2.0400e-003	0.0182	4.0000e-005	4.1700e-003	4.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.8567	3.8567	1.6000e-004	0.0000	3.8607
Total	2.2000e-003	2.0400e-003	0.0182	4.0000e-005	4.1700e-003	4.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.8567	3.8567	1.6000e-004	0.0000	3.8607

Seaside County Sanitation District - North Central Coast Air Basin, Annual

3.4 Tioga Ave - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0117	0.0000	0.0117	6.4200e-003	0.0000	6.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0344	0.3656	0.2505	5.4000e-004		0.0159	0.0159		0.0148	0.0148	0.0000	47.1397	47.1397	0.0137	0.0000	47.4819
Total	0.0344	0.3656	0.2505	5.4000e-004	0.0117	0.0159	0.0276	6.4200e-003	0.0148	0.0212	0.0000	47.1397	47.1397	0.0137	0.0000	47.4819

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-003	1.5800e-003	0.0141	3.0000e-005	3.2300e-003	3.0000e-005	3.2600e-003	8.6000e-004	3.0000e-005	8.8000e-004	0.0000	2.9890	2.9890	1.2000e-004	0.0000	2.9921
Total	1.7000e-003	1.5800e-003	0.0141	3.0000e-005	3.2300e-003	3.0000e-005	3.2600e-003	8.6000e-004	3.0000e-005	8.8000e-004	0.0000	2.9890	2.9890	1.2000e-004	0.0000	2.9921

Seaside County Sanitation District - North Central Coast Air Basin, Annual

3.4 Tioga Ave - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0117	0.0000	0.0117	6.4200e-003	0.0000	6.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0344	0.3656	0.2505	5.4000e-004		0.0159	0.0159		0.0148	0.0148	0.0000	47.1397	47.1397	0.0137	0.0000	47.4819
Total	0.0344	0.3656	0.2505	5.4000e-004	0.0117	0.0159	0.0276	6.4200e-003	0.0148	0.0212	0.0000	47.1397	47.1397	0.0137	0.0000	47.4819

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-003	1.5800e-003	0.0141	3.0000e-005	3.2300e-003	3.0000e-005	3.2600e-003	8.6000e-004	3.0000e-005	8.8000e-004	0.0000	2.9890	2.9890	1.2000e-004	0.0000	2.9921
Total	1.7000e-003	1.5800e-003	0.0141	3.0000e-005	3.2300e-003	3.0000e-005	3.2600e-003	8.6000e-004	3.0000e-005	8.8000e-004	0.0000	2.9890	2.9890	1.2000e-004	0.0000	2.9921

4.0 Operational Detail - Mobile

Seaside County Sanitation District - North Central Coast Air Basin, Annual

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.538577	0.029539	0.200691	0.130346	0.023427	0.005544	0.018258	0.038656	0.003068	0.002679	0.007152	0.001102	0.000959

5.0 Energy Detail

5.1 Mitigation Measures Energy

[illegible]

Seaside County Sanitation District - North Central Coast Air Basin, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Mitigated

[illegible]

Seaside County Sanitation District - North Central Coast Air Basin, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Seaside County Sanitation District - North Central Coast Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2800e-003	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004
Unmitigated	1.2800e-003	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004
Total	1.2800e-003	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004

Seaside County Sanitation District - North Central Coast Air Basin, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004
Total	1.2800e-003	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6000e-004	2.6000e-004	0.0000	0.0000	2.8000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Seaside County Sanitation District - North Central Coast Air Basin, Annual

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Seaside County Sanitation District - North Central Coast Air Basin, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

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

Seaside County Sanitation District - North Central Coast Air Basin, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Seaside County Sanitation District - North Central Coast Air Basin, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Seaside County Sanitation District - North Central Coast Air Basin, Winter

Seaside County Sanitation District North Central Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	14.81	1000sqft	0.34	14,805.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.8	Precipitation Freq (Days)	53
Climate Zone	4			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Number of working days provided by SCSD

Off-road Equipment - Fleet based on similar project

Off-road Equipment - Fleet based on similar project

Off-road Equipment - Fleet based on similar project

Grading - Graded acres assumed to be disturbance area for each

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	33.00

Seaside County Sanitation District - North Central Coast Air Basin, Winter

tblConstructionPhase	NumDays	2.00	135.00
tblConstructionPhase	NumDays	2.00	31.00
tblConstructionPhase	PhaseEndDate	7/24/2019	8/20/2019
tblConstructionPhase	PhaseStartDate	7/23/2019	7/5/2019
tblGrading	AcresOfGrading	30.94	0.06
tblGrading	AcresOfGrading	126.56	0.22
tblGrading	AcresOfGrading	29.06	0.06
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders

Seaside County Sanitation District - North Central Coast Air Basin, Winter

tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

2.0 Emissions Summary

Unmitigated Construction

[illegible]

Seaside County Sanitation District - North Central Coast Air Basin, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.0800e-003	1.0000e-005	1.5200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005		3.4600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	7.0800e-003	1.0000e-005	1.5200e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005	0.0000	3.4600e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.0800e-003	1.0000e-005	1.5200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005		3.4600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	7.0800e-003	1.0000e-005	1.5200e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005	0.0000	3.4600e-003

Seaside County Sanitation District - North Central Coast Air Basin; Winter

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

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Canyon Del Rey	Grading	7/5/2019	8/20/2019	5	33	
2	Del Monte Ave	Grading	8/21/2019	2/25/2020	5	135	
3	Tioga Ave	Grading	2/26/2020	4/8/2020	5	31	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.34

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Del Monte Ave	Concrete/Industrial Saws	0	8.00	81	0.73
Tioga Ave	Concrete/Industrial Saws	0	8.00	81	0.73
Del Monte Ave	Rubber Tired Dozers	1	1.00	247	0.40
Canyon Del Rey	Concrete/Industrial Saws	0	8.00	81	0.73
Tioga Ave	Rubber Tired Dozers	1	1.00	247	0.40
Del Monte Ave	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Tioga Ave	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Seaside County Sanitation District - North Central Coast Air Basin, Winter

Canyon Del Rey	Excavators	1	5.00	158	0.38
Canyon Del Rey	Graders	1	5.00	187	0.41
Canyon Del Rey	Scrapers	1	5.00	367	0.48
Canyon Del Rey	Rubber Tired Dozers	1	1.00	247	0.40
Canyon Del Rey	Rollers	1	5.00	80	0.38
Canyon Del Rey	Dumpers/Tenders	1	5.00	16	0.38
Canyon Del Rey	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Canyon Del Rey	Off-Highway Trucks	1	5.00	402	0.38
Canyon Del Rey	Pumps	1	5.00	84	0.74
Del Monte Ave	Excavators	1	5.00	158	0.38
Del Monte Ave	Graders	1	5.00	187	0.41
Del Monte Ave	Scrapers	1	5.00	367	0.48
Del Monte Ave	Rollers	1	5.00	80	0.38
Del Monte Ave	Dumpers/Tenders	1	5.00	16	0.38
Del Monte Ave	Off-Highway Trucks	1	5.00	402	0.38
Del Monte Ave	Pumps	1	5.00	84	0.74
Tioga Ave	Excavators	1	5.00	158	0.38
Tioga Ave	Graders	1	5.00	187	0.41
Tioga Ave	Scrapers	1	5.00	367	0.48
Tioga Ave	Rollers	1	5.00	80	0.38
Tioga Ave	Dumpers/Tenders	1	5.00	16	0.38
Tioga Ave	Off-Highway Trucks	1	5.00	402	0.38
Tioga Ave	Pumps	1	5.00	84	0.74

