Environmental Review Record

for the

Oakland Housing Authority Housing Sites Project

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APPENDIX A

CAPITAL BUDGET 2020-2024

Property Type	Property Name	Yardi Property	Fiscal Year	Project Type	Description	Scope/Notes	Priority	Budget Amount	Job Code
Large Family Sites	Campbell Village	ph_cv	FY2024	Site Improvements	Window Replacements			200,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2024	Interior Improvements	Vacant unit rehab		Medium	60,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2024	Equipment	Bathroom Exhaust Fans		Medium	185,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2024	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings	OHA Apartment Wi-Fi performed by the City and Education Superhighway with OHA	Medium	115,500	N/A
Large Family Sites	Campbell Village	ph_cv	FY2024	Interior Improvements	Common areas	Interior improvements	Medium	38,100	N/A
Large Family Sites	Campbell Village	ph_cv	FY2024	ADA	ADA	ADA Living Spaces & Guestrooms, Visual Bell & Strobe, Hearing-Impaired	High	6,800	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	Exterior-Landscaping	Landscape Renovation		High	800,000	cid-686
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	Parking Lot	LG resurface parking lots	Seal and stripe parking lots & address 3 parking lots with drainage challenges	High	300,000	cid-477
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	Site Improvements	LG full property signage replacement	New design for building Identification, address & general property signage	Medium	40,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	Site Improvements	Lockwood Monument Signage	Curb appeal for street sign, replace with new design	Medium	10,000	cid-472
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	Interior Improvements	LG FY24 Rehab Holding	20 projected rehabs @ $50K each	High	1,000,000	cid-688
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	PNA	Physical Needs Assessment Projects	Perform work identified by the PNA	High	200,000	cid-690
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	Security	Key Tracking System		Medium	15,000	cid-691
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	Sewer	LG Sewer Line Replacement		High	50,000	cid-692
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings	OHA Apartment Wi-Fi performed by the City and Education Superhighway with OHA	Medium	279,000	cid-693
Large Family Sites	Lockwood Gardens	ph_lg	FY2024	Exterior Improvements	Roof replacements	Replace roof and gutters on all 54 residential buildings	Medium	4,050,000	cid-485
Large Family Sites	Peralta Villa	ph_pv	FY2024	Parking Lot	PV seal & stripe parking lots	Seal and stripe parking lots; All parking lots	High	250,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2024	Site Improvements	PV full property signage replacement	New design for building Identification, address & general property signage	Medium	40,000	cid-698
Large Family Sites	Peralta Villa	ph_pv	FY2024	Interior Improvements	PV FY24 Rehab holding	15 projected rehabs	High	750,000	cid-700
Large Family Sites	Peralta Villa	ph_pv	FY2024	PNA	Physical Needs Assessment Projects	Perform work identified by the PNA	High	200,000	cid-701
Large Family Sites	Peralta Villa	ph_pv	FY2024	Security	Key Tracking System	For units & vehicles	Medium	15,000	cid-704
Large Family Sites	Peralta Villa	ph_pv	FY2024	Sewer	Peralta Sewer Line Replacement		High	50,000	cid-703
Large Family Sites	Peralta Villa	ph_pv	FY2024	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings	OHA Apartment Wi-Fi performed by the City and Education Superhighway with OHA	Medium	292,500	N/A
Designated Senior Sites	Harrison Towers	ph_ht	FY2024	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings	OHA Apartment Wi-Fi performed by the City and Education Superhighway with OHA		75,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2024	Interior Improvements	Vacant unit rehab		Medium	40,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2024	Interior Improvements	Heaters		High	220,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2024	Security	Video Storage System Server	Server replacement	Medium	6,786	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2024	Elevators	Elevator		High	150,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2024	Exterior Improvements	Common areas	Exterior improvements	High	5,900	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2024	Elevators	Elevator repairs	As needed emergency equipment replacement	High	10,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2024	Equipment	Boilers		High	50,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2024	Interior Improvements	Vacant unit rehab		Medium	50,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2024	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings	OHA Apartment Wi-Fi performed by the City and Education Superhighway with OHA	Medium	75,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2024	Exterior Improvements	Common areas	Exterior improvements	Medium	22,700	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2024	ADA	ADA	ADA Living Spaces & Guestrooms, Visual Bell & Strobe, Hearing-Impaired	High	9,100	N/A
HOPE VI Sites	Foothill Family Apts.	foothill	FY2024	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings	OHA Apartment Wi-Fi performed by the City and Education Superhighway with OHA		48,750	N/A
Disposition	Oak Grove North	ph_ogn	FY2024	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings	OHA Apartment Wi-Fi performed by the City and Education Superhighway with OHA		57,750	N/A
Disposition	Oak Grove South	ph_ogs	FY2024	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings	OHA Apartment Wi-Fi performed by the City and Education Superhighway with OHA		56,250	N/A
Large Family Sites	Campbell Village	ph_cv	FY2023	Site Improvements	Window Replacements	Window Replacements	HIGH	200,000	cid-467
Large Family Sites	Campbell Village	ph_cv	FY2023	Interior Improvements	Vacant unit rehab	Vacant unit rehab	MED	60,000	cid-468
Large Family Sites	Campbell Village	ph_cv	FY2023	Equipment	Bathroom Fans	Bathroom Fans	HIGH	185,000	cid-469
Large Family Sites	Campbell Village	ph_cv	FY2023	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings	On-Site Wi-Fi Infrastructure in residential buildings		166,667	N/A
Large Family Sites	Campbell Village	ph_cv	FY2023	Security	Video Storage System & Server	Video Storage System & Server		18,009	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Exterior Improvements	Exterior Painting	43 Buildings in total, Avg cost @ 58k each	HIGH	2,500,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Vehicle	Van		HIGH	30,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Parking Lot	LG resurface parking lots	Seal and stripe parking lots Q1	HIGH	140,000	cid-477
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Exterior Improvements	LG renovate playground	Renovate playground	MED	75,000	cid-475
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Site Improvements	LG Building ID Numbers	New design for building Identification	LOW	10,000	cid-471
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Site Improvements	Lockwood Street Signage	Curb appeal for street sign, replace with new design	LOW	10,000	cid-472
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Interior Improvements	LG FY23 Rehab Holding	15 projected rehabs @ $50K each	AS NEEDED	750,000	cid-476
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Inspection Prep	FY23 Unforeseen NSPIRE Prep	Inspection prep as needed	AS NEEDED	100,000	cid-478
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	PNA	Physical Needs Assessment Projects		AS NEEDED	500,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Security	Key Tracking System		MED	15,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Security	Video Storage System & Server	Video Storage System & Server - Allocated (Total cost $290K); $271,933 OHA, $18,067 OAHPI		54,085	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Sewer	LG Sewer Line Replacement			50,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings			166,667	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2023	Sewer	LG pumps/membrane assessment and replacement under the buildings	Pumps/membrane assessment and replacement under some of the buildings		100,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2023	Parking Lot	PV seal & stripe parking lots	Seal and stripe parking lots	HIGH	100,000	cid-485
Large Family Sites	Peralta Villa	ph_pv	FY2023	Site Improvements	838 & 914 Mandela telecom	Repair and replace phone line from street (12 units ea. Building)	MED	50,000	cid-483
Large Family Sites	Peralta Villa	ph_pv	FY2023	Site Improvements	PB Building ID Numbers	New design for building identification	MED	10,000	cid-484
Large Family Sites	Peralta Villa	ph_pv	FY2023	Interior Improvements	PV FY23 Rehab holding	15 projected rehabs @ $50K each	AS NEEDED	750,000	cid-486
Large Family Sites	Peralta Villa	ph_pv	FY2023	Inspection Prep	FY23 Unforeseen NSPIRE Prep	Inspection prep as needed	AS NEEDED	100,000	cid-487

Large Family Sites	Peralta Villa	ph_pv	FY2023	PNA	Physical Needs Assessment Projects	AS NEEDED	500,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2023	Security	Key Tracking System	MED	15,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2023	Security	Video Storage System & Server	Video Storage System & Server - Allocated (Total cost $290K); $271,933 OHA, $18,067 OAHPI	75,110	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2023	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings		166,667	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2023	Sewer	Peralta Sewer Line Replacement		50,000	N/A
Designated Senior Sites	Harrison Towers	ph_ht	FY2023	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings		166,667	N/A
Designated Senior Sites	Harrison Towers	ph_ht	FY2023	Security	Video Storage System & Server	Video Storage System & Server - Allocated (Total cost $290K); $271,933 OHA, $18,067 OAHPI	6,003	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2023	Exterior Improvements	Roof Replacement	Roof Repair	LOW	50,000	cid-464
Designated Senior Sites	Adel Court	ph_ac	FY2023	Interior Improvements	Vacant unit rehab	Vacant unit rehab	MED	40,000	cid-465
Designated Senior Sites	Adel Court	ph_ac	FY2023	Equipment	Heaters	Heater replacements	HIGH	180,000	cid-466
Designated Senior Sites	Adel Court	ph_ac	FY2023	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings			166,667	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2023	Security	Video Storage System & Server	Video Storage System & Server - Allocated (Total cost $290K); $271,933 OHA, $18,067 OAHPI		6,786	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2023	Elevators	Elevator repairs		LOW	50,000	cid-479
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2023	Equipment	Boilers		MED	20,000	cid-480
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2023	Interior Improvements	Vacant unit rehab		MED	50,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2023	Wi-Fi	On-Site Wi-Fi Infrastructure in residential buildings			166,667	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2023	Security	Video Storage System & Server	Video Storage System & Server - Allocated (Total cost $290K); $271,933 OHA, $18,067 OAHPI		22,562	N/A
Large Family Sites	Campbell Village	ph_cv	FY2022	Site Improvements	Window Replacements			200,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2022	Interior Improvements	Vacant unit rehab			60,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2022	Equipment	Bathroom Fans			185,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2022	Exterior Improvements	Siding Replacement/Repair			80,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2022	Site Improvements	LG Building ID Numbers	New design for building Identification		10,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2022	Site Improvements	Lockwood Street Signage	Curb appeal for street sign, replace with new design		10,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2022	Site Improvements	LG Trash Enclosure removal	Remove trash enclosure w/o bins that's causing illegal dumping		15,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2022	Exterior Improvements	LG Playground surface 2	Resurface playground		20,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2022	Exterior Improvements	LG renovate playground	Renovate playground		75,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2022	Interior Improvements	LG FY22 Rehab Holding	10 projected rehabs		450,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2022	Parking Lot	LG resurface parking lots	Seal and stripe parking lots		140,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2022	Inspection Prep	FY22 Unforeseen NSPIRE Prep	Inspection prep as needed		50,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2022	Exterior Improvements	New Site lighting	130 new lights + labor to replace		250,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2022	Site Improvements	838 & 914 Mandela telecom	Repair and replace phone line from street (12 units ea. Building)		50,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2022	Site Improvements	PB Building ID Numbers	New design for building identification		10,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2022	Parking Lot	PV seal & stripe parking lots	Seal and stripe parking lots		100,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2022	Interior Improvements	PV FY22 Rehab holding	10 projected rehabs		450,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2022	Inspection Prep	FY22 Unforeseen NSPIRE Prep	Inspection prep as needed		50,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2022	Exterior Improvements	Roof Replacement	Roof Replacement		100,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2022	Interior Improvements	Vacant unit rehab	Vacant unit rehab		40,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2022	Equipment	Heaters	Heater replacements		200,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2022	Elevators	Elevator repairs			200,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2022	Equipment	Boilers			20,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2022	Equipment	Replace motors on parking lot gates			80,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2021	Site Improvements	Concrete Grinding			22,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2021	Site Improvements	Tree Trimming			21,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2021	Site Improvements	Window Replacements			200,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2021	Site Improvements	Trash Enclosures			200,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2021	Exterior Improvements	Playground Upgrades			25,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2021	Equipment	Bathroom Fans			180,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2021	Exterior Improvements	Siding Replacement/Repair			40,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2021	Security	Security Camera System			250,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Vehicle	Purchase of Electric Vehicles			30,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Exterior Improvements	1315/1325 65th Ave playground surface repairs			20,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Site Improvements	site tree stump removal			30,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Interior Improvements	Unit Rehabs			360,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Parking Lot	slurry seal and stripe 14 parking lots			140,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Exterior Improvements	Exterior painting and dry rot abatement Phase 1			250,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Sewer	1307 66th Ave	Under building, front of building sewer repairs		25,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Exterior-Landscaping	Hardscape renovations / Landscaping			50,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Exterior Improvements	Entrance monument sign renovation			10,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2021	Inspection Prep	Unforeseen REAC Preparation			50,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2021	Vehicle	Purchase of Electric Vehicles			30,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2021	Interior Improvements	Unit Rehabs	5 unit rehabs by CID @ $45k ea		225,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2021	Exterior-Landscaping	Hardscape renovations / Landscaping			50,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2021	Inspection Prep	Unforeseen REAC Preparation			50,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2021	Exterior-Landscaping	Landscape improvement			50,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2021	Parking Lot	Parking lot concrete repair and slurry seal			25,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2021	Interior Improvements	Common area refurbishment	Upkeep needed, last improvements in 2010		75,000	N/A

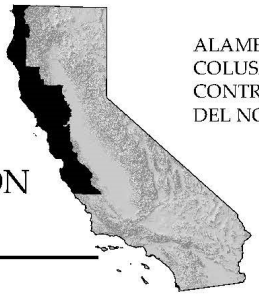
Designated Senior Sites	Adel Court	ph_ac	FY2021	Interior Improvements	Vacant unit rehab	Budgeted for attrition of 2-3 units	65,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2021	Equipment	Boilers	Maintenance	30,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2021	ADA	ADA access to Community Center		85,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2021	Exterior Improvements	Gutters		50,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2021	Equipment	Replace motors on parking lot gates	3 gates, only 1 operable now. Connections still there, no motor	40,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2021	Security	Security doors/gates		17,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2021	Equipment	Pedestrian Gates	1 gate w/ magnetic locks	15,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2021	Exterior Improvements	Driveway & walkway trip hazard repairs		25,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2021	Security	Video Surveillance system		90,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2020	Site Improvements	Window replacement	Current windows are obsolete and do not have replacement parts. Replace with double pane windows.	100,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2020	Site Improvements	Trash enclosures	Upgrade to deter illegal dumping and accommodate composting	100,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2020	Exterior Improvements	Playground upgrade	Playground swings-rubber padding replacement and playground update	25,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2020	Security	Security camera system	Needs CPTED	250,000	N/A
Large Family Sites	Campbell Village	ph_cv	FY2020	Interior Improvements	Vacant unit rehab	3 units @ $20,000 each	60,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2020	Site Improvements	A&E evaluation for foundation settling, stucco cracks		25,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2020	Site Improvements	A&E for upgrading existing moisture barriers and/or upgrade pumping systems under buildings		10,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2020	Interior Improvements	Bathtub/shower enclosure upgrade	150 units @ $1,500 each	225,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2020	Exterior Improvements	Repaint Phase I of the property		200,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2020	Exterior Improvements	Exterior light replacement with LED		25,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2020	Site Improvements	Unit front door repair/replacement	Approx. 20 doors and doorframes with alignment issues	20,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2020	Site Improvements	Hose bib shutoff replacement	Replace leaky hose bibs	10,000	N/A
Large Family Sites	Lockwood Gardens	ph_lg	FY2020	Inspection Prep	Unforeseen REAC preparation projects		100,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2020	Exterior Improvements	A&E/assessment for roof and gutter replacement needs		15,000	N/A
Large Family Sites	Peralta Villa	ph_pv	FY2020	Inspection Prep	Unforeseen REAC preparation projects		100,000	N/A
Designated Senior Sites	Harrison Towers	ph_ht	FY2020	Elevators	Elevator rehab		800,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2020	Exterior Improvements	Roof replacement	Repair damage to membrane or layers under membrane. Deficiency identified in pre-REAC inspection.	250,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2020	Parking Lot	Parking lot concrete repair and slurry seal		25,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2020	Interior Improvements	Common area refurbishment	Paint common areas and stairwells, resurface unit doors, upgrade elevator light, update bathroom fixtures	75,000	N/A
Designated Senior Sites	Adel Court	ph_ac	FY2020	Interior Improvements	Vacant unit rehab	3 units @ $20,000 each	60,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2020	Elevators	Elevator repair/assessment/upgrade		100,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2020	Equipment	Boilers		40,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2020	ADA	ADA access to Community Center	Replace back door with sliding doors and ADA push button. $30-75,000 depending on scope of work.	75,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2020	Exterior Improvements	Gutters	Upgrade/replace gutters on three-story buildings	75,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2020	Inspection Prep	Unforeseen REAC preparation projects		30,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2020	Equipment	Replace motors on parking lot gates		10,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2020	Security	Security doors/gates	Replace metal exterior gates/doors with ADA compliant doors	12,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2020	Exterior Improvements	Driveway & walkway trip hazard repairs		20,000	N/A
Designated Senior Sites	Palo Vista Gardens	ph_pvg	FY2020	Security	Video surveillance system	Property-wide surveillance system. Will require CPTED.	80,000	N/A
							26,283,693	

9,824,136
7,872,557
2,845,000
2,825,000
2,917,000
26,283,693

APPENDIX B

CHRIS RESULTS

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM



ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1400 Valley House Drive, Suite 210
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
https://nwic.sonoma.edu

ACCESS AGREEMENT SHORT FORM

File Number: 23-0494

I, the the undersigned, have been granted access to historical resources information on file at the Northwest Information Center of the Califronia Historical Resources Information System.

I understand that any CHRIS Confidential Information I receive shall not be disclosed to individuals who do not qualify for access to such information, as specified in Section III(A-E) of the CHRIS Information Center Rules of Operation Manual, or in publicly distributed documents without written consent of the Information Center Coordinator.

I agree to submit historical Resource Records and Reports based in part on the CHRIS information released under this Access Agreement to the Information Center within sixy (60) calendar days of completion.

I agree to pay for CHRIS services provided under this Access Agreement within sixty (60) calendar days of receipt of billing.

I understand that failure to comply with this Access Agreement shall be grounds for denial of access to CHRIS Information.

Print Name: Rod Stinson Date:

Signature:

Affiliation: Raney Planning & Management, Inc.

Address: City/State/ZIP:

Billing Address (if different from above):

Special Billing Information

Telephone: (916) 372-6100 Email: rods@raneymanagement.com

Purpose of Access:

Reference (project name or number, title of study, and street address if applicable):

Oakland Housing Authority Housing Sites Project

County: ALA USGS 7.5' Quad: Oakland East and West

This is not an invoice. Sonoma State University will send separate Invoice

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
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Northwest Information Center
Sonoma State University
1400 Valley House Drive, Suite 210
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
https://nwic.sonoma.edu

October 24, 2023 NWIC File No.: 23-0494

Rod Stinson
Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Re: Record search results for the proposed Oakland Housing Authority Housing Sites Project

Dear Mr. Rod Stinson:

Per your request received by our office on the 10th of October, 2023, a rapid response records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Alameda County. An Area of Potential Effects (APE) map was not provided; in lieu of this, the location map provided depicting the fourteen Oakland Housing Authority Housing Sites project areas will be used to conduct this records search. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

The proposed project would consist of 14 noncontiguous public housing sites owned by the Oakland Housing Authority in the City of Oakland, California. The Oakland Housing Authority is proposing to use Capital Fund Program (CFP) expenditures to preserve and enhance each of its existing public housing sites, including on-site improvements, modernized building systems that provide cleaner and more energy efficient conditions, and rehabilitated unit interiors. The proposed project would not involve ground-disturbing construction activities. The 14 housing sites would consist of three designated senior sites, three large family sites, and eight Housing Opportunities for People Everywhere (HOPE VI) sites.

As per the letter received by this office stating that no ground disturbance would be required, review for this project only incorporated a review for buildings and structures within the referenced project boundaries and/or the immediate vicinity. Review of this information indicates that there have been eight cultural resource studies that include portions of the Oakland Housing Authority Housing Sites project area. See enclosed Report List for bibliographic information. This Oakland Housing Authority Housing Sites project area contains no recorded archaeological resources. The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists one recorded building within the proposed Oakland Housing Authority Housing Sites project area, Peralta Villa (OTIS # 470570) at 935 Union Street. This built resource, circa 1940-42, is listed with three status codes;

2S2, meaning this resource was individually determined eligible for National Register (NR) by consensus through Section 106 process. Listed in the California Register (CR)

3S, meaning this resource appears eligible for NR individually through survey evaluation.

6Y, meaning this resource was determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or local listing.

In addition to these inventories, the NWIC base maps also show the Peralta Villa housing project, P-01-005887, as listed above, as a recorded historic District within the proposed Oakland Housing Authority Housing Sites project area.

The 1942 San Francisco, 1948 Concord USGS 15-minute, and the 1959 Oakland East and Oakland West USGS 7.5-minute topographic quadrangles depicts an urban area in all project areas, indicating one or more buildings or structures within each of the Oakland Housing Authority Housing Sites project areas. If present, any unrecorded buildings or structures may meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) As per the project description, there is to be no ground disturbance and further study for archaeological resources is not recommended at this time. Should the description of this project change, we recommend further review for the possibility of identifying Native American and historic-period archaeological resources.

2) Our research indicates that there is one historic district, the Peralta Villa housing project, P-01-005887, included in the OHP BERD within the Oakland Housing Authority Housing Sites project area. In addition, The 1942 San Francisco, the 1948 Concord USGS 15-minute topographic quadrangles and the 1959 Oakland East and Oakland West USGS 7.5-minute topographic quadrangles depicts an urban area, indicating one or more buildings or structures within each of the Oakland Housing Authority Housing Sites project areas. Therefore, prior to commencement of project activities, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these buildings or structures:

Project Review and Compliance Unit
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
(916) 445-7000

3) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

4) If archaeological resources are encountered during construction, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

5) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: https://ohp.parks.ca.gov/?page_id=28351

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

Jillian Guldenbrein

Jillian Guldenbrein
Researcher

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Historical Resources Information System, Northwest Information Center, the following literature was reviewed:

Bowman, J.N.
1951 *Adobe Houses in the San Francisco Bay Region*. In Geologic Guidebook of the San Francisco Bay Counties, Bulletin 154. California Division of Mines, Ferry Building, San Francisco, CA.

Fickewirth, Alvin A.
1992 *California Railroads*. Golden West Books, San Marino, CA.

Hope, Andrew
2005 *Caltrans Statewide Historic Bridge Inventory Update*. Caltrans, Division of Environmental Analysis, Sacramento, CA.

Myers, William A. (editor)
1977 *Historic Civil Engineering Landmarks of San Francisco and Northern California*. Prepared by The History and Heritage Committee, San Francisco Section, American Society of Civil Engineers. Pacific Gas and Electric Company, San Francisco, CA.

State of California Department of Parks and Recreation
1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.

State of California Office of Historic Preservation **
2022 *Built Environment Resources Directory*. Listing by City (through September 23, 2022). State of California Office of Historic Preservation, Sacramento.

Williams, James C.
1997 *Energy and the Making of Modern California*. The University of Akron Press, Akron, OH.

Woodbridge, Sally B.
1988 *California Architecture: Historic American Buildings Survey*. Chronicle Books, San Francisco, CA.

Works Progress Administration
1984 *The WPA Guide to California*. Reprint by Pantheon Books, New York. (Originally published as California: A Guide to the Golden State in 1939 by Books, Inc., distributed by Hastings House Publishers, New York.)

**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.

Report List

NWIC File # 23-0494 Oakland Housing Authority Housing Sites Project

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-005629		1982	Bertrand T. Young and George R. Miller	An Archaeological Reconnaissance of Sausal Creek between Leimert and Hyde Streets in the City of Oakland.	Institute of Cultural Resources, California State University, Hayward
S-012289	Caltrans - E.A. #04195-190271 MEQ 85001	1990	Donna M. Garaventa, Michael R. Fong, Sondra A. Jarvis, and Angela M. Banet	Archaeological Survey Report, I-880/Cypress Replacement Project, 04-ALA-880 P.M. 32.4/34.3, E.A. #04195-190271 MEQ 85001, Cities of Oakland and Emeryville, Alameda County, California	Basin Research Associates, Inc.
S-023778	Voided - S-25603; Voided - S-26419	2000	David Chavez and Jan M. Hupman	Archaeological Resources Investigations for the EBMUD East Bayshore Recycled Water Project, Alameda County, California	David Chavez & Associates
S-023778a		2002	David Chavez	Archaeological Resources Investigations for the EBMUD East Bayshore Recycled Water Project, Alameda County, California: Supplemental Report	David Chavez & Associates
S-023778b		2002	Daivd Chavez and Jan M. Hupman	Archaeological Resources Investigations for the EBMUD East Bayshore Recycled Water Project, Alameda County, California: Additional Pipeline Alignments	David Chavez & Associates

Report List

NWIC File # 23-0494 Oakland Housing Authority Housing Sites Project

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-026045		2000	Richard Carrico, Theodore Cooley, and William Eckhardt	Cultural Resources Reconnaissance Survey and Inventory Report for the Metromedia Fiberoptic Cable Project, San Francisco Bay Area and Los Angeles Basin Networks	Mooney & Associates
S-027364		2003	Allen G. Pastron, Andrew Gottsfield, Eric Wohlgemuth, Becky Johnson, Jason Claiborne, L. Dale Beevers, Matt Calder, and Jonathan Goodrich	Final Archaeological Report, East Block of the Mandela Gateway Project, City of Oakland, Alameda County, California	Archeo-Tec
S-032164	Caltrans - EA 292360	1999	Harry Y. Yahata and Robert L. Gross	Historic Property Survey Report and Findings of No Historic Properties Affected for the Mandela Parkway Corridor Improvement Project, City of Oakland, Alameda County, 04-Ala-880-KP, 52.5/54.9 (PM 32.6/34.1)	California Department of Transportation, District 4

Report List

NWIC File # 23-0494 Oakland Housing Authority Housing Sites Project

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-032164a		1999	Jack McIlroy, Jack Meyer, Elaine-Maryse Solari, Grace H. Ziesing, Kimberly Esser, Maria Ribeiro, Adrian Praetzellis, and Mary Praetzellis	Mandela Parkway Corridor Improvement Project: Archaeological Sensitivity Study and Survey Report, 04-Ala-880, KP 52.5/54.9 (PM 32.6/34.1), in the City of Oakland, California, Alameda County, EA No. 292360	Anthropological Studies Center, Sonoma State University

Report List

NWIC File # 23-0494 Oakland Housing Authority Housing Sites Project

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-037362	Caltrans - 04195-19071 MEQ85001; OHP PRN - FHWA900927X; Voided - S-12125; Voided - S-12221; Voided - S-18248; Voided - S-18249	1990		Historic Property Survey Report for the Proposed I-880 Reconstruction Project in the Cities of Oakland and Emeryville, Alameda County, ALA-880 32.12/34.31; ALA-580 45.99/46.95; ALA-80 1.99/3.39; 04195-190271 MEQ85001	California Department of Transportation, District 4

Report List

NWIC File # 23-0494 Oakland Housing Authority Housing Sites Project

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-037362a		1990	Donna M. Garaventa, Michael R. Fong, Sondra A. Jarvis, and Angela M. Banet	Archaeological Survey Report, I-880/Cypress Replacement Project, 04-ALA-880 32.12/34.31, 04-ALA-580 45.99/46.95, 04-ALA-80 1.99/3.39, E.A. #04195-190271 MEQ 85001, Cities of Oakland and Emeryville, Alameda County, California	Basin Research Associates, Inc.
S-037362b		1990		Historic Architecture Survey Report for the Proposed Reconstruction of Interstate 880 Within the City Limits of Oakland and Emeryville, Alameda County, 04-ALA-880 32.12/34.31, 04-ALA-580 45.99/46.95, 04-ALA-80 1.99/3.79, 4195-190271 MEQ85001	California Department of Transportation
S-037362c		1990	Gary Knecht, Alex G. Chiappetta, Michael R. Corbett, Miriam Liskin, Gail G. Lombardi, Betty Marvin, Woodruff C. Minor, Donnalyn Polito, Christine Winans, and Aicha S. Woods	Historic Architecture Survey Report, Part VII. A, Subarea A: City of Oakland	Oakland Cultural Heritage Survey
S-037362d		1990	Bonnie W. Parks, Denise O'Connor, and Stephen D. Mikesell	Historic Architecture Survey Report Part VII. B, Subarea B: Emeryville and San Francisco-Oakland Bay Bridge Vicinity	California Department of Transportation
S-037362e		1990	John W. Snyder	Historic Architecture Survey Report Part VII. C, Subarea C: Southern Pacific Railroad Property and Interurban Railway Structures	Caltrans, District 4
S-037362f		1990	Kathryn Gualtieri	FHWA900927X; I-880 Cypress structure, ER-1404 (1)	Office of Historic Preservation
S-037362g		1990		First Addendum Historic Property Survey Report for the Proposed I-880 Reconstruction Project in the Cities of Oakland and Emeryville, Alameda County ALA-880 32.12/34.31; ALA-580 45.99/46.95; ALA-80 1.99/3.39 04195-190271 MEQ85001	California Department of Transportation

Report List

NWIC File # 23-0494 Oakland Housing Authority Housing Sites Project

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-037362h		1990	Donna M. Garaventa and Sondra A. Jarvis	First Addendum Archaeological Survey Report, I-880/Cypress Replacement Project 04-ALA-880 32.12/34.31, 04-ALA-580 45.99/46.95, 04-ALA-80 1.99/3.39, E.A.#04195-190271 MEQ 85001, Cities of Oakland and Emeryville, Alameda County, California	Basin Research Associates, Inc.
S-037362i		1990		First Addendum Historic Architecture Survey Report for the Proposed Reconstruction of Interstate 880 within the City Limits of Oakland and Emeryville, Alameda County 04-ALA-880 32.12/34.31, 04-ALA-580 45.99/46.95, 04-ALA-80 1.99/3.79, 4195-19027 MEQ85001	California Department of Transportation
S-037362j		1990	Gary Knecht, Alex G. Chiappetta, Michael R. Corbett, Miriam Liskin, Gail G. Lombardi, Betty Marvin, Woodruff C. Minor, Donnalynn Polito, Christine Winans, and Aicha S. Woods	First Addendum Historic Architecture Survey Report Part VII, Subarea F: City of Oakland	California Department of Transportation
S-037362k		1991		Second Addendum Historic Property Survey Report for the Proposed Reconstruction of Interstate 880 within the City Limits of Oakland and Emeryville, Alameda County 04-ALA-880 32.12/34.31, 04-ALA-580 45.99/46.95, 04-ALA-80 1.99/3.79 4195-190270	California Department of Transportation
S-037362l		1991	Gary Knecht, Miriam Liskin, Gail G. Lombardi, Betty Marvin, and Christine Winans	Second Addendum Historic Architecture Survey Report Part VII Subarea G: City of Oakland	California Department of Transportation
S-052721	OTIS Report Number - FHWA_2018_0615_001; Submitter - Alameda CTC Project #1457.001, Contract #A15-0030; Submitter - ATPL-6480 (010)	2018	J. Tait Elder	Finding of No Adverse Effect, East Bay Greenway Project, Alameda County, 4-ALA, Oakland, Hayward, and San Leandro, Alameda County, California, ATPL-6480 (010), Alameda CTC Project #1457.001, Contract #A15-0030	ICF

Report List

NWIC File # 23-0494 Oakland Housing Authority Housing Sites Project

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-052721a		2018	J. Tait Elder	Environmentally Sensitive Area Action Plan and Archaeological Monitoring Plan for the Proposed East Bay Greenway Trail Project, Cities of Oakland, San Leandro, and Hayward, Alameda County, California; Federal Aid No. ATPL-6480 (010)	ICF
S-052721b		2108	Julianne Polanco and Alexandra Bevk Neeb	[FHWA_2018_0615_001] Finding of No Adverse Effect for the Proposed East Bay Greenway Trail Project in the Cities of Oakland, Hayward, and San Leandro, Alameda County, California	Office of Historic Preservation, Department of Transportation

APPENDIX C

FLOODPLAIN MANAGEMENT DETERMINATION
STEP 3: ALTERNATIVE SITE ANALYSIS

FLOODPLAIN MANAGEMENT DETERMINATION
STEP 3: ALTERNATIVE SITE ANALYSIS

INTRODUCTION

The primary intent of the Floodplain Management Determination Step 3, as stated in Title 44, Section 9.9 b of the Code of Federal Regulation, is to "[…] identify and evaluate practicable alternatives to carrying out a proposed action in floodplains or wetlands, including; (1) Alternative sites outside the floodplain or wetland; (2) Alternative actions which serve essentially the same purpose as the proposed action, but which have less potential to affect or be affected by the floodplain or wetlands; and (3) No action."

Pursuant to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) Viewer, approximately 0.6-acre of the Adel Court site is located within Zone A, which is a Special Flood Hazard Area (SFHA) within the 100-year floodplain. Because of the SFHA designation, development of the project site through assistance provided by the U.S. Department of Housing and Urban Development (HUD) is subject to the 8-Step Decision-Making Process for Executive Order 11988.

PROJECT DESCRIPTION SUMMARY

The Oakland Housing Authority (OHA) Housing Capital Budget 2020-2024 Project (proposed project) consists of various improvements to seven noncontiguous public housing sites owned by OHA in the City of Oakland, California. Adel Court, one of the seven OHA sites, is located at 2001 MacArthur Boulevard and is identified by Assessor's Parcel Number 23-498-14-1. The Oakland General Plan designates the site as Neighborhood Center Mixed Use and the site is zoned Neighborhood Commercial (CN-1). Adel Court is an existing 30-unit designated senior housing property.