Trips and VMT

Seaside County Sanitation District - North Central Coast Air Basin, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Del Monte Ave	9	23.00	0.00	0.00	12.30	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Tioga Ave	9	23.00	0.00	0.00	12.30	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Canyon Del Rey	9	23.00	0.00	0.00	12.30	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Canyon Del Rey - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7547	0.0000	0.7547	0.4140	0.0000	0.4140			0.0000			0.0000
Off-Road	2.3782	25.7435	16.7284	0.0348		1.1363	1.1363		1.0582	1.0582		3,418.3258	3,418.3258	0.9764		3,442.7357
Total	2.3782	25.7435	16.7284	0.0348	0.7547	1.1363	1.8910	0.4140	1.0582	1.4722		3,418.3258	3,418.3258	0.9764		3,442.7357

Seaside County Sanitation District - North Central Coast Air Basin, Winter

3.2 Canyon Del Rey - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1339	0.1271	1.0641	2.2000e-003	0.2152	1.8400e-003	0.2170	0.0571	1.7000e-003	0.0588		218.1560	218.1560	0.0102		218.4108
Total	0.1339	0.1271	1.0641	2.2000e-003	0.2152	1.8400e-003	0.2170	0.0571	1.7000e-003	0.0588		218.1560	218.1560	0.0102		218.4108

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7547	0.0000	0.7547	0.4140	0.0000	0.4140			0.0000			0.0000
Off-Road	2.3782	25.7435	16.7284	0.0348		1.1363	1.1363		1.0582	1.0582	0.0000	3,418.3258	3,418.3258	0.9764		3,442.7357
Total	2.3782	25.7435	16.7284	0.0348	0.7547	1.1363	1.8910	0.4140	1.0582	1.4722	0.0000	3,418.3258	3,418.3258	0.9764		3,442.7357

Seaside County Sanitation District - North Central Coast Air Basin, Winter

3.2 Canyon Del Rey - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1339	0.1271	1.0641	2.2000e-003	0.2152	1.8400e-003	0.2170	0.0571	1.7000e-003	0.0588		218.1560	218.1560	0.0102		218.4108
Total	0.1339	0.1271	1.0641	2.2000e-003	0.2152	1.8400e-003	0.2170	0.0571	1.7000e-003	0.0588		218.1560	218.1560	0.0102		218.4108

3.3 Del Monte Ave - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7545	0.0000	0.7545	0.4140	0.0000	0.4140			0.0000			0.0000
Off-Road	2.3782	25.7435	16.7284	0.0348		1.1363	1.1363		1.0582	1.0582		3,418.3258	3,418.3258	0.9764		3,442.7357
Total	2.3782	25.7435	16.7284	0.0348	0.7545	1.1363	1.8908	0.4140	1.0582	1.4721		3,418.3258	3,418.3258	0.9764		3,442.7357

Seaside County Sanitation District - North Central Coast Air Basin, Winter

3.3 Del Monte Ave - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1339	0.1271	1.0641	2.2000e-003	0.2152	1.8400e-003	0.2170	0.0571	1.7000e-003	0.0588		218.1560	218.1560	0.0102		218.4108
Total	0.1339	0.1271	1.0641	2.2000e-003	0.2152	1.8400e-003	0.2170	0.0571	1.7000e-003	0.0588		218.1560	218.1560	0.0102		218.4108

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7545	0.0000	0.7545	0.4140	0.0000	0.4140			0.0000			0.0000
Off-Road	2.3782	25.7435	16.7284	0.0348		1.1363	1.1363		1.0582	1.0582	0.0000	3,418.3258	3,418.3258	0.9764		3,442.7357
Total	2.3782	25.7435	16.7284	0.0348	0.7545	1.1363	1.8908	0.4140	1.0582	1.4721	0.0000	3,418.3258	3,418.3258	0.9764		3,442.7357

Seaside County Sanitation District - North Central Coast Air Basin, Winter

3.3 Del Monte Ave - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1339	0.1271	1.0641	2.2000e-003	0.2152	1.8400e-003	0.2170	0.0571	1.7000e-003	0.0588		218.1560	218.1560	0.0102		218.4108
Total	0.1339	0.1271	1.0641	2.2000e-003	0.2152	1.8400e-003	0.2170	0.0571	1.7000e-003	0.0588		218.1560	218.1560	0.0102		218.4108

3.3 Del Monte Ave - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7545	0.0000	0.7545	0.4140	0.0000	0.4140			0.0000			0.0000
Off-Road	2.2214	23.5855	16.1642	0.0348		1.0237	1.0237		0.9530	0.9530		3,352.4299	3,352.4299	0.9734		3,376.7642
Total	2.2214	23.5855	16.1642	0.0348	0.7545	1.0237	1.7781	0.4140	0.9530	1.3670		3,352.4299	3,352.4299	0.9734		3,376.7642

Seaside County Sanitation District - North Central Coast Air Basin, Winter

3.3 Del Monte Ave - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1215	0.1123	0.9427	2.1300e-003	0.2152	1.7700e-003	0.2169	0.0571	1.6300e-003	0.0587		211.5698	211.5698	8.8000e-003		211.7899
Total	0.1215	0.1123	0.9427	2.1300e-003	0.2152	1.7700e-003	0.2169	0.0571	1.6300e-003	0.0587		211.5698	211.5698	8.8000e-003		211.7899

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7545	0.0000	0.7545	0.4140	0.0000	0.4140			0.0000			0.0000
Off-Road	2.2214	23.5855	16.1642	0.0348		1.0237	1.0237		0.9530	0.9530	0.0000	3,352.4299	3,352.4299	0.9734		3,376.7642
Total	2.2214	23.5855	16.1642	0.0348	0.7545	1.0237	1.7781	0.4140	0.9530	1.3670	0.0000	3,352.4299	3,352.4299	0.9734		3,376.7642

Seaside County Sanitation District - North Central Coast Air Basin, Winter

3.3 Del Monte Ave - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1215	0.1123	0.9427	2.1300e-003	0.2152	1.7700e-003	0.2169	0.0571	1.6300e-003	0.0587		211.5698	211.5698	8.8000e-003		211.7899
Total	0.1215	0.1123	0.9427	2.1300e-003	0.2152	1.7700e-003	0.2169	0.0571	1.6300e-003	0.0587		211.5698	211.5698	8.8000e-003		211.7899

3.4 Tioga Ave - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7548	0.0000	0.7548	0.4140	0.0000	0.4140			0.0000			0.0000
Off-Road	2.2214	23.5855	16.1642	0.0348		1.0237	1.0237		0.9530	0.9530		3,352.4299	3,352.4299	0.9734		3,376.7642
Total	2.2214	23.5855	16.1642	0.0348	0.7548	1.0237	1.7785	0.4140	0.9530	1.3670		3,352.4299	3,352.4299	0.9734		3,376.7642

Seaside County Sanitation District - North Central Coast Air Basin, Winter

3.4 Tioga Ave - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1215	0.1123	0.9427	2.1300e-003	0.2152	1.7700e-003	0.2169	0.0571	1.6300e-003	0.0587		211.5698	211.5698	8.8000e-003		211.7899
Total	0.1215	0.1123	0.9427	2.1300e-003	0.2152	1.7700e-003	0.2169	0.0571	1.6300e-003	0.0587		211.5698	211.5698	8.8000e-003		211.7899

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7548	0.0000	0.7548	0.4140	0.0000	0.4140			0.0000			0.0000
Off-Road	2.2214	23.5855	16.1642	0.0348		1.0237	1.0237		0.9530	0.9530	0.0000	3,352.4299	3,352.4299	0.9734		3,376.7642
Total	2.2214	23.5855	16.1642	0.0348	0.7548	1.0237	1.7785	0.4140	0.9530	1.3670	0.0000	3,352.4299	3,352.4299	0.9734		3,376.7642

Seaside County Sanitation District - North Central Coast Air Basin, Winter

3.4 Tioga Ave - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1215	0.1123	0.9427	2.1300e-003	0.2152	1.7700e-003	0.2169	0.0571	1.6300e-003	0.0587		211.5698	211.5698	8.8000e-003		211.7899
Total	0.1215	0.1123	0.9427	2.1300e-003	0.2152	1.7700e-003	0.2169	0.0571	1.6300e-003	0.0587		211.5698	211.5698	8.8000e-003		211.7899

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Seaside County Sanitation District - North Central Coast Air Basin, Winter

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.538577	0.029539	0.200691	0.130346	0.023427	0.005544	0.018258	0.038656	0.003068	0.002679	0.007152	0.001102	0.000959

5.0 Energy Detail

Historical Energy Use: N

Seaside County Sanitation District - North Central Coast Air Basin, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Seaside County Sanitation District - North Central Coast Air Basin, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.0800e-003	1.0000e-005	1.5200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005		3.4600e-003
Unmitigated	7.0800e-003	1.0000e-005	1.5200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005		3.4600e-003

Seaside County Sanitation District - North Central Coast Air Basin, Winter

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.6900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005		3.4600e-003
Total	7.0700e-003	1.0000e-005	1.5200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005		3.4600e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.6900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005		3.4600e-003
Total	7.0700e-003	1.0000e-005	1.5200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2400e-003	3.2400e-003	1.0000e-005		3.4600e-003

7.0 Water Detail

Seaside County Sanitation District - North Central Coast Air Basin, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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11.0 Vegetation

Attachment 2
Biological Resources Regulatory Setting and
Special Status Species Lists

Regulatory Setting

This appendix provides additional information about regulations that pertain to the biological resources identified in this document.

Federal Laws and Regulations

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 protects fish, wildlife, and plant species listed by the USFWS and/or the National Oceanic and Atmospheric Administration (NOAA) Fisheries as threatened or endangered. The term “endangered” refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range; “threatened” refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

The USFWS and NOAA Fisheries administer FESA. In general, NOAA Fisheries is responsible for protection of FESA-listed marine species and anadromous fish while other listed species are under the jurisdiction of the USFWS.

Section 9 of FESA prohibits the “take” of any fish or wildlife species listed under FESA as endangered or threatened, although “take” of threatened species may be authorized under certain federal regulations. “Take,” as defined by the ESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Harm is defined as “any act that kills or injures the species, including significant habitat modification.”

In addition to prohibiting “take” of wildlife species, Section 9 prohibits removing, digging up, cutting, and maliciously damaging or destroying federally listed plants that may occur at sites under federal jurisdiction.

“Incidental take”, which is “take” resulting from otherwise lawful activities, may be authorized by the USFWS. Section 7 of the ESA provides a means for authorizing take of threatened and endangered species by federal agencies, while Section 10 of FESA provides the same for non-federal activities.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and

their eggs (16 USC 703, 50 CFR 21, 50 CFR 10). Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the MBTA.

Examples of permitted actions that do not violate the MBTA include: the possession of a hunting license to pursue specific game birds; legitimate research activities; display in zoological gardens; bird-banding; and other similar activities (Faanes et al. 1992). USFWS is responsible for overseeing compliance with the MBTA.

State Laws and Regulations

California Endangered Species Act

The California Endangered Species Act (CESA)(Fish and Game Section 2050 et seq.), which is administered by CDFG, protects wildlife and plants listed as threatened and endangered by the California Fish and Game Commission. CESA prohibits all persons from taking species that are state-listed as threatened or endangered except under certain circumstances. CESA defines "take" as any action or attempt to "hunt, pursue, catch, capture, or kill" a listed species. Section 2081 of CESA provides a means by which agencies or individuals may obtain authorization for incidental take of state-listed species, except for certain species designated as "fully protected" under the California Fish and Game Code (see below). Under Section 2081, a take must be incidental to, and not the purpose of, an otherwise lawful activity. In general, the requirements include identification of impacts on listed species; development of mitigation measures that minimize and fully mitigate impacts; development of a monitoring plan; and assurance of funding to implement mitigation and monitoring.

California Fish and Game Code

The California Fish and Game Code (Code) provides a variety of species protection from unauthorized take. The Code defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Certain species are considered fully protected, meaning that the Code explicitly prohibits all take of individuals of these species, except for take required for scientific research, which may be authorized by CDFG. Section 5050 of the Code lists fully protected amphibians and reptiles, Section 5515 lists fully protected fishes, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals.

The Code provides less stringent protection for other species, prohibiting most take, but permitting CDFG to issue regulations authorizing take under certain circumstances. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines) are protected under Sections 3513 and 3503.5, birds of prey are protected under Section 3503.5, migratory non-game birds are protected under Section 3800, and other specified birds are protected under Section 3505.

California Native Plant Protection Act

The California Native Plant Protection Act (CNPPA) of 1977 prohibits importation of rare and endangered plants into California; unauthorized take of rare and endangered plants; and sale of rare and endangered plants (the "threatened" category replaced "rare" when the CESA was enacted in 1984). CESA defers to the CNPPA, which ensures that state-listed plant species are protected when state agencies are involved in projects subject to CEQA. Removal of plants for performance of a public service by a public agency or a publicly- or privately-owned public utility is exempt from CNPPA.

Regional and Local Plans and Policies

California Coastal Act

Under the Coastal Zone Management Act of 1972 and California Coastal Act of 1976, the California Coastal Commission is entrusted to review proposed development in the Coastal Zone with the goal of protecting and enhancing the coastal environment while allowing utilization and public access for coastal zone-dependent uses. When a federal agency serves as the lead for the project, the mechanism for Coastal Commission review is through a "consistency determination" in which the project would be required to comply with the statutes of the Coastal Act with the Local Coastal Program providing guidance.

The Coastal Act identifies Environmental Sensitive Habitat Areas (ESHA), which are areas "in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." ESHAs and the areas around them are given special protection, and "...development in areas adjacent to [ESHA] ... shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat ... areas."

Laguna Grande, and its freshwater lake and marsh and riparian habitats are identified in the City of Seaside's Local Coastal Program (LCP) as part of a larger protected Marine Resource Area that includes Laguna Grande, Roberts Lake, and the waterways and outfalls that connect them.

City of Seaside General Plan

California law requires each city to adopt a comprehensive, long-term general plan to guide the physical development of the community. Seaside's General Plan serves as the 'blueprint' for future growth and development, containing policies and programs that provide the community's decision makers with a basis for decisions related to land use and development. In accordance with State law, the General Plan is the primary document that the City uses to guide and regulate the use of land within its boundaries. Seaside is in the process of updating the General Plan, which will guide the city through 2040.

The General Plan consists of a Land Use Policy Map and eight mandatory Elements, or chapters. Two elements pertain to this project, the Conservation and Open Space Elements, in which the freshwater lake and marsh and riparian habitats of Laguna Grande (as well as Roberts Lake and the waterways between them) are protected from encroachment and degradation.