As part of the proposed project, Adel Court would undergo various improvements including, but not limited to, a roof replacement, rehabilitation of a vacant unit, replacement of heaters, parking lot concrete repair and slurry seal, and refurbishment of common areas. The proposed parking lot concrete repair and slurry seal would overlap with the portion of the site that is located within the SFHA.

ALTERNATIVES

The alternatives evaluated in this section are included for discussion in order to attempt to minimize or eliminate impacts associated with the floodplain. The alternatives to the proposed project evaluated in this section are as follows (see Figure 1):

1. Locate the Project in the Floodplain;
2. Locate the Project Outside of the Floodplain; and
3. No Action Alternative.

Figure 1
Alternative Site Locations



1. Locate the Project in the Floodplain

Alternative 1 would be located at 3649 Dimond Avenue, which is developed with an existing multi-family residential building. Due to the good condition of the existing building within the Alternative 1 site, only the proposed parking lot concrete repair and slurry seal would be required. All other improvements associated with the proposed project would not be required under Alternative 1. The Alternative 1 site is located within a SFHA designated by FEMA as Zone A.[1]

Natural Environment

The Alternative 1 site is currently developed with an existing multi-family residential building (see Figure 1). The site is bound by Dimond Avenue to the east. Existing uses in the site vicinity include a preschool immediately to the north; an international school and single-family residences to the east, across Dimond Avenue; an apartment complex immediately to the south; and Sausal Creek and single-family residences to the west.

Based on the natural environment, occupants of the Alternative 1 site would be subject to potential impacts related to flooding, as well as noise impacts due to the site's proximity to Dimond Avenue. Construction of Alternative 1 has the potential to result in adverse effects to endangered species due to the existing trees adjacent to the project site and as well as the site's proximity to Sausal Creek.

Social Concerns

Based on the location, the Alternative 1 site could be subject to potential environmental justice impacts, specifically related to equal protection from environmental and health hazards and equal access to a healthy environment in which to live, due to the potential impacts related to noise associated with the site's proximity to Dimond Avenue.

Economic Aspects

The Alternative 1 site is not owned by the OHA. Purchase of the Alternative 1 site could render the proposed multi-family housing improvements economically infeasible due to the lack of available funding. Furthermore, the proposed project consists of improvements to existing affordable public housing sites owned by the OHA; the Alternative 1 site is not included in the OHA's Housing Capital Budget and, thus, improvement of the Alternative 1 site would not serve the purpose of the proposed project.

Legal Constraints

Unlike the Adel Court site, the Alternative 1 site is designated Mixed Housing Type Residential and is zoned as Mixed Housing Type Residential (RM-4). As such, development of the Alternative 1 site could require City approval of a General Plan Amendment and Rezone, as well as approval of other entitlements already obtained by the proposed project as part of the previous CEQA environmental review.

Conclusion

Development of the Alternative 1 site with the proposed uses could expose future residents to potential impacts related to environmental justice, flooding, and excessive noise that would be equal to or potentially greater than those associated with the proposed project. To address such

[1] Federal Emergency Management Agency. *FEMA's National Flood Hazard Layer (NFHL) Viewer*. Available at: https://www.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed December 2024.

impacts, development of Alternative 1 would require mitigation measures similar to those set forth in the Environmental Assessment prepared for the proposed project.

2. Locate the Project Outside of the Floodplain

Alternative 2 would be located at 1843 MacArthur Boulevard. Similar to the Alternative 1 site, the Alternative 2 site is developed with an existing multi-family residential building. Due to the good condition of the existing building within the Alternative 2 site, only the proposed parking lot concrete repair and slurry seal would be required. All other improvements associated with the proposed project would not be required under Alternative 2. The Alternative 2 site is located within Zone X, which is designated by the FEMA as the 500-year floodplain.[2] Zone X is not a designated by FEMA as a SFHA.

Natural Environment

The Alternative 2 site is currently developed with an existing multi-family residential building. Existing uses in the site vicinity include a commercial use the north; multi-family residences to the east, across Adell Court; single-family residences to the south; and a senior residential community to the west, across MacArthur Boulevard.

Based on the natural environment, occupants of the Alternative 2 site would be subject to potential noise impacts due to the site's proximity to MacArthur Boulevard and Adell Court.

Social Concerns

Based on the location, the Alternative 2 site could be subject to potential environmental justice impacts, specifically related to equal protection from environmental and health hazards and equal access to a healthy environment in which to live, due to the potential impacts related to noise associated with the site's proximity to MacArthur Boulevard and Adell Court.

Economic Aspects

The Alternative 2 site is not owned by the OHA. Purchase of the Alternative 2 site could render the proposed multi-family housing improvements economically infeasible due to the lack of available funding. Furthermore, the proposed project consists of improvements to existing affordable public housing sites owned by the OHA; the Alternative 2 site is not included in the OHA's Housing Capital Budget and, thus, improvement of the Alternative 2 site would not serve the purpose of the proposed project.

Legal Constraints

Unlike the Adel Court site, the Alternative 2 site is designated Mixed Housing Type Residential; however, the Alternative 2 site is also zoned CN-1, similar to the Adel Court site. As such, development of the Alternative 2 site could require City approval of a General Plan Amendment, as well as approval of other entitlements already obtained by the proposed project as part of the previous CEQA environmental review.

Conclusion

The Alternative 2 site is not designated to allow for the proposed uses. In addition, development of the Alternative 2 site could expose future residents to potential impacts related to environmental justice that would be equal to or potentially greater than those associated with the proposed

[2] Federal Emergency Management Agency. *FEMA's National Flood Hazard Layer (NFHL) Viewer*. Available at: https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed November 2022.

project. To address such impacts, development of Alternative 2 would require mitigation measures similar to those set forth in the Environmental Assessment prepared for the proposed project.

3. No Action Alternative

Under the No Action Alternative, the Adel Court site would remain in its current state. As such, the proposed improvements including, but not limited to, a roof replacement, rehabilitation of a vacant unit, replacement of heaters, parking lot concrete repair and slurry seal, and refurbishment of common areas, would not occur. As such, the No Action Alternative would result in substantially fewer impacts relative to those identified for the proposed project. However, the No Action Alternative would hinder the City's ability to fulfill the objectives established in the OHA Housing Capital Budget, and necessary improvements to improve the quality of life for current residents of Adel Court would not occur.

APPENDIX D

ADDITIONAL SOURCES

Appendix D Contents:

1. Bay Area Air Quality Management District. *2022 California Environmental Quality Act Guidelines*. April 2023. (Appendix D).
2. California Department of Conservation. *California Important Farmland Finder*. Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed December 2023. (Appendix D).
3. California Department of Fish and Wildlife. *California Department of Fish and Wildlife BIOS.* Available at: https://apps.wildlife.ca.gov/bios6/. Accessed December 2023. (Appendix D).
4. California Department of Toxic Substances Control. *EnviroStor.* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed December 2023 (Appendix D).
5. Centers for Disease Control and Prevention. *National Environmental Public Health Tracking Network.* Available at: https://ephtracking.cdc.gov/DataExplorer/?c=31&i=141&m=-1. Accessed February 2025. (Appendix D).
6. City of Oakland. *Oakland Code of Ordinances, Article XIII. Lead Hazard Control and Abatement.* Available at: https://library.municode.com/ca/oakland/codes/code_of_ordinances?nodeId=TIT15BUCO_CH15.08OABUMACO_ARTXSUPUNUBU_15.08.340SUBUHS17920.3. Accessed December 2023. (Appendix D).
7. City of Oakland. *Oakland Code of Ordinances, Section 15.16.050(B)(9) Cleanup, debris removal, and foundation removal standards.* Available at: https://library.municode.com/ca/oakland/codes/code_of_ordinances?nodeId=TIT15BUCO_CH15.16FIMAARPRIMRE_15.16.050CLDEREFOREST. Accessed December 2023. (Appendix D).
8. Federal Emergency Management Agency. *FEMA's National Flood Hazard Layer (NFHL) Viewer*. Available at: https://www.fema.gov/flood-maps/national-flood-hazard-layer. Accessed November 2023. (Appendix D).
9. Philadelphia Insurance Companies. *Flood Insurance Policy Packet*. May 2025. (Appendix D).
10. State of California Office of Environmental Health Hazard Assessment. *CalEnviroScreen 4.0 Results*. Available at: https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4_0. Accessed April 2025. (Appendix D).
11. State Water Resources Control Board. *GeoTracker*. Available at: https://geotracker.waterboards.ca.gov/. Accessed December 2023. (Appendix D).
12. State Water Resources Control Board. *GeoTracker – Chevron #9-0020*. Available at: https://geotracker.waterboards.ca.gov/case_summary?global_id=T0600100304. Accessed February 2025. (Appendix D).
13. State Water Resources Control Board. *GeoTracker – Oakland City of Housing Authority (T0600100378)*. Available at: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100378. Accessed December 2023. (Appendix D).
14. U.S. Environmental Protection Agency. *NEPAssist.* Available at: https://nepassisttool.epa.gov/nepassist/nepamap.aspx. Accessed December 2023. (Appendix D).
15. U.S. Fish & Wildlife Service. *Coastal Barrier Resources Act.* Available at: https://www.fws.gov/program/coastal-barrier-resources-act. Accessed December 2023. (Appendix D).
16. U.S. Fish & Wildlife Service. *IPaC: Information for Planning and Consultation*. Available at: https://ecos.fws.gov/ipac/. Accessed December 2023. (Appendix D).
17. U.S. Fish & Wildlife Service. *National Wetlands Inventory*. Available at: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed December 2023. (Appendix D).

Bay Area Air Quality Management District



California Environmental Quality Act

Air Quality Guidelines

These guidelines are nonbinding recommendations, intended to assist lead agencies with navigating the CEQA process. They may be updated as needed in the future, and any updates will likewise be nonbinding and advisory.



ACKNOWLEDGMENTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

The Bay Area Air Quality Management District acknowledges the many staff, subject matter experts, CEQA practitioners, and local agencies who contributed to the completion of this substantive update of the CEQA Air Quality Guidelines. In particular, this effort would not have been possible without the leadership and guidance of Henry Hilken, Director of Planning and Climate Protection.

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These guidelines are nonbinding recommendations, intended to assist lead agencies with navigating the CEQA process. They may be updated as needed in the future, and any updates will likewise be nonbinding and advisory.

1 INTRODUCTION

1.1 PURPOSE OF GUIDELINES

The Bay Area Air Quality Management District (Air District) California Environmental Quality Act (CEQA) Guidelines (Guidelines) were developed to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans in the San Francisco Bay Area Air Basin (SFBAAB). The Guidelines do not replace the State CEQA Statute and Guidelines; rather, they are designed to provide Air District-recommended procedures for evaluating potential air quality and climate impacts during the environmental review process that are consistent with CEQA requirements. These revised Guidelines supersede the Air District's previous CEQA guidance titled BAAQMD CEQA Air Quality Guidelines (BAAQMD 2017).

Land use projects and plans have the potential to generate air pollutants (and precursors) that contribute to the degradation of regional air quality, increase the exposure of local populations to harmful pollutants, and contribute to climate change. These Guidelines contain instructions and examples for how a lead agency can evaluate, measure, and mitigate air quality and climate impacts generated from land use construction and operational activities. They focus on generated emissions of criteria air pollutants and precursors, toxic air contaminants, GHGs, and odors from local plans and projects.

1.1.1 California Environmental Quality Act

When a lead agency takes a discretionary action that may have an environmental impact, the agency must undertake CEQA review to inform decision makers and the public about potentially significant impacts and identify measures to reduce them. These Guidelines are intended to assist lead agencies with navigating the CEQA process by providing recommended thresholds of significance for air quality and climate

impacts from greenhouse gas (GHG) emissions, and by providing approaches for determining significance and mitigating impacts. Recommendations in these Guidelines are advisory and should be followed by local governments at their own discretion. These Guidelines may be updated as needed in the future, and any updates will likewise be non-binding and advisory. These Guidelines offer step-by-step procedures for conducting a thorough review of environmental impacts related to air quality and climate change. They may inform environmental review of land use projects in the SFBAAB but do not commit local governments or the Air District to any specific course of regulatory action.

These Guidelines also promote sustainable land use projects and plans in the region by providing resources that offer numerous air quality and climate impact reduction measures and plan policies for lead agencies to review and consider. Implementation of these mitigation measures and policies contributes to achieving smart growth and transit-oriented goals related to land use projects and plans, reducing population exposure to air pollution risks, and addressing disproportionate impacts in communities overburdened by air pollution.

CEQA EXEMPTIONS AND STREAMLINING

Lead agencies should refer to the State CEQA Statute and Guidelines to learn about what types of projects may be exempt from environmental review. A project that is exempt from CEQA is not required to undertake further environmental review. There are two types of CEQA exemptions: statutory and regulatory. Statutory exemptions are enacted by the Legislature based on policy goals and apply regardless of whether the exempted project or class of projects may have environmental impacts. Statutory exemptions are found within CEQA itself and are also located in various other codes.[1] Many statutory exemptions are addressed in the State CEQA Guidelines, Sections 15261-15285. Within CEQA, statutory exemptions are discussed in Section 21080 et seq. and in other places, such as Section 21159.20 et seq. for special housing exemptions, and Section 21155.1 for Senate Bill 375 transit priority projects.

Most regulatory exemptions are known as categorical exemptions. These exemptions are granted to classes of projects that generally are considered not to have any potential impacts on the environment and are found in the State CEQA Guidelines at Sections 15301-15333. The State CEQA Guidelines also codify the "common sense" exemption. This exemption can be used for projects "[w]here it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment" (State CEQA Guidelines Section 15061[b][3]). Note that some categorical exemptions and the common sense exemption may not apply if emissions from toxic air contaminants warrant further review.

Because only a handful of exemptions apply to housing projects (i.e., Class 1, Class 2, and Class 32 categorical exemptions), it is more common for these projects to be "streamlined" through CEQA than for them to qualify for an exemption. Environmental review streamlining involves a lighter level of analysis for a project than is typically required under CEQA. The extent to which a project is streamlined varies depending on the qualifying conditions. To qualify for streamlining opportunities, projects must satisfy certain criteria, such as

[1] This includes other areas of the Public Resources Code as well as the Business and Professions, Education, Fish and Game, Government, Health and Safety, Military and Veterans, Penal, Water, and Welfare and Institutions Codes (See OPR, Technical Advisory: CEQA Exemptions Outside of the CEQA Statute (2018), available at https://opr.ca.gov/ceqa/docs/20180606-Tech_Advisory_CEQA_Exemptions.pdf). Further, not all statutory exemptions have been codified.

location within an urbanized area or a certain distance from transit, or coverage by a specific plan's environmental review. The Governor's Office of Planning and Research (OPR) has developed advisories and tools to assist with the acceleration of housing production by facilitating planning decisions and clarifying where existing streamlining opportunities under CEQA apply. OPR's *Technical Advisory: CEQA Review of Housing Projects* (OPR 2020) provides a list of statutes, regulations, and requirements for streamlined review of housing projects. In addition, OPR's Site Check platform (OPR n.d.) allows practitioners to select parcels of interest and generates reports on potential accelerated pathways to CEQA compliance.

1.1.2 Role of the Air District

The Air District is the primary agency responsible for ensuring that the national and California ambient air quality standards are attained and maintained in the SFBAAB. The Air District's jurisdiction includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, the southern portion of Sonoma County, and the southwestern portion of Solano County, as shown in Figure 1-1. The Air District's responsibilities related to improving air quality in the region include preparing plans for attaining and maintaining air quality standards, adopting and enforcing rules and regulations, issuing permits for stationary sources of air pollutants, inspecting stationary sources and responding to citizen complaints, monitoring air quality and meteorological conditions, awarding grants to reduce mobile emissions, implementing public outreach campaigns, working with overburdened and impacted communities to reduce local sources of emissions, and assisting local governments in reducing GHG emissions.

The Air District takes on one of several roles in the CEQA process, depending on the nature of the proposed project:

Lead agency – The Air District acts as a lead agency when it has the primary authority to implement or approve a project, such as when it adopts rules and regulations or, in certain circumstances, when it issues stationary source permits. As lead agency, the Air District completes the environmental review and prepares all necessary environmental documents for the project.

Responsible agency – The Air District acts as a responsible agency when it has discretionary authority over a portion of a project (e.g., a stationary source, such as a backup generator or boiler requiring an Air District permit) but is not the primary discretionary authority. As a responsible agency, the Air District may coordinate the environmental review process with the lead agency regarding the Air District's permitting process including whether the project may be subject to additional conditions as part of the permitting process, provide comments to the lead agency regarding potential impacts, and recommend mitigation measures.

Commenting agency – The Air District may act as a commenting agency when it is not a lead or responsible agency but has concerns about the air quality or GHG emissions of a proposed project or plan. As a commenting agency, the Air District may review environmental documents prepared for projects and plans in the region and provide comments to the lead agency regarding the adequacy of the air quality or GHG impact analysis, determination of significance, and mitigation measures proposed.

Figure 1-1 Bay Area Air Quality Management District Jurisdictional Boundaries



1.2 GUIDELINES COMPONENTS

The recommendations in these Guidelines should be viewed as minimum considerations for analyzing air quality and climate impacts. Lead agencies are encouraged to tailor impact analyses to meet the needs of the local community and may conduct refined analyses using more sophisticated models, more precise input data, innovative mitigation measures, or other features.

The Guidelines are comprised of the following chapters:

Chapter 1, "Introduction" – The Introduction provides a summary of the purpose of the Guidelines, an overview of Air District responsibilities, and a summary of the Guidelines' components.

Chapter 2, "Best Practices for Centering Environmental Justice, Health and Equity" – The purpose of this chapter is to provide lead agencies with best practices on centering Environmental Justice, health, and equity in the siting, design, and development of land use projects.

Chapter 3, "Thresholds of Significance" – This chapter outlines the current thresholds of significance for determining the significance of air pollutants and climate impacts.

Chapter 4, "Screening for Criteria Air Pollutants and Precursors" – This chapter provides easy-reference tables to determine whether projects may have potentially significant criteria air pollutant impacts requiring a detailed analysis.

Chapter 5, "Project-Level Air Quality Impacts" – This chapter provides guidance on how to conduct an air quality analysis at the project level, as well as a project-level cumulative impact analysis.

Chapter 6, "Project-Level Climate Impacts" – This chapter provides guidance on applying the Air District's thresholds of significance for climate impacts from GHG emissions to projects, including land use and stationary source projects.

Chapter 7, "Plan-Level Impacts" – This chapter presents guidance on conducting plan-level air quality impacts and applying plan-level climate impact thresholds to plans.

Chapter 8, "Mitigating Air Quality and Climate Impacts" – This chapter provides recommendations for mitigating air quality and climate impacts for land use plans and projects.

The Guidelines include the following appendices that provide additional technical detail and information that may be helpful to lead agencies and practitioners:

Appendix A, "Thresholds of Significance Justification" – This appendix is the Air District's 2010 *Thresholds of Significance* document explaining the rationale for the air quality thresholds.

Appendix B, "CEQA Thresholds for Evaluating the Significance of Climate Impacts" – This appendix presents the rationale for the Air District's recommended thresholds of significance for use in determining whether a proposed project will have a significant impact on climate change.

Appendix C – "**Guidance for Greenhouse Gas Reduction Strategies"** – This appendix is designed to assist users in developing community-scale greenhouse gas (GHG) reduction strategies that are aligned with the State CEQA Guidelines Section 15183.5(b)(1) and (2) and meet the Air District's plan-level GHG threshold of significance.

Appendix D, "Using CalEEMod for Bay Area Projects" – This appendix provides guidance on using the California Emissions Estimator Model (CalEEMod) modeling tool for Bay Area projects.

Appendix E, "Recommended Methods for Screening and Modeling Local Risks and Hazards" – This appendix provides guidance for conducting individual project and cumulative cancer risk and hazards analysis as part of their environmental review.

Appendix F – Glossary of terms used throughout this guide.

And lastly, resources to assist lead agencies in analyzing and reducing air quality and climate impacts from proposed land use projects and plans are available on the Air District CEQA Resources webpage, including the Mixed Land Use Screening Tool for Criteria Pollutants and Precursors discussed in Chapter 4 and the screening tools discussed in Appendix E.

1.2.1 Early Consultation

The Air District encourages consultation between the lead agency and project applicant as early as possible in the project planning stage. Consultation should focus on potential air quality and GHG concerns and opportunities to minimize impacts before substantial resources (public and private) have been devoted to the project. Addressing land use and site design issues while a project is still in the conceptual stage increases options to incorporate project design features to minimize land use compatibility issues and air quality and GHG impacts. By the time a project enters the CEQA process, it is usually more costly and time-consuming to redesign the project to include mitigation measures.

The following air quality and GHG considerations warrant particular attention during early consultation between lead agencies and project applicants: land uses and design features that minimize use of single-occupancy vehicles, conserve energy, reduce project emissions, and eliminate fossil fuel reliance; land uses and design features that minimize or eliminate the exposure of sensitive receptors to odors, toxic air contaminants, and criteria air pollutants; and application of all relevant Air District rules, regulations, and permit requirements.

1.3 REFERENCES

BAAAQMD. *See* Bay Area Air Quality Management District.

Bay Area Air Quality Management District, 2017 (May). California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 28, 2022.

Governor's Office of Planning and Research. 2020 (January). *Technical Advisory: CEQA Review of Housing Projects*. Available: https://opr.ca.gov/docs/20190208-TechAdvisory-Review_of_Housing_Exemptions.pdf. Accessed February 28, 2022.

———. n.d. Site Check website. Available: https://sitecheck.opr.ca.gov/. Accessed February 28, 2022.

OPR. *See* Governor's Office of Planning and Research.

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2 BEST PRACTICES FOR CENTERING ENVIRONMENTAL JUSTICE, HEALTH, AND EQUITY

2.1 OVERVIEW OF PURPOSE, TERMINOLOGY, AND BACKGROUND

2.1.1 Purpose of Environmental Justice Chapter

The purpose of this chapter is to provide lead agencies with best practices on centering environmental justice (EJ), health, and equity in the siting, design, and development of projects under the California Environmental Quality Act (CEQA).

Because CEQA applies to discretionary projects, its information disclosure and mitigation process offers a singular and important opportunity to address both long-standing and emerging environmental injustices. Inherent in the concept of discretion is the presence of choice. A lead agency's analytical choices, both big and small, affect human health and welfare and, in turn, environmental justice outcomes. An overarching goal of this chapter is thus to encourage agencies to use their discretion to make analytical, technical, and legal choices that serve environmental justice in lieu of automatically defaulting to historical practice or the status quo.

The first step of the CEQA process is to determine whether environmental review will be applied to a particular project. When a lead agency has discretion to choose the level of environmental review for a project that threatens to increase pollution in an environmental justice community, the agency should use that discretion to maximize the agency's information disclosure and mitigation opportunities, both to protect public health and to prevent cumulative and disparate pollution impacts.

For context, under CEQA, a substantial adverse impact on human beings, whether direct or indirect, holds special legal status. (Cal. Code Regs, tit. 14, § 15065, Mandatory Findings of Significance). A disparate or discriminatory environmental impact is one such potential impact on human beings. Whether viewed from a civil rights disparate impact lens or from a conventional cumulative impact lens, lead agencies that receive state or federal funding should include a disparate impact analysis in their CEQA analysis under both state and federal law (Cal. Gov. Code § 11135; Title VI of the Civil Rights Act of 1964) and further include less discriminatory options in any alternatives analysis.

2.1.2 Foundational Equity Definitions

More broadly, this CEQA Guidelines chapter recognizes the policy imperative to address long-standing inequities in the siting, design, and development of residential, commercial, industrial, and other projects. This chapter also responds to the seventh EJ principle, which "demands the [community's] right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation."[1]

The following list includes definitions of "equity" and other important terms. Most terms are grounded in the U.S. Constitution, the laws of the United States of America, and in California law:

- AB 617[2] Community – An Assembly Bill (AB) 617 community is affected by a high cumulative exposure burden for toxic air contaminants and criteria air pollutants, selected by the California Air Resources Board (CARB) governing board, that works with the Bay Area Air Quality Management District (Air District) to develop and implement community air monitoring plans and emission reduction programs to reduce air pollution and the associated health impacts within the community.[3]
- Amendment XIV to the U.S. Constitution[4] – "All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws."
- Antiracist Policy[5] – An antiracist policy is any measure that produces or sustains racial equity between racial groups.
- Environmental Justice – This term refers to the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. Gov. Code, § 65040.12(e)(1).

[1] The 17 *Principles of Environmental Justice* were drafted and adopted in 1991 by the Delegates at the First National People of Color Environmental Leadership Summit and serve as a defining document for the growing grassroots movement for environmental justice.
[2] AB 617, Cristina Garcia, *Nonvehicular air pollution: criteria air pollutants and toxic air contaminants.* https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB617, Accessed April 29, 2022.
[3] California Air Resources Board, *Community Air Protection Program, https://ww2.arb.ca.gov/sites/default/files/2020-05/Community%20Air%20Protection%20Program%20-%20Overview%20-%20English.pdf*, Accessed March 18, 2022.
[4] U.S. Constitution, *Fourteenth Amendment Citizenship, Equal Protection, and Other Rights of Citizens,* https://constitution.congress.gov/browse/amendment-14/section-1/, Accessed August 1, 2022.
[5] Ibram X. Kendi, *How to Be an Antiracist*. New York: One World, 2019.

- "Environmental justice" includes, but is not limited to, all of the following:
  - (A) The availability of a healthy environment for all people.
  - (B) The deterrence, reduction, and elimination of pollution burdens for populations and communities experiencing the adverse effects of that pollution, so that the effects of the pollution are not disproportionately borne by those populations and communities.
  - (C) Governmental entities engaging and providing technical assistance to populations and communities most impacted by pollution to promote their meaningful participation in all phases of the environmental and land use decision making process.
  - (D) At a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions.

- Equity – "Equity" means "increasing access to power, redistributing and providing additional resources, and eliminating barriers to opportunity, in order to empower low-income communities of color to thrive and reach full potential."[6]
- Overburdened Community – This term refers to an area located within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0, as having an overall CalEnviroScreen score at or above the 70th percentile, or located within 1,000 feet of any such census tract.[7]
- Procedural Equity – As stated in Environmental Justice Principle 7, "Environmental justice demands the right to participate as equal partners at every level of decision-making including needs assessment, planning, implementation, enforcement and evaluation."[8]
- Racial Equity[9] – This term refers to "two or more racial groups standing on relatively equal footing."
- Racist Policy[10] – A racist policy is "any measure that produces or sustains racial inequity between racial groups." Racist policies produce inequities "through permanently assisting an overrepresented racial group into wealth and power."
- Redlining – "Redlining" refers to the racist policies and practices that financing entities and government deployed to segregate communities of color in "declining" neighborhoods while reserving the "best" and most "desirable" neighborhoods for whites.[11]
- Title VI of the 1964 Civil Rights Act – No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. 42 U.S.C. §§ 2000d et seq.

[6] Greenlining Institute, Making Equity Real in Mobility Pilots, http://greenlining.org/wp-content/uploads/2019/08/Toolkit_Making-Equity-Real-in-Mobility-Pilot-Projects_Final-1.pdf, Accessed March 25, 2022.
[7] Bay Area Air Quality Management District, *Regulation 2, Permits Rule 1, Section 2-1-243*, https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20211215_rg0201-pdf.pdf?la=en&rev=103cc60e706947d3ad1e4f5a090483c1, December 15, 2021.
[8] *Principles of Environmental Justice* were developed by the Delegates to the First National People of Color Environmental Leadership Summit convened by the United Church of Christ Commission for Racial Justice in 1991.
[9] Ibram X. Kendi, *How to Be an Antiracist*. New York: One World, 2019.
[10] Ibid.
[11] California Environmental Protection Agency, *Pollution and Prejudice: Redlining and Environmental Injustice in California*, https://storymaps.arcgis.com/stories/f167b251809c43778a2f9f040f43d2f5, August 16, 2021.

2.1.3 Environmental Justice Background

Equal protection of the law held in the Amendment XIV to the U.S. Constitution is the foundation of environmental justice. EJ and Title VI of the 1964 Civil Rights Act are both rooted in the same basic principle—that no person should bear an unfair share of harm on account of their race, color, or national origin.[12] The EJ movement was galvanized in 1987, when the United Church of Christ Commission released a study demonstrating that across the country, toxic facilities were consistently located in Black and Brown communities.[13] In 1991, delegates to the First National People of Color Environmental Leadership Summit drafted and adopted *The Principles of Environmental Justice*, and it has served as a defining document for the growing EJ movement.[14]

The origins of environmental injustice and racist policies trace back through the history of the country, starting with the genocide of Native tribes and dispossession of their lands by white European settlers. "In 1491, Native people controlled all of the 2.4 billion acres that would become the United States. Now [Native people] control about 56 million acres, or roughly 2 percent."[15] The environmental story of white settlement, which involved Europeans bringing diseases, weeds, vermin, and domesticated animals that opportunistically supported the devastation of Native peoples, is more complex than can be captured in this chapter.[16] European settlers institutionalized the othering and dehumanizing of Native Americans, the systematic erosion of their livelihoods, and removal of their rights to the land. Federal and state government–sanctioned militias killed Tribal men, women, and children, terrorized survivors, and forced them into reservations, often far removed from their homeland. In other instances, treaties were brokered with false promises of land access, including in what are now designated national parks.[17] These crimes were justified by characterizing Native people as savages not worthy of inhabiting the lands they tended for thousands of years. With John Muir and other conservationists designating natural cathedrals—wilderness areas preserved free of human intervention—Native Americans were pushed from their lands by white Americans enacting their exclusionary ideals with racist policies. Today, many Native people still lack access to their ancestral lands and are prevented by racist policies from gaining access. In some cases, access was provided only recently. For instance, in 2021, the San Diego County Board of Supervisors struck down a prohibition that for more than 20 years prevented 18 federally recognized tribes from expanding their landholdings.[18] As leaders, administrators, and planners become more cognizant of racial justice, the reversal of racist policies will be crucial to undo centuries of harm and begin to implement procedural equity and antiracist policy.

[12] U.S. Department of Justice, *Federal Coordination of Title VI and Environmental Justice,* https://www.justice.gov/crt/fcs/newsletter/Spring-2015/TitleVIandEJ, Accessed July 7, 2022.
[13] United Church of Christ. A Movement is Born: Environmental Justice and the UCC, https://www.ucc.org/what-we-do/justice-local-church-ministries/justice/faithful-action-ministries/environmental-justice/a_movement_is_born_environmental_justice_and_the_ucc/, Accessed March 22, 2022.
[14] *Principles of Environmental Justice*, https://www.ejnet.org/ej/principles.html, Accessed July 27, 2022.
[15] David Treuer, The Atlantic, *Return the National Parks to the Tribes,* https://www.theatlantic.com/magazine/archive/2021/05/return-the-national-parks-to-the-tribes/618395/, May 2021.
[16] Carol Merchant, Major Problems in American Environmental History. UCB. D.C. Heath and Company.
[17] David Treuer, The Atlantic. *Return the National Parks to the Tribes,* https://www.theatlantic.com/magazine/archive/2021/05/return-the-national-parks-to-the-tribes/618395/, May 2021.
[18] Lauren Mapp, The San Diego Union-Tribune, *In historic move, county removes barrier to tribal land expansion*, https://www.sandiegouniontribune.com/communities/north-county/story/2021-05-05/in-historical-move-county-board-removes-barrier-to-tribal-land-expansion, May 5, 2021.