City of Seaside Tree Ordinance

The Tree Ordinance prohibits the removal of any tree on private property in the City of Seaside without a permit. The ordinance also contains a list of trees, which may not be planted without a permit (including Monterey Pine, Monterey Cypress, Coast Redwood, Blue Gum Eucalyptus, Willows, Cottonwood, and Poplar). Any tree removed must be replaced with a species and at a location approved by the Board of Architectural Review (BAR) or other appropriate authority.

**California Natural Diversity Database Results
for Seaside Sanitation District Canyon Del Rey and Del Monte Pipeline Replacements**

Scientific Name	Common Name	Status	Habitat	Potential to Occur In or Near Project Area
Animals				
Anniella pulchra	northern California legless lizard	-/-/SSC, S	Sandy or loose loamy soils with high moisture content; under sparse vegetation	Although a general occurrence for this species has been reported in a large area that includes this species, because of the urban setting of the project area, no habitat for this species is present.
Athene cunicularia	burrowing owl	-/-/SSC, S	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Requires burrows for nesting; dependent on California ground squirrel burrows	No habitat for this species is present in the project area.
Bombus occidentalis	western bumble bee	-/-/SSC, S	Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	No habitat for this species is present in the project area.
Charadrius alexandrinus nivosus	western snowy plover	T/-/SSC	Sandy beaches, salt pond levees & shores of large alkali lakes; sandy, gravelly or friable soils for nesting.	No habitat for this species is present in the project area.
Coelus globosus	globose dune beetle	-/-/-	Inhabits foredunes and sand hummocks; it burrows beneath the sand surface and is most common beneath dune vegetation.	No habitat for this species is present in the project area.
Coturnicops noveboracensis	yellow rail	-/-/SSC, S	Freshwater marshlands.	No habitat for this species is present in the project area, but this species may occur in Laguna Grande, within 275 feet of the project area.
Danaus plexippus pop. 1	monarch - California overwintering pop.	-/-/S	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	No habitat for this species is present in the project area.
Euphilotes enoptes smithi	Smith's blue butterfly	E/-/-	Coastal dunes & coastal sage scrub plant communities in Monterey & Santa Cruz counties. Hostplant: Eriogonum latifolium and Eriogonum parvifolium	No habitat for this species is present in the project area.
Lasiurus cinereus	hoary bat	-/-/-	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	No habitat for this species is present in the project area, but this species may forage over Laguna Grande, within 275 feet of the project area.
Reithrodontomys megalotis distichlis	Salinas harvest mouse	-/-/-	Occurs in fresh and brackish water wetlands and probably in the adjacent uplands around the mouth of the Salinas River.	Although a general occurrence for this species has been reported in a large area that includes this species, because of the urban setting of the project area, no habitat for this species is present.

California Natural Diversity Database Results
for Seaside Sanitation District Canyon Del Rey and Del Monte Pipeline Replacements

Riparia riparia	bank swallow	-/T/S	Colonial nester; nests primarily in riparian and other lowland habitats with vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, and ocean.	No habitat for this species is present in the project area, but this species may forage over Laguna Grande, within 275 feet of the project area.
Taxidea taxus	American badger	-/-/SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Preys on burrowing rodents. Digs burrows.	Although a general occurrence for this species has been reported in a large area that includes this species, because of the urban setting of the project area, no habitat for this species is present.
Plants				
Allium hickmanii	Hickman's onion	-/-/1B.2, S	Closed-cone coniferous forest, chaparral, coastal scrub, coastal prairie. Sandy loam, damp ground and vernal swales; mostly in grassland though can be associated with chaparral or woodland. 5-200 m.	No habitat for this species is present in the project area.
Arctostaphylos hookeri ssp. hookeri	Hooker's manzanita	-/-/1B.2, S	Chaparral, coastal scrub, closed-cone coniferous forest, cismontane woodland. Sandy soils, sandy shales, sandstone outcrops. 30-550 m.	No habitat for this species is present in the project area.
Arctostaphylos montereyensis	Toro manzanita	-/-/1B.2, S	Chaparral, cismontane woodland, coastal scrub. Sandy soil, usually with chaparral associates. 45-765 m.	No habitat for this species is present in the project area.
Arctostaphylos pajaroensis	Pajaro manzanita	-/-/1B.1, S	Chaparral with sandy soils. 30-170 m.	No habitat for this species is present in the project area.
Arctostaphylos pumila	sandmat manzanita	-/-/1B.2, S	Closed-cone coniferous forest, chaparral, cismontane woodland, coastal dunes, coastal scrub in sandy soil. 3-210 m.	Although a general occurrence for this species has been reported in a large area that includes this species, because of the urban setting of the project area, no habitat for this species is present.
Castilleja ambigua var. insalutata	pink Johnny-nip	-/-/1B.1	Coastal bluff scrub, coastal prairie. Wet or moist coastal strand or scrub habitats. 3-135 m.	No habitat for this species is present in the project area.
Chorizanthe minutiflora	Fort Ord spineflower	-/-/1B.2	Sandy, openings in coastal scrub, or northern maritime chaparral. 60-145 m.	No habitat for this species is present in the project area.
Chorizanthe pungens var. pungens	Monterey spineflower	T/-/1B.2	Sandy soils in coastal dunes, chaparral, cismontane woodland, coastal scrub. 3-270 m.	Although a general occurrence for this species has been reported in a large area that includes this species, because of the urban setting of the project area, no habitat for this species is present.
Clarkia jolonensis	Jolon clarkia	-/-/1B.2, S	Cismontane woodland, chaparral, coastal scrub, riparian woodland. 10-1280 m.	Although a general occurrence for this species has been reported in a large area that includes this species, because of the urban setting of the project area, no habitat for this species is present.

**California Natural Diversity Database Results
for Seaside Sanitation District Canyon Del Rey and Del Monte Pipeline Replacements**

<i>Collinsia multicolor</i>	San Francisco collinsia	-/-/1B.2	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. 10-275 m.	No habitat for this species is present in the project area.
<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>	seaside bird's-beak	-/E/1B.1, S	Closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub. Prefers sandy often disturbed sites; elevation 0-215m.	No habitat for this species is present in the project area.
<i>Ericameria fasciculata</i>	Eastwood's goldenbush	-/-/1B.1, S	Sandy openings in closed-cone coniferous forest, chaparral (maritime), coastal scrub, coastal dunes. 30-215 m.	This species has been reported as occurring in the railway right-of-way that the project area will cut through. Because the project occurs only within the roadway, and fencing will be used to prevent project activities from encroaching into the railway right-of-way, the project will not affect this species.
<i>Erysimum ammophilum</i>	sand-loving wallflower	-/-/1B.2, S	Sandy openings in northern maritime Chaparral, coastal dunes, coastal scrub. 3-320 m.	Although a general occurrence for this species has been reported in a large area that includes this species, because of the urban setting of the project area, no habitat for this species is present.
<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>	Monterey gilia	E/T/1B.2	Coastal dunes, coastal scrub, chaparral (maritime), cismontane woodland. Sandy openings in bare, wind-sheltered areas. Often near dune summit or in the hind dunes; two records from Pleistocene inland dunes. 5-245 m.	Although a general occurrence for this species has been reported in a large area that includes this species, because of the urban setting of the project area, no habitat for this species is present.
<i>Horkelia cuneata</i> var. <i>sericea</i>	Kellogg's horkelia	-/-/1B.1, S	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral. Old dunes, coastal sandhills; openings. Sandy or gravelly soils. 5-430 m.	No habitat for this species is present in the project area.
<i>Microseris paludosa</i>	marsh microseris	-/-/1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub. 3-610 m.	No habitat for this species is present in the project area.
<i>Monardella sinuata</i> ssp. <i>nigrescens</i>	northern curly-leaved monardella	-/-/1B.2	Sandy soils in coastal dunes, coastal scrub, chaparral, lower montane coniferous forest. 10-245 m.	Although a general occurrence for this species has been reported in a large area that includes this species, because of the urban setting of the project area, no habitat for this species is present.
<i>Monolopia gracilis</i>	woodland woollythreads	-/-/1B.2	Chaparral, cismontane woodland. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. 120-975 m.	No habitat for this species is present in the project area.
<i>Pinus radiata</i>	Monterey pine	-/-/1B.1	Dry bluffs and slopes in closed-cone coniferous forest, cismontane woodland. Three primary stands are native to California. 60-125 m.	No habitat for this species is present in the project area.