Discriminatory and racist land use and lending policies, commonly referred to as redlining, are another example of the roots of environmental injustice. In the 1930s, the federal government created lending practices and other policies that explicitly discriminated against Black and Brown people and led to the further siting of polluting industries near communities of color. In the 1930s, the Home Owners' Loan Act (HOLC), a component of the New Deal, provided low-interest mortgages backed by the federal government. Over nearly three decades, the federal government issued the vast majority (98 percent) of $120 billion in loans to whites. To protect this investment, the government created HOLC assessment practices and color-coded "residential security" maps where green or "desirable" neighborhoods were deemed secure while red or "declining" neighborhoods were determined to be a high risk for lenders. The federal government explicitly assigned skin color—"inharmonious racial or nationality groups"—as a criterion considered risky. Local government similarly reinforced this racist practice through zoning, leading to the siting of industrial activity in communities of color—redlined areas. The California Environmental Protection Agency recently evaluated the relationship between HOLC practices and present-day environmental injustice and found that "for all eight of the California cities included in the HOLC assessments, neighborhoods that were redlined…are on average more disadvantaged by pollution burdens…."[19]

This section offers only a snippet of the history of racism in this country and environmental injustice in the Bay Area as it relates to land use. This section is not meant to be an all-inclusive history of the EJ movement but to highlight how past land use decisions and institutional injustices continue to have persistent negative consequences in the daily lives of people of color. The impacts of environmental injustice are found today in the health outcomes, or social determinants of health, of people in the most disproportionately affected EJ communities. Social determinants of health, as defined by the Bay Area Regional Health Inequities Initiative, are those factors that affect morbidity, mortality, and health behaviors but that are out of an individual's control, such as living conditions, institutional power, and social inequality.[20] A person's health outcomes, such as life expectancy at birth and premature mortality, can be predicted by educational attainment and neighborhood poverty. However, educational opportunities are largely out of the community members', families', or students' control and are largely determined by local, state, and federal governments. Similarly, the location of polluting sources is determined by those in power, and the "burden of breathing in unhealthy air is often disproportionately borne by low income and communities of color, many of which are situated closer to busy highways, ports, factories, and other pollution sources."[21] Environmental Justice Principle 12 "affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access for all to the full range of resources."[22]

Recent research on fine particulate matter ($PM_{2.5}$) concentrations in the United States found that the most polluted areas studied have remained polluted with "the most exposed subpopulations in 1981 remain[ing] the most exposed in 2016."[23] Environmentally overburdened, underserved, and economically distressed

[19] California Environmental Protection Agency, *Pollution and Prejudice: Redlining and Environmental Injustice in California*. https://storymaps.arcgis.com/stories/f167b251809c43778a2f9f040f43d2f5, August 16, 2021.
[20] Bay Area Regional Health Inequities Initiative, *Applying Social Determinants of Health Indicators to Advance Health Equity: A Guide for Local Health Department Epidemiologists and Public Health Professionals.* Oakland, CA., 2015.
[21] Bay Area Regional Health Inequities Initiative 2015, https://www.barhii.org/, Accessed April 23, 2021.
[22] *Principles of Environmental Justice*, https://www.ejnet.org/ej/principles.html, Accessed July 27, 2022.
[23] Jonathan Colmer, Ian Hardman, Jay Shimshack, and John Voorheis, *Disparities in $PM_{2.5}$ air pollution in the United States*. Science 369 (6503), 575–578. DOI: 10.1126/science.aaz9353. November 24, 2020.

communities may be subject to a higher risk of pollutant-related health effects than the general population because they may be exposed to higher pollutant concentrations than the general population; they may experience a larger health impact at a given pollutant concentration; or they may be adversely affected by lower pollutant concentrations than the general population.[24] The most critical air pollutant affecting health in the Bay Area is $PM_{2.5}$, which includes diesel PM as a toxic air contaminant.[25] Local levels of $PM_{2.5}$ and toxic air contaminants are highest near air pollution sources, such as freeways, heavily trafficked seaports, and large industrial facilities.[26] The burden of breathing unhealthy air is often disproportionately borne by low-income communities and communities of color, many of which are situated closer to busy highways, ports, factories, and other pollution sources.[27]

2.2 ENVIRONMENTAL JUSTICE GUIDANCE

This section makes the case for centering equity and environmental justice in CEQA processes and analyses. It identifies ways to assess and improve EJ practices in CEQA review for all projects. By using this guidance, lead agencies should be able to:

- inform, consult, or engage overburdened and/or AB 617 communities in CEQA analysis and decision making;
- identify projects located in overburdened and/or AB 617 communities;
- analyze project-level impacts on overburdened and/or AB 617 communities; and
- determine whether the project is centering nondiscrimination and environmental justice through its mitigation plan, cumulative impact analysis, and alternatives analysis.

2.2.1 Public Scoping Process and Public Engagement

This section draws on the principles of EJ, including principles 2, 4, 7, 11, 12, and 16,[28] by providing guidance on meaningful public engagement and identifying land use projects in communities disproportionately affected by environmental pollution and experiencing high levels of cumulative environmental burden.

[24] U.S. Environmental Protection Agency, *Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements; Final Rule,* https://www.govinfo.gov/content/pkg/FR-2016-08-24/pdf/2016-18768.pdf.
[25] Bay Area Air Quality Management District Advisory Council, Particulate Matter: Spotlight on Health Protection, *Advisory Council Particulate Matter Reduction Strategy Report,* December 16, 2021.
[26] Bay Area Air Quality Management District, *Planning Healthy Places,* 2016.
[27] Bay Area Regional Health Inequities Initiative, *Applying Social Determinants of Health Indicators to Advance Health Equity: A Guide for Local Health Department Epidemiologists and Public Health Professionals. Oakland, CA.,* 2015.
[28] Principles of Environmental Justice referenced: (2) Environmental Justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias. (4) Environmental Justice calls for universal protection from nuclear testing, extraction, production and disposal of toxic/hazardous wastes and poisons and nuclear testing that threaten the fundamental right to clean air, land, water, and food. (7) Environmental Justice demands the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation. (11) Environmental Justice must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination. (12) Environmental Justice affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and provided fair access for all to the full range of resources. (16) Environmental Justice calls for the education of present and future generations which emphasizes social and environmental issues, based on our experience and an appreciation of our diverse cultural perspectives.

INFORM, CONSULT WITH, OR OTHERWISE ENGAGE THE OVERBURDENED COMMUNITY AND/OR AB 617 COMMUNITY IN THE ENVIRONMENTAL ANALYSIS AND DECISION MAKING

Meaningful public engagement is essential to conducting an environmentally just CEQA process. Lead agencies and other public agencies should review their public engagement process to ensure that they are providing meaningful engagement to a wide and diverse range of residents, youth, seniors, tribal government representatives, persons with disabilities, linguistically isolated persons, and others. Meaningful public engagement is helpful to maintain relationships with affected populations, enhance the ability to collect data and information, convene community advisory committees to further inform decision making, and provide opportunities for the community to discuss their concerns. The U.S. Environmental Protection Agency provides promising practices and methodologies, derived from agency practices, that federal agencies can consider for understanding EJ in the context of the National Environmental Policy Act process.[29] These same practices and methodologies also largely apply to CEQA.

Environmental injustices are often rooted in the exclusion of communities in land use, permitting, and entitlement decisions. With the state legislature codifying the requirement to address environmental justice, creating laws and programs to include community participation, authentic outreach during the scoping phase is now a more critical part of the overall CEQA process. Authentic outreach calls for meaningful involvement of community residents in the proposed project.[30] The scoping process should include all community members whose health may be affected by the proposed project, including affected businesses and organizations in the project area. Overburdened communities are diverse, with varying issues and needs, which requires engaging a local partner familiar with and trusted by the local community. Lead agencies should identify community assets, such as trusted partners, community leaders, and EJ groups with a history of working in the local community, to involve them early in the scoping process. Community partners should be linguistically accommodated, compensated for their time and support to raise awareness about the process, and provided opportunities to collaborate with planners and environmental experts to inform and educate the community about key project topics and provide local knowledge that helps to ensure that the project addresses the needs of the community. In addition, the scoping process should effectively engage the community and accommodate residents through providing cultural consideration, simultaneous translation services, a variety of times and accessible meeting locations, and communication and participatory facilitation techniques to convey information in an accessible format.

CEQA also provides that documents should be written in plain language and be user-friendly to the public,[31] and EJ advocates have successfully argued that the documents should be printed in the primary language of the population affected.[32] When designing a community engagement strategy for an EJ planning process, focus on involving and collaborating with the community. Implement a culturally relevant online strategy by identifying websites and social media platforms that are most viewed by the target populations to provide

[29] U.S. Environmental Protection Agency, *Promising Practices for EJ Methodology,* August 2016.
[30] Claudia Garcia; Angie Xiong; Curtis E. Alling, AICP; and Gary D. Jakobs, AICP, *Environmental Justice in the California Environmental Quality Act: It Is Here, and It Is Time,* http://ascentenvironmental.com/files/2915/9908/4232/AscentShare_Environmental_Justice_Paper.pdf.
[31] State CEQA Guidelines § 15140.
[32] *El Pueblo Para el Aire y Agua Limpio v. County of Kings*, No. 366045, 22 ENVTL. L. REP. 20357 (Cal. Super. Ct., Sacramento County, Dec. 30, 1991).

updates on the ongoing planning process.[33] For more information on the principles and techniques to consider, see the California Environmental Justice Alliance SB 1000 Implementation Toolkit. It provides a planning process, tools, methodologies, and resources to support local governments and planners as they begin to implement the statutes of SB 1000.[34] The Governor's Office of Planning and Research (OPR) also provides example model goals, objectives, and policies and programs[35] that can serve as a reference for meaningful public engagement for other communities and local jurisdictions.

Language Access

Meaningful public participation, including adequate language access and proper tribal consultation, is another critical aspect of an environmentally just CEQA process. On language access, the Dymally-Alatorre Act (Cal. Gov. Code §§ 7299.1-7299.5, 19052) provides state and local agencies important instruction on bilingual staffing and translation. At a minimum, lead agencies should ensure compliance with the act's language access requirements. From an equity and EJ perspective, lead agencies should go beyond the minimum legal requirements and tailor their own, population-specific language access policies that are as linguistically inclusive as possible. As they relate to the CEQA process, translation efforts should reflect the linguistic diversity of the lead agency's geographic area, with a particular focus on the linguistic diversity of the project area.

Tribal Consultation

AB 52 enshrines CEQA's tribal consultation requirements. Under AB 52, the CEQA process must include formal, deliberate, and rigorous consultation with Native American tribal representatives[36] on issues that could affect potential culturally significant areas and resources, along with an impact analysis of those historical and cultural resources. OPR provides technical advisories to aid tribes and local governments in the tribal consultation process. Lead agencies should review that guidance before beginning the CEQA process. If the tribal consultation process fails to result in a mutual agreement on whether or how to mitigate significant impacts on tribal cultural resources, the lead agency should consider engaging a third-party mediator to resolve the intergovernmental dispute.

2.2.2 Defining the Environmental Setting and Project Description

State CEQA Guidelines Section 15125[37] directs lead agencies to describe the physical environmental conditions in the vicinity of a project. The environmental setting normally constitutes the baseline by which an agency determines whether an impact is significant. To begin addressing EJ, the environmental setting should include existing economic and social conditions to the extent they are implicated in significance determinations, as discussed in Section 2.2.4. It should identify any overburdened and/or AB 617 community that would be affected. There are other ways to define communities disproportionately impacted by air pollution that should be identified, including a locally defined EJ community via the SB

[33] California Environmental Justice Alliance and Placeworks, *SB 1000 Implementation Toolkit Planning for Healthy Communities,* October 2017, https://caleja.org/2017/09/sb-1000-toolkit-release/.
[34] Ibid.
[35] Governor's Office of Planning and Research, *General Plan Guidelines Appendix A*, https://opr.ca.gov/docs/OPR_Appendix_A_final.pdf, June 24, 2022.
[36] Under Assembly Bill 52, CEQA requires lead agencies to consider the effects of projects on tribal cultural resources and to conduct notification and consultation with federally and nonfederally recognized Native American tribes early in the environmental review process.
[37] The State CEQA Guidelines may be downloaded here: https://www.califaep.org/docs/2022_CEQA_Statue_and_Guidelines.pdf.

1000 general plan EJ element planning process. More specific information may include the community's ethnic, racial, and/or nationality,[38] as well as population characteristics in CalEnviroScreen 4.0,[39] including but not limited to sensitive population indicators (e.g., asthma, cardiovascular disease, infants with low birth weight) and socioeconomic factor indicators (e.g., educational attainment, housing-burdened low-income households, linguistic isolation, poverty, unemployment). EJ relates to the relationship between social and economic factors and environmental impacts on people and their communities. Thus, consideration of race, broader demographics, social determinants of health, and land use history of a potentially affected community is crucial to a proper, thorough, and sensitive environmental review.[40]

A clear, complete, and accurate project description is the linchpin of any CEQA analysis and is particularly important from an EJ and equity perspective. The project description should also provide a level of detail sufficient to understand and address EJ throughout the environmental review process. For example, for projects that would result in higher rates of vehicle trips or vehicle miles traveled, the project description should identify geographic boundaries with foreseeable areas that would be affected by an increase in emissions. Overall, the project description should be as inclusive and holistic as possible.

Likewise, in selecting a baseline for the CEQA analysis, lead agencies should use their discretion to advance equitable and public health–protective analyses and outcomes. For example, whenever possible, lead agencies should avoid including illegal pollution in their baseline determination. Lead agencies should also avoid inflating baselines in a manner that does not provide an accurate view of existing pollution levels or a project's impacts, especially in pollution-burdened communities.

IDENTIFY PROJECTS LOCATED IN AN OVERBURDENED COMMUNITY AND/OR AB 617 COMMUNITY

The recommendations in this section will only refer to overburdened and/or AB617 communities. Overburdened communities, as defined by the Air District, are areas that experience high levels of cumulative impacts—census tracts that score at or above the 70th percentile in CalEnviroScreen 4.0[41] and areas within 1,000 feet of the boundaries of those census tracts.[42] An AB 617 community is affected by a high cumulative exposure burden for toxic air contaminants and criteria air pollutants, selected by CARB that works with the Air District to develop and implement community air monitoring plans and emission reduction programs in order to reduce air pollution and the associated health impacts in the community.

[38] Alan Ramo, Golden Gate University School of Law, *Environmental Justice As an Essential Tool in Environmental Review Statutes – A New Look at Federal Policies and Civil Rights Protections and California's Recent Initiatives.*
[39] California Office of Environmental Health Hazard Assessment, *CalEnviroScreen 4.0,* https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40, Accessed March 3, 2022.
[40] Ibid.
[41] CalEnviroScreen 4.0 is a screening methodology that can be used to help identify communities that are disproportionately burdened and cumulatively affected by multiple sources of pollution across California. California Office of Environmental Health Hazard Assessment, *CalEnviroScreen 4.0,* https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40, Accessed March 3, 2022.
[42] Bay Area Air Quality Management District, *Regulation 2, Permits Rule 1, Section 2-1-243,* https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20211215_rg0201-pdf.pdf?la=en&rev=103cc60e706947d3ad1e4f5a090483c1, December 15, 2021.

As of autumn 2022, the AB 617 communities in the Bay Area are West Oakland, Richmond/North Richmond/San Pablo, and East Oakland. For more information, see the Air District's AB 617 Program.[43]

The Air District recommends that the following actions be taken to identify projects located in an overburdened community and/or AB 617 community:

- Lead agencies should identify overburdened communities[44] in their CEQA analysis and contact Air District staff to determine whether the project site is located in an AB 617 community.
- Each overburdened and/or AB 617 community identified in the analysis should be identified by name or other identifying information, such as a census tract number, and its location should be shown on a map.[45]
- If the project site is located in an overburdened and/or AB 617 community, the project description should describe the environmental setting in the vicinity of the site.
- Local governments should complement the identification of these communities with ground-truthing, supplementing technical information with local knowledge, such as the location of pollution sources and their proximity to sensitive receptors, to inform policy and project decisions.[46]
- Lead agencies should also consider preparing a racial impact statement —an analysis of how a proposed action affects racial or ethnic groups— to accompany its CEQA analysis in order to ensure and demonstrate nondiscrimination.

2.2.3 Environmental Justice Considerations for Project-Level Impact Analysis

This section provides guidance and recommendations on how EJ should be considered for project-level impact analysis.

ANALYZE PROJECT-LEVEL IMPACTS ON OVERBURDENED AND/OR AB 617 COMMUNITY

The following EJ recommendations should build on and supplement the analysis conducted in response to the CEQA statute and State CEQA Guidelines Appendix G Environmental Checklist questions for air quality:

III. AIR QUALITY.

Would the project:

[43] Bay Area Air Quality Management District, *Community Health Protection Program*, https://www.baaqmd.gov/community-health/community-health-protection-program.
[44] Bay Area Air Quality Management District, *Interactive Data Maps*, https://www.baaqmd.gov/about-air-quality/interactive-data-maps.
[45] California Department of Justice Office of Attorney General, *Agreement Between the California Attorney General's Office and the City of Huntington Park,* December 1, 2021.
[46] California Environmental Justice Alliance and Placeworks, *SB 1000 Implementation Toolkit Planning for Healthy Communities,* October 2017.

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

c) *Expose sensitive receptors to substantial pollutant concentrations?*

d) *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Consistency with Air Quality Plans

Question a): Would the project conflict with or obstruct implementation of the applicable air quality plan?

As noted in Chapter 5 of these CEQA Guidelines, the analysis should include a discussion of the project's consistency with each applicable air quality plan. CARB's Community Health Protection Program works with communities across California to plan and implement AB 617 (C. Garcia, Chapter 136, Statutes of 2017). This effort focuses on developing community emissions reduction programs or plans (CERPs) and employing proven and innovative strategies to reduce exposure to air pollutants in neighborhoods most affected by air pollution and thereby improve community health. In addition to responding to the questions in Appendix G of the State CEQA Guidelines as part of the standard impact analysis, project sponsors and lead agencies with projects located in a community with an adopted CERP should consider the following recommendations.

The lead agency should consult with the Air District to evaluate the project's consistency with any adopted CERPs. For any projects that are within a CERP plan area, especially projects with a large geographic or pollution footprint, projects that require demolition, and projects that have extended construction periods or overlapping construction schedules, the project sponsor (applicant or lead agency) should consult with the Air District to ensure that it fully understands not only the goals and strategies outlined in the CERP but also how to engage with the community to create socially responsible projects and identify ways to reduce air pollution. In accordance with State CEQA Guidelines Appendix G and Chapter 5 of these CEQA Guidelines, lead agencies must analyze whether projects within a CERP plan area are consistent with the applicable CERP. To demonstrate consistency, the analysis should discuss how the project supports the CERP goals and targets; identify which CERP strategies are incorporated into the project and which strategies, if any, are not incorporated and present the reasons for their exclusion, supported by substantial evidence; and demonstrate that the project would not cause disruption or delay to or otherwise hinder implementation of any CERP strategies. The lead agency should contact the Planning and Climate Protection Division via email (ceqa@baaqmd.gov) for assistance with ensuring CERP plan consistency.

State CEQA Guidelines Section 15125(d) states that environmental impact reports shall discuss inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans. Because local jurisdictions update and adopt EJ policies, a project review related to EJ policy consistency and applicable mitigation measures should be considered. The lead agency should confirm whether there are adopted EJ policies for the project area that are intended to avoid or reduce environmental effects on vulnerable

communities within its jurisdiction.[47] The environmental impact report should discuss in the regulatory background section and impact analyses any adopted EJ elements or policies that involve avoiding or mitigating environmental effects applicable to air pollutant emissions and health risks related to pollution. For more information on adopted EJ elements across the state, see OPR's Tools and Resources.[48]

Criteria Air Pollutants

🔨 Question b): Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

As noted in Chapter 5 of these CEQA Guidelines, the analysis should determine the significance of construction- and operation-related criteria air pollutants and precursors. For projects located in overburdened communities, the cumulative impact analysis should be holistic and inclusive and should identify all past, present, and future projects that add to the cumulative scenario. Implementation of the enhanced best management practices for mitigating construction fugitive dust emissions listed in Section 5.2.2 of Chapter 5, "Project-Level Air Quality Impacts," is particularly important in a pollution-burdened community facing cumulative impacts. Further, lead agencies should seek to implement mitigation measures that would benefit overburdened communities, as discussed below. The Air District additionally recommends that local jurisdictions review CARB's Concept Paper for the Freight Handbook[49] and the California Attorney General's Office Bureau of Environmental Justice[50] best practices and mitigation measures when studying air quality impacts from construction and operation and reducing air quality impacts of logistics and warehouse facilities. It is critical to consider these recommendations when assessing air quality impacts because overburdened communities continue to experience the worst air pollution in the region. Finally, as discussed above, for lead agencies that receive state or federal funding, the cumulative impact analysis should ensure that the project would not cause or contribute to a disparate impact on a community based on race, color, or national origin, consistent with a lead agency's civil rights obligations.

Local Community Risks and Hazards

🔨 Question c): Would the project expose sensitive receptors to substantial pollutant concentrations?

Careful consideration and mitigation of localized air quality exposure is central to incorporating EJ into the CEQA process. Chapter 5 and Appendix E of these CEQA Guidelines provide extensive guidance on identifying the sources, receptors, and project radius needed to perform preliminary screening and, if necessary, a detailed health risk assessment to determine local risks and hazard impacts. A clear

[47] Claudia Garcia; Angie Xiong; Curtis E. Alling, AICP; and Gary D. Jakobs, AICP, *Environmental Justice in the California Environmental Quality Act: It Is Here, and It Is Time,* http://ascentenvironmental.com/files/2915/9908/4232/AscentShare_Environmental_Justice_Paper.pdf.
[48] Governor's Office of Planning and Research, *General Plan Guidelines and Technical Advisories*, https://opr.ca.gov/planning/general-plan/guidelines.html, June 24, 2022.
[49] California Air Resources Board, *Concept Paper for the Freight Handbook*, https://ww2.arb.ca.gov/sites/default/files/2020-03/2019.12.12%20-%20Concept%20Paper%20for%20the%20Freight%20Handbook_1.pdf, Accessed April 29, 2022.
[50] Attorney General's Office Bureau of Environmental Justice, *Warehouse Projects and Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act*, https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf. Accessed April 29, 2022.

understanding of the siting of a project is integral to an assessment of potential health and equity impacts, and thoroughly describing the environmental setting helps to establish the baseline conditions in a community. For example, the particulate emissions from a proposed project might not be significant if the project would be located far from a populated area, but they may be significant if the project would be located in the airshed of a community whose residents may be particularly sensitive to the type of pollution associated with the project or are already experiencing higher-than-average asthma rates.[51]

Because overburdened and AB 617 communities include residents already experiencing higher-than-normal levels of air pollution and are often checkered with incompatible land uses, a careful analysis for sensitive receptors should be conducted. Sensitive receptors include children, the elderly, off-site workers, students, and those with preexisting medical conditions. They are typically found in residences, schools, parks and playgrounds, daycare centers, nursing homes, and medical facilities, but some receptors are overlooked because they are found in an unlikely location. Lead agencies should consider conducting an in-person survey of the project vicinity for a complete list of locations frequently overlooked, such as encampments for the unhoused, warehouses with indoor sports facilities for children and youth, privately operated indoor playgrounds for young children, and privately operated youth-serving facilities.

The following recommendations should be considered during preparation of health risk assessments to ensure that impacts on sensitive receptors are accurately captured:

- The environmental analysis should estimate and evaluate the project's potential health impacts, including potential cumulative health impacts, on existing sensitive receptors in and near the project area related to construction- and operation-related emissions of toxic air contaminants and $PM_{2.5}$. Although generally not required, the lead agency may choose to study the effects of air pollution on future users to better inform mitigation strategies.
- In analyzing cumulative health impacts, lead agencies should carefully ensure that all closely related past, present, and reasonably foreseeable future projects are captured by the analysis so that the full magnitude of any cumulative impact is disclosed and considered.
- Larger industrial sources located more than 1,000 feet from the project site, such as refineries, power plants, and chemical plants, should be included in the analysis.
- Sensitive receptors near schools located more than 1,000 feet from the project site should be included in the analysis.
- The modeling analysis should include freeways, highways, major roads,[52] rail lines, marine ports, ferries, and airports within approximately 1,000 feet of the project site because mobile sources that use these facilities are significant sources of pollution.

[51] Kamala Harris, Office of the California Attorney General, Department of Justice, *Environmental Justice at the Local and Regional Level: Legal Background,* July 2012.

[52] A major road is a road where risks are greater than 10 in one million.

Odors

🔨 Question d): Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Chapter 5 of these CEQA Guidelines provides guidance regarding how to make a significance determination for an odor impact. In overburdened or AB 617 communities, the process should include providing additional notice to the surrounding community in order to increase the amount of input received and ensure that existing odor impacts are appropriately considered in the cumulative impact analysis.

If the proposed project involves siting a new odor source, and sensitive receptors are located within the screening distances shown in Table 5-4 of these CEQA Guidelines, lead agencies should require the project sponsor to distribute a notice to addresses located within 1,000 feet of the project site. The notice should explain how the public may obtain more information about the project and receive answers to questions.

In addition to determining whether a proposed project in isolation may result in a potentially significant odor impact, lead agencies should also assess whether there may be a cumulative odor impact. Such an analysis is particularly recommended when a project would be located within the screening distance of an existing or proposed odor source, as shown in Table 5-4 of these CEQA Guidelines, or within the vicinity of a known odor source. If so, the lead agency should determine whether the proposed project plus existing and proposed odor sources would result in a cumulative impact and, if so, whether the proposed project's contribution would be cumulatively considerable, as outlined in Chapter 3, "Thresholds of Significance."

As part of the cumulative impact determination, lead agencies must consider the contribution of existing sources. To do this, lead agencies should investigate whether there are confirmed odor complaints related to the existing sources. They also should survey the community. Overburdened communities may or may not be familiar with the Air District's air quality complaint reporting system or how to submit a complaint. Accordingly, conducting an online or door-to-door survey or site visit would provide a more accurate picture of current conditions in the neighborhood. The responses gathered through these efforts should be discussed in the environmental review document. Further, the responses would provide information critical to determining whether there would be a cumulative impact, and they would assist in determining whether the proposed project's contribution would be cumulatively considerable.[53] In addition, this information would help the lead agency determine the best path forward regarding the location of the project and how to implement adequate processes and control equipment to mitigate any significant impacts it would have on the community. A survey could include the following questions:

- In the last 10 days, have you smelled a strong and/or offensive odor in your community?
- What date and time did you smell this odor?
- Where did you observe the odor?
- How would you characterize the odor?
- What is the name and address of the possible odor source or site, if known?

[53] As explained in Chapter 3, "the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant." (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120.)

- Is the odor ongoing?
- Have you experienced this type of odor issue in the past?
- Can you characterize your experience related to the odor? Did you experience any health impacts related to the odor?
- Have you reported the air quality concern to the Air District's complaint hotline? For more information on the complaint system, contact 1-800-334-ODOR (6367).

2.2.4 Environmental Justice Considerations for Economic and Social Effects

A key component of environmental justice is the consideration of the economic and social impacts of a project on people who have been historically subjected to unequal treatment and who are overburdened by environmental pollution and economic and social disparities. Historically, freeways, railways, polluting industries, and similar types of projects have cut through low-income and disenfranchised communities, perpetuating redlining impacts and those of other racist policies and practices. This section encourages lead agencies to implement antiracist measures to avoid perpetuating the mistakes of the past and to promote equity by evaluating and addressing the economic and social implications of proposed projects.

Purely economic or social impacts do not constitute significant effects under CEQA;[54] however, economic or social effects of a project may result in significant impacts under CEQA. The lead agency should consider whether implementing the project may result in economic or social impacts that in turn may cause significant physical impacts.[55] In addition, the lead agency should consider the economic or social effects of a project in determining the significance of physical changes caused by the project.[56] Former Attorney General Kamala Harris provided a CEQA-specific example: "[I]f the construction of a new freeway or rail line divides an existing community, the construction would be the physical change, but the social effect on the community would be the basis for determining that the effect would be significant."[57]

Below are questions and examples that lead agencies should consider when determining whether a project may have economic or social impacts that result in a significant environmental impact:

- If implementing the project would result in a physical change to the environment, would the economic or social effects of the physical change to the environment cause that physical change to be significant?

For example, the California High-Speed Rail Merced to Fresno: Central Valley Wye Draft Supplemental Environmental Impact Report/Environmental Impact Statement[58] states that construction of the Central Valley Wye alternatives would introduce permanent infrastructure and associated physical changes that would result in impacts on community cohesion in residential communities and the rural agricultural communities adjacent

[54] State CEQA Guidelines, §§ 15064(e), 15131.
[55] State CEQA Guidelines, §§ 15064(e), 15131(a).
[56] State CEQA Guidelines, § 15131(b).
[57] Kamala Harris, Office of the California Attorney General, Department of Justice, *Environmental Justice at the Local and Regional Level Legal Background,* July 2012.; State CEQA Guidelines, § 15131(b).
[58] California High-Speed Rail Authority, *Merced to Fresno: Central Valley Wye Draft Supplemental EIR/EIS, Section 3.12, Socioeconomics and Communities*, September 2018.

to the Central Valley Wye alternatives. Even with mitigation measures to reduce impacts associated with the division of residential neighborhoods, including conducting outreach to affected residents to determine specific relocation needs and assist displaced residents with finding new suitable housing, and extensive coordination with stakeholders to identify a robust sense of community cohesion in the final design of the preferred alternative in Fairmead, impacts caused by community division would remain significant.

When no direct physical changes to the environment would occur, the analysis should nevertheless consider indirect changes to the environment that could stem from the project's economic and social impacts. To assess the potential indirect impacts, lead agencies should consider these questions:

- Would implementing the project result in economic or social impacts that would lead to a physical change to the environment?
- If yes, would that physical change be significant?

For example, in *Citizens for Quality Growth v. City of Mt. Shasta*,[59] the court found that the lead agency failed to analyze potential indirect physical deterioration resulting from the project's economic effects on downtown businesses. Although the lead agencies may find that indirect environmental effects are not significant, they should be considered if the potential to lead to a physical change in the environment exists.

2.2.5 Environmental Justice Considerations for Project-Level Mitigation and Monitoring

This section supplements the information provided in Chapter 8, "Mitigating Air Quality and Climate Impacts," in these CEQA Guidelines. Chapter 8 provides foundational recommendations for mitigating air quality and climate impacts from construction- and operation-related air pollutant emissions, local risks and hazards, and odors. This section does not repeat the valuable recommendations and resources provided in Chapter 8; rather, it focuses on considerations in the mitigation analysis and examples of mitigation tied to reducing air pollution emissions and exposure and health risks related to pollution in overburdened and AB 617 communities.

As noted in Chapter 8, the mitigation analysis should identify ways to reduce or eliminate significant impacts on a particular community or sensitive group, including adopting alternative project locations or designs. Mitigation measures should be developed in collaboration with the community, the public, and other interested parties, including responsible agencies. Mitigation measures that fail to benefit the affected community, (e.g., planting trees in a forest far from the project site) usually are deemed inadequate by environmental justice communities. Environmental justice calls for mitigation measures to *first* benefit the affected community. This section presents examples of measures to address construction- and operation-related impacts, such as adopting a less intensive and nonoverlapping project construction buildout schedule and installing air filtration units in schools, respectively. Finally, mitigation measures must be effective and enforceable, and there must be a mitigation monitoring and reporting program to ensure that the project

[59] *Citizens for Quality Growth v. City of Mt. Shas*ta (1988) 198 Cal.App.3d 433, 445–446, https://files.resources.ca.gov/ceqa/cases/1988/shasta_020888.html; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1204–1208.

sponsors, lead agency, responsible agencies, and other parties are accountable to those most affected. Lead agencies should report progress to the community on a regular basis.

The following questions should be considered in the mitigation analysis to determine whether the selected mitigation plan is in the best interest of the affected community:

- Is the project centering environmental justice through its mitigation plan?
    - Are the mitigation measures intended to minimize impacts in overburdened and/or AB 617 communities?
    - Would the mitigation measures be implemented outside the overburdened and/or AB 617 communities?
    - Does the mitigation plan reduce or cause disparate impacts?
    - If implementing the mitigation within the overburdened and/or AB 617 communities is infeasible, are there monetary benefits that could be directed to the affected community?
    - How would implementing the project increase benefits in the overburdened and/or AB 617 communities?
    - When would the overburdened and/or AB 617 communities benefit from the mitigation efforts?
    - Are the overburdened and/or AB 617 communities engaged in the development and execution of the mitigation plan?

Answering the last question affirmatively is central to creating a mitigation plan that responds to community needs. The following section provides examples of how to reduce pollution exposure in overburdened and AB 617 communities and work toward more equitable solutions as part of the mitigation plan. It identifies resources—for example, mitigation measures crafted with a specific equity lens based on lessons learned from actual projects. It demonstrates how lead agencies can reduce pollution exposure and provide other community benefits by entering into a community benefits agreement. Typically, community benefits agreements are required by courts as a means to hold lead agencies accountable for funding and implementing the benefits and mitigation requests made by overburdened and AB 617 communities. Community benefits agreements can also be entered into voluntarily to support a positive relationship with the community.

EXAMPLES OF MITIGATION TO REDUCE POLLUTION EXPOSURE AND MINIMIZE IMPACTS

CAPCOA Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity[60]

The California Air Pollution Control Officers Association *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* provides recommended measures that focus on project features and operational practices that support advancing equity. Although

[60] California Air Pollution Control Officers Association, *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity,* December 2021.

the title suggests a focus on climate impacts, many of the recommended measures also reduce air pollutant emissions. The construction equity and public health and air quality outcome measures can be used to reduce the air quality impacts of project construction and operations. Measures aim to improve the health outcomes of project residents, as well as those of residents of nearby neighborhoods.

Attorney General's Office Bureau of Environmental Justice[61]

The Attorney General's Office Bureau of Environmental Justice recommends best practices and mitigation measures to promote environmentally just development for warehouse projects pursuant to CEQA. Examples of best practices for siting and design of warehouse facilities and example local ordinances are provided to place these facilities away from sensitive receptors and set minimum standards for these projects to reduce environmental and quality-of-life harm on local communities.

CARB Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways[62]

CARB developed a technical advisory that identifies effective strategies that planners and other land use decision makers can implement locally and in the near term to reduce exposure to near-roadway pollution as we pursue infill development while also protecting public health. The science literature supports, and this technical advisory presents, seven effective strategies, divided into three categories: strategies that reduce traffic emissions, strategies that reduce the concentration of traffic pollution, and strategies that remove pollution from indoor air.

CARB Air Pollution Program Resource Center[63]

CARB developed the Community Air Protection Program Resource Center, an online one-stop shop to obtain data, guidance, and tools to support improving air quality at the community scale. The Resource Center serves as a centralized repository of information and resources for use by community members, air districts, and the public. It will be continuously updated as new documents, materials, and data become available. It includes an introduction to community air quality, strategy development resources, technical assistance tools, data sources, and updates on AB 617 implementation.

EXAMPLES OF COMMUNITY BENEFITS TO REDUCE POLLUTION EXPOSURE

Residential and Schools Air Filtration

Air Filtration in Residential Neighborhoods, County of Riverside[64]

In Riverside County, the Agua Mansa Commerce Parks Specific Plan's mitigation plan included a variety of important measures to mitigate air quality and climate impacts, such as the installation, maintenance, and monitoring of air filtration units in 260 homes near the redevelopment site, restricted truck routes ordinances, anti-idling enforcement, clean trucks, setbacks, solar-ready buildings, and air monitoring,

[61] Attorney General's Office Bureau of Environmental Justice, *Warehouse Projects and Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act,* https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, Accessed April 29, 2022.
[62] California Air Resources Board, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways,* April 27, 2017.
[63] California Air Resources Board, *Community Air Protection Program Resource Center,* 2022.
[64] Placeworks, *City of Jurupa Valley Agua Mansa Commerce Park Specific Plan,* https://www.jurupavalley.org/DocumentCenter/View/1253/AMSP_FEIR_MASTER_3_19_20, March 2020.

among others. This was a result of the litigation settlement from the case *Center for Community Action and Environmental Justice (CCAEJ) et. al. v. County of Riverside et. al.*, RIC 1112063 (Cal. Super. Ct. 2013).

Air Filtration in Schools, South Coast Air Quality Management District

In October 2008, South Coast Air Quality Management District approved $1.125 million from a penalty settlement with a nearby Valero oil refinery for high-efficiency air filtration devices at schools in the Long Beach and Los Angeles Unified School Districts. Funding for the project came from a settlement with the City of Los Angeles and community groups to mitigate outdoor air pollutant impacts from the TraPac Container Terminal Expansion Project at the Port of Los Angeles.[65] The project will help expand the air filtration program to schools in communities surrounding the Valero refinery and help reduce children's exposure to particulate matter and diesel emissions.[66]

Community Benefits Agreement

Community benefits agreements (CBAs) are project-specific, legally enforceable contracts between project proponents and the community that explicitly describe the benefits a project agrees to fund or implement in the community. CBAs help ensure that residents, particularly those in low-income areas, receive economic and other benefits from development projects. CBAs are integrated into the development agreement signed by the project proponent and the lead agency, allowing the CBA to be enforced by local officials and community groups.[67]

3611 South Northpointe Drive, City of Fresno[68]

The City of Fresno authorized the development of 3611 South Northpointe Drive[69] in 2020 when the South Fresno Community Alliance and Leadership Counsel for Justice and Accountability threatened litigation. The parties settled with the establishment of a community benefits fund that would be funded by the project developer and administered by the City of Fresno. The City of Fresno would manage the fund to "pay local, pre-approved licensed and bonded contractors to install pre-approved and qualified improvements to mitigate light spill, traffic, air, and noise impacts on sensitive receptors."[70] The agreement included other requirements, including pedestrian safety improvements, traffic checks and monitoring, a public complaint phone line, installation of signs to direct traffic, electrification, and modification of an air district rule.

Harbor Community Benefit Foundation Air Quality Mitigation Fund[71]

[65] South Coast Air Quality Management District Advisor, http://www.aqmd.gov/docs/default-source/publications/aqmd-advisor/march-2011-advisor.pdf, Volume 17 Number 2, March 2011.
[66] South Coast Air Quality Management District Advisor, http://www.aqmd.gov/docs/default-source/publications/aqmd-advisor/november-2008-advisor.pdf, Volume 15, Number 6, November 2008.
[67] California Air Pollution Control Officers Association, *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, December 2021.
[68] *South Fresno Community Alliance v. City of Fresno* Settlement Agreement and Release of All Claims, https://leadershipcounsel.org/wp-content/uploads/2021/07/2021-03-17-SFCA-v-COF-Settlement-Agmt-Release-of-all-Claims-executed-certified-1.pdf, March 17, 2021.
[69] City of Fresno Planning and Development Department, *Notice of Action Granting Special Permit 3611 S Northpointe Drive*, https://appdev.fresno.gov/kiosk_clerk/admin/upload/1607386283_cityclerk.pdf, December 7, 2020.
[70] https://leadershipcounsel.org/wp-content/uploads/2021/07/2021-03-17-SFCA-v-COF-Settlement-Agmt-Release-of-all-Claims-executed-certified-1.pdf.
[71] Harbor Community Benefit Foundation, *HCBF Press Release*, https://hcbf.org/wp-content/uploads/2018/06/HCBF-Press-Release-6.27.18_FINAL_v2.pdf, June 27, 2018.

The Harbor Community Benefit Foundation Air Quality Mitigation Fund was established through a memorandum of agreement between the Port of Los Angeles (POLA) and the Harbor Community Benefit Foundation. In 2004, POLA set aside funding for air quality mitigation through a settlement associated with the approval of the China Shipping Container Terminal Project (China Shipping). Approximately $5 million of the China Shipping funds are available for projects to reduce port-related air emissions in nearby neighborhoods, especially the communities of San Pedro and Wilmington.[72]

2.2.6 Alternatives Analysis

In cases where a project risks a potentially significant disparate or cumulative impact on a community based on race, color, or national origin, the CEQA analysis should include one or more less discriminatory alternative(s) to the project.

[72] Harbor Community Benefit Foundation, Air Quality Mitigation Program, https://hcbf.org/air-quality-mitigation-program/, Accessed April 29, 2022.

2.3 RESOURCES

Alan Ramo, Golden Gate University School of Law, *Environmental Justice As an Essential Tool in Environmental Review Statutes – A New Look at Federal Policies and Civil Rights Protections and California's Recent Initiatives,* 2013.

Assembly Bill 617, Cristina Garcia, *Nonvehicular air pollution: criteria air pollutants and toxic air contaminants,* https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB617, Accessed April 29, 2022.

Attorney General's Office Bureau of Environmental Justice, *Warehouse Projects and Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act,* https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, Accessed April 29, 2022.

Bakersfield Citizens for Local Control v. City of Bakersfield (2004) 124 Cal.App.4th 1184, 1204–1208.

Bay Area Air Quality Management District, *Community Health Protection Program*, https://www.baaqmd.gov/community-health/community-health-protection-program.

Bay Area Air Quality Management District, *Interactive Data Maps,* https://www.baaqmd.gov/about-air-quality/interactive-data-maps.

Bay Area Air Quality Management District, *Planning Healthy Places*, 2016.

Bay Area Air Quality Management District, *Regulation 2, Permits Rule 1, Section 2-1-243,* *https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20211215_rg0201-pdf.pdf?la=en&rev=103cc60e706947d3ad1e4f5a090483c1*, December 15, 2021.

Bay Area Air Quality Management District Advisory Council, Particulate Matter: Spotlight on Health Protection, December 16, 2020.

Bay Area Regional Health Inequities Initiative 2015, https://www.barhii.org/, Accessed April 23, 2021.

Bay Area Regional Health Inequities Initiative, *Applying Social Determinants of Health Indicators to Advance Health Equity: A Guide for Local Health Department Epidemiologists and Public Health Professionals*, Oakland, CA., 2015.

California Air Pollution Control Officers Association, *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity,* December 2021.

California Air Resources Board, *Community Air Protection Program,* *https://ww2.arb.ca.gov/sites/default/files/2020-05/Community%20Air%20Protection%20Program%20-%20Overview%20-%20English.pdf*, Accessed March 18, 2022.

California Air Resources Board, *Community Air Protection Program Resource Center*, 2022.

California Air Resources Board, *Concept Paper for the Freight Handbook,* https://ww2.arb.ca.gov/sites/default/files/2020-03/2019.12.12%20-%20Concept%20Paper%20for%20the%20Freight%20Handbook_1.pdf, Accessed April 29, 2022.

California Air Resources Board, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways,* April 27, 2017.

California Department of Justice Office of Attorney General, *Agreement Between the California Attorney General's Office and the City of Huntington Park,* December 1, 2021.

California Environmental Justice Alliance and Placeworks, *SB 1000 Implementation Toolkit Planning for Healthy Communities,* October 2017, https://caleja.org/2017/09/sb-1000-toolkit-release/.

California Environmental Protection Agency, *Pollution and Prejudice Redlining and Environmental Injustice in California,* https://storymaps.arcgis.com/stories/f167b251809c43778a2f9f040f43d2f5, August 16, 2021.

California High-Speed Rail Authority, *Merced to Fresno: Central Valley Wye Draft Supplemental EIR/EIS, Section 3.12, Socioeconomics and Communities*, September 2018.

California Office of Environmental Health Hazard Assessment, *CalEnviroScreen 4.0*, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40, Accessed March 3, 2022.

Carol Merchant, Major Problems in American Environmental History. UCB. D.C. Heath and Company.

*Citizens for Quality Growth v. City of Mt. Shas*ta (1988) 198 Cal.App.3d 433, 445–446, https://files.resources.ca.gov/ceqa/cases/1988/shasta_020888.html.

City of Fresno Planning and Development Department, *Notice of Action Granting Special Permit 3611 S Northpointe Drive,* https://appdev.fresno.gov/kiosk_clerk/admin/upload/1607386283_cityclerk.pdf, December 7, 2020.

Claudia Garcia; Angie Xiong; Curtis E. Alling, AICP; and Gary D. Jakobs, AICP, *Environmental Justice in the California Environmental Quality Act: It Is Here, and It Is Time,* http://ascentenvironmental.com/files/2915/9908/4232/AscentShare_Environmental_Justice_Paper.pdf

Communities for a Better Environment v. California Resources Agency (2002) 103 Cal.App.4th 98, 118-120.

David Treuer, The Atlantic. *Return the National Parks to the Tribes,* https://www.theatlantic.com/magazine/archive/2021/05/return-the-national-parks-to-the-tribes/618395/, May 2021.

El Pueblo Para el Aire y Agua Limpio v. County of Kings, No. 366045, 22 ENVTL. L. REP. 20357 (Cal. Super. Ct., Sacramento County, Dec. 30, 1991).

Governor's Office of Planning and Research, General Plan Guidelines, https://opr.ca.gov/planning/general-plan/guidelines.html, June 24, 2022.

Greenlining Institute. Making Equity Real in Mobility Pilots, http://greenlining.org/wp-content/uploads/2019/08/Toolkit_Making-Equity-Real-in-Mobility-Pilot-Projects_Final-1.pdf, Accessed March 25, 2022.

Harbor Community Benefit Foundation, *Air Quality Mitigation Program,* https://hcbf.org/air-quality-mitigation-program/, Accessed April 29, 2022.

Harbor Community Benefit Foundation, *HCBF Press Release,* https://hcbf.org/wp-content/uploads/2018/06/HCBF-Press-Release-6.27.18_FINAL_v2.pdf, June 27, 2018.

Ibram X. Kendi. *How to Be an Antiracist*. New York: One World, 2019.

Jonathan Colmer, Ian Hardman, Jay Shimshack and John Voorheis, Disparities in $PM_{2.5}$ air pollution in the United States. Science 369 (6503), 575–578. DOI: 10.1126/science.aaz9353, November 24, 2020.

Kamala Harris, Office of the California Attorney General, Department of Justice, *Environmental Justice at the Local and Regional Level Legal Background*, July 2012.

Lauren Mapp, The San Diego Union-Tribune, *In historic move, county removes barrier to tribal land expansion*, https://www.sandiegouniontribune.com/communities/north-county/story/2021-05-05/in-historical-move-county-board-removes-barrier-to-tribal-land-expansion, May 5, 2021.

Placeworks, *City of Jurupa Valley Agua Mansa Commerce Park Specific Plan,* https://www.jurupavalley.org/DocumentCenter/View/1253/AMSP_FEIR_MASTER_3_19_20, March 2020.

Principles of Environmental Justice, https://www.ejnet.org/ej/principles.html, Accessed July 27, 2022.

South Coast Air Quality Management District Advisor, http://www.aqmd.gov/docs/default-source/publications/aqmd-advisor/march-2011-advisor.pdf, Volume 17 Number 2, March 2011.

South Coast Air Quality Management District Advisor, http://www.aqmd.gov/docs/default-source/publications/aqmd-advisor/november-2008-advisor.pdf, Volume 15, Number 6, November 2008.

South Fresno Community Alliance v. City of Fresno Settlement Agreement and Release of All Claims, https://leadershipcounsel.org/wp-content/uploads/2021/07/2021-03-17-SFCA-v-COF-Settlement-Agmt-Release-of-all-Claims-executed-certified-1.pdf, March 17, 2021.

State CEQA Guidelines §§ 15131, 15131(a), 15131(b),15140, and 15064(e).

United Church of Christ. A Movement Is Born: Environmental Justice and the UCC, https://www.ucc.org/what-we-do/justice-local-church-ministries/justice/faithful-action-ministries/environmental-justice/a_movement_is_born_environmental_justice_and_the_ucc/, Accessed March 22, 2022.

U.S. Constitution, *Fourteenth Amendment Citizenship, Equal Protection, and Other Rights of Citizens,* https://constitution.congress.gov/browse/amendment-14/section-1/, Accessed August 1, 2022.

U.S. Department of Justice, *Federal Coordination of Title VI and Environmental Justice,* https://www.justice.gov/crt/fcs/newsletter/Spring-2015/TitleVIandEJ, Accessed July 7, 2022.

U.S. Environmental Protection Agency: *Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements; Final Rule*, online at https://www.govinfo.gov/content/pkg/FR-2016-08-24/pdf/2016-18768.pdf.

U.S. Environmental Protection Agency, *Promising Practices for EJ Methodology,* August 2016.

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These guidelines are nonbinding recommendations, intended to assist lead agencies with navigating the CEQA process. They may be updated as needed in the future, and any updates will likewise be nonbinding and advisory.

3 THRESHOLDS OF SIGNIFICANCE

The Bay Area Air Quality Management District's (Air District's) 2022 California Environmental Quality Act (CEQA) Guidelines (Guidelines) present the recommended thresholds of significance for air quality and climate impacts. Although the air quality thresholds of significance remain unchanged from those adopted in 2010 (see Appendix A), the thresholds of significance for climate impacts from greenhouse gas (GHG) emissions (thresholds of significance for GHG emissions) were updated in 2022 (see Appendix B). The update to the climate impacts thresholds of significance reflects substantive changes to assumptions, underlying data, analytical methodologies, state and local policies and programs, and court decisions regarding GHG emissions since June 2010. Additionally, global climate change poses urgent risks to public health and air quality, exacerbating and bringing existing inequities into focus and prominence. Addressing climate change is a priority of the Air District, State of California, and Bay Area jurisdictions. Taking strong legislative, regulatory, and programmatic action to achieve deep GHG reductions is critical to the health of people and the planet.

The thresholds of significance are presented below. Table 3-1 includes the project-level thresholds of significance for air quality impacts, Table 3-2 the project-level thresholds of significance for climate impacts, Table 3-3 and Table 3-4 the plan-level thresholds of significance for air quality and climate impacts of local long-range and regional plans, respectively.

3.1 FRAMEWORK FOR ANALYZING IMPACTS UNDER CEQA

The central requirement of the CEQA environmental analysis is to determine whether implementing a project will result in any significant adverse impact on the environment, either individually or cumulatively.

This mandate requires the lead agency first to evaluate whether the project will have a significant impact by itself and then to consider whether the project may contribute to a significant cumulative impact in conjunction with other past, present, and reasonably foreseeable future projects that also contribute to the impact.[1]

In the cumulative context, the analysis has two parts. To evaluate cumulative impacts, the lead agency must assess (1) whether the overall cumulative impact will be significant and, (2) if the overall impact is significant, whether the project's incremental contribution will be cumulatively considerable, as explained in more detail below. Section 15064(h)(1) of the CEQA Guidelines states:

> *When assessing whether a cumulative effect requires an EIR [environmental impact report], the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. An EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable.*

Both parts of this test must be met for a project's impact to be treated as significant under CEQA. If the overall cumulative impact does not rise to the level of a "significant" impact, or if the project's incremental contribution is not cumulatively considerable, then the project's impact is not treated as significant. (See *San Francisco Baykeeper, Inc. v. State Lands Commission* [2015] [242 Cal.App.4th 202, 222] [project not significant if "the cumulative impact is insignificant or if the project's incremental contribution to the impact is not cumulatively considerable"]; see also State CEQA Guidelines Sections 15130[a][3] and 15064[h].)

Cumulatively considerable means that the incremental effect of the specific project under review will be significant when viewed in the context of the overall cumulative problem (State CEQA Guidelines Section 21083[b][2]). Notably, lead agencies must not diminish a project's individual pollution load by comparing its size to a much larger cumulative problem. Such a comparative approach (or "ratio theory") can improperly trivialize the project's emissions as *de minimis* and foreclose the possibility of finding that the project's contribution is cumulatively considerable. Instead, "the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant." (*Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal.App.4th 98, 120.) That said, CEQA does not require that any incremental addition to a significant cumulative impact, no matter how small, must necessarily be treated as cumulatively considerable. The statute does not require a so-called "one additional molecule" standard, and some projects' incremental contributions would be so minor that their impact does not have to be treated as significant even though the projects would add an additional amount to the significant cumulative impact (*Ibid*.; see also State CEQA Guidelines Section 15064[h][4].) The level at which the incremental addition becomes cumulatively considerable will depend on the nature of the particular cumulative impact being evaluated. The ultimate test is whether any additional amount should be considered significant in the context of the existing cumulative effect. (CEQA Section 21083[b][2]).)

[1] A cumulative impact is the change in the environment that results from the incremental impact of the project under review in conjunction with other past, present, and reasonably foreseeable probable future projects (CEQA Guidelines Section 15355).

Applying these principles, the environmental impact analysis under CEQA is a four-step process:

- Step One: **Determine the level at which an impact on the environmental resource under consideration becomes "significant."** This is the touchstone for assessing whether the project may have a significant impact individually or may contribute to a cumulative impact that is significant. The level at which the impact becomes significant will depend on the nature of the environmental resource being evaluated.
- Step Two: **Evaluate whether the project under review would degrade the environmental resource to such an extent that there would be an impact exceeding the "significant" level determined during Step One**. If implementing the project would cause an impact to exceed that level all by itself, then the project's impact is treated as significant under CEQA, and the project requires preparation of an EIR, implementation of feasible mitigation measures to reduce the impact to a less-than-significant level, and consideration of alternatives that would avoid or lessen any significant impacts. If the project under review would not degrade the environmental resource to such an extent that there would be a significant impact, the analysis proceeds to Step Three.
- Step Three: **Determine whether the contribution of the project combined with the contributions of all other past, present, and reasonably foreseeable future projects would exceed the "significant" level determined during Step One.** If implementing the project would not cause a significant impact by itself, it still must be evaluated to determine whether it would make a cumulatively considerable contribution to a significant cumulative impact. The first element of that analysis is to assess the overall cumulative impact caused by the project in conjunction with other past, present, and reasonably foreseeable future projects affecting the same resource. If the overall cumulative impact exceeds the "significant" level determined during Step One, then the project would contribute to a significant cumulative impact, and the analysis proceeds to Step Four to determine whether that contribution is cumulatively considerable.
- Step Four: **Determine whether the project's incremental contribution is cumulatively considerable.** The final step is to determine whether the project's incremental contribution is cumulatively considerable in light of the overall cumulative impact. If implementing the project would make a cumulatively considerable contribution to a significant cumulative impact, the impact is considered significant under CEQA, and the agency must prepare an EIR, impose feasible mitigation measures to bring the incremental contribution below the cumulatively considerable level, and consider alternatives.

3.2 AIR QUALITY IMPACTS (PROJECT LEVEL)

The San Francisco Bay Area Air Basin is currently designated as a nonattainment area for the California and national ambient air quality standards for ozone and particulate matter. A number of criteria and non-criteria pollutants, such as volatile organic compounds, particulate matter (PM), and nitrogen oxides (NOx), and toxic air contaminants (TACs), also carry local health risks to surrounding communities. With these effects in mind, if a project exceeds the identified project-level thresholds of significance, its emissions would result in a significant adverse air quality impact.

The thresholds of significance for risks and hazards were designed to ensure that no individual project (or source) creates a significant adverse impact and that no sensitive receptor endures a significant adverse

impact from any individual project. Additionally, the thresholds of significance recognize that some areas are already near or at levels of significant impact.

Moreover, the accidental release of acutely hazardous air pollutants can have significant health impacts if acutely hazardous materials are stored or used near receptors. The Air District recommends, at a minimum, that the lead agency in consultation with the administering agency of the Risk Management Prevention Program find any project that would expose receptors to Emergency Response Planning Guidelines (ERPG) exposure level 2[2] would have a significant air quality impact.

For more information on issues associated with locating sensitive land uses in areas with high levels of air pollution (i.e., "receptor thresholds") see Section 3.5 below.

Table 3-1 Air Quality Thresholds of Significance (Project Level)

	Construction Related*	Operational	
Criteria Air Pollutants and Precursors (Regional)			
Pollutant	**Average Daily Emissions (lb/day)**	**Average Daily Emissions (lb/day)**	**Maximum Annual Emissions (tpy)**
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
$PM_{10}/PM_{2.5}$ (fugitive dust)	Best management practices**	None	
Local CO	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	
Local Risks and Hazards			
Risks and hazards for new sources and receptors (cumulative threshold)	Same as operational thresholds	Cancer Risk: > 100 in a million (from all local sources) Non-cancer: > 10.0 Hazard Index (chronic, from all local sources) $PM_{2.5}$: > 0.8 µg/m3 annual average (from all local sources)	*OR* Compliance with Qualified Community Risk Reduction Plan
Risks and hazards for new sources and receptors (individual project)	Same as operational thresholds	Increased Cancer Risk >10.0 in a million Increased Non-cancer > 1.0 Hazard Index (chronic or acute) PM2.5 increase: > 0.3 µg/m^3 annual average	*OR* Compliance with Qualified Community Risk Reduction Plan

[2] ERPG exposure level 2 is defined as "the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual's ability to take protective action." See https://response.restoration.noaa.gov/oil-and-chemical-spills/chemical-spills/resources/emergency-response-planning-guidelines-erpgs.html.

	Construction Related*	Operational
Accidental release of acutely hazardous air pollutants		
	None	Storage or use of acutely hazardous materials locating near receptors or new receptors locating near stored or used acutely hazardous materials considered significant
Odors		
	None	Five confirmed complaints per year averaged over 3 years

Notes: µg/m3 = micrograms per cubic meter; CO = carbon monoxide; lb/day = pounds per day; NO_X = oxides of nitrogen; $PM_{2.5}$= fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ppm = parts per million; ROG = reactive organic gases; TACs = toxic air contaminants; tpy = tons per year; VMT =vehicle miles traveled.

The air quality project-level thresholds of significance were adopted by the Air District's Board of Directors on June 2, 2010.

* The Air District recommends for construction projects that require less than 1 year to complete, lead agencies should annualize impacts over the scope of actual days that peak impacts would occur rather than over the full year. Additionally, for phased projects that results in concurrent construction and operational emissions. Construction-related exhaust emissions should be combined with operational emissions for all phases where construction and operations overlap.

** PM_{10}/$PM_{2.5}$ (fugitive dust) is also recognized to impact local communities. The Air District strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses. These measures are detailed in Chapter 5, Section 5.2.2 Construction-Related Criteria Air Pollutant Emissions.

3.3 CLIMATE IMPACTS FROM GREENHOUSE GAS EMISSIONS (PROJECT LEVEL)

Evaluating climate impacts under CEQA can be challenging because global climate change is inherently a cumulative problem. Climate change is not caused by any individual emission source but by a large number of sources around the world emitting GHGs that collectively create a significant cumulative impact. Climate change impacts may include an increase in extreme heat days, higher concentrations of air pollutants, sea level rise, impacts on water supply and water quality, increased frequency of wildfires, public health impacts, impacts on ecosystems, impacts on agriculture, and other environmental impacts. No single project could generate enough GHG emissions to noticeably change the global climate. The combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts.

The Air District's approach to developing thresholds of significance for climate impacts is to use a "fair share" approach for determining whether an individual project's GHG emissions would be cumulatively considerable.[3] If a project would contribute its "fair share" of what is needed to achieve the State's long-term GHG reduction goals, then the lead agency can find that the project is adequately contributing to solving the problem of global climate change and that project's impact is not significant. Using this

[3] The California Supreme Court endorsed this approach in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal.4th 204.

approach, the Air District has identified the necessary design elements required of new land use projects and plans being built today in order to achieve California's long-term climate goal of carbon neutrality by 2045. If these design elements are incorporated into the design and construction of a project, then the project would contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and a lead agency reviewing the project under CEQA can conclude that the project would not make a cumulatively considerable contribution to global climate change. Alternatively, a project for which these design elements are not implemented could still be determined to make a less-than-significant contribution of GHG emissions by demonstrating consistency with a local GHG reduction strategy that is consistent with state guidance (State CEQA Guidelines Section 15183.5[b]). Table 3-2 summarizes the thresholds of significance for project-level climate impacts from GHG emissions.

Table 3-2 Climate Impact Thresholds of Significance (Project Level)

Thresholds of Significance for Land Use Projects (Must Include A or B)
A. Projects must include, at a minimum, the following project design elements: 1. Buildings a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). b. The project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. 2. Transportation a. The project will achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target that reflects the recommendations provided in the Governor's Office of Planning and Research's *Technical Advisory: Evaluating Transportation Impacts in CEQA*: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT b. The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Note: The project-level thresholds of significance for climate impacts were adopted by the Air District's Board of Directors on April 20, 2022.

3.4 PLAN-LEVEL THRESHOLDS OF SIGNIFICANCE

Plan-level thresholds of significance were developed to assist lead agencies with determining significance for long-range local and regional plans. Local long-range plans are discretionary, program-level planning activities, such as general plans and general plan elements, specific plans, area plans, community plans, congestion management plans, and annexations of lands and service areas.

Regional plans are different from long-range local plans because of their unique characteristics and because they do not establish land use designations. Regional plans include the Regional Transportation Plan (i.e., Plan Bay Area) prepared by the Metropolitan Transportation Commission/Association of Bay Area

Governments. Thresholds of significance for long-range plans and for regional plans are presented in Table 3-3 and Table 3-4, respectively.

Table 3-3 Local Long-Range Plan Thresholds of Significance

	Construction Related	Operational
Criteria Air Pollutants (Regional)	None	1. Consistency with current air quality plan control measures, and 2. Project VMT or vehicle trip increase less than or equal to projected population increase
Local Risks and hazards	None	1. Overlay zones around existing and planned sources of TACs (including adopted Risk Reduction Plan areas), and 2. Overlay zones of at least 500 feet from all freeways and high-volume roadways
Accidental release of acutely hazardous air pollutants	None	None
Odors	None	Identify the location, and include policies to reduce the impacts, of existing or planned sources of odors
Climate Impacts	None	1. Meet State's goals to reduce emissions to 40% below 1990 levels by 2030 and carbon neutrality by 2045; or 2. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b)

Notes: TAC = toxic air contaminant; VMT = vehicle miles traveled.

The plan-level thresholds of significance for criteria air pollutants, risks and hazards, accidental release of acutely hazardous air pollutants, and odors were adopted by the Air District's Board of Directors on June 2, 2010. The plan-level threshold of significance for climate impacts was adopted by the Air District's Board of Directors on April 20, 2022.

Table 3-4 Regional Plan Thresholds of Significance

Pollutant	Construction Related	Operational
Criteria air pollutants, risks and hazards, and greenhouse gases	None	No net increase in emissions

Note: The plan-level thresholds of significance for regional plans were adopted by the Air District's Board of Directors on June 2, 2010.

3.5 APPLICATION OF RISK AND HAZARDS THRESHOLDS TO NEW RECEPTORS

The risk and hazard thresholds apply in determining whether a new source of pollution will result in unacceptable risks to the community. In some instances, they may also be applied to determine if there will be unacceptable risks to *new receptors* of air pollution—i.e., future users of a project, including future residents and workers. The following addresses how analysis of the environment's impact on a project's future users fits into the CEQA framework and when it may be appropriate to use the risks and hazards thresholds to evaluate impacts on a project's future users.

CEQA generally does not require analysis of how the environment may impact a project's future users, including residents and workers (*California Building Industry Assn. v. Bay Area Air Quality Management*

Dist. (2015) 62 Cal.4th 369, 386 (*CBIA*)). Thus, in most situations, it would be improper under CEQA to assess the effect of existing air pollution on future users of a project. Although a lead agency may not require an EIR or mitigation solely on the basis that future project users may be exposed to air pollution that exceeds the receptor thresholds, they can consider how existing conditions may impact future project users. (*Id.*, at p. 387 fn. 12.). Additionally, lead agencies can consider other regulatory authorities outside of CEQA, such as police powers, when seeking to address concerns related to future project users.

Moreover, there are several statutory exceptions to the general rule. As noted in *CBIA*, CEQA requires analysis of new receptors being exposed to existing environmental hazards "in several specific contexts involving certain airport (State CEQA Guidelines Section 21096) and school construction projects (State CEQA Guidelines Section 21151.8), and some housing development projects (State CEQA Guidelines Sections 21159.21[f], [h]; 21159.22[a], [b][3]; 21159.23[a][2][A]; 21159.24[a][1], [3]; 21155.1[a][4], [6])." (*Id*. at 391.) Additionally, in *CBIA*, the Supreme Court explained that it is proper for environmental review to analyze a project's potential to exacerbate existing conditions (*id*. at 388-389). "Because this type of inquiry still focuses on the project's impacts on the environment—how a project might worsen existing conditions—directing an agency to evaluate how such worsened conditions could affect a project's future users or residents is entirely consistent with this focus and with CEQA as a whole." (*Id*. at 389.) Accordingly, in these situations, a lead agency may choose to rely on the receptor thresholds to not only analyze the impact of the project on the environment, but also to analyze impacts on future users. (See *California Building Industry Assn. v. Bay Area Air Quality Management Dist*. (2016) 2 Cal.App.5th 1067, 1082-1087.)

These guidelines are nonbinding recommendations, intended to assist lead agencies with navigating the CEQA process. They may be updated as needed in the future, and any updates will likewise be nonbinding and advisory.

4 SCREENING FOR CRITERIA AIR POLLUTANTS AND PRECURSORS

The Air District developed screening criteria for **criteria air pollutants and precursors**. These screening criteria are **not thresholds of significance**. Instead, they provide lead agencies with a conservative indication of whether implementing a proposed project could result in potentially significant criteria air pollutants and precursors impacts. If all screening criteria for criteria air pollutants and precursors are met by a proposed project, then the lead agency would not need to perform a detailed assessment of the project's criteria air pollutant and precursor emissions. **Note**: *all projects that screen out of further criteria air pollutants and precursors analysis still need to evaluate whether the project could result in potentially significant local community risks and hazards and/or climate impacts.*

For information on screening modeling approaches for local community risks and hazards impacts see Chapter 5, Section 5.3.2 Impact Analysis, and Appendix E, Recommended Methods for Screening and Modeling Local Risks and Hazards.

4.1 SCREENING TABLE FOR CRITERIA AIR POLLUTANTS AND PRECURSORS

The screening table developed for criteria air pollutants and precursors was derived using the default assumptions in the California Emissions Estimator Model Version 2020.4.0 with mobile source emissions factors from the California Air Resources Board's EMFAC2021 model. Each land use subcategory was modeled to determine the project size at which any criteria air pollutant or precursor threshold of significance may be exceeded. Construction-related fugitive dust was not included in the development of

the screening table because these emissions are controlled through best management practices, as discussed in Chapter 3, Thresholds of Significance. Chapter 5, Project-Level Air Quality Impacts, describes these best management practices that should be implemented at construction projects to reduce both regional and local exposures to $PM_{2.5}$/PM_{10} (fugitive dust). In addition, the screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. The screening criteria also do not account for project design features, attributes, or local requirements that could also result in lower emissions.

Table 4-1 provides the screening level sizes for construction and operations for projects with a single land use type where construction-related and operational activities do not overlap. Parking land uses are not included because it is uncommon for a parking land use to be the sole land use type of a proposed development project. It is important to note that parking land use types are included in the Air District's Mixed Land Use Screening Tool for Criteria Pollutants and Precursors because a development project may propose constructing parking along with other types of land uses. The screening levels presented in Table 4-1 should not be used for projects with multiple land use types, because the values are not additive. Using the screening levels in Table 4-1 for projects with multiple land use types may mischaracterize and overestimate the amount of project emissions. Mixed land use projects can often have lower trip rates than the combination of equivalent, single land uses. This is because the different uses (e.g., retail and residential) in a mixed land use projects are located near each other resulting in fewer trips overall. These projects, especially multistory mixed-use buildings, may also have higher building energy efficiencies per square foot because there are more shared heating and cooling areas. For projects that include multiple land use types, visit the Air District CEQA Guidelines webpage to download the Mixed Land Use Screening Tool for Criteria Pollutants and Precursors. That tool better characterizes mixed-use project screening levels than the single land use screening table below.

4.1.1 Construction Criteria

Preliminary screening provides lead agencies with a conservative indication of whether implementing the proposed project could potentially result in the generation of construction-related criteria air pollutants or precursors that exceed the thresholds of significance. If all the following screening criteria are met, the construction of the proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors:

- The project size is at or below the applicable screening level size shown in Table 4-1.
- All best management practices (see Table 5-2 in Chapter 5, "Project-Level Air Quality Impacts") are included in the project design and implemented during construction.
- Construction-related activities would not overlap with operational activities.
- Construction-related activities would **not** include:
  - demolition,
  - simultaneous occurrence of two or more construction phases (e.g., paving and building construction would occur simultaneously),
  - extensive site preparation (e.g., grading, cut and fill, or earth movement),

- extensive material transport (e.g., soil import and export requiring a considerable amount of haul truck activity), or
- stationary sources (e.g., backup generators) subject to Air District rules and regulations.

If the project includes any of the construction screening criteria above, then the lead agency **would need to perform a detailed assessment** of the project's criteria air pollutant and precursor emissions.

4.1.2 Operational Criteria

Preliminary screening provides lead agencies with a conservative indication of whether implementing the proposed project could result in the generation of operational criteria air pollutants or precursors that exceed the thresholds of significance. If all the following screening criteria are met, the operation of the proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors:

- The project size is at or below the applicable operational screening level size shown in Table 4-1.
- Operational activities would not include stationary engines (e.g., backup generators) and industrial sources subject to Air District rules and regulations.
- Operational activities would not overlap with construction-related activities.