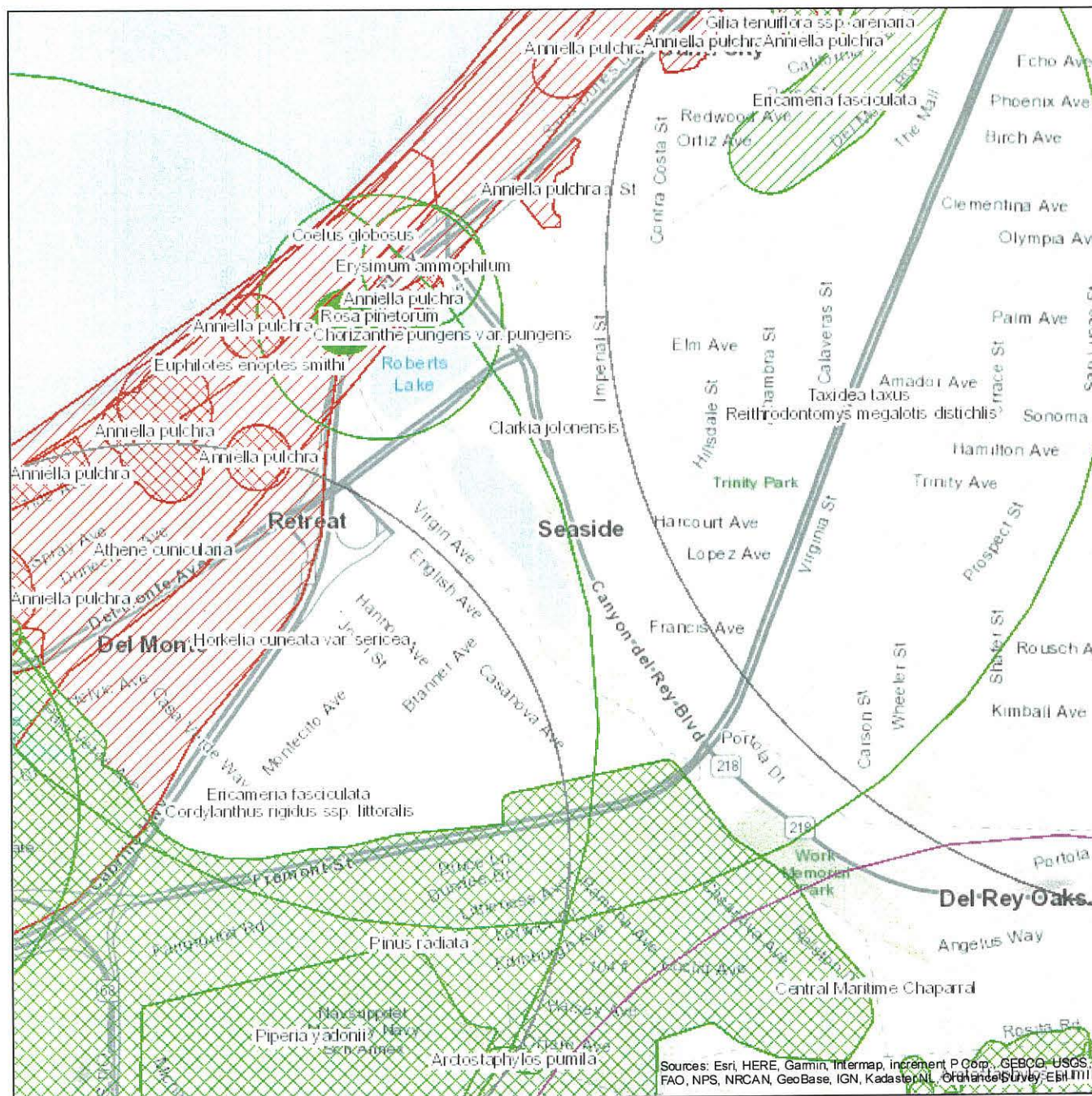
**California Natural Diversity Database Results
for Seaside Sanitation District Canyon Del Rey and Del Monte Pipeline Replacements**

Piperia yadonii	Yadon's rein orchid	E/-/1B.1	drained and often dry. Closed-cone coniferous forest, chaparral, coastal bluff scrub. 10-505 m.	No habitat for this species is present in the project area.
Potentilla hickmanii	Hickman's cinquefoil	E/E/1B.1	Coastal bluff scrub, closed-cone coniferous forest, freshwater marshes, seeps, and small streams in open or forested areas along the coast. 5-125 m.	No habitat for this species is present in the project area.
Rosa pinetorum	pine rose	-/-/1B.2	Closed-cone coniferous forest, cismontane woodland. 5-1090 m.	No habitat for this species is present in the project area.
Stebbinsoseris decipiens	Santa Cruz microseris	-/-/1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub. Found in open areas in loose or disturbed soil, usually derived from sandstone, shale or serpentine, on seaward slopes. 90-750 m.	No habitat for this species is present in the project area.
Trifolium buckwestlorum	Santa Cruz clover	-/-/1B.1, S	Coastal prairie, broadleafed upland forest, cismontane woodland. Moist grassland. Gravelly margins. 30-805 m.	No habitat for this species is present in the project area.
Trifolium polyodon	Pacific Grove clover	-/-/1B.1, S	Along small springs and seeps in grassy openings within closed-cone coniferous forest, meadows and seeps, coastal prairie. 5-260 m.	No habitat for this species is present in the project area.
E: Endangered				
T: Threatened				
SSC: CDFW Species of Special Concern				
S: USFWS and/or USFS Sensitive Species				
1B.1: Rare throughout its range, seriously threatened in California				
1B.2: Rare throughout its range, moderately threatened in California				
Accessed on December 1, 2018 at https://www.wildlife.ca.gov/data/cnddb/maps-and-data				

CNDDDB Map of Canyon Del Rey Alignment

California Natural Diversity
Database (CNDDB) Commercial
[ds85]