If the project includes any of the operational screening criteria above, then the lead agency **would need to perform a detailed assessment** of the project's criteria air pollutant and precursor emissions.

Table 4-1 Single Land Use Construction and Operational Criteria Air Pollutant and Precursor Screening Levels

Land Use Category	Land Use Subcategory	Land Use Unit	Screening Level	
			Construction	Operation
Commercial	Bank	KSF	452	102
Commercial	General Office Building	KSF	452	765
Commercial	Government (Civic Center)	KSF	452	314
Commercial	Government Office Building	KSF	452	445
Commercial	Hospital	KSF	452	611
Commercial	Medical Office Building	KSF	452	293
Commercial	Office Park	KSF	452	706
Commercial	Pharmacy-Drug Store	KSF	452	89
Commercial	Research & Development	KSF	452	692
Education	Daycare Center	KSF	452	232
Education	School – Elementary	KSF	452	488
Education	School – Junior High	KSF	452	475
Education	School – High School	KSF	452	579
Education	College – Junior (2-year)	KSF	452	426
Education	College – University (4-year)	KSF	452	779
Education	Library	KSF	452	123

Land Use Category	Land Use Subcategory	Land Use Unit	Screening Level	
			Construction	Operation
Education	Worship Place	KSF	452	642
Industrial	General Heavy Industry	KSF	452	1,009
Industrial	General Light Industry	KSF	452	998
Industrial	Industrial Park	KSF	452	1,247
Industrial	Manufacturing	KSF	452	1,009
Industrial	Warehouse[1]	KSF	452	1,423
Recreational	Arena	KSF	732	600
Recreational	City Park	Acres	10	175
Recreational	Fast Food Restaurant	KSF	452	21
Recreational	Health Club	KSF	452	261
Recreational	Hotel	Rooms	312	633
Recreational	Motel	Rooms	230	767
Recreational	Movie Theater	KSF	458	80
Recreational	Restaurant – High Turnover (Sit-Down)	KSF	452	75
Recreational	Restaurant – Quality (Fine Dining)	KSF	452	105
Recreational	Racquet Club	KSF	452	457
Recreational	Recreational Swimming Pool	KSF	452	376
Residential	Apartments	DU	416	638
Residential	Condo-Townhouse	DU	416	637
Residential	Mobile Home Park	DU	377	721
Residential	Congregate Care/Retirement Community	DU	416	1,008
Residential	Single Family Housing	DU	254	421
Retail	Auto Care Center	KSF	452	356
Retail	Convenience Market	KSF	452	11
Retail	Discount Store	KSF	452	150
Retail	Home Improvement Superstore/Hardware-Paint Store	KSF	452	221
Retail	Regional Shopping Center	KSF	452	221
Retail	Strip Mall	KSF	452	204
Retail	Supermarket	KSF	452	72

Notes: DU = dwelling unit; KSF = thousand square feet.

[1] The use of the warehouse land use is not appropriate for a logistics or distribution center. These types of projects should use project-specific traffic data or a more land use-specific trip generation rate.

Source: Modeling conducted by Ascent Environmental in 2021 using CalEEMod version 2020.4.0 and EMFAC2021 version 1.0.0.

4.2 LOCAL CARBON MONOXIDE

Preliminary screening provides lead agencies with a conservative indication of whether implementing the proposed project could result in carbon monoxide emissions that exceed the thresholds of significance. If all the following screening criteria are met, operation of the proposed project would result in a less-than-significant impact related to carbon monoxide:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.
- Project-generated traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- Project-generated traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

If the project does not meet the above screening criteria, contact the Air District for assistance with modeling local carbon monoxide impacts.

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These guidelines are nonbinding recommendations, intended to assist lead agencies with navigating the CEQA process. They may be updated as needed in the future, and any updates will likewise be nonbinding and advisory.

5 PROJECT-LEVEL AIR QUALITY IMPACTS

This chapter presents the Air District's guidance on how to conduct an air quality analysis at the project level. Guidance on plan-level air quality analyses is presented in Chapter 7. As described in Chapter 3, Section 3.1, Framework for Analyzing Impacts under CEQA, the air quality analysis should determine if a project will result in a significant adverse impact on the environment, either individually or cumulatively. Lead agencies should first evaluate whether the project will have a significant impact by itself and then consider whether the project may contribute to a significant cumulative impact in conjunction with other past, present, and reasonably foreseeable future projects that also contribute to the impact.[1] To evaluate cumulative impacts, the lead agency must assess (1) whether the overall cumulative impact will be significant and, (2) if the overall impact is significant, whether the incremental contribution of the individual project carries a considerable contribution to the cumulative impact.

The first four sections of this chapter are organized based on the CEQA Guidelines Appendix G Environmental Checklist questions for air quality. The final section of this chapter discusses the analysis of cumulative impacts.

[1] A cumulative impact is the change in the environment that results from the incremental impact of the project under review in conjunction with other past, present, and reasonably foreseeable probable future projects (CEQA Guidelines Section 15355).

CEQA Guidelines Appendix G Environmental Checklist Questions: III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

c) Expose sensitive receptors to substantial pollutant concentrations?

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

5.1 CONSISTENCY WITH AIR QUALITY PLANS

Question a): Would the project conflict with or obstruct implementation of the applicable air quality plan?

5.1.1 Overview of Air Quality Plans and Policies

Air quality plans (AQPs) include clean air plans prepared under the California Clean Air Act, state implementation plans prepared under the federal Clean Air Act, and community emission reduction plans (CERPs) adopted by the Air District per AB 617. As of June 2022, the Air District's most current air quality plans are the 2017 Clean Air Plan: Spare the Air, Cool the Climate and Owning Our Air: The West Oakland Community Action Plan. Other CERPs are under development in the Bay Area, and lead agencies and other interested parties should check with the Air District about the current activities of the AB 617 program and its partners. In addition, lead agencies should consider including a discussion of other local or regional adopted plans that include air quality policies.

5.1.2 Impact Analysis

The analysis should include a discussion of the project's consistency with each applicable AQP. To evaluate whether a project is consistent with an AQP, all three of the follow questions should be answered in the affirmative with substantial evidence provided in support of the answer:

- For each applicable AQP, does the project support the primary goals? The analysis should identify the primary goals of the AQP related to reducing regional air pollutants, local exposure to air pollutants, and greenhouse gas (GHG) emissions, and discuss how the project would support them.

- **For each applicable AQP, does the project include all applicable control measures?** Lead agencies should require that all applicable AQP control measures that can be incorporated into the project design or be applied as mitigation be included. If a measure or measures are not incorporated, the lead agency must provide the reasons, supported by substantial evidence. Projects that incorporate all applicable control measures are considered consistent with the AQP.
- **For each applicable AQP, does the project disrupt or hinder implementation of any control measures?** If approval of a project would not disrupt, delay, or otherwise hinder the implementation of any AQP control measure, the project would be considered consistent with the AQP. Examples of projects that may cause disruption or delay of control measures include projects that preclude an extension of a transit line or bike path and projects that propose parking beyond parking requirements.

5.2 CRITERIA AIR POLLUTANTS

Question b): Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

5.2.1 Overview of Criteria Air Pollutants

To protect public health and the environment, the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) set the national ambient air quality standards (NAAQS) and the California ambient air quality standards (CAAQS), respectively. These standards are set for six common air pollutants, known as criteria air pollutants: ground-level ozone, carbon monoxide (CO), particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead. The San Francisco Bay Area Air Basin's (SFBAAB's) current attainment status for each pollutant is shown in Table 5-1. An area is in attainment if it meets the standards and is not contributing to a nearby area's failure to meet the standards, whereas an area is in non-attainment if it does not meet the standards or contributes to a nearby area's failure to meet the standards. An area is considered unclassified if it cannot be designated, based on available information, as meeting or not meeting the standards.

Table 5-1 San Francisco Bay Area Air Basin Designation Status

Pollutant	Averaging Time	California Standard	California Designation Status	National Standard	National Designation Status
Ozone	1-hour	0.09 ppm	N	—	—
	8-hour	0.070 ppm	N	0.070 ppm	N
CO	1-hour	20 ppm	A	35 ppm	U/A
	8-hour	9 ppm	A	9 ppm	U/A
$PM_{2.5}$	24-hour	—	—	35 µg/m^3	N
	Annual	12 µg/m^3	N	12 µg/m^3	U/A
PM_{10}	24-hour	50 µg/m^3	N	150 µg/m^3	U
	Annual	20 µg/m^3	N	—	—

Pollutant	Averaging Time	California Standard	California Designation Status	National Standard	National Designation Status
SO_2	1-hour	0.25 ppm	A	75 ppb	A/U
	24-hour	0.04 ppm	A	—	—
NO_2	Annual	0.030 ppm	A	0.053 ppm	U
	1-hour	0.18 ppm	A	100 ppb	U/A
Lead	3-month rolling average	—	—	0.15 µg/m^3	U/A
	30-day average	1.5 µg/m^3	A	—	—

Notes: µg/m^3 = micrograms per cubic meter; CO = carbon monoxide; NO_2 = nitrogen dioxide; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; SO_2 = sulfur dioxide; ppb = parts per billion; ppm = parts per million; A = Attainment, N = Non-Attainment, U = Unclassified. Updated information regarding designation status can be found at https://www.epa.gov/green-book, updated May 31, 2022.

The Air District provides project-level thresholds of significance for criteria air pollutants for which the SFBAAB is in non-attainment. These are the levels at which the Air District has determined that an individual project's contribution to the cumulative impact (non-attainment) is cumulatively considerable. Although the SFBAAB is in attainment for CO, elevated localized concentrations of CO still warrant consideration in the environmental review process. Occurrences of elevated localized CO concentrations, known as hot spots, are often associated with heavy traffic congestion, which most frequently occurs at signalized intersections of high-volume roadways. Thus, the Air District is providing a threshold of significance for local CO concentrations.

5.2.2 Construction-Related Criteria Air Pollutant Emissions

Construction-related activities are those associated with the building of project or plan components. Construction activities are typically short term or temporary; however, project-generated activities result in the generation of criteria air pollutants and precursors and could represent a significant impact to local and regional communities with respect to air quality. Construction-related exhaust emissions should be modeled using the most current version of the California Emissions Estimator Model (CalEEMod, see Section 5.2.4 Impact Analysis, below, and Appendix D for guidance on using CalEEMod for Bay Area projects). Sources of exhaust emissions could include on-road haul trucks, delivery trucks, worker commute motor vehicles, and off-road heavy-duty equipment. To reduce construction-related exhaust emissions, projects should incorporate all feasible reduction measures.

When calculating construction emissions, lead agencies should calculate average daily emissions for each construction year based on the number of working days in that year. For construction projects that require less than one year to complete, lead agencies should annualize impacts over the scope of actual days that peak impacts would occur rather than over the full year.

Some projects, given their size, may require a phased construction schedule that results in concurrent construction and operational emissions. For these projects, construction-related exhaust emissions should be combined with operational emissions for all phases where construction and operations overlap.

Construction-related activities, such as soil disturbance, grading, and material hauling, can also result in fugitive dust emissions (e.g., $PM_{2.5}$ and PM_{10}). For a project to have a less-than-significant criteria air pollutant impact related to construction-related fugitive dust emissions, it must implement all Air District's basic best management practices (BMPs) listed in Table 5-2. For additional information on these BMPs see Appendix D, Using CalEEMod for Bay Area Projects, Attachment A, Table DA-1.

Table 5-2 Basic Best Management Practices for Construction-Related Fugitive Dust Emissions

BMP ID	Basic Best Management Practice
B-1	All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
B-2	All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
B-3	All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
B-4	All vehicle speeds on unpaved roads shall be limited to 15 mph.
B-5	All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
B-6	All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
B-7	All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
B-8	Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
B-9	Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

In addition to the mitigation measures described in Table 5-2, projects are strongly encouraged to implement enhanced best management practices to control fugitive dust emissions. These enhanced measures are especially important when there are schools, residential areas, or other sensitive land uses located near the construction site and are described in Table 5-3. For additional information on these BMPs see Appendix D, Using CalEEMod for Bay Area Projects, Attachment A, Table DA-1.

Table 5-3 Enhanced Best Management Practices for Construction-Related Fugitive Dust Emissions

BMP ID	Enhanced Best Management Practice
E-1	Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
E-2	Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
E-3	Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.

BMP ID	Enhanced Best Management Practice
E-4	Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
E-5	Minimize the amount of excavated material or waste materials stored at the site.
E-6	Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

Finally, projects must implement all applicable permit and regulatory requirements, and lead agencies should review the Air District's Rules & Compliance webpage at https://www.baaqmd.gov/rules-and-compliance/current-rules for a complete list of current rules and their requirements.

For construction projects, requirements may include, but are not limited to, Regulation 6, Rule 1 (General Requirements) and Regulation 6, Rule 6 (Prohibition of Trackout) which require dust generating operations to limit particulate matter (PM) emissions. Rule 6-1 prohibits fugitive emissions on site and Air District enforcement staff are trained to document visible emissions and fugitive dust using either the opacity or the Ringlemann test methods. For construction sites, the Rule does not prescribe mitigation measures, however operators are expected to utilize standard construction management practices to comply with the fugitive dust emissions prohibition. Rule 6-6 prohibits trackout. For construction sites, the Rule does not prescribe mitigation measures, however construction operators are expected to use common operational measures and suppression techniques (i.e., trackout control devices) to minimize trackout.

5.2.3 Operational Criteria Air Pollutant Emissions

After a project is built, operational emissions are anticipated to occur continuously throughout the project's lifetime. Operational emissions should be modeled using the most current version of the California Emissions Estimator Model (CalEEMod, see Section 5.2.4 Impact Analysis, below, and Appendix D for guidance on using CalEEMod for Bay Area projects). When calculating average daily operational emissions, total annual emissions should be divided by 365 to generate an average daily value for land uses that operate most days of the year. For land uses that operate less frequently, such as a school or an entertainment facility (such as an arena), total annual emissions should be divided by the number of days the facility would operate on an annual basis.

Operational emissions include stationary sources, both permitted and non-permitted, and mobile sources, such as vehicles and other equipment that operate on-road and/or off-road. Stationary sources can have a single emission source with one identified emission point, such as a stack at a facility, can be an entire facility with multiple emission point sources, or can be sources such as fireplaces, stoves, space and water heaters, architectural coatings, and consumer products. Major permitted stationary sources typically are associated with industrial processes, such as refineries and power plants. Minor permitted stationary sources typically are associated with smaller land uses, such as gasoline-dispensing stations and dry-cleaning establishments. Examples of other Air District–permitted stationary sources include backup diesel generators, boilers, heaters, flares, and other types of combustion equipment, as well as non-combustion sources, such as materials

handling and coating and printing operations. The Air District is responsible for issuing permits for stationary sources to reduce air pollution and attain and maintain the NAAQS and CAAQS in the SFBAAB.

5.2.4 Impact Analysis

SCREENING

The first step in determining the significance of construction-related and operational criteria air pollutants and precursors is to compare the attributes of the proposed project with the applicable screening criteria (see Chapter 4). This preliminary screening provides a conservative indication of whether construction and operation of the proposed project may result in the generation of criteria air pollutants or precursors that exceed the thresholds of significance listed in Table 3-1. If all criteria air pollutant screening criteria described in Chapter 4 are met, including the project size is at or below the applicable operational screening level size shown in Table 3-1 and operational activities do not include stationary source engines (e.g., backup generators) or industrial sources subject to Air District rules and regulations, the construction and operation of the proposed project would be expected to result in a less-than-significant impact on air quality. If the proposed project does not meet all screening criteria for criteria air pollutants and precursors, then project emissions should be quantified. If the proposed project does not meet all the screening criteria for local CO (see Section 4.2), contact the Air District for assistance with modeling local carbon monoxide impacts.

EMISSIONS QUANTIFICATION

Baseline Emissions

As discussed in State CEQA Guidelines Section 15125, the baseline typically reflects existing environmental conditions at the time of the notice of preparation (NOP) or when environmental analysis begins; however, lead agencies have discretion to select a different baseline so long as the agency "justif[ies] its decision by showing an existing conditions analysis would be misleading or without informational value" *and* the chosen baseline is "a realistic baseline that will give the public and decision makers the most accurate picture practically possible of the project's likely impacts." (*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority*, [2013] 57 Cal.4th 439, 457, 449.) Both analytical elements must be supported by substantial evidence. (*Id.*) Baseline emissions constitute the starting point for the impact analysis, meaning that a project's potential impacts are measured from those baseline levels. An accurate baseline is thus critical to the proper evaluation of a project's potential impacts. For example, for a project that involves a new source of operational emissions, baseline operational emissions are subtracted from the proposed project emissions. Lead agencies should thus disclose the criteria and/or methodology used to determine the baseline and provide any supporting data.

Modeling Emissions

For proposed land use projects and plans, use the current version of the California Emissions Estimator Model (CalEEMod) to quantify construction-related and operational emissions (see Appendix D for guidance on using CalEEMod for Bay Area projects). CalEEMod is a statewide land use emissions model developed by the California Air Pollution Control Officers Association in collaboration with California air districts to quantify potential criteria air pollutant and precursor and greenhouse gas emissions associated with construction and operations from land use projects. To quantify construction emissions users should

model detailed project information, including but not limited to, construction phases, off-road equipment, vehicle trips, vehicle miles traveled (VMT), and architectural coatings.

For operational emissions, users should model detailed project information, including but not limited to, VMT, fleet mix, road dust, energy, wastewater, waste, off-road equipment, stationary sources, and vegetation. If a traffic study was completed for the project, the project-specific VMT should be modeled in CalEEMod. Quantification of mobile sources should also use emissions factors from the most recent version of CARB's Emission Factor model (EMFAC), which can be imported into CalEEMod.

Note that although limited types of stationary sources can be modeled in CalEEMod, lead agencies should consult with the Air District for any stationary source(s) that will require a permit and should calculate these emissions via methods other than CalEEMod. To the extent possible, the Air District recommends that the methodology used to estimate stationary source emissions be consistent with the Air District's Permit Handbook. Newly modified or constructed stationary sources subject to Air District permitting may be required to implement best available control technology (BACT), which may include the installation of emissions control equipment or the implementation of operational practices that would result in the maximum degree of pollution reduction, as assessed on a case-by-case basis or as determined by the Air District's BACT Workbook. Stationary sources may also be required to offset their emissions to be permitted. This may entail shutting down or improving another stationary source at the same facility. Any stationary source emissions remaining after the application of BACT and offsets should be added to the indirect (e.g., mobile source) and area source emissions estimates to arrive at total project emissions.

For backup generators, the Air District recommends that lead agencies include non-testing and non-maintenance (emergency) operations hours in addition to the permitted testing and maintenance hours for purposes of calculating emissions. While emergency operation is unplanned and infrequent, it is foreseeable that a backup generator may have to operate to respond to emergency conditions at some point during its useful life. Inclusion of annual emergency operations hours is consistent with Air District requirements for calculating the Potential to Emit (PTE) for purposes of determining the applicability of permitting regulations under Reg. 2 including the Air District's New Source Review regulations (Reg. 2, Rule 2) and Title V Major Facility Review regulations (Reg. 2, Rule 6). As described in the Air District's Policy "Calculating Potential to Emit for Emergency Backup Power Generators" (BAAQMD 2019), the Air District uses 100 hours to represent a reasonable worst-case assumption of emergency operations hours for a given year.

To determine appropriate emergency operations hours, lead agencies can refer to available information regarding backup generator use, such as the California Public Utilities Commission (CPUC) Emergency Load Reduction Program (CPUC 2021a) or CPUC information on temporary emergency generation use (CPUC 2021b). Additionally, the Air District is developing supplemental guidance to assist lead agencies in selecting appropriate backup generator emergency operations hours.

Significance Determination and Discussion

As detailed in Section 5.2.1 above, a significance determination should be made as to whether a project's individual contribution is cumulatively considerable for the criteria air pollutants listed in Table 5-1. Although the SFBAAB is in attainment for regional CO, a significance determination should be made for a project's local CO contribution.

In determining significance, unmitigated emissions should first be compared with the Air District's thresholds of significance. If the unmitigated emissions exceed the thresholds, review Chapter 8, "Mitigating Air Quality and Climate Impacts," and the resources provided therein and incorporate all feasible mitigation measures for the project. As discussed in Section 5.2.2, the Air District recommends the implementation of all BMPs (Table 5-2) to reduce the impact of construction-related criteria pollutant fugitive dust emissions to a less-than-significant level. In addition, all projects must implement any applicable air toxics control measures (ATCMs). For example, projects that have the potential to disturb asbestos (from soil or building material) must comply with all the requirements of CARB's ATCM for Construction, Grading, Quarrying, and Surface Mining Operations and Air District Rule 11-2: Asbestos Demolition, Renovation and Manufacturing. If unmitigated emissions exceed the thresholds, review Chapter 8, "Mitigating Air Quality and Climate Impacts," and the resources provided therein and incorporate all feasible mitigation measures into the project.

Only reduction measures included in the proposed project's description or required as mitigation in a CEQA-compliant environmental document can be included when quantifying mitigated emission levels. After quantifying any reductions from the mitigation measures, compare the mitigated emissions to the thresholds of significance. If the mitigated emissions would be below the thresholds, a less-than-significant impact would occur. However, if the mitigated emissions would still exceed the thresholds of significance, the project would have a significant and unavoidable impact.

In addition, all projects must implement any applicable ATCMs and comply with Air District regulations. For example, projects that have the potential to disturb asbestos (from soil or building material) must comply with all the requirements of CARB's ATCM for Construction, Grading, Quarrying, and Surface Mining Operations and Air District Rule 11-2: Asbestos Demolition, Renovation and Manufacturing.

HEALTH EFFECTS ASSESSMENT FOR CRITERIA AIR POLLUTANTS

On December 24, 2018, the California Supreme Court issued its ruling in *Sierra Club v. County of Fresno* ([2018] 6 Cal.5th 502), herein referred to as the Friant Ranch decision. The Court ruled that the air quality analysis failed to adequately disclose the nature and magnitude of significant, long-term air quality impacts from project-generated emissions "in sufficient detail to enable those who did not participate in its preparation to understand and consider meaningfully the issues the proposed project raises." The Court noted that the air quality analysis did not provide a discussion of the foreseeable effects of project-generated emissions on the likelihood of exceeding the ambient air quality standards, nor did it draw a connection between the project emissions and adverse health consequences or explain why it was not "scientifically possible" to define such a connection. The Court concluded that "because the EIR as written makes it impossible for the public to translate the bare numbers provided into adverse health impacts or to understand why such translation is not possible at this time," the EIR's discussion of air quality impacts was inadequate to inform the public. According to the decision, the EIR needed to "relate the expected adverse air quality impacts to likely health consequences or explain in meaningful detail why it is not feasible to provide such an analysis, so that the public may make informed decisions" regarding the project.

Thus, to comply with the Friant Ranch decision, lead agencies need to sufficiently explain the nature and magnitude of significant impacts identified by criteria air pollutant and precursor air quality analyses such that readers can meaningfully understand them. Moreover, lead agencies must make a reasonable effort

to connect a project's emissions, where significant, to foreseeable health impacts or provide evidence as to why such an analysis is not scientifically possible.

To demonstrate compliance with the Friant Ranch decision, lead agencies should structure the analyses of criteria air pollutant and precursor impacts as follows:

1. Introduce and describe the potential adverse health effects related to exposure to various criteria air pollutants and precursors in exceedance of the NAAQS and CAAQS, both acutely and chronically.
2. Describe the development and use of mass emissions thresholds using substantial evidence provided in the Air District's thresholds justification report.

   Lead agencies must describe the rationale behind the thresholds of significance for evaluating criteria air pollutant and ozone precursor emissions (see Appendix A, Thresholds of Significance Justification). These project-level mass emissions thresholds are developed in consideration of long-term air quality planning in the SFBAAB and are designed to capture excess emissions that would inhibit attainment of the NAAQS and CAAQS for various pollutants. Projects that exceed these mass emissions thresholds, whether before mitigation or following application of mitigation measures, may contribute emissions that would degrade the ambient air quality of the SFBAAB and expose receptors to concentrations of criteria air pollutants found by EPA and CARB to be hazardous to human health. Lead agencies must make a good-faith effort to explain the connection between the thresholds of significance, long-term air quality planning, NAAQS and CAAQS, and the potential for adverse human health impacts to occur from a project's emissions contribution given that neither the NAAQS or CAAQS are not health impact thresholds below which no significant health impacts are expected.
3. Provide a meaningful and understandable narrative of ozone and secondary PM formation.
4. Explain the approach used, including the applicability and limitations of modeling tools, to translate project emissions into health impacts or explain why it was not scientifically feasible to do so.

   Various modeling tools are available to estimate project-level emissions (e.g., CalEEMod). Additionally, EMFAC generates emissions estimates from transportation sources using factors that account for various state and federal regulations that affect gasoline and diesel fuel consumption, as well as the deployment of electric vehicles throughout the state. However, these models do not predict the locations of exceedances of the NAAQS or CAAQS from one project's emissions alone.

   Photochemical grid-based models simulate the chemical interactions and three-dimensional dispersion patterns on a regional, statewide, and national scale. These models are complex and require significant expertise, knowledge, and resources as they build on other third-party models and processing tools that characterize meteorology, emissions, and other environmental conditions, such as land cover, radiative properties, and boundary conditions. Use of these models is typically beyond the resources available for air quality analysis prepared pursuant to CEQA, and even if such an analysis was to be completed consideration would need be given to ensure the results would be meaningful based on modeling and data limitations.

   The Environmental Benefits Mapping and Analysis Program (BenMAP) is an open-source computer program that calculates the number and economic value of air pollution–related death and illnesses. BenMAP relies on national data such as age, health, and economic conditions, to characterize and map

health impacts associated with air pollution exposure. Data applicability should be considered to determine whether the model may be appropriate for an air quality analysis prepared pursuant to CEQA and if such an analysis would provide meaningful results based on modeling and data limitations.

5. If scientifically feasible, tie the project's emissions to potential negative health impacts if emissions would exceed mass emissions thresholds, both before and after implementing mitigation measures.

5.3 LOCAL COMMUNITY RISKS AND HAZARDS

🔨 Question c): Would the project expose sensitive receptors to substantial pollutant concentrations?

5.3.1 Overview of Local Community Risks and Hazards

Despite improvements in regional air quality, air pollution concentrations continue to remain elevated in some Bay Area communities near major air pollution sources, such as freeways, heavily trafficked seaports or large industrial facilities. In addition, there are many smaller, more discrete sources of air pollution, including gas stations and backup diesel generators, that exacerbate conditions in communities with already elevated levels of air pollution. The air quality conditions in these communities are partially the result of past planning decisions related to land use and transportation. Identifying and avoiding future land use conflicts through careful long-range and strategic planning is one step towards protecting the health of existing and future community members.

Certain community members are more susceptible to poor air quality. These individuals, referred to as sensitive receptors, are typically children, the elderly, and those with preexisting serious health problems. Land uses where sensitive receptors are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers and preschools, hospices, dormitories, prisons, nursing homes, hospitals, and residential communities.

The risk and hazards thresholds of significance apply in determining whether a new source of pollution will result in unacceptable risks to the community. In some instances, they may also be applied to determine if there will be unacceptable risks to new receptors of air pollution—i.e., future users of a project, including future residents and workers. See Chapter 3, Section 3.5 Application of Risk and Hazards Thresholds to New Receptors, for a discussion on when it may be appropriate to use the risks and hazards thresholds to evaluate impacts on a projects' future users.

In all cases, when planning new projects local jurisdictions should pay special attention both to the siting of new sensitive receptors and to the siting of new sources of air pollution near existing and future sensitive receptors. Careful planning is particularly appropriate in areas with existing high local levels of air pollution, even though infill housing near jobs, transit and other services is needed to reduce vehicle miles traveled, improve overall air quality, and reduce greenhouse gas emissions. The Air District's Planning Healthy Places guidebook presents best practices to reduce health risks from local air pollution and offers recommendations addressing and minimizing potential local air pollution issues early in the land-use planning and development process.

TOXIC AIR CONTAMINANTS

The Office of Environmental Health Hazard Assessment (OEHHA) is responsible for identifying toxic air contaminants (TACs), which are defined as pollutants that "may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health" (Health and Safety Code Section 39655). TACs are emitted into the air from a wide range of sources in the Bay Area, including diesel engines, cars, trucks, industrial processes, and gas stations. Types of TACs include diesel particulates, lead, benzene, formaldehyde, and hexavalent chromium, to name a few. Diesel particulate matter is the most impactful TAC in the Bay Area, accounting for roughly 85 percent of the cancer risk from air toxics in the region. Exposure to TACs can cause serious health effects, including cancer and birth defects. Other adverse health effects can include damage to the immune system, as well as neurological, reproductive (reduced fertility), development, and respiratory problems.

For evaluation purposes, TACs are assessed locally and separated into carcinogens and noncarcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Cancer risk is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure. Noncarcinogenic substances differ in that reference exposure levels (RELs) have been developed to determine the level of exposure below which no adverse health impact is believed to occur. OEHHA develops the RELs on a pollutant-by-pollutant basis for use in risk assessments. Acute and chronic exposure to noncarcinogens is expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable REL.

TACs are regulated in California primarily through state and local risk management programs. These programs are designed to eliminate, avoid, or minimize the risk of adverse health effects from exposures to TACs. A chemical becomes a regulated TAC in California based on designation by OEHHA. As part of its jurisdiction under the Air Toxics Hot Spots Program (Health and Safety Code Section 44360[b][2]), OEHHA derives cancer potencies and RELs for individual air contaminants based on the current scientific knowledge that includes consideration of possible differential effects on the health of infants, children, and other sensitive subpopulations, in accordance with the mandate of the Children's Environmental Health Protection Act (Senate Bill 25, Escutia, Chapter 731, Statutes of 1999, Health and Safety Code Section 39669.5 et seq.). The methodology in this section reflects the approach adopted by OEHHA (OEHHA 2015), which considers age sensitivity factors to account for early life stage exposures. The specific toxicity values of each TAC as identified by OEHHA are listed in the Air District's Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants (BAAQMD 2021).

FINE PARTICULATE MATTER

Particulate Matter (PM) is the most important health risk driver in Bay Area air, both as fine particulate matter ($PM_{2.5}$) and as diesel PM, a toxic air contaminant (BAAQMD 2020). $PM_{2.5}$ is a complex mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust and wood smoke. $PM_{2.5}$ can be emitted directly and also can be formed in the atmosphere through reactions among different pollutants.

Both long-term and short-term exposure to $PM_{2.5}$ can cause a wide range of health effects, and epidemiological studies have established that exposure to $PM_{2.5}$ has serious adverse health impacts because $PM_{2.5}$ can travel deep into lungs and enter the bloodstream. Fine PM originates from a variety of

sources, including fossil fuel combustion, residential wood burning, cooking, wildfires, and dust. Researchers established long ago that exposure to $PM_{2.5}$ has negative effects on the respiratory system, such as triggering asthma attacks, aggravating bronchitis, and diminishing lung function. More recent studies have found that $PM_{2.5}$ can also harm the cardiovascular system and may cause atherosclerosis (hardening of the arteries), ischemic strokes (caused by an obstruction of the blood supply to the brain), and heart attacks. Because of the serious cardiovascular effects of exposure to $PM_{2.5}$, studies have found a clear correlation between $PM_{2.5}$ levels, exposure, and mortality. Studies also indicate that exposure to $PM_{2.5}$ may be related to other negative health effects, including impacts on the brain, such as reduced cognitive function, as well as increased risk of diabetes. Exposure to $PM_{2.5}$ remains the leading public health risk and contributor to premature death from air pollution in the Bay Area.

5.3.2 Impact Analysis

The methods for assessing the potential health impacts from directly emitted TAC and $PM_{2.5}$ emissions is provided in Appendix E, Recommended Methods for Screening and Modeling Local Risks and Hazards. The methods focus on directly emitted TAC and $PM_{2.5}$ and not those formed through secondary reactions in the atmosphere, which require complex photochemical modeling over large-scale, regional areas.

TAC and $PM_{2.5}$ emissions can occur during construction and/or operation of a project. See Appendix D for guidance on quantifying construction and operational emissions using the current version of the California Emissions Estimator Model (CalEEMod) for Bay Area projects. Quantification of construction-related fugitive dust in addition to exhaust emissions to evaluate the project's local risks and hazards impact is at the discretion of the lead agency. The Air District will be developing further guidance and recommendations to support lead agencies in this decision.

While there are no criteria to screen out of the risks and hazards assessment, the Air District recommends a tiered approach where at each successive step, the project's impacts (i.e., annual $PM_{2.5}$ concentrations, cancer risks, and hazards), and the combined cumulative impacts from surrounding sources and the project, are compared to the appropriate thresholds of significance. For the first tier, screening modeling is recommended that requires minimal site-specific data. The first tier uses the screening methodology to estimate the project's impact and then combines the results from screening tools for different source types (e.g., permitted stationary, rail, on-road mobile) to compare against applicable thresholds of significance. If the thresholds are exceeded at the screening level (Tier 1), project sponsors can refine the analysis further by following Tier 2 recommendations by using complex air dispersion models, source-specific release parameters, and area-specific meteorology. An illustration of the analysis process (Figure ES-1) and a detailed description of the approach is provided in Appendix E, Recommended Methods for Screening and Modeling Local Risks and Hazards.

SIGNIFICANCE DETERMINATION AND DISCUSSION

As detailed in Section 5.3 above, the lead agency should make a significance determination as to whether the project exposes sensitive receptors to substantial pollutant concentrations. Chapter 3, Table 3-1 presents the thresholds of significance for project-level and cumulative risks and hazards impacts.

The project-level threshold addresses the potential for an individual project to significantly elevate existing risks or hazards. A project would have a cumulatively considerable impact if it resulted in:

- An excess cancer risk level of more than 10 in a million; or
- A non-cancer hazard index greater than 1.0 (acute or chronic); or
- An incremental increase of greater than 0.3 µg/m3 annual average $PM_{2.5}$.

The cumulative threshold addresses the potential that a project would have a cumulative significant impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius (or greater where appropriate) results in:

- A excess cancer risk level of more than 100 in a million; or
- A non-cancer hazard index greater than 10.0 (chronic); or
- An annual average of $PM_{2.5}$ greater than 0.8 $\mu g/m^3$.

Alternatively, a project that demonstrates compliance with an adopted Qualified Community Risk Reduction Plan may be found to have a less than significant impact, even if the above thresholds are met. Conversely, for project in areas where a Community Risk Reduction Plan has been adopted, inconsistency with the Community Risk Reduction Plan would demonstrate a significant impact.

In determining significance, unmitigated emissions should first be compared with the Air District's thresholds of significance. For projects with a phased construction schedule that result in concurrent construction and operations, construction-related emissions should be combined with operational emissions for all phases where construction and operations overlap, see Appendix E, Section 2.4, Assessing Impacts from Overlapping Activities.

If unmitigated emissions exceed the thresholds, review Chapter 8, "Mitigating Air Quality and Climate Impacts," and the resources provided therein and incorporate all feasible mitigation measures into the project. Only reduction measures included in the proposed project's description or required as mitigation in a CEQA-compliant environmental document can be included when quantifying mitigated emission levels. After quantifying any reductions from the mitigation measures, compare the mitigated emissions to the thresholds of significance. If the mitigated emissions would be below the thresholds, the project would not make a cumulatively considerable contribution, and a less-than-significant impact would occur. However, if the mitigated emissions would still exceed the thresholds of significance, the project would make a cumulatively considerable contribution, and the impact would be significant and unavoidable.

COMMUNITY RISK REDUCTION PLANS

Preparation of a site-specific health risk assessment is unnecessary if a project can demonstrate consistency with the lead agency's community risk reduction plan. Community risk reduction plans are designed to reduce TAC and $PM_{2.5}$ concentrations and exposure for the entire community covered by the plan to acceptable levels as identified by the local jurisdiction. This approach involves local agencies preparing a plan to improve air quality for entire communities with high levels of risk rather than on a project-by-project basis. This approach is supported by CEQA Guidelines Section 15130(a)(3), which

provides that a project's contribution to a cumulative problem can be less than cumulatively considerable "if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact," and by CEQA Guidelines Section 15064(h)(3), which provides that a project's contribution to a cumulative effect is not considerable "if the project will comply with the requirements in a previously approved plan or mitigation program . . . that provides specific requirements that will avoid or substantially lessen the cumulative problem . . . ."

To be used for CEQA purposes, a community risk reduction plan must be adopted by a local jurisdiction in a public process following environmental review and should include, at a minimum, the following elements:

- description of a defined planning area;
- base year and future year emissions inventories of TACs and $PM_{2.5}$;
- risk modeling of current and future risks;
- risk and exposure reduction goals and targets for the community;
- feasible, quantifiable, and verifiable measures to reduce emissions and exposures; and
- procedures for monitoring and updating the emissions inventory, modeling, goals and targets, and reduction measures.

SPECIAL CONSIDERATIONS FOR SITING SCHOOL OR PROJECTS NEAR SCHOOLS

School children are sensitive receptors that are more susceptible to poor air quality. Therefore, school siting warrants particular care. While public schools must meet specific requirements, the Air District strongly recommends that private schools also adhere to the following requirements.

The California Public Resources Code, Division 13, Environmental Quality (Sections 21000 through 21189.57) states that an environmental impact report (EIR) or a negative declaration meeting all requirements in accordance with CEQA Section 21151.8 and State CEQA Guidelines Sections 15186(a) and 15186(c) must be prepared for projects "involving the purchase of a school site or the construction of a new elementary or secondary school." The California Department of Education provides specific standards for school site selection per the California Code of Regulations, Title 5, Sections 14001 through 14012, which also complies with California Health and Safety Code Sections 21372, 22350, 22352, 22358.4, and 22358.5 (see the California Department of Education's Guide to School Site Analysis and Development, CDE 2000).

Additionally, the EPA has developed voluntary guidelines to assist local school districts and community members evaluate environmental factors to make the best possible school siting decisions. The guidelines including recommendations for evaluating the environmental and public health risks and benefits of potential locations as part of the school siting process. The EPA's School Siting Guidelines are available on the EPA's Healthy School Environments website (EPA 2011).

For proposed projects within 1000 feet of a school, the Air District recommends that a student analysis is included in the Health Risk Assessment (see Appendix E, Recommended Methods for Screening and Modeling Local Risks and Hazards). Additionally, for any project located within one-quarter mile of a school that involves the construction or alteration of a facility that might reasonably be anticipated to emit

hazardous air emissions, or the handling of an extremely hazardous substance or mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified in Health and Safety Code Section 25532(j), and that may impose a health or safety hazard to persons who would attend or would be employed at the school, the lead agency must consult with the affected school district or districts regarding the potential impact of the project on the school and notify the affected school district(s) of the project in writing, not less than 30 days before approval or certification of the negative declaration or EIR per State CEQA Guidelines Section 15186(b)(1)(2).

5.4 ODORS

Question d): Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

5.4.1 Overview of Odors

The ability to detect odors varies considerably among the population and can be subjective. People may have different reactions to the same odor. For example, an odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roasting). Reactions to odors can range from psychological to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). An unfamiliar odor is also more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor with recognition occurring only when the strength of the odor changes.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the concentration in the air. When an odor sample is progressively diluted, the odor concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odor reaches a level that is no longer detectable.

5.4.2 Impact Analysis

Odor impacts could occur if the project proposes a new odor source near existing receptors. The presence of an odor impact is dependent on several variables, including:

- nature of the odor source (e.g., wastewater treatment plant, food processing plant),
- frequency of odor generation (e.g., daily, seasonal, activity specific),
- intensity of odor (e.g., concentration),
- distance of odor source to sensitive receptors (e.g., miles),
- wind direction (e.g., upwind or downwind), and
- sensitivity of the receptor.

The following sections describe (1) how to assess odor parameters, (2) how to use odor screening distances, and (3) how to evaluate odor complaint history.

ODOR PARAMETERS

The first step in assessing potential odor impacts is to gather and disclose applicable information regarding the characteristics of the distance between the sensitive receptor(s) and the odor source(s), local meteorological conditions, and the nature of the odor source. Consideration of odor parameters assists in evaluating the potential for odor impacts as a result of the proposed project. Projects should clearly state the following information in odor analyses, which provide the minimum amount of information required to address potential odor impacts:

- type of odor source(s) produced by the project (e.g., wastewater treatment plant, landfill, food manufacturing plant),
- frequency of odor events generated by the project's odor source(s) (e.g., operating hours, seasonal),
- distance and landscape between the project's odor source(s) and the sensitive receptor(s) (e.g., topography, land features), and
- predominant wind direction and speed and whether the sensitive receptor(s) in question are upwind or downwind from the project's odor source(s).

Note that facilities regulated by the California Department of Resources Recycling and Recovery (CalRecycle) (e.g., landfill, composting) are required to have an odor impact minimization plan (OIMP) approved by CalRecycle with procedures that establish fence line odor detection thresholds. The Air District recognizes for CalRecycle-regulated facilities with an adopted OIMP the lead agency has discretion under CEQA to use the odor detection thresholds established by the OIMP as the thresholds of significance. Regardless of the odor threshold of significance used by the lead agency, per BAAQMD Regulation 1-301, facilities operating within the Air District shall not be operated in a matter that causes public nuisances.

ODOR SCREENING DISTANCES

The Air District has developed a list of recommended odor screening distances for specific odor-generating facilities. The distances are presented in Table 5-4. Projects that would involve the operation of an odor source and would be located closer to sensitive receptors than the screening distances also would have a potentially significant impact. Projects that would site a new odor source farther than the applicable screening distance shown in Table 5-4 from an existing receptor may have a sufficient buffer to avoid a potentially significant impact. The odor screening distances in Table 5-4 should not be used in isolation; rather, they are additional information to consider along with the odor parameters and complaint history.

Table 5-4 Odor Screening Distances

Land Use/Type of Operation	Project Screening Distance
Wastewater treatment plant	2 miles
Wastewater pumping facilities	1 mile
Sanitary landfill	2 miles

Land Use/Type of Operation	Project Screening Distance
Transfer station	1 mile
Composting facility	1 mile
Petroleum refinery	2 miles
Asphalt batch plant	2 miles
Chemical manufacturing	2 miles
Fiberglass manufacturing	1 mile
Painting/coating operations	1 mile
Rendering plant	2 miles
Coffee roaster	1 mile
Food processing facility	1 mile
Confined animal facility/feed lot/dairy	1 mile
Green waste and recycling operations	1 mile
Metal smelting plants	2 miles

ODOR COMPLAINT HISTORY

If the proposed project would involve siting a new odor source and there are existing or planned sensitive receptors within the screening distances shown in Table 5-4, lead agencies should submit a Public Records Request to the Air District to obtain odor complaints in the region for facilities similar in size and type of odor produced in the past 3 years. These surrogate odor complaints should be evaluated for their distance from source to receptor, and then compared with the distance from the proposed project to receptors.

SIGNIFICANCE DETERMINATION AND DISCUSSION

Although the Air District considers a substantial number of odor complaints to be more than five confirmed complaints per year averaged over the past 3 years, it is possible that factors such as a small number of existing nearby receptors, predominate wind direction blowing away from the existing receptors, and seasonality of the odor source have prevented any odor complaints from being filed about the existing odor source. For this reason, odor complaints should not be used as an absolute threshold of significance but as evidence to support a significance determination. The lead agency should compare the odor parameters (i.e., distance and wind direction) associated with the odor complaints that have been filed with those of the proposed project. The results of each of the steps above should be clearly disclosed in the CEQA document. Projects should use the collective information to qualitatively evaluate the potential for a significant odor impact. The lead agency should clearly state the reasoning for the significance determination.

5.5 REFERENCES

BAAQMD. *See* Bay Area Air Quality Management District.

Bay Area Air Quality Management District. 2021. Regulation 2 Rule 5: New Source Review of Toxic Air Contaminants – 2021 Amendment (current). Available:

https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20211215_rg0205-pdf.pdf?la=en. Accessed April 7, 2022.

———. 2019. Policy: Calculating Potential to Emit for Emergency Backup Power Generators. Available: https://www.baaqmd.gov/~/media/files/engineering/policy_and_procedures/banking-and-offsets/calculating-pte-for-emergency-generators-06032019-pdf.pdf?la=en. Accessed February 28, 2022.

———. 2020 (December 16). *Advisory Council Particulate Matter Reduction Strategy Report*. Available: https://www.baaqmd.gov/~/media/files/board-of-directors/advisory-council/2020/ac_particulate_matter_reduction_strategy_report.pdf?la=en&rev=570867c8b25e4ca0b2f93f80c4c1ef02. Accessed February 28, 2022.

———. 2021 (September 1). RE: Lafayette Data Center – Notice of Preparation [letter]. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa-letters/2021/lafayette-nop-comments-pdf.pdf?la=en&rev=cbca01b01add4d2fa7d5ef515994743b. Accessed February 28, 2022.

———. n.d.a. *Planning Healthy Places*. Available: https://www.baaqmd.gov/plans-and-climate/planning-healthy-places

———. n.d.a. *Permit Handbook*. Available: https://www.baaqmd.gov/~/media/files/engineering/permit-handbook/baaqmd-permit-handbook.pdf. Accessed February 28, 2022.

California Department of Education. 2000. Guide to School Site Analysis and Development. Available: https://www.cde.ca.gov/ls/fa/sf/guideschoolsite.asp. Accessed February 28, 2022.

California Office of Environmental Health Hazard Assessment. 2015 (February). *Air Toxics Hot Spots Program: Risk Assessment Guidelines*. Available: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed February 28, 2022.

California Public Utilities Commission. 2021a. Emergency Load Reduction Program. Available: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/emergency-load-reduction-program. Accessed February 28, 2022.

———. 2021b. Pacific Gas and Electric Company (U 39 E) Compliance Filing Regarding Temporary Emergency Generation Use During 2020 Fire Season. Available: https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M376/K042/376042440.PDF. Accessed February 28, 2022.

CDE. *See* California Department of Education.

CPUC. *See* California Public Utilities Commission.

EPA. *See* U.S. Environmental Protection Agency.

OEHHA. *See* California Office of Environmental Health Hazard Assessment.

U.S. Environmental Protection Agency. 2011 (October). Healthy School Environments. Available: https://www.epa.gov/schools/view-download-or-print-school-siting-guidelines. Accessed February 28, 2022.

These guidelines are nonbinding recommendations, intended to assist lead agencies with navigating the CEQA process. They may be updated as needed in the future, and any updates will likewise be nonbinding and advisory.

6 PROJECT-LEVEL CLIMATE IMPACTS

This chapter provides practitioners with guidance on applying the Air District's California Environmental Quality Act (CEQA) thresholds of significance for climate impacts from greenhouse gas (GHG) emissions to projects. Guidance on applying the plan-level climate impact threshold is presented in Chapter 7. Guidance on developing community-scale GHG reduction strategies, or plans, that are aligned with the State CEQA Guidelines Section for streamlining for new projects is addressed in Appendix C. This chapter is organized by land use projects and stationary source projects and aims to provide insight on answering the State CEQA Guidelines Appendix G Environmental Checklist questions for GHG emissions (California Code of Regulations Section 15000 et seq.).

CEQA Guidelines Appendix G Environmental Checklist Questions: VIII. GREENHOUSE GAS EMISSIONS.

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

6.1 OVERVIEW OF GHG EMISSIONS

Global climate change is caused primarily by an increase in levels of GHG emissions in the atmosphere. The major GHGs are the so-called "Kyoto Six" gases—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs)—as well as black carbon.[1] These GHGs absorb longwave radiant energy (heat) reflected by the earth, which warms the atmosphere in a phenomenon known as the "greenhouse effect." The potential effects of global climate

[1] Black carbon is not a gas but is made up of solid particulates or aerosols. It is included in the discussion of GHG emissions because, like true GHGs, it is an important contributor to global climate change.

change include, among other things, rising surface temperatures, loss in snowpack, sea level rise, ocean acidification, an increase in the number of extreme heat days per year, increased occurrence and severity of wildfires and an increase in the number of drought years.

Increases in the combustion of fossil fuels (e.g., gasoline, diesel, coal) since the beginning of the industrial revolution have resulted in a substantial increase in atmospheric levels of GHGs. CO_2 levels have increased from long-term historical levels of around 280 parts per million (ppm) before the mid-18th century to more than 400 ppm today. This increase in GHGs has already caused noticeable changes in the climate. The average global temperature has risen by approximately 2.14°F (1.19°C) since the preindustrial period (1880–1900), and 10 of the warmest years on record have occurred since 2005, according to the National Oceanic and Atmospheric Administration.

Global climate change caused by GHG emissions is the quintessential cumulative environmental impact. The GHG emissions from an individual project are not likely to have any detectable impact on the global climate, but they will contribute to what is a significant cumulative problem—a problem caused by millions of projects all around the world emitting GHGs that together create a significant cumulative climate impact. Proposed projects are therefore significant for purposes of CEQA if they will be making a cumulatively considerable contribution to the significant cumulative climate impact resulting from GHG emissions globally. As the California Supreme Court has observed:

> *With respect to climate change, an individual project's emissions will most likely not have any appreciable impact on the global problem by themselves, but they will contribute to the significant cumulative impact caused by GHG emissions from other sources around the globe. The question therefore becomes whether the project's incremental addition of GHGs is "cumulatively considerable" in light of the global problem, and thus significant.*[2]

The Air District recommends that lead agencies use a "fair share" approach for determining whether an individual project's GHG emissions would be cumulatively considerable. If the project is doing its "fair share" to implement California's plans to address the cumulative problem, its contribution can be treated as less than cumulatively considerable. The California Legislature has established climate goals, and State agencies are establishing and refining plans to achieve these goals. These plans include specific measures and initiatives that various sectors of the economy across the state will need to implement to achieve California's climate goals set forth in Senate Bill (SB) 32, Executive Order (EO) B-55-18, and EO S-03-05.[3] These measures and initiatives, as outlined in *California's 2017 Climate Change Scoping Plan*, constitute a "fair share" of the solution for each economic sector. If a project would contribute its "fair share" of what will be required to achieve those long-term climate goals, then a reviewing agency can find that the impact would not be significant, because the project would help to solve the problem of global climate change. This method of analysis, which was approved by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal.4th 204, provides an appropriate approach to ensuring that individual land use projects will be part of the solution to the problem of global

[2] See Cleveland Nat'l Forest Foundation v. San Diego Ass'n of Governments (2017) 3 Cal.5th 497, 512 (internal quotes omitted).

[3] SB 32 set into law statewide GHG reductions to 40 percent below 1990 levels by 2030, EO B-55-18 established a goal of carbon neutrality as soon as possible and no later than 2045, and EO S-03-05 established the GHG reduction target of 80 percent below 1990 levels by 2050.

climate change. As the Supreme Court held on that case, "consistency with meeting [those] statewide goals [is] a permissible significance criterion for project emissions" (*id.* at p. 220), and an agency's "choice to use that criterion does not violate CEQA" (*id.* at p. 223). Some project contributions to the cumulative climate problem are directly under the control of the project developer and design, whereas others are less so. For example, compliance with the Renewables Portfolio Standard is an electricity provider requirement that a land use project is not in control of, whereas where a project is sited and the type of appliances and equipment installed in the project are under the direct control of the project developer.

6.2 LAND USE PROJECT OPERATIONAL GHG EMISSIONS

For a land use project to do its fair share to address the climate crisis and thus for its GHG emissions to be less than significant, a project cannot include sources that will "lock in" GHG emissions for decades into the future. A project that locks in GHG sources, without a clear path to reduce the emissions from those sources, prevents the State from achieving the climate goals.

For this reason, the climate impact thresholds of significance (See Chapter 3, Table 3-2) specify that certain design elements must be incorporated into the project (see Section 6.2.1 below), *or* the project must be consistent with a local GHG reduction strategy that meets the criteria under CEQA Guidelines Section 15183.5(b) (see Section 6.2.2. below).

The land use project threshold of significance should be applied to all GHG emissions of a project that do not require an Air District permit. For example, where a project has GHG emissions associated with natural gas appliances or vehicle miles traveled (VMT), the land use threshold would apply. However, if the project has GHG emissions from sources permitted by the Air District, such as generators, boilers, or other relevant equipment, the GHG emissions from permitted sources would not be subject to the land use threshold of significance but instead would be subject to the stationary source threshold discussed in Section 6.4 of this chapter. Many projects will require the use of both land use and stationary source thresholds.

6.2.1 Land Use Project Design Elements

For a project to have a less-than-significant impact related to operational GHG emissions, it must include, at a minimum, the following project design elements (See Chapter 3, Table 3-2) or be consistent with a local GHG reduction strategy that meets CEQA Guidelines Section 15183.5(b) requirements (see Section 6.2.2 below).

1) Buildings

    a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

    b. The project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines

2) Transportation

    a. The project will achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan

(currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target that reflects the recommendations provided in the Governor's Office of Planning and Research's *Technical Advisory on Evaluating Transportation Impacts in CEQA*:

i. Residential projects: 15 percent below the existing VMT per capita

ii. Office projects: 15 percent below the existing VMT per employee

iii. Retail projects: no net increase in existing VMT

b. The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

If the project includes, at a minimum, these design elements, there would be a less-than-significant climate impact related to GHG emissions, and the project would not be likely to conflict with applicable initiatives to reduce GHG emissions. The rationale, justification, and substantial evidence supporting this conclusion can be found in Appendix B, CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans (Justification Report, April 2022).

To assist in determining whether the proposed project is consistent with the design elements and to help answer the two CEQA Appendix G Environmental Checklist questions, the four questions below should be addressed in the assessment:

🔨 Does the project exclude natural gas use?

For the building sector to achieve carbon neutrality, natural gas usage will need to be phased out and replaced with electricity usage, and electrical generation will need to shift to 100-percent carbon-free sources. To support these shifts, new projects need to be built without natural gas and with no inefficient or wasteful energy usage. Retrofitting an existing building to replace natural gas infrastructure with electrical service is far more difficult and expensive than simply building a new all-electric building (CEC 2021; E3 2019). For California to successfully eliminate natural gas usage by 2045, it will need to focus available resources on retrofitting existing natural gas infrastructure. This task will become virtually impossible if we continue to build more natural gas infrastructure that will also need to be retrofit within the next few years. This need to eliminate natural gas in new projects in order to achieve carbon neutrality in buildings by 2045 is demonstrated by analyses conducted by the California Energy Commission (CEC) in its California Building Decarbonization Assessment (CEC 2021).

The "no natural gas" design element applies to all building types (i.e., residential and nonresidential). If the project includes appliances or equipment on-site that combust natural gas supplied by natural gas infrastructure, then the GHG emissions from the project would cause a significant and unavoidable impact. This design element is specific to natural gas being supplied by piped infrastructure, as extending the natural gas infrastructure for such projects "locks in" GHG emissions for decades to come and is therefore inconsistent with achieving carbon neutrality. This design element does allow for tanked gas, such as propane, to serve some specialized on-site uses.

Does the project result in any wasteful, inefficient, or unnecessary energy use?

California has committed to achieving 100 percent carbon-free electricity by 2045 through SB 100, the 100 Percent Clean Energy Act of 2018. In order to plan for carbon neutrality by 2045, buildings constructed today will need to be able to support the transition from fossil fuels to carbon-free energy. This transition will include reducing or eliminating natural gas use, increasing use of carbon-free electricity, and ensuring enough energy capacity to support rapid growth in electric vehicle (EV) charging. Minimizing wasteful, inefficient or unnecessary energy use will facilitate this transition. Maximizing energy efficiency will also support other parts of the energy systems of buildings, including use of solar power and microgrids. Given the wide range of building types and their energy needs, what constitutes wasteful, inefficient or unnecessary energy use should be determined on a case-by-case basis.

CEQA already requires lead agencies to evaluate a project's potential for wasteful, inefficient, or unnecessary energy usage under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines, along with State CEQA Guidelines Appendix F and Appendix G, Section VI. The Air District recommends using the results of this analysis to determine whether the project will implement its "fair share" with respect to supporting the implementation of SB 100. If the energy analysis required under CEQA Section 21100(b)(3) shows that a project will not result in any wasteful, inefficient, or unnecessary electrical usage, then it will be consistent with implementing SB 100 and will not make a cumulatively considerable climate impact with respect to building electrical usage. If the project is found to involve wasteful, inefficient, or unnecessary electrical usage, then the lead agency should conclude that it will make a cumulatively considerable impact and treat it as significant in this regard.

Are VMT per capita (residential projects) or per employee (nonresidential projects) at least 15 percent below existing development or the lead agency's VMT targets pursuant to SB 743?

Senate Bill 743 (Steinberg, 2013), required changes to the State CEQA Guidelines regarding the analysis of transportation impacts, requiring analysis to be based on reduction of environmental impacts (including air pollution and GHG emissions), rather than addressing automobile delay, or "level of service." In response, OPR changed the CEQA Guidelines to identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate transportation impacts from new development. After extensive research, OPR recommends that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold.[4] If the project does not at least abide by the SB 743 VMT target specified in the California Governor's Office of Planning and Research's (OPR's) Technical Advisory (OPR 2018) or the SB 743 target adopted by the lead agency, the GHG emissions from the project would cause a significant and unavoidable impact.

"Existing development" can be measured as regional VMT per capita or as city VMT per capita. As discussed in OPR's Technical Advisory, proposed projects using city VMT per capita rather than regional VMT per capita should not cumulatively exceed the number of units specified in the Sustainable Community Strategy (SCS) for the Bay Area (MTC and ABAG 2021) and should be consistent with the SCS. "Regional" can refer to the entire Bay Area, a county, or other subregional geography. For example, in nonresidential projects where the region is larger than the geography over which employees would be expected to live, it may be appropriate to refer to a smaller geography. This geography would presumably include an area in which

[4] OPR Technical Advisory in evaluating Transportation Impacts in CEQA (https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf)

most if not all workers would be expected to live. If a municipality has not adopted its own SB 743 target, the lead agency should contact the relevant congestion management agency or county transportation authority for information on the SB 743 target or data on existing VMT per capita.

It should be noted, that OPR's Technical Advisory provides guidance on how lead agencies may screen out VMT impacts for select project types using project size, maps, transit availability, and provision of affordable housing.

🔨 Does the project include off-street electric vehicle charging spaces and comply with equipment requirements pursuant to the current adopted version of CALGreen Tier 2?

The requirements for EV charging infrastructure in new land use development projects are governed by the CALGreen regulatory standards.[5] These standards are set forth in Title 24 of the California Code of Regulations, and they are regularly updated on a 3-year cycle. The CALGreen standards consist of a set of mandatory standards that are legally required for new development, as well as two more aggressive sets of voluntary standards known as Tier 1 and Tier 2. Although the Tier 1 and Tier 2 standards are voluntary, they often form the basis of future mandatory standards adopted in subsequent updates.

If the off-street electric vehicle charging requirements for specific building types are not at least consistent with the most recently adopted version of the California Green Building Standards Code (CALGreen) Tier 2, the GHG emissions from the project would cause a significant and unavoidable impact.

6.2.2 Consistency with a Local GHG Reduction Strategy

Incorporating all of these project design elements may not be necessary if a project is consistent with a local GHG reduction strategy that meets CEQA Guidelines Section 15183.5(b) requirements (and therefore would have a less-than-significant impact related to GHG emissions). This option provides flexibility in achieving less-than-significant GHG emissions. To demonstrate consistency, a project analysis should address the two questions below.

If the project is consistent with a local GHG reduction strategy that meets CEQA Guidelines Section 15183.5(b) requirements, it is not likely to conflict with applicable initiatives to reduce GHG emissions. The rationale, justification, and substantial evidence supporting this conclusion can be found Appendix B, CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans (Justification Report, April 2022). Detailed guidance on how local GHG reduction plans can meet the criteria in Section 15183.5(b) can be found in Appendix C, Guidance for GHG Reduction Strategies.

🔨 Does the CEQA analysis include an evaluation and discussion of the GHG emissions associated with the project through at least the time horizon specified in the GHG Reduction Strategy and through 2030 and 2045?

The CEQA document should evaluate and discuss the GHG emissions associated with the project through at least the timeframe specified in the GHG reduction strategy and through midcentury. This evaluation should include a projection of the project's GHG emissions through the year specified in the GHG reduction strategy

[5] See https://www.hcd.ca.gov/calgreen for most recently adopted version of CalGreen.

and years 2030 and 2045 (if those years are not already specified in the GHG reduction strategy), as well as a comparison of those projected GHG emissions to baseline GHG emissions. If the CEQA document does not include this evaluation, or if the project's emissions are inconsistent with the GHG targets in the GHG reduction strategy and State's 2030 and 2045 goals, then the project GHG emissions would likely be significant.

🔨 Does the project incorporate relevant GHG emission reduction measures specified in the GHG reduction strategy?

A GHG reduction strategy is designed for the whole community – new and existing development. Because this type of broad community-wide strategy relies on changes across the existing built environment as well as new development to achieve its GHG reduction targets, it may not need to require all of the design elements listed above for new development projects in order to meet the community-wide targets. However, if a project is claiming a less than significant climate impact by demonstrating consistency with a GHG reduction strategy, it must incorporate all elements of the GHG reduction strategy that are applicable to the project, whether those elements are required/mandatory or not. The GHG reduction strategy may have a checklist or other specific measures that apply to land use projects and plans. If the project incorporates all relevant measures indicated by the GHG reduction strategy, then the impacts from the project's GHG emissions may be less than significant. However, if the project does not incorporate the relevant measures, then the project is not consistent with the GHG reduction strategy, and its impacts from GHG emissions will be significant.

6.3 CONSTRUCTION-RELATED GHG EMISSIONS

Because construction emissions are temporary and variable, the Air District has not developed a quantitative threshold of significance for construction-related GHG emissions. However, the Lead Agency should quantify and disclose GHG emissions that would occur during construction. In its Discussion Draft Climate Change Advisory document, OPR encourages lead agencies to quantify a project's construction (as well as its operational) GHG emissions, using available data and tools, to determine the amount, types, and sources of GHG emissions resulting from the project. Even though the significance of construction-related GHG emissions is not determined, in order to minimize GHG emissions and emissions of other air quality pollutants, projects should incorporate the best management practices for reducing GHG emissions listed in Table 6-1 to reduce emissions from construction-related activities.

Table 6-1 Best Management Practices for Construction-Related GHG Emissions

Use zero-emission and hybrid-powered equipment to the greatest extent possible, particularly if emissions are occurring near sensitive receptors or located within a BAAQMD-designated Community Air Risk Evaluation (CARE) area or Assembly Bill 617 community.
Require all diesel-fueled off-road construction equipment be equipped with EPA Tier 4 Final compliant engines or better as a condition of contract.
Require all on-road heavy-duty trucks to be zero emissions or meet the most stringent emissions standard, such as model year (MY) 2024 to 2026, as a condition of contract.
Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 2 minutes (A 5-minute limit is required by the state airborne toxics control measure [Title 13, Sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and develop an enforceable mechanism to monitor idling time to ensure compliance with this measure.
Prohibit off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
Use California Air Resources Board–approved renewable diesel fuel in off-road construction equipment and on-road trucks.
Use U.S. Environmental Protection Agency SmartWay certified trucks for deliveries and equipment transport.
Require all construction equipment is maintained and properly tuned in accordance with manufacturer's specifications. Equipment should be checked by a certified mechanic and determined to be running in proper condition prior to operation.
Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.
Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites.
Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking to construction workers and offer meal options onsite or shuttles to nearby meal destinations for construction employees.
Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
Minimize energy used during site preparation by deconstructing existing structures to the greatest extent feasible.
Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15% more by weight than the diversion requirement in Title 24.
Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products used should be certified through a sustainable forestry program.
Use low-carbon concrete, minimize the amount of concrete used and produce concrete on-site if it is more efficient and lower emitting than transporting ready-mix.
Develop a plan to efficiently use water for adequate dust control since substantial amounts of energy can be consumed during the pumping of water.
Include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant on- or off-road construction equipment for use prior to any ground-disturbing and construction activities.

6.4 STATIONARY SOURCES OF GHG EMISSIONS

For a project to have a less-than-significant impact related to stationary source GHG emissions, it must fall below the bright-line threshold of producing 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year (see Chapter 3, Table 3-2).

The Air District is responsible for issuing permits for the construction and operation of stationary sources in order to reduce air pollution and to attain and maintain the national and California ambient air quality standards in the Bay Area. A stationary source consists of an emission source with an identified emission point, such as a stack at a facility. It should include mobile sources that are associated with the stationary source such as trucks, ships, and rail. Facilities can have multiple emission point sources located on-site. Major stationary sources are typically associated with industrial processes, such as refineries and power plants. Minor stationary sources include gasoline-dispensing stations and dry-cleaning establishments. Examples of other Air District–permitted stationary sources include backup diesel generators, boilers, heaters, flares, cement kilns, and other types of combustion equipment, as well as non-combustion sources, such as coating or printing operations. Newly modified or constructed stationary sources subject to Air District permitting are required to implement best available control technology, which may include the installation of emission control equipment and/or operational requirements (for information on Air District permitting requirements, see the Bay Area Air Quality Management District Permit Handbook).[6]

🔨 Are the estimated GHG emissions greater than the bright-line threshold?

If GHG emissions would be greater than 10,000 $MTCO_2e$ per year, the project would have significant impact related to GHG emissions. If emissions would be less than 10,000 $MTCO_2e$ per year, the impact would be less than significant.

Estimating the GHG emissions from stationary sources should be done in consultation with the Air District. Although some stationary source GHG emissions can be calculated in the California Emissions Estimator Model (CalEEMod), many will need to be calculated off-model. Sources of emission factors include the U.S. Environmental Protection Agency (EPA) AP-42 emission factors for certain industrial processes, manufacturer specifications for specific equipment, throughput data (e.g., fuel consumption, rate of material feedstock input), and other specifications provided by the project engineer. In addition, the California Regulation for the Mandatory Reporting of GHG Emissions (CARB 2018) provides and references methodologies to calculate GHG emissions and includes GHG emission factors from various emission sources, including cement production, electricity generation and cogeneration, petroleum refineries, hydrogen production, and stationary fuel combustion sources. The most up-to-date emission factors and methodologies consistent with requirements of the Air District permitting process should be used.

For backup generators, the Air District recommends that lead agencies include non-testing and non-maintenance (emergency) operations hours in addition to the permitted testing and maintenance hours for purposes of calculating emissions. While emergency operation is unplanned and infrequent, it is foreseeable that a backup generator may have to operate to respond to emergency conditions at some point during its useful life. Inclusion of annual emergency operations hours is consistent with Air District requirements for

[6] Bay Area Air Quality Management District. Permit Handbook, https://www.baaqmd.gov/~/media/files/engineering/permit-handbook/baaqmd-permit-handbook.pdf (accessed February 28, 2022)

calculating the Potential to Emit (PTE) for purposes of determining the applicability of permitting regulations under Reg. 2 including the Air District's New Source Review regulations (Reg. 2, Rule 2) and Title V Major Facility Review regulations (Reg. 2, Rule 6). As described in the Air District's Policy "Calculating Potential to Emit for Emergency Backup Power Generators" (BAAQMD 2019), the Air District uses 100 hours to represent a reasonable worst-case assumption of emergency operations hours for a given year.