- | | |
|---|----------------------------------|
|  | Plant (80m) |
|  | Plant (specific) |
|  | Plant (non-specific) |
|  | Plant (circular) |
|  | Animal (80m) |
|  | Animal (specific) |
|  | Animal (non-specific) |
|  | Animal (circular) |
|  | Terrestrial Comm. (80m) |
|  | Terrestrial Comm. (specific) |
|  | Terrestrial Comm. (non-specific) |
|  | Terrestrial Comm. (circular) |
|  | Aquatic Comm. (80m) |
|  | Aquatic Comm. (specific) |
|  | Aquatic Comm. (non-specific) |
|  | Aquatic Comm. (circular) |
|  | Multiple (80m) |
|  | Multiple (specific) |
|  | Multiple (non-specific) |
|  | Multiple (circular) |
|  | Sensitive EO's (Commercial only) |



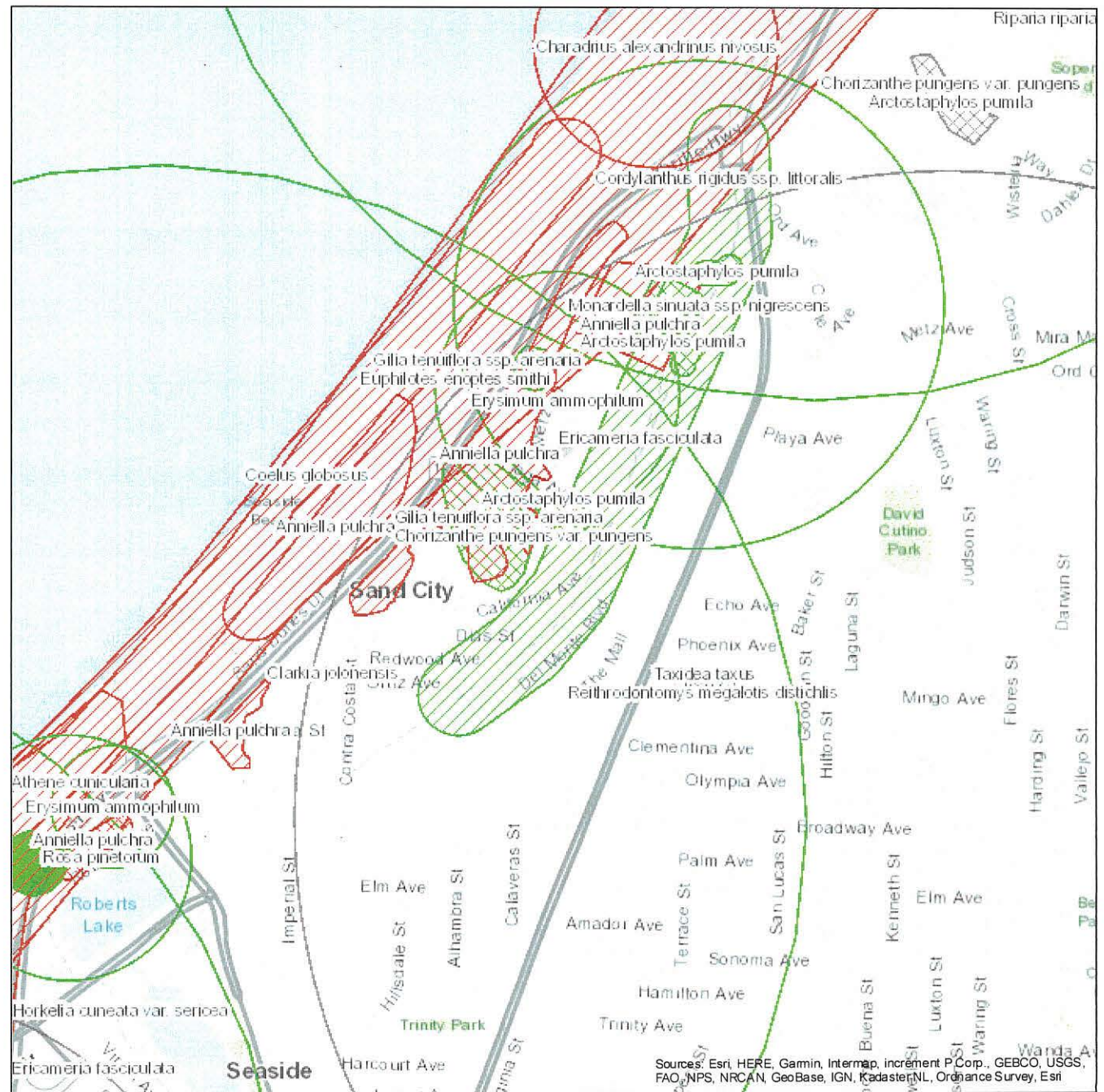
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

Author: Harris & Associates
Printed from <http://bios.dfg.ca.gov>

CNDDDB Map of Del Monte Alignment

California Natural Diversity
Database (CNDDDB) Commercial
[ds85]

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

California Native Plant Society
Rare Plant List for Seaside Sanitation District Canyon Del Rey and Del Monte Pipeline Replacement
Accessed December 1, 2018

Scientific Name	Common Name	Family	Life Form	CRPR	CEA	FECA	Blooming Period	Habitat	Elevation Range (ft)	Notes
<i>Astragalus tener</i> var. <i>titi</i>	coastal dunes milk-vetch	Fabaceae	annual herb	18.1	CE	FE	Mar-May	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie (mesic), often vernal mesic areas	0-155	Known from fewer than 10 occurrences. Threatened by urbanization, recreational activities, and non-native plants. See Bulletin of the Torrey Botanical Club 32:195-196 (1905) for original description, and Memoirs of the New York Botanical Garden 13:1048 (1964) for taxonomic treatment.
<i>Clinum caribaeum</i> var. <i>linchoplepis</i>	La Graciosa thistle	Asteraceae	perennial herb	18.1	CT	FE	May-Aug	Cismontane woodland, Coastal dunes, Coastal scrub, Marshes and swamps (brackish), Valley and foothill grassland, mesic, sandy	10-720	Known from fewer than twenty occurrences. Threatened by development, vehicles, groundwater pumping, and non-native plants. Possibly threatened by grazing.
<i>Cordylanthus rigidus</i> ssp. <i>littralis</i>	seaside bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	18.1	CE	None	Apr-Oct	Closed-cone coniferous forest, Chaparral (maritime), Cismontane woodland, Coastal dunes, Coastal scrub, sandy, often disturbed sites	0-1590	Treated by development, energy projects, road widening, vehicles, and military operations. Possibly threatened by non-native plants. See Bulletin of the Torrey Botanical Club 45:399-423 (1918) for original description, and Systematic Botany Monographs 10:35-48 (1986) for taxonomic treatment.
<i>Eriogonum butterworthianum</i>	Butterworth's buckwheat	Polygonaceae	perennial herb	18.3	CR	None	Jun-Jul	Chaparral (sandstone), Valley and foothill grassland, sandy	1915-2490	Known from only four occurrences near Arroyo Seco in the Santa Lucia Mts. See leaflets of Western Botany 99:303-352-354 (1961) for original description, and Phytologia 66(1):328 (1989) for taxonomic treatment. Potentially threatened by foot traffic.
<i>Erysimum menziesii</i>	Menzies wallflower	Brassicaceae	perennial herb	18.1	CE	FE	Mar-Sep	Coastal dunes	0-115	Plants treated as ssp. <i>eurentense</i> (known only from the Humboldt Bay area; threatened by development, vehicles, and non-native plants), <i>menziesii</i> (nearly extirpated on the Monterey Peninsula; seriously threatened by development, vehicles, deer browsing, and non-native plants), and <i>valdensii</i> (known only from near Marine on Monterey Bay; threatened by development and mining) are not validly published; see these names in T.M. (1993). See Zee 5(6-8):103 (1901) for original description.
<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>	Monterey Gilia	Polemoniaceae	annual herb	18.2	CT	FE	Apr-Jun	Chaparral (maritime), Cismontane woodland, Coastal dunes, Coastal scrub	0-150	Seriously threatened by development, and mining, vehicles, recreational activities, foot traffic, and non-native plants. Intergrades with ssp. <i>tenuiflora</i> near the Salinas River mouth. See Aliou 3(3):246 (1995) for revised nomenclature.
<i>Holocarpha macrodonia</i>	Santa Cruz tarplant	Asteraceae	annual herb	18.1	CE	FE	Jun-Oct	Coastal prairie, Coastal scrub, Valley and foothill grassland	90-720	All extant CCA Co. occurrences (4658, 4664) are introduced; nearly half have failed. Last remaining natural population in the S.F. Bay Area extirpated by development in 1993. Seriously threatened by urbanization, agriculture, non-native plants, and lack of appropriate ecological disturbance. See Fremontia 5(4):15-16 (1978) for species account.
<i>Layia canosa</i>	beach layia	Asteraceae	annual herb	18.1	CE	FE	Mar-Jul	Coastal dunes, Coastal scrub (sandy)	0-195	Threatened by coastal development, foot traffic, vehicles, and non-native plants.
<i>Lupinus tidentromii</i>	Tidentrom's lupine	Fabaceae	perennial rhizomatous herb	18.1	CE	FE	Apr-Jun	Coastal dunes	0-330	Known from fewer than 20 occurrences. Seriously threatened by coastal development, trampling, hybridization with <i>L. chamissonis</i> , and non-native plants; properly timed grazing may be beneficial. Possibly threatened by seed predation. Includes <i>L. tidentromii</i> var. <i>laynensis</i> . Only MNT Co. plants are extant. Endangered as var. <i>tidentromii</i> . See Erythra 8:17 (1895) for original description.
<i>Pedicularis dudleyi</i>	Dudley's lousewort	Orobanchaceae	perennial herb	18.2	CR	None	Apr-Jun	Chaparral (maritime), Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland	195-2955	Threatened by foot traffic, trail maintenance, and erosion. Potentially threatened by development. Plants from Arroyo de la Cruz (SLO Co.) are somewhat different and warrant further study. See Botanical Gazette 4:1318-1317 (1906) for original description.
<i>Pogogyne darsena</i>	Santa Lucia mint	Lamiaceae	annual herb	18.2	CE	None	Apr-Jul	Chaparral, Cismontane woodland, Riparian woodland, intermittent streams	980-2035	Known only from Ft. Hunter Liggett. Possibly threatened by road maintenance and military activities. See Four Seasons 4(3):22 (1973) for original description.
<i>Potentilla hickmanii</i>	Hickman's cinquefoil	Rosaceae	perennial herb	18.1	CE	FE	Apr-Aug	Coastal bluff scrub, Closed-cone coniferous forest, Meadows and seeps (vernally mesic), Marshes and swamps (freshwater)	30-490	Seriously threatened by urbanization, recreational activities, non-native grasses, grazing, and the proposed Devil's Slide Bypass highway project. Collections from SDN Co. are actually <i>P. uliginosa</i> . See Bulletin of the Torrey Botanical Club 26:77-78 (1902) for original description, and Fremontia 21(1):25-29 (1993) and 24(1):5-11 (1995) for species accounts.
<i>Suaeda maritima</i>	adobe sandile	Asteraceae	perennial herb	18.1	CR	None	Feb-May	Chaparral, Coastal prairie, Meadows and seeps, Valley and foothill grassland, clay, serpentine	95-785	Threatened by foot traffic, non-native plants, recreational activities, trampling, and urbanization. See Botany of California 2:461 (1889) for original description, and University of California Publications in Botany 25:61-62 (1951) for taxonomic treatment.
<i>Tribulum polyodon</i>	Pacific Grove clover	Fabaceae	annual herb	18.1	CR	None	Apr-Jun/Jul	Closed-cone coniferous forest, Coastal prairie, Meadows and seeps, Valley and foothill grassland, mesic, sometimes granitic	15-1395	Seriously threatened by urbanization, recreation, foot traffic, and trampling. Potentially threatened by non-native plants. A synonym of <i>T. variegatum</i> (phase 4) in The Jepson Manual, but appears to be distinct. See Phytologia 3:205 (1897) for original description.
<i>Trifolium trichocalyx</i>	Monterey clover	Fabaceae	annual herb	18.1	CE	FE	Apr-Jun	Closed-cone coniferous forest (sandy, openings, burned areas)	95-1000	Known from only two occurrences from the central portion of the Monterey Peninsula, where fewer than 1000 plants seen in 1987, none in 1992, and only 22 in 1995. Seriously threatened by urbanization and altered fire regimes. Appears to be a fire follower. Possibly of hybrid origin. See Muhlenberg 1:55 (1904) for original description and Madroño 59(6):167 (2012) for discovery of MEN Co. occurrence.

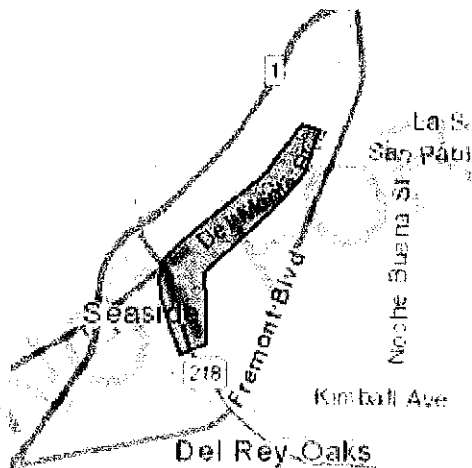
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Monterey County, California



Local office

Ventura Fish And Wildlife Office

☎ (805) 644-1766

📠 (805) 644-3958

2493 Portola Road, Suite B
Ventura, CA 93003-7726

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME

STATUS

California Condor <i>Gymnogyps californianus</i>	Endangered
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/8193	
California Least Tern <i>Sterna antillarum browni</i>	Endangered
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/8104	
Least Bell's Vireo <i>Vireo bellii pusillus</i>	Endangered
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/5945	
Marbled Murrelet <i>Brachyramphus marmoratus</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/4467	
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i>	Endangered
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/6749	
Western Snowy Plover <i>Charadrius nivosus nivosus</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/8035	

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/2891	
California Tiger Salamander <i>Ambystoma californiense</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/2076	

Fishes

NAME	STATUS
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Tidewater Goby *Eucyclogobius newberryi*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/57>

Insects

NAME

STATUS

Smith's Blue Butterfly *Euphilotes enoptes smithi*

Endangered

There is **proposed** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/4418>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/498>

Flowering Plants

NAME

STATUS

Clover Lupine *Lupinus tidestromii*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4459>

Contra Costa Goldfields *Lasthenia conjugens*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/7058>

Marsh Sandwort *Arenaria paludicola*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/2229>

Monterey Gilia *Gilia tenuiflora* ssp. *arenaria*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/856>

Monterey Spineflower *Chorizanthe pungens* var. *pungens*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/396>

Yadon's Plover *Plover yadonii*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/4205>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

Black Oystercatcher *Haematopus bachmani*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9591>

Breeds Apr 15 to Oct 31

Clark's Grebe *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Dec 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Golden Eagle *Aquila chrysaetos*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Breeds Jan 1 to Aug 31