To determine appropriate emergency operations hours, lead agencies can refer to available information regarding backup generator use, such as the California Public Utilities Commission (CPUC) Emergency Load Reduction Program (CPUC 2021a) or CPUC information on temporary emergency generation use (CPUC 2021b). Additionally, the Air District is developing supplemental guidance to assist lead agencies in selecting appropriate backup generator emergency operations hours.

6.5 REFERENCES

BAAQMD. *See* Bay Area Air Quality Management District.

Bay Area Air Quality Management District. 2019. Policy: Calculating Potential to Emit for Emergency Backup Power Generators. Available: https://www.baaqmd.gov/~/media/files/engineering/policy_and_procedures/banking-and-offsets/calculating-pte-for-emergency-generators-06032019-pdf.pdf?la=en. Accessed February 28, 2022.

California Air Resources Board. 2018. Mandatory Greenhouse Gas Reporting Regulation. Available: https://ww2.arb.ca.gov/mrr-regulation. Accessed February 28, 2022.

California Energy Commission. 2021 (August). *Final Commission Report: California Building Decarbonization Assessment*. Publication Number CEC-400-2021-006-CMF.

California Public Utilities Commission. 2021a. Emergency Load Reduction Program. Available: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/emergency-load-reduction-program. Accessed February 28, 2022.

———. 2021b. Pacific Gas and Electric Company (U 39 E) Compliance Filing Regarding Temporary Emergency Generation Use During 2020 Fire Season. Available: https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M376/K042/376042440.PDF. Accessed February 28, 2022.

CARB. *See* California Air Resources Board.

CEC. *See* California Energy Commission.

CPUC. *See* California Public Utilities Commission.

E3. *See* Energy and Environmental Economics.

Energy and Environmental Economics. 2019 (April). Residential Building Electrification in California. Available: www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf.

Governor's Office of Planning and Research. 2018 (December). *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Available: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed February 28, 2022.

Metropolitan Transportation Commission and Association of Bay Area Governments. 2021 (October 21). *Plan Bay Ara 2050*. Available: https://www.planbayarea.org/finalplan2050. Accessed February 28, 2022.

MTC and ABAG. *See* Metropolitan Transportation Commission and Association of Bay Area Governments.

OPR. *See* Governor's Office of Planning and Research.

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7 PLAN-LEVEL IMPACTS

7.1 OVERVIEW OF PLANS

This chapter presents the Air District's guidance on how to analyze and apply the plan-level air quality and climate impact thresholds. As a general principle, the guidance offered in this chapter should be applied to discretionary, program-level planning activities, whereas the project-level guidance presented in Chapters 5 and 6 should be applied to individual project-specific approvals, such as a proposed land use project.

Long-range plans typically contain strategies implemented over a 20-year, or longer, time horizon and include or rely upon discretionary planning activities (e.g., zoning). Local long-range plans include general plans and general plan elements, specific plans, area plans, communitywide plans, congestion management plans, and annexations of lands and service areas. Communitywide plans to reduce greenhouse gas (GHG) emissions—often referred to as climate action plans—are long-range plans that include policies, ordinances, and programs to reduce GHG emissions over 20-to-30-year timeframe. Climate action plans often address additional aspects of sustainability, such as community resiliency, adaptation, equity, and environmental justice, and typically are updated every 3–5 years.

Regional plans are assessed differently than local long-range plans because of their unique characteristics and because they do not establish land use designations. Regional plans include the Regional Transportation Plan (i.e., Plan Bay Area) prepared by the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

7.2 AIR QUALITY IMPACTS

The following describes how to analyze and apply the plan-level air quality thresholds of significance to determine if a local long-range plan has a less-than-significant impact for criteria air pollutants and precursors (Section 7.2.1), local risks and hazards (Section 7.2.2) and odors (Section 7.2.3).

7.2.1 Criteria Air Pollutants and Precursors

For a long-range plan to have a less-than-significant impact related to criteria air pollutant and precursor impacts, the plan must satisfy two requirements: It must be consistent with current air quality plan (AQP) control measures, and the proposed plan's projected growth rate of vehicle activity in VMT or vehicle trips must be less than or equal to the projected population growth rate.

Confirm consistency with air quality plans

AQPs include clean air plans prepared per the California Clean Air Act, state implementation plans prepared per the federal Clean Air Act, and community emission reduction plans (CERPs) adopted by the Air District per AB 617. The Air District's most current clean air plans are the *2017 Clean Air Plan: Spare the Air, Cool the Climate* and the *Owning the Air: The West Oakland Community Action Plan*. Note that as of June 2022, CERPs are under development in Richmond/North Richmond/San Pablo and in East Oakland. Lead agencies and other interested parties should check with the Air District about the current status of CERPs in the Bay Area. In addition, other regional agencies and local jurisdictions adopt plans that include air quality policies. These include the MTC/ABAG Plan Bay Area, as well as local jurisdiction air quality policies within general plans or other adopted plans.

To demonstrate long-range plan consistency with AQPs, lead agencies should incorporate all feasible AQP control measures and demonstrate that the plan would not conflict with or obstruct implementation of the applicable AQPs. To guide this process, the Air District recommends that lead agencies use the questions below. If the first two questions are answered in the affirmative, and the third and final question answered in the negative, and those conclusions are supported by substantial evidence, the long-range plan is consistent with current AQPs prepared for the Bay Area.

For each applicable AQP, does the long-range plan support the primary goals?

The analysis should identify the primary goals of the AQP and discuss how the long-range plan would support the primary goals.

For each applicable AQP, does the long-range plan include all applicable control measures?

All AQP control measures should be incorporated into long-range plans or applied as mitigation measures. For any AQP control measures that are not included, a clear justification of why they were excluded, supported by substantial evidence, should be provided. Plans that incorporate all feasible control measures are considered consistent with the AQP.

For each applicable AQP, does the long-range plan disrupt or hinder implementation of any control measures?

If approval of the long-range plan would not disrupt, delay, or otherwise hinder the implementation of any AQP control measure, it would be considered consistent with the AQP. Examples of plans that may cause disruption or delay of control measures include plans that incorporate policies that encourage single-

occupancy-vehicle use and parking or policies that do not incorporate a comprehensive transportation demand management program.

Confirm that VMT or vehicle trips do not exceed population increase

A proposed long-range plan must demonstrate that the projected growth rate of vehicle activity in VMT or vehicle trips under the plan would be less than or equal to the projected population growth rate to have a less-than-significant impact on criteria air pollutants. The vehicle activity and population growth rates are to be measured in terms of percent growth from baseline year levels. For example, in a given plan area, the percent growth in annual VMT between an established baseline year and a plan's projected buildout year should be less than or equal to the percent growth in population between the same years. The growth estimates used in the analysis should be for the years covered by the plan.

7.2.2 Local Community Risks and Hazards

Identify special overlay zones around existing and proposed land uses and sources of TACs

For a long-range plan to have a less-than-significant impact related to local risks and hazards, special overlay zones should be established around existing and proposed land uses that emit toxic air contaminants (TACs) or fine particulate matter ($PM_{2.5}$), and at least a 500-foot overlay zone should be established on each side of all freeways, high-volume roadways,[1] railyards, Ports, rail lines using diesel locomotives. The plan should specify goals, policies, and objectives to minimize the potential impacts of TACs and $PM_{2.5}$ sources, such as freeways and high-traffic roads, commercial distribution centers, railyards, ports, refineries, chrome platers, gasoline stations, and other industrial facilities on sensitive receptors in the special overlay zones. Lead agencies can refer to the Air District's Planning Healthy Places and the California Air Resources Board's Air Quality and Land Use Handbook for recommended planning goals, policies, and objectives to avoid or reduce impacts on sensitive receptors.

7.2.3 Odors

Identify existing and planned odor sources, and site new receptors away from these sources

For a long-range plan to have a less-than-significant impact related to odors, the locations of existing and planned odor sources should be identified for the plan area. In addition, the plan should ensure that any new receptors are not sited near an odor source. See Chapter 5, Table 5-4 for Air District–recommended odor screening distances for specific odor-generating facilities.

The long-range plan should also include policies to reduce potential odor impacts in the plan area. If odor impacts are anticipated, proposed land use policies should be reconsidered and/or an odor management plan should be developed (See Chapter 8, Mitigating Air Quality and Climate Impacts, for details). To ensure the odor management plan is implemented and enforced, it should be included in the project's Mitigation Monitoring and Reporting Program (see Chapter 8, Mitigating Air Quality and Climate Impacts).

[1] The definition of a high-volume roadway can vary depending on road type, location, and use purpose. As an example, for traffic data collection or monitoring purposes, the Federal Highway Administration typically used 50,000 AADT (annual average daily traffic) while for road dust emissions estimation the U.S. EPA uses 10,000 AADT (AP-42 method).

7.3 CLIMATE IMPACTS

Demonstrate consistency with the State's 2030 and 2045 GHG reduction and carbon neutrality goals

Long-range plans would have a less-than-significant impact related to operational GHG emissions if the plan demonstrates that it would achieve the State's 2030 GHG reduction target, consistent with the California Global Warming Solutions Act of 2016 Senate Bill 32, and the 2045 carbon neutrality goal, consistent with Executive Order B-55-18. The plan should demonstrate, through aggressive GHG reduction measures and a robust implementation and monitoring strategy, how the community will meet the 2030 target for its overall community GHG emissions. The plan should also demonstrate that it will achieve as ambitious emission reductions as technologically and financially feasible by 2045, minimizing the residual amount of emissions needed to close the gap to carbon neutrality. The plan can demonstrate consistency with the statewide carbon neutrality target by minimizing residual emissions to the greatest extent possible as a result of including all feasible measures, and by including a robust implementation strategy that maximizes the likelihood that the full GHG reduction strategy will be implemented. The plan must include a vigorous monitoring program that will continue to adjust and fine-tune the plan to ensure that it maximizes GHG reductions over time. The monitoring program should include adjusting the GHG reduction strategy as additional technologies become feasible and to account for emerging statewide policies and programs.

A long-range plan should include clear goals, policies, performance standards, and implementation measures that when fully implemented would reduce GHG emissions sufficiently to meet the State's goals. To achieve these goals, future land use projects and plans must be planned and implemented in the most GHG-efficient manner possible. The California Air Pollution Control Officers Association's (CAPCOA) has produced the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity: Designed for Local Governments, Communities, and Project Developers*[2]. The Handbook provides a diverse set of measures that can be used to reduce GHG emissions and improve air quality. Chapter 3 of the Handbook, "Measures to Reduce GHG Emissions," includes measures by environmental sector: Construction, Energy, Lawn and Landscaping, Natural and Working Lands, Solid Waste, Transportation, Water, Refrigerants, and lists mitigation measures for the various project types along with measures to improve health and equity. Elements that make for a strong mitigation strategy include:

- a preponderance of mandatory vs. voluntary measures;
- measures that address the largest GHG emission sources;
- a focus on quality (measures likely to reduce large amounts of emissions) over quantity (many measures with small impact);
- a minimal reliance on offsets, if any, with preference for those that achieve local benefits;
- transparency in methods of quantification (assumptions and their bases, emission factors, etc.);
- and a strong implementation and monitoring strategy.

[2] Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity: Designed for Local Governments, Communities, and Project Developers, https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf

Demonstrate consistency with the GHG Reduction Strategy criteria in State CEQA Guidelines Section 15183.5(b)

A communitywide long-range plan would have a less-than-significant impact related to operational GHG emissions if the plan demonstrates consistency with the GHG reduction strategy criteria in State CEQA Guidelines Section 15183.5(b). Additional guidance for how to achieve consistency with the State CEQA Guidelines is provided in Appendix C, "Guidance for GHG Reduction Strategies."

7.4 REGIONAL PLAN IMPACTS

Demonstrate no net increase in air quality pollutants and GHGs

Regional plans would have a less-than-significant impact related to air quality and GHG emissions if they demonstrate no net increase in criteria air pollutants, risks and hazards, and GHG emissions. To demonstrate no net increase, two comparative analyses should be completed for the projected future emissions:

- Compare the existing (base year) emissions with projected future year emissions plus the regional plan's emissions (base year/regional plan comparison).
- Compare projected future year emissions with projected future year emissions plus the regional plan's emissions (no regional plan/regional plan comparison).

If both comparative analyses demonstrate no net increase in emissions, the air quality and GHG impacts of the regional plan would be less than significant.

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8 MITIGATING AIR QUALITY AND CLIMATE IMPACTS

8.1 INTRODUCTION

This chapter provides recommendations for mitigating air quality and climate impacts from land use development projects. It is essential to incorporate all feasible mitigation measures, and importantly those with the greatest potential to reduce emissions, within the context of the project to reduce significant impacts to less than significant levels. Measures included for the proposed project should be quantified and details surrounding how emissions are expected to decrease should be described by the lead agency.

Standard Conditions of Approval (SCAs) are requirements placed on individual projects by a city prior to approval of a permit to ensure compliance with the City's plans and ordinances. Mitigation measures identified in SCAs must be incorporated as part of a proposed land use development project and must meet all SCA requirements. Additionally, a robust Mitigation Monitoring and Reporting Program (MMRP) should be developed, adopted, and enforced. MMRPs include the monitoring and reporting requirements, in compliance with State CEQA Guidelines Section 15097, that ensure the project and the measures selected mitigate or avoid significant environmental impacts.

8.2 MITIGATING PROJECT-LEVEL AIR QUALITY IMPACTS

Operational and construction-related emissions should be mitigated to the greatest extent feasible. If mitigation would not bring a project's impact below the applicable threshold of significance, the project would make a cumulatively considerable contribution to a cumulative impact, which would be significant and unavoidable. Such

a project could be approved only with a statement of overriding considerations demonstrating that all feasible mitigation measures have been implemented (see State CEQA Guidelines Section 15093).

Many air quality–related mitigation measures can also reduce greenhouse gas (GHG) emissions; conversely, many measures that reduce GHG emissions also reduce air quality impacts. To help ensure that the Bay Area meets its fair share of the State's goal of achieving carbon neutrality by 2045 (Executive Order B-55-18), continues to maintain ambient air quality standards, and addresses local air pollution health risks, lead agencies are encouraged to select mitigation measures that reduce both air pollutants and GHG emissions.

Finally, if emissions cannot be avoided or mitigated on-site to a less-than-significant level, off-site mitigation measures can be a feasible alternative (see State CEQA Guidelines Section 15126.4[c][4]). In implementing off-site mitigation measures, the lead agency must ensure that emission reductions from identified projects are real, permanent, quantifiable, verifiable, enforceable, and additional to any reductions already required or likely to occur for other reasons. In addition, if off-site mitigation measures are used, it is preferable to select measures that benefit the local community, the city, county, or the Bay Area region—in that order.

CRITERIA POLLUTANTS AND PRECURSORS

For criteria air pollutant impacts, the Air District recommends implementation of all feasible measures to minimize emissions, whether or not operational or construction emissions exceed the applicable thresholds of significance. Example measures to reduce operational emissions include incorporating energy-efficient building design and implementing transportation demand management strategies. For construction-related criteria air pollutants, the Air District recommends implementation all the Air District's best management practices for fugitive dust (see Chapter 5, Table 5-2) and measures to reduce exhaust emissions including using zero-emission, hybrid, or highest-tier on- and off-road construction equipment; using cleaner fuels and grid power whenever possible; and limiting idling (see Section 6.3 Construction-Related GHG Emissions).

LOCAL RISKS AND HAZARDS

For local community risks and hazards, the Air District recommends reducing source emissions to the greatest extent feasible, as well as reducing exposure of sensitive receptors to local risks and hazards. Example measures to reduce exposure include locating residential development and sensitive land uses an adequate distance from existing and potential sources of TACs and fine particulate matter ($PM_{2.5}$); locating open spaces, commercial buildings, and parking garages between sensitive land uses and air pollution sources; requiring indoor air quality equipment, such as enhanced air filters, to be installed at schools, residences, and other sensitive land uses; and requiring solid or vegetative barriers to be incorporated into site design between buildings and sources of air pollution. For reducing emissions from stationary sources, please refer to the Air District's Permit Handbook and the Air District's Best Available Control Technology and Best Available Control Technology for Toxics Workbook.

LOCAL CARBON MONOXIDE

For local carbon monoxide (CO) impacts, the Air District recommends reducing project-generated traffic volumes and congestion to the greatest extent feasible. Example mitigation measures include trip

reduction programs to reduce vehicle miles traveled (VMT), improving bicycle and pedestrian infrastructure and access; improving public transit service and access; designating truck routes and limiting heavy-duty truck traffic during peak hours, and encouraging the use of cleaner fuel vehicles.

ODORS

For odors, the Air District considers appropriate land use planning to be the primary method to mitigate impacts. This includes avoiding siting odor sources near sensitive receptors, avoiding siting receptors near odor sources, and providing sufficient buffer zone between sensitive receptors and odor sources. Certain land use types are most likely to result in odor impacts, including wastewater treatment plants; landfill and composting facilities; petroleum refineries; chemical plants; and food services.

Where odor sources and receptors cannot be physically separated, implementing an odor management plan may be an appropriate mitigation measure. Lead agencies should require that odor management plans include:

- disclosure of equipment or processes that may cause odors;
- description of proposed odor control equipment and how it will be maintained;
- requirements for odor control equipment specifications to be included in the construction plan;
- description of procedures for the facility to monitor, identify, and report odors; and
- description of the process for the general public to directly report any odors from the project (e.g., website, hotline).

Odor management plans should demonstrate a) how the project will avoid creating odor impacts and b) the corrective actions the project sponsors will take if the project results in odor complaints from the surrounding communities. Odor management plans should be included in mitigation and monitoring plans, and lead agencies are responsible for ensuring that odor management plans are implemented.

In addition to the mitigation measures described above, projects must implement all applicable permit and regulatory requirements including, but not limited to: Portable Equipment Registration Program (PERP) and Air Toxic Control Measure (ATCM) requirements, compliance with Air District Regulation 9, Rule 8 and Regulation 6, Rule 1 for visible emissions from stationary internal combustion engines; and California Air Resources Board's Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining (CARB 2008) for projects that have the potential to disturb asbestos (from soil or building material).

ESTIMATING EMISSIONS REDUCTIONS

The Air District recommends lead agencies use the most recent version (2020.4.0) of the California Emissions Estimator Model (CalEEMod) to quantify mitigation measures that reduce air pollution from construction and operational activities, The model, developed by the California Air Pollution Control Officer Association (CAPCOA) quantifies direct and indirect criteria pollutants as well as greenhouse gas emissions (GHG) using default data (e.g., emission factors, trip lengths, meteorology, source inventory) or information specific to the project, to inform land use development project analyses in the Bay Area (See Appendix D, Using CalEEMod for Bay Area Projects).

CalEEMod includes mitigation measures from the CAPCOA Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity: Designed for Local Governments, Communities, and Project Developers (CAPCOA Handbook). The CAPCOA Handbook provides a diverse set of measures that can be used to improve air quality and reduce GHGs. Chapter 3 of the Handbook, "Measures to Reduce GHG Emissions" includes measures by environmental sector: Construction, Energy, Lawn and Landscaping, Natural and Working Lands, Solid Waste, Transportation, Water, Refrigerants, and lists mitigation measures for the various project types along with measures to improve health and equity.

8.3 MITIGATING PLAN-LEVEL AIR QUALITY IMPACTS

Plans often have significant and unavoidable adverse air quality impacts related to the San Francisco Bay Area Air Basin's nonattainment status and the cumulative impacts of growth on air quality. In addition, plans generally have implementation horizons of 20 years or more. For these reasons, it is essential for plans to incorporate all feasible strategies and measures to reduce air quality impacts. Mitigation measures for plans are often broad in scope because of the long timeframe and comprehensive nature of plan policies and programs.

Plans are the appropriate place to establish communitywide air quality policies that reinforce regional air quality plans. Plans present opportunities to establish requirements for new construction, future land uses and redevelopment projects to support continued improvements in local and regional air quality, and avoid inhibiting attainment of state and national air quality standards. Air quality related goals, policies, performance measures, and standards included in the plan will serve to reduce the potential impact of future projects. Therefore, binding, enforceable mitigation measures should be incorporated as policies and implementation programs in the plan to the greatest extent feasible.

8.4 ADDRESSING CLIMATE IMPACTS

8.4.1 Land Use Projects and Plans

Unlike the air quality thresholds of significance, the thresholds for climate impacts from GHG emissions are not quantitative, and therefore have no bright line threshold under which there can be an option to mitigate. The climate impact thresholds of significance for land use projects are specific design elements to be included in the project. If these design elements are not included in the project, the project can demonstrate less than significance by being consistent with a locally adopted GHG Reduction Strategy that aligns with State CEQA Guidelines Section 15183.5(b).

For local long-range plans, the climate impact thresholds of significance require the plan to meet the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030 and support the State's goal of carbon neutrality by 2045. If the plan does not include these targets, it can demonstrate less than significance by being consistent with a local GHG reduction strategy that aligns with State CEQA Guidelines Section 15183.5(b).

However, due to the urgency of the climate crisis, and the need to avoid and reduce GHG emissions as quickly as possible, lead agencies are strongly encouraged to maximize GHG reduction as much as possible even if the land use project or plan is found to be less than significant.

8.4.2 Stationary Sources

Unlike the thresholds of significance for land use projects and plans, the thresholds for stationary source projects are quantitative (see Chapter 6, Section 6.4). It is therefore appropriate for lead agencies to mitigate GHG emissions from stationary sources. Because stationary sources require an Air District permit to operate, lead agencies should consult with Air District permitting staff on the most feasible approach to mitigating stationary source GHG emissions.

8.5 RESOURCES

The California Air Pollution Control Officers Association's *California Emissions Estimator Model* (CalEEMod) and the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (Handbook, CAPCOA 2021) include a robust collection of measures with the potential to reduce criteria air pollutants, toxic air contaminants, and GHG emissions.

CalEEMod Version 2022, which is web-based and available online at https://www.caleemod.com/, includes a new, searchable measures tool where users can filter, sort and select both quantifiable and non-quantifiable measures that are included in CalEEMod and/or the Handbook.

In the Handbook, available online at https://www.caleemod.com/handbook/index.html, presents measures to reduce emissions organized by economic sector (Chapter 3) as well as measures to advance health and equity (Chapter 5). Below is description of the types of measure included in the Handbook, with a few examples.

Transportation: Measures that promote transit and alternative transportation, support use of alternatively fueled vehicles, or encourage land use planning practices that reduce vehicle trips and vehicle miles traveled (VMT). Measures are organized into six subsectors: Land Use, Neighborhood Design, Trip Reduction Programs, Parking Management, Transit, Parking or Road Pricing/Management, and Clean Vehicles and Fuels.

Reducing vehicle-miles travelled and alternative fuel and zero emissions technologies improve air quality. In addition, measures such as a mode shift from single occupancy vehicles to active transportation (walking, bicycling, and ridesharing) offer a broad variety of benefits beyond the potential for emission reductions. For more about transportation measures, see CAPCOA Handbook Measures T-1 through T-30.

- Example: T-3. Provide Transit-Oriented Development
- Example: T-6. Implement Commute Trip Reduction Program (Mandatory Implementation and Monitoring)
- Example: T-16. Unbundle Residential Parking Costs from Property Cost
- Example: T-20. Expand Bikeway Network
- Example: T-25. Extend Transit Network Coverage or Hours
- Example: T-30. Use Cleaner-Fuel Vehicles

Energy: Measures that target energy efficiency improvements/reduced natural gas consumption, renewable energy generation, building electrification, or methane (CH4) recovery at landfills and wastewater treatment plants.

Energy efficiency measures such as building electrification and renewable power generation (solar, wind etc.), result in reduced electricity usage and therefore a reduction of criteria pollutants. See measures E-1 though E1-9 of the CAPCOA Handbook for mitigation measures that target direct energy efficiency improvements.

- Example: E-1. Buildings Exceed 2019 Title 24 Building Envelope Energy Efficiency Standards
- Example: E-10-B. Establish Onsite Renewable Energy Systems - Solar Power
- Example: E-15. Require All-Electric Development

Lawn and Landscaping: Measures that promote zero-emission landscaping equipment over conventional fossil fuel-powered counterparts.

- Example: LL-1. Replace Gas-Powered Landscape Equipment with Zero-Emission Landscape Equipment

Solid Waste: Measures that require alternative waste management pathways, such as recycling and composting, to increase landfill waste diversion.

Solid waste emissions include indirect emissions from recycling, composting and landfill materials, that generate an increase in GHGs. The CAPCOA Handbook solid waste measures S-1 through S-5 discusses organic waste diversion measures and alternative recycling techniques to reduce landfill emissions.

- Example: S-2. Implement Organics Diversion Program

Natural and Working Lands: Measures that enhance the sequestration capacity of natural lands or reduce the intensity of emissions from working lands.

- Example: N-2. Expand Urban Tree Planting

Construction and Construction Equity: Measures that promote efficient construction management practices or alternatively fueled construction equipment, and measures focused on reducing the air quality, traffic, noise, and other impacts of construction for the surrounding community.

Construction-related emissions can be reduced by using vehicles and equipment with cleaner engines, including using zero-emission, hybrid, or highest-tier on- and off-road construction equipment; the use of cleaner fuels and grid power whenever possible; limiting idling; and best management practices to reduce construction related dust. For construction-related fugitive dust, the Air District recommends implementation of the best management practices in Chapter 5, Table 5-2 as well as the additional measures provided in Chapter 5. For more on construction mitigation measures, see the CAPCOA Handbook measures C-1 through C-3 and CE-1 through CE-6.

- Example: C-1-A. Use Electric or Hybrid Powered Equipment
- Example: C-1-B. Use Cleaner-Fuel Equipment
- Example: C-2. Limit Heavy-Duty Diesel Vehicle Idling
- Example: CE-1. Create a Construction Plan with Community Input
- Example: CE-3. Post a Clear, Visible Enforcement and Complaint Sign
- Example: CE-4. Portable Indoor Air Filtration for Nearby Residents During Construction

- Example: CE-5. Air Quality Monitoring and Response Plan

Public Health and Air Quality: measures to improve the health outcomes of project residents as well as nearby neighborhoods.

- Example: PH-1. Establish Vegetative Barriers to Reduce Pollution Exposure
- Example: PH-2. Increase Urban Tree Canopy and Green Spaces
- Example: PH-3. Highly Rated Air Filtration

Lead agencies can also consult the following additional resources, among many others, to investigate further feasible measures to reduce air quality and climate impacts:

- Bay Area Air Quality Management District's *Final 2017 Clean Air Plan*
- Bay Area Air Quality Management District's *Local Climate Action Plan (LCAP) Reduction Measures database* a searchable database of the emission reduction measures contained in Bay Area climate action plans adopted as of June 2019
- Bay Area Air Quality Management District's *Planning Healthy Places*
- California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*
- California Air Resources Board's *Technical Advisory: Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*

8.6 REFERENCES

California Air Pollution Control Officers Association. 2021 (December). *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. Available: https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf. Accessed March 1, 2022.

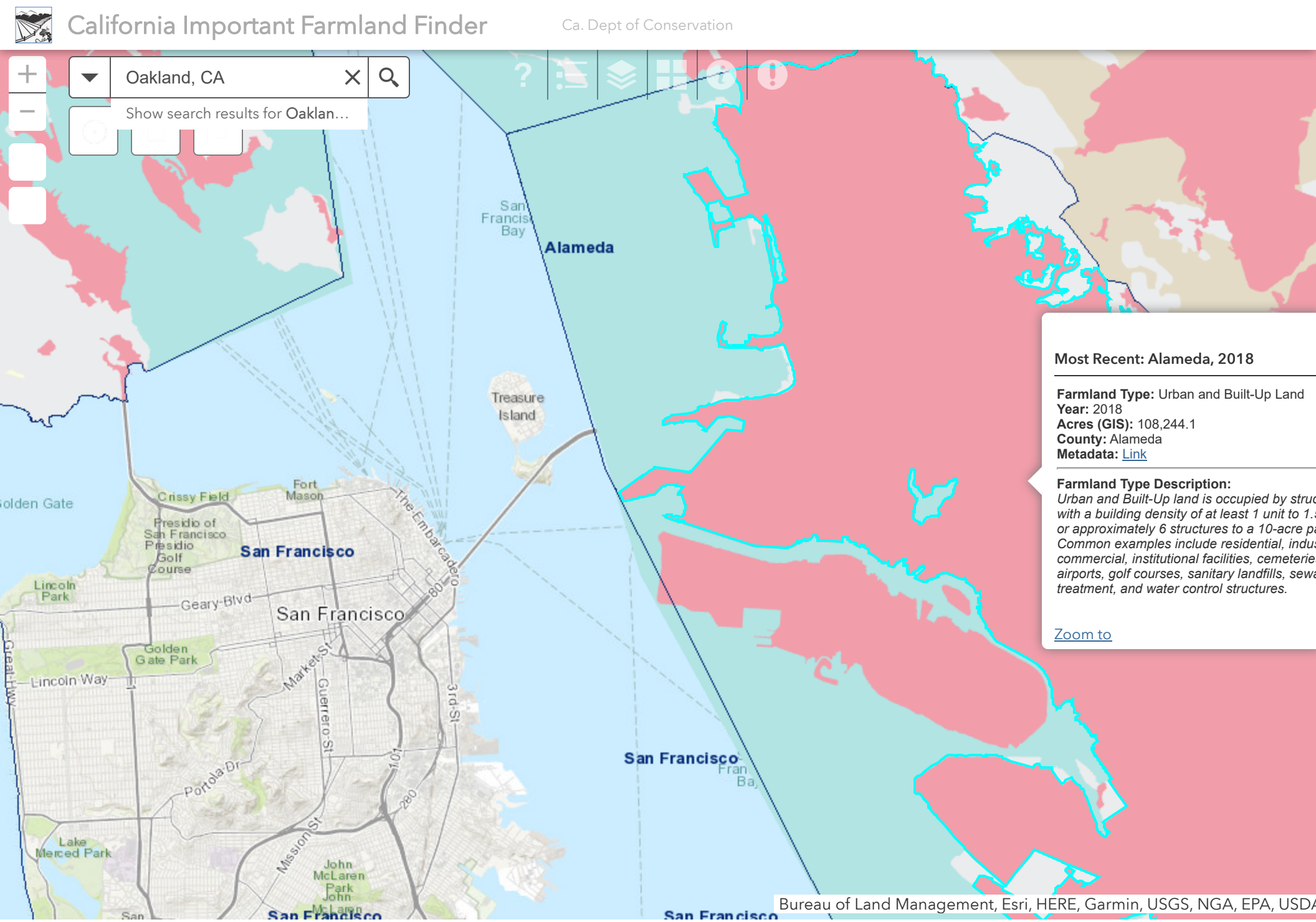
———. 2022. *California Emissions Estimator Model (CalEEMod) Version 2022.1*. Available: https://www.caleemod.com/. Accessed March 1, 2022.

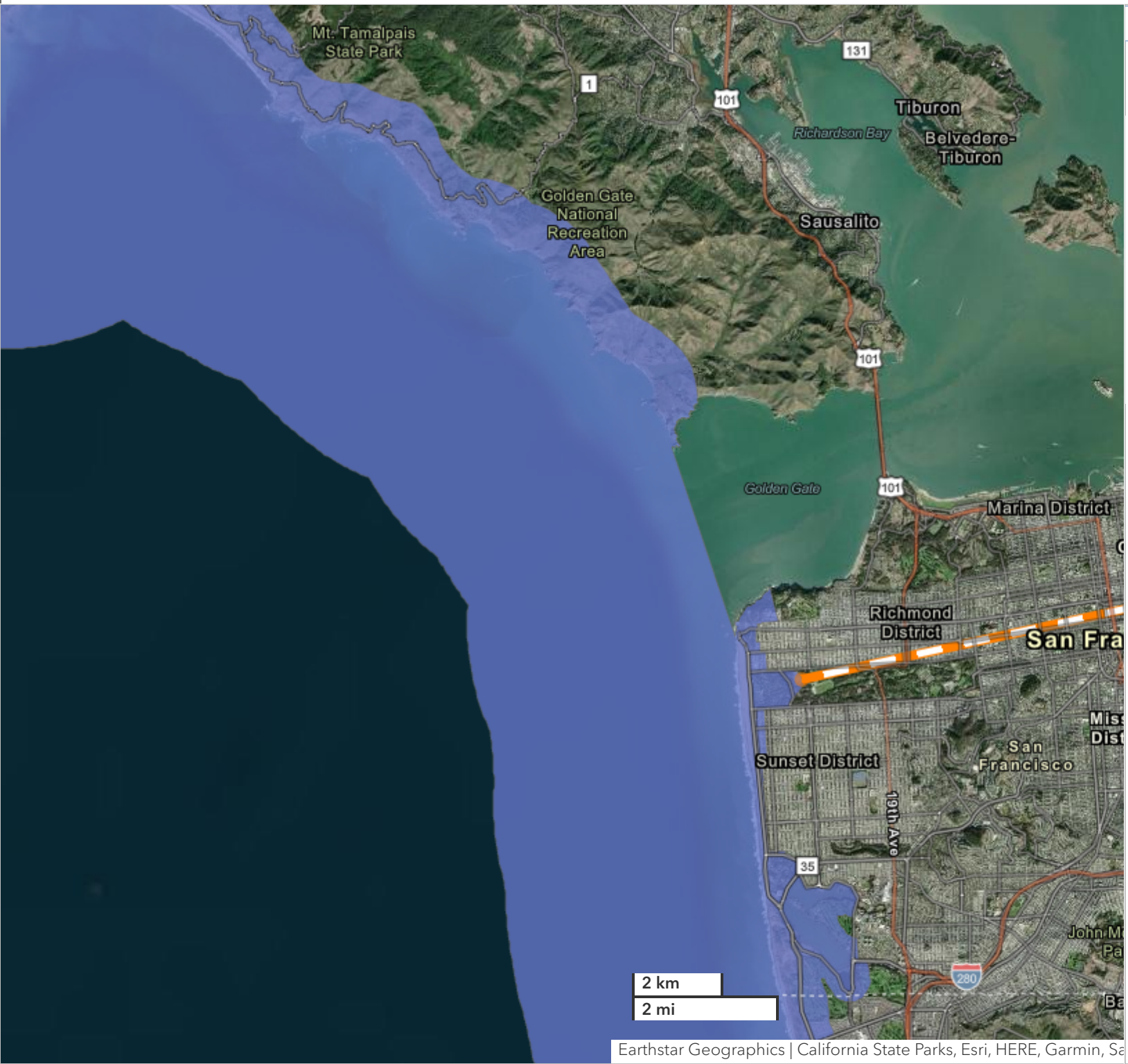
California Air Resources Board. 2008 (April 22). Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining. Available: https://www.arb.ca.gov/regact/asbesto2/asbesto2.htm. Accessed March 1, 2022.