Lawrence's Goldfinch *Carduelis lawrencei*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Breeds Mar 20 to Sep 20

Long-billed Curlew *Numenius americanus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/5511>

Marbled Godwit *Limosa fedoa*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Nuttall's Woodpecker *Picoides nuttallii*

Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Rufous Hummingbird *selasphorus rufus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8002>

Short-billed Dowitcher *Limnodromus griseus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Song Sparrow *Melospiza melodia*

Breeds Feb 20 to Sep 5

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee *Pipilo maculatus clementae*

Breeds Apr 15 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/4243>

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Whimbrel *Numenius phaeopus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9483>

Willet *Tringa semipalmata*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (P)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

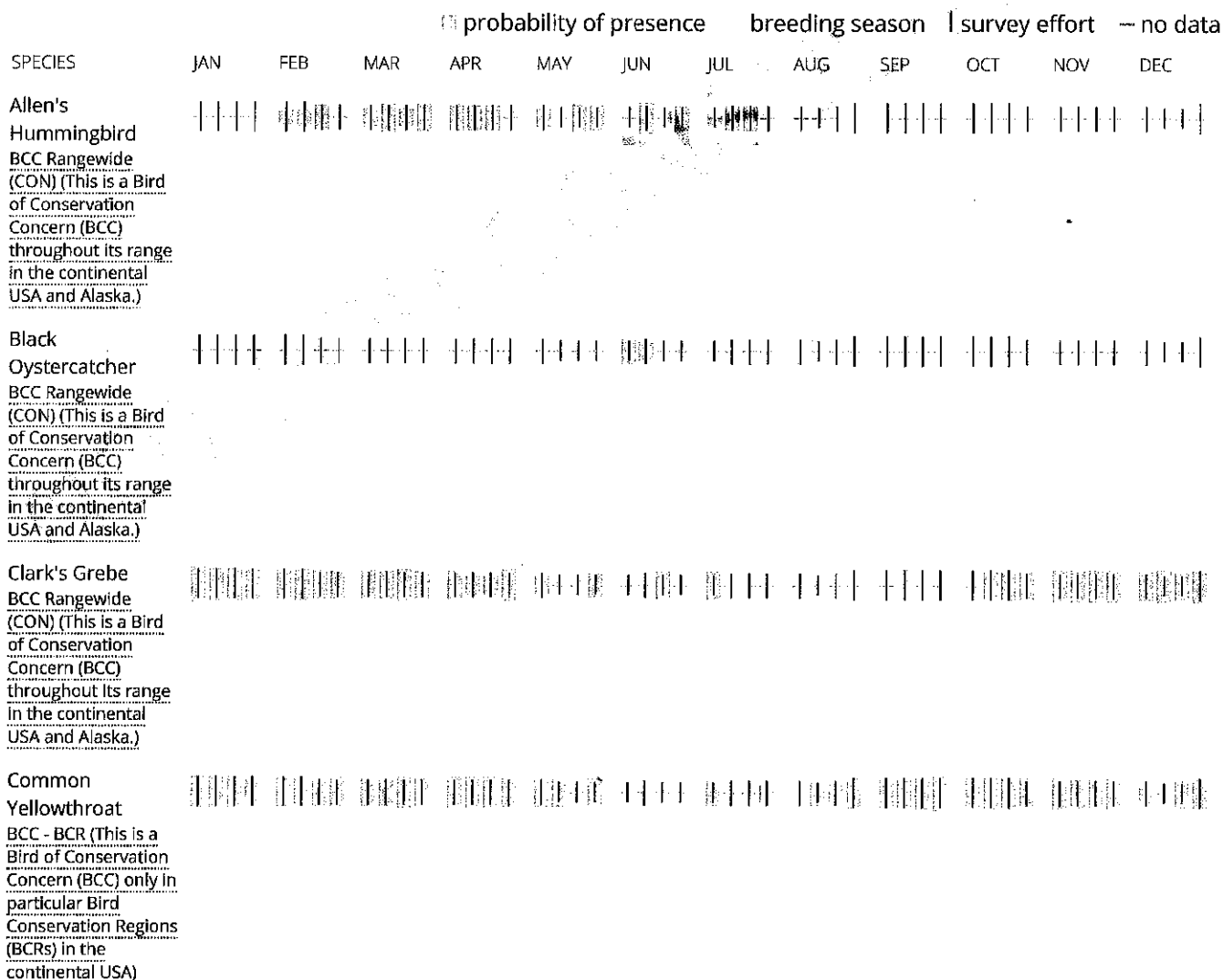
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Golden Eagle
 Non-BCC Vulnerable
 (This is not a Bird of
 Conservation
 Concern (BCC) in this
 area, but warrants
 attention because of
 the Eagle Act or for
 potential
 susceptibilities in
 offshore areas from
 certain types of
 development or
 activities.)

Lawrence's
 Goldfinch
 BCC Rangewide
 (CON) (This is a Bird
 of Conservation
 Concern (BCC)
 throughout its range
 in the continental
 USA and Alaska.)

Long-billed Curlew
 BCC Rangewide
 (CON) (This is a Bird
 of Conservation
 Concern (BCC)
 throughout its range
 in the continental
 USA and Alaska.)

Marbled Godwit
 BCC Rangewide
 (CON) (This is a Bird
 of Conservation
 Concern (BCC)
 throughout its range
 in the continental
 USA and Alaska.)

Nuttall's
 Woodpecker
 BCC - BCR (This is a
 Bird of Conservation
 Concern (BCC) only in
 particular Bird
 Conservation Regions
 (BCRs) in the
 continental USA)

Oak Titmouse
 BCC Rangewide
 (CON) (This is a Bird
 of Conservation
 Concern (BCC)
 throughout its range
 in the continental
 USA and Alaska.)

Rufous
 Hummingbird
 BCC Rangewide
 (CON) (This is a Bird
 of Conservation
 Concern (BCC)
 throughout its range
 in the continental
 USA and Alaska.)

Short-billed

Dowitcher

BCC Rangewide

(CON) (This is a Bird

of Conservation

Concern (BCC)

throughout its range

in the continental

USA and Alaska.)

SPECIES

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

Song Sparrow

BCC - BCR (This is a

Bird of Conservation

Concern (BCC) only in

particular Bird

Conservation Regions

(BCRs) in the

continental USA)

Spotted Towhee

BCC - BCR (This is a

Bird of Conservation

Concern (BCC) only in

particular Bird

Conservation Regions

(BCRs) in the

continental USA)

Tricolored

Blackbird

BCC Rangewide

(CON) (This is a Bird

of Conservation

Concern (BCC)

throughout its range

in the continental

USA and Alaska.)

Whimbrel

BCC Rangewide

(CON) (This is a Bird

of Conservation

Concern (BCC)

throughout its range

in the continental

USA and Alaska.)

Willet

BCC Rangewide

(CON) (This is a Bird

of Conservation

Concern (BCC)

throughout its range

in the continental

USA and Alaska.)

Wrentit

BCC Rangewide

(CON) (This is a Bird

of Conservation

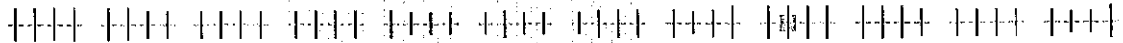
Concern (BCC)

throughout its range

in the continental

USA and Alaska.)

Yellow-billed
Magpie
BCC Rangewide
(CON) (This is a Bird
of Conservation
Concern (BCC)
throughout its range
in the continental
USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters.

Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