CAPCOA. *See* California Air Pollution Control Officers Association.

CARB. *See* California Air Resources Board.

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California Important Farmland Finder
Ca. Dept of Conservation
Oakland, CA
Show search results for Oaklan…
Most Recent: Alameda, 2018
Farmland Type: Urban and Built-Up Land
Year: 2018
Acres (GIS): 108,244.1
County: Alameda
Metadata: Link
Farmland Type Description:
Urban and Built-Up land is occupied by struc
with a building density of at least 1 unit to 1.
or approximately 6 structures to a 10-acre pa
Common examples include residential, indus
commercial, institutional facilities, cemeteries
airports, golf courses, sanitary landfills, sewa
treatment, and water control structures.
Zoom to
San Francisco Bay
Alameda
Treasure Island
Golden Gate
Crissy Field
Fort Mason
Presidio of San Francisco
Presidio Golf Course
San Francisco
The Embarcadero
Lincoln Park
Geary Blvd
San Francisco
Golden Gate Park
Great Hwy
Lincoln Way
Market St
Guerrero St
3rd St
Portola Dr
101
280
Mission St
Lake Merced Park
John McLaren Park
San Francisco
San Francisco
Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA
3km



Measurement Tool

Unit

Imperial

Distance

11.39 mi

New measurement

ENVIROSTOR

2001 MacArthur Boulevard, Oakland, California 94602, …

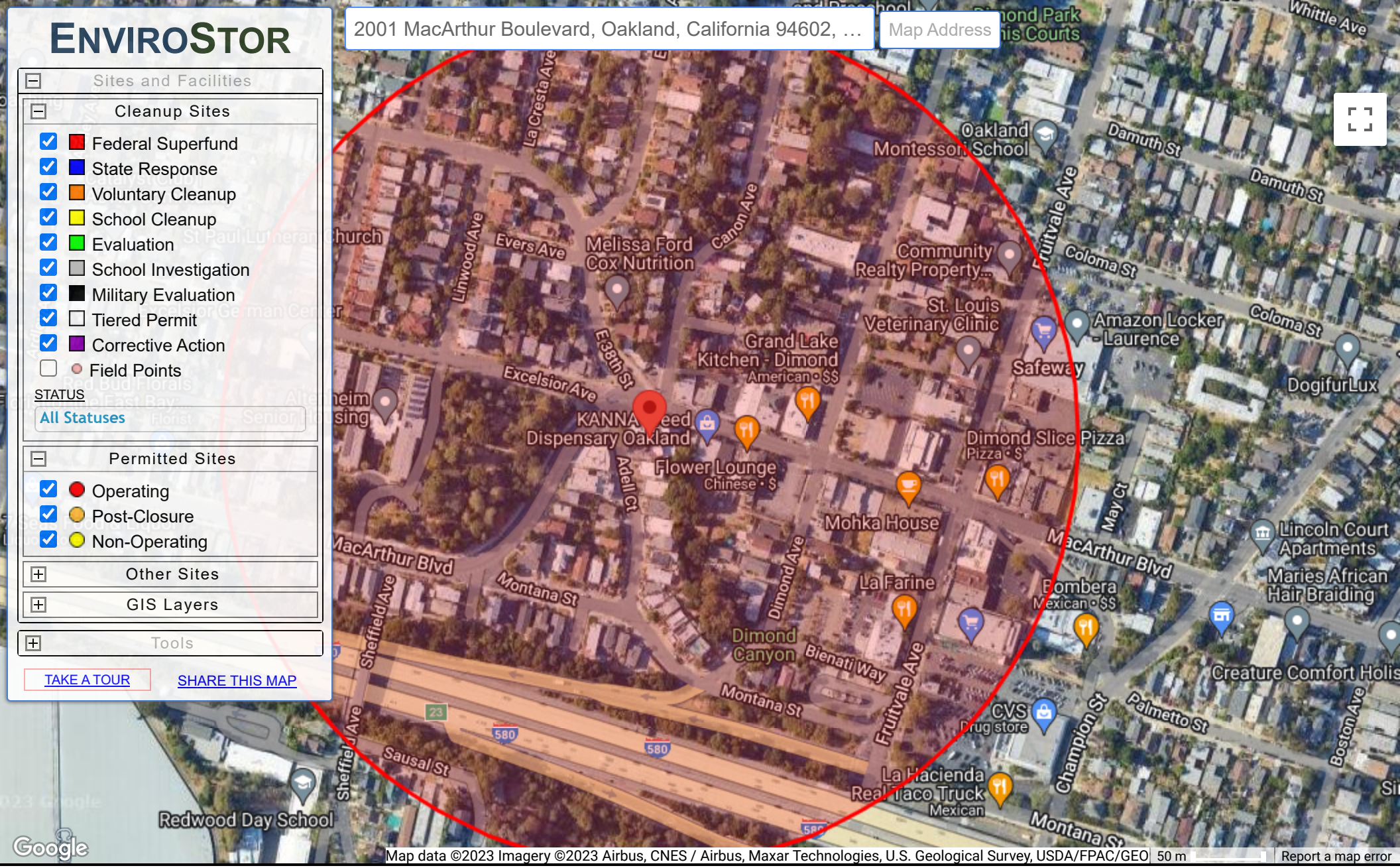
Map Address

- Sites and Facilities
  - Cleanup Sites
    - [x] Federal Superfund
    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

    STATUS

    All Statuses
  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

TAKE A TOUR | SHARE THIS MAP



SITES FOUND IN SEARCH RADIUS

0 SITES LISTED

EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY

ENVIROSTOR

1670 8th Street, Oakland, California 94607

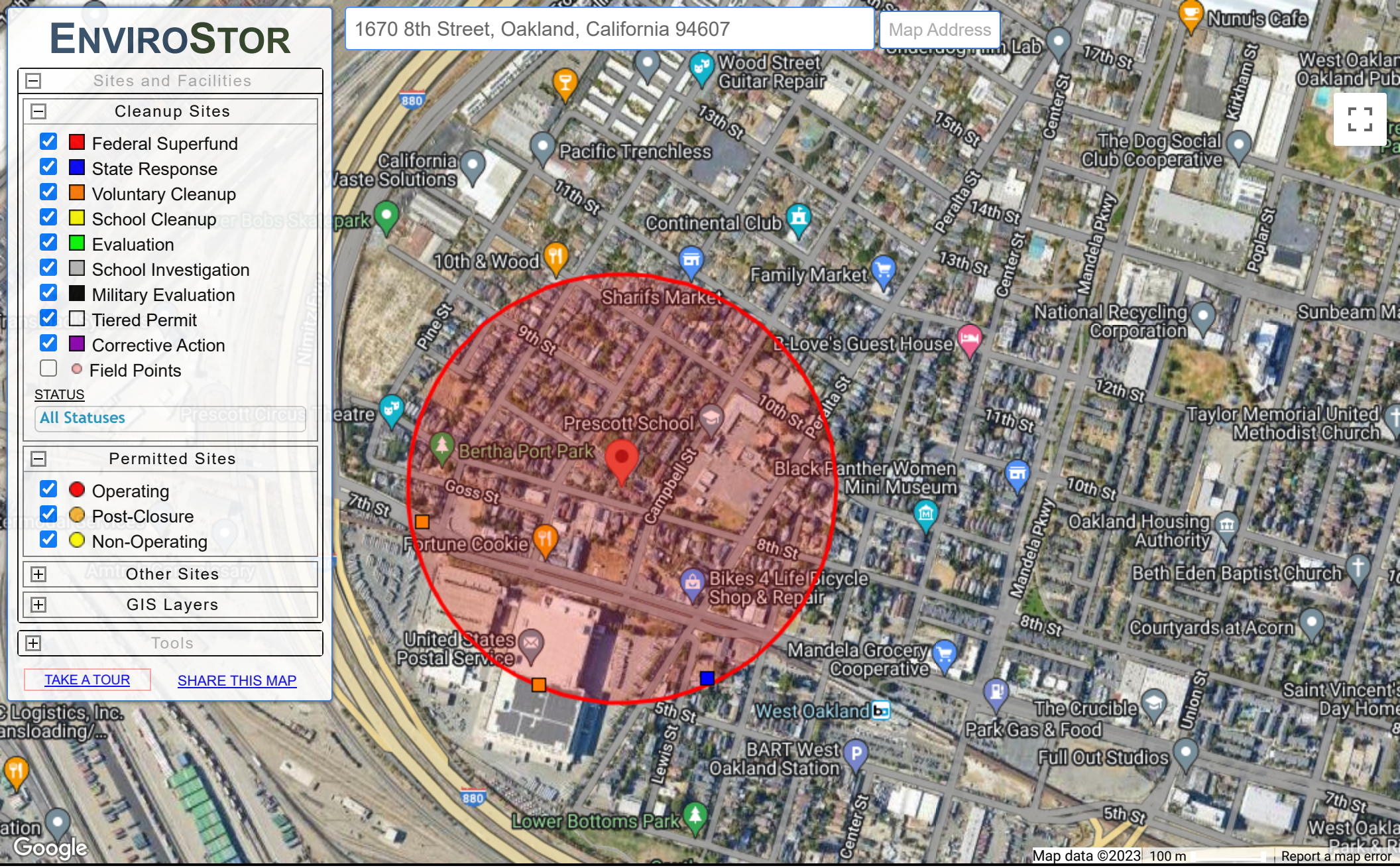
Map Address

- Sites and Facilities
  - Cleanup Sites
    - [x] Federal Superfund
    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

    STATUS

    All Statuses
  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

TAKE A TOUR | SHARE THIS MAP



SITES FOUND IN SEARCH RADIUS

3 SITES LISTED

EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
528 LEWIS STREET	CERTIFIED	STATE RESPONSE	528 LEWIS STREET	OAKLAND
CHURCH'S FRIED CHICKEN	CERTIFIED	VOLUNTARY CLEANUP	1766 7TH STREET	OAKLAND
OAKLAND MAIN POST OFFICE PARKING STRUCT.	CERTIFIED	VOLUNTARY CLEANUP	1675 7TH STREET	OAKLAND

ENVIROSTOR

6946 Foothill Boulevard, Oakland, California 94605, USA

Map Address

- Sites and Facilities
  - Cleanup Sites
    - [x] Federal Superfund
    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

    STATUS

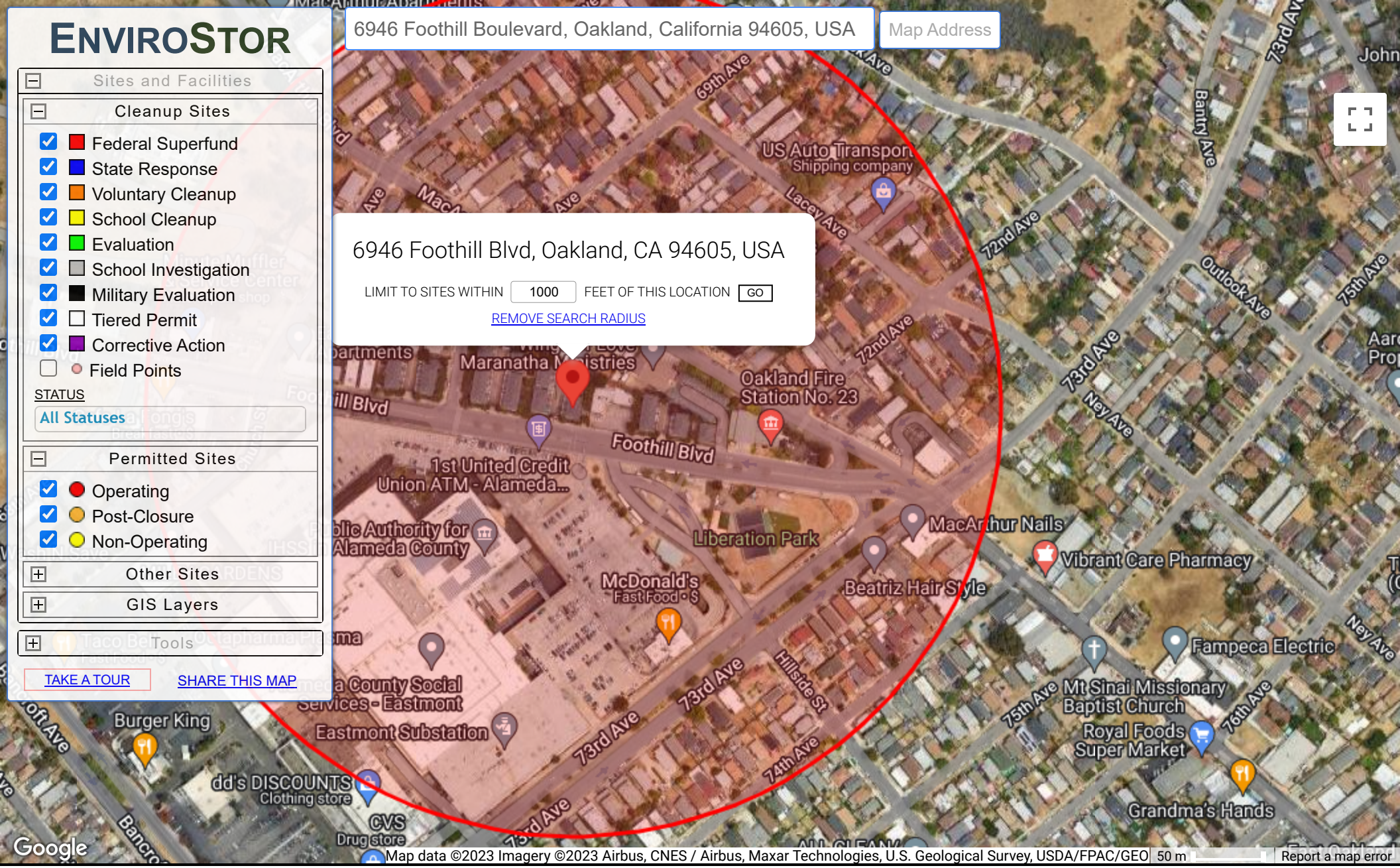
    All Statuses
  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

TAKE A TOUR | SHARE THIS MAP

6946 Foothill Blvd, Oakland, CA 94605, USA

LIMIT TO SITES WITHIN 1000 FEET OF THIS LOCATION GO

REMOVE SEARCH RADIUS



SITES FOUND IN SEARCH RADIUS

0 SITES LISTED

EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY

ENVIROSTOR

1621 Harrison Street, Oakland, California 94612, USA

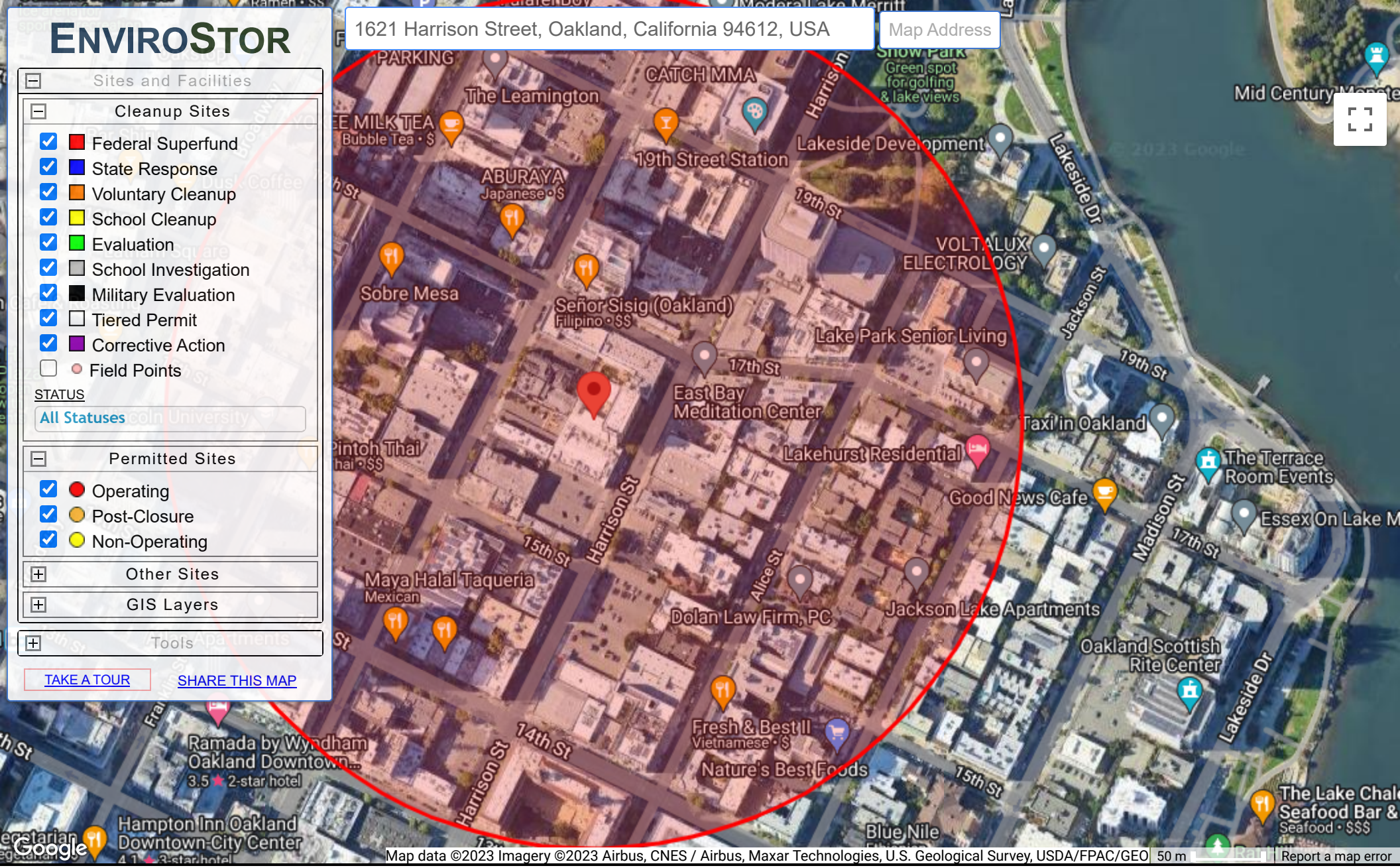
Map Address

- Sites and Facilities
  - Cleanup Sites
    - [x] Federal Superfund
    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

    STATUS

    All Statuses
  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

TAKE A TOUR | SHARE THIS MAP



SITES FOUND IN SEARCH RADIUS

0 SITES LISTED

EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY

ENVIROSTOR

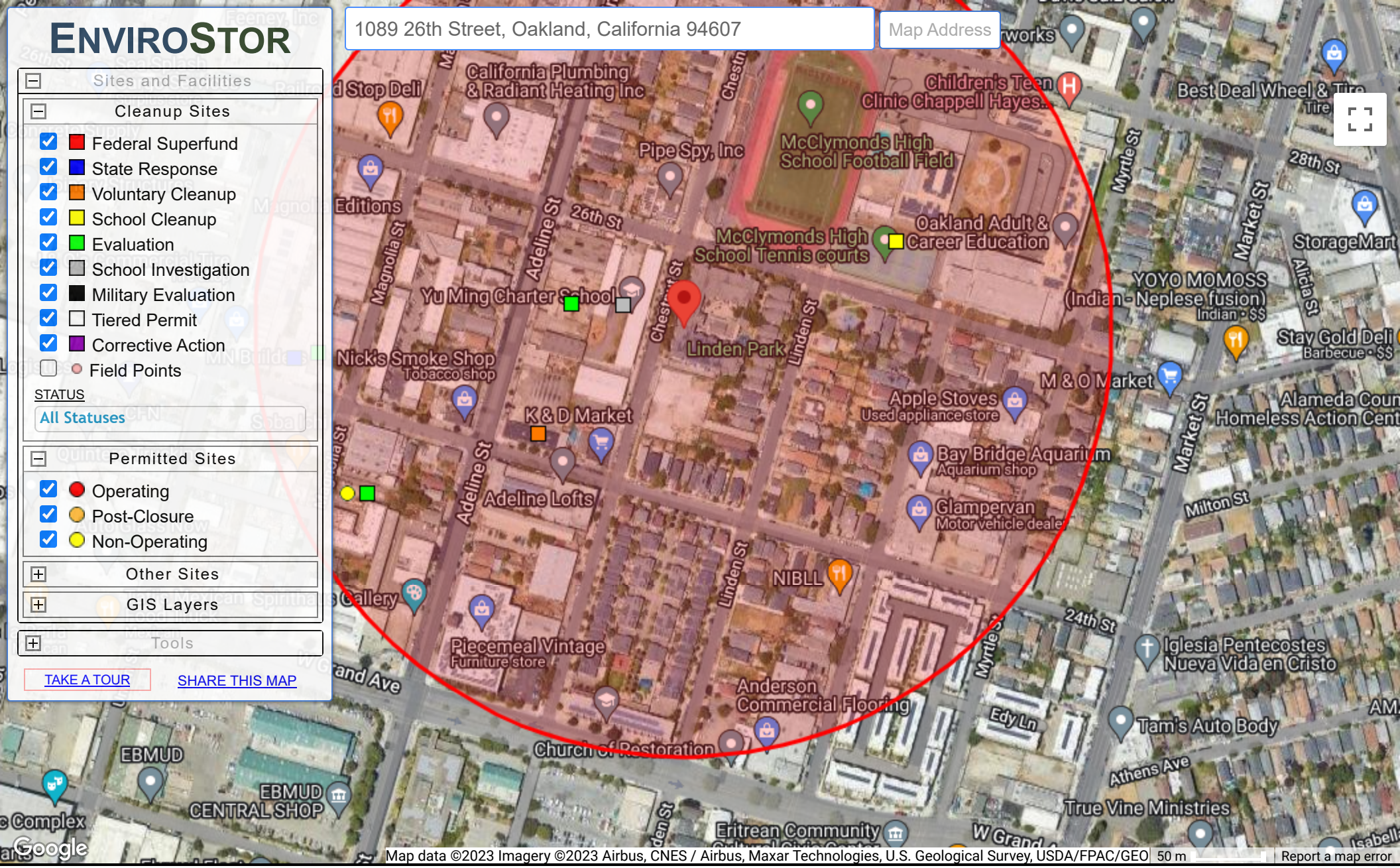
1089 26th Street, Oakland, California 94607

Map Address

- Sites and Facilities
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    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

    STATUS: All Statuses
  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

TAKE A TOUR | SHARE THIS MAP



SITES FOUND IN SEARCH RADIUS

8 SITES LISTED

EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
2400 ADELINE REDEVELOPMENT PROJECT	ACTIVE	VOLUNTARY CLEANUP	2400 ADELINE STREET	OAKLAND
ARTESIAN OIL RECOVERY	NO ACTION REQUIRED	EVALUATION	2306 MAGNOLIA STREET	OAKLAND
ARTESIAN OIL RECOVERY INC	CLOSED	NON-OPERATING	2306 MAGNOLIA ST	OAKLAND
BELL METAL FABRICATORS	NO FURTHER ACTION	EVALUATION	2500 ADELINE	OAKLAND
LAHER SPRING AND ELECTRIC CAR	CERTIFIED	EVALUATION	2419 MAGNOLIA STREET	OAKLAND
MCCLYMONDS HIGH SCHOOL	ACTIVE	SCHOOL CLEANUP	2607 MYRTLE STREET	OAKLAND
NORTHWESTERN VENETIAN SUPPLY CORP. SITE	ACTIVE	STATE RESPONSE	1218 24TH STREET	OAKLAND
VINCENT ACADEMY CHARTER ELEMENTARY SCHOOL	INACTIVE - WITHDRAWN	SCHOOL INVESTIGATION	2501 CHESNUT STREET	OAKLAND

ENVIROSTOR

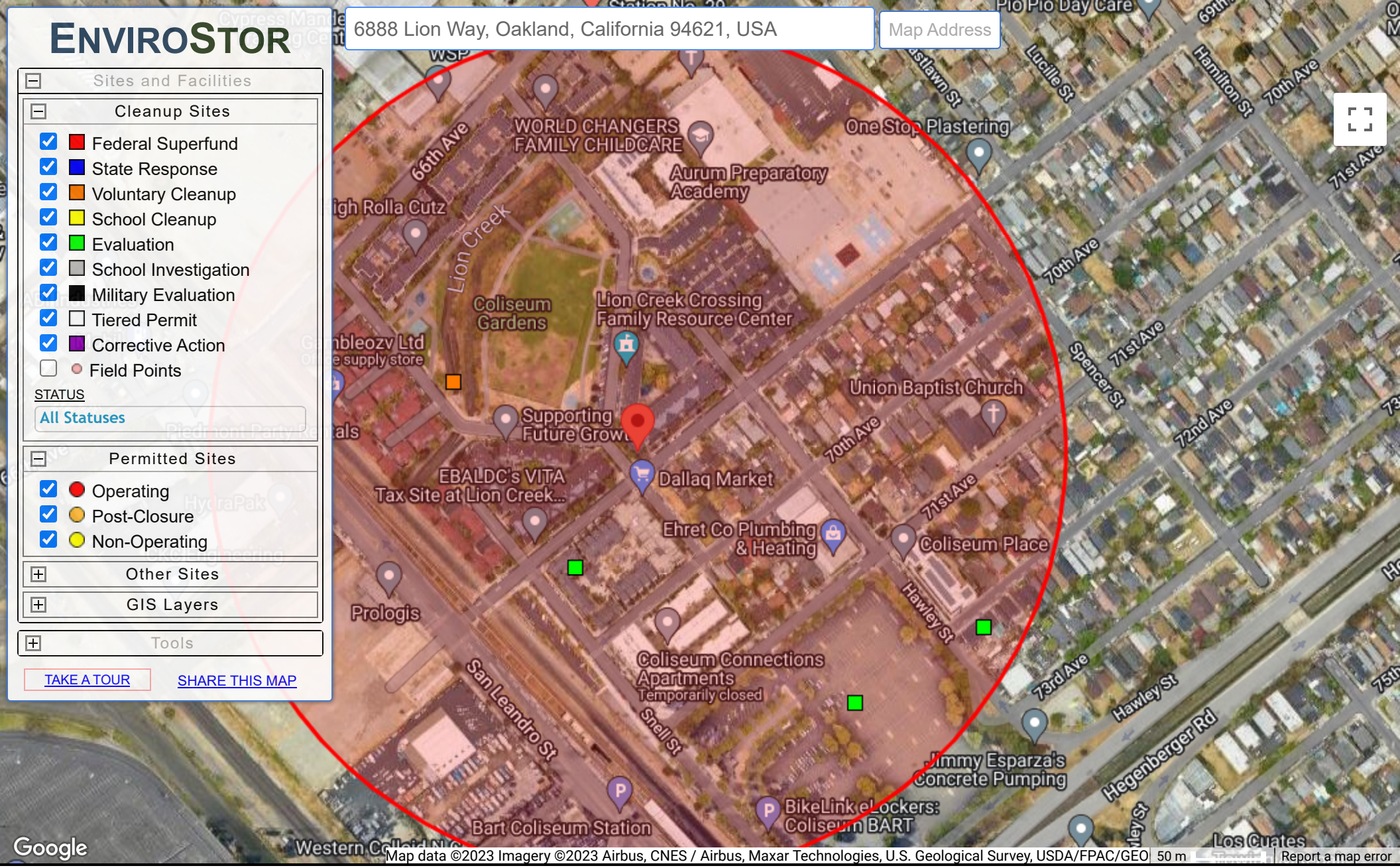
6888 Lion Way, Oakland, California 94621, USA

Map Address

- Sites and Facilities
  - Cleanup Sites
    - [x] Federal Superfund
    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

    STATUS: All Statuses
  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

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SITES FOUND IN SEARCH RADIUS

4 SITES LISTED

EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
A/C BODY SHOP	INACTIVE - NEEDS EVALUATION	EVALUATION	902 72ND AVENUE	OAKLAND
COLISEUM GARDENS	CERTIFIED	VOLUNTARY CLEANUP	801 69TH AVENUE	OAKLAND
STANDARD IRON AND METALS COMPANY	NO FURTHER ACTION	EVALUATION	801 69TH AVENUE	OAKLAND
WEIMEYER CORPORATION SITE	INACTIVE - NEEDS EVALUATION	EVALUATION	700 72ND AVENUE	OAKLAND

ENVIROSTOR

1327 65th Avenue, Oakland, California 94621

Map Address

- Sites and Facilities
  - Cleanup Sites
    - [x] Federal Superfund
    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

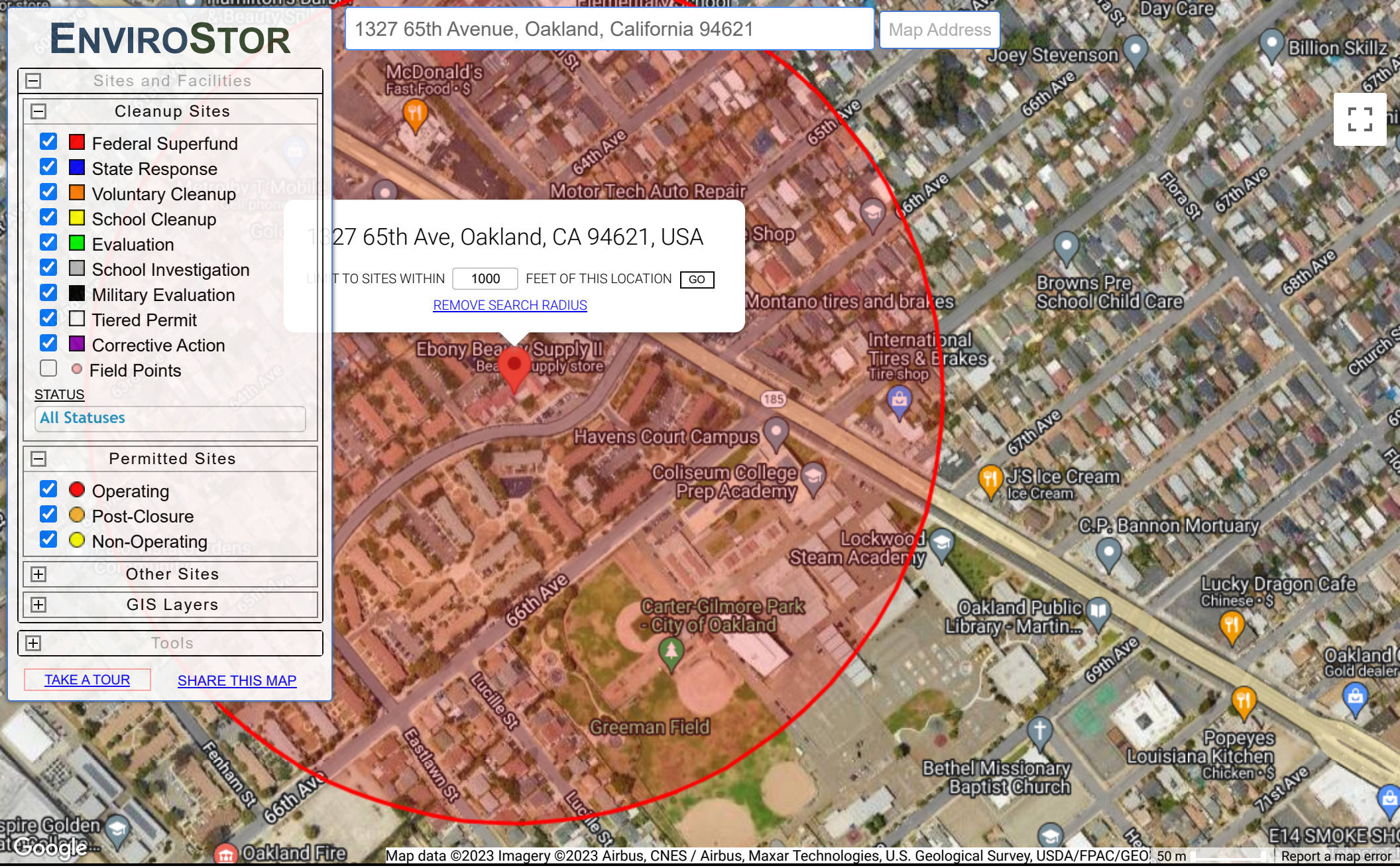
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  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

TAKE A TOUR | SHARE THIS MAP

27 65th Ave, Oakland, CA 94621, USA

LIMIT TO SITES WITHIN 1000 FEET OF THIS LOCATION GO

REMOVE SEARCH RADIUS



SITES FOUND IN SEARCH RADIUS — 0 SITES LISTED — EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY

ENVIROSTOR

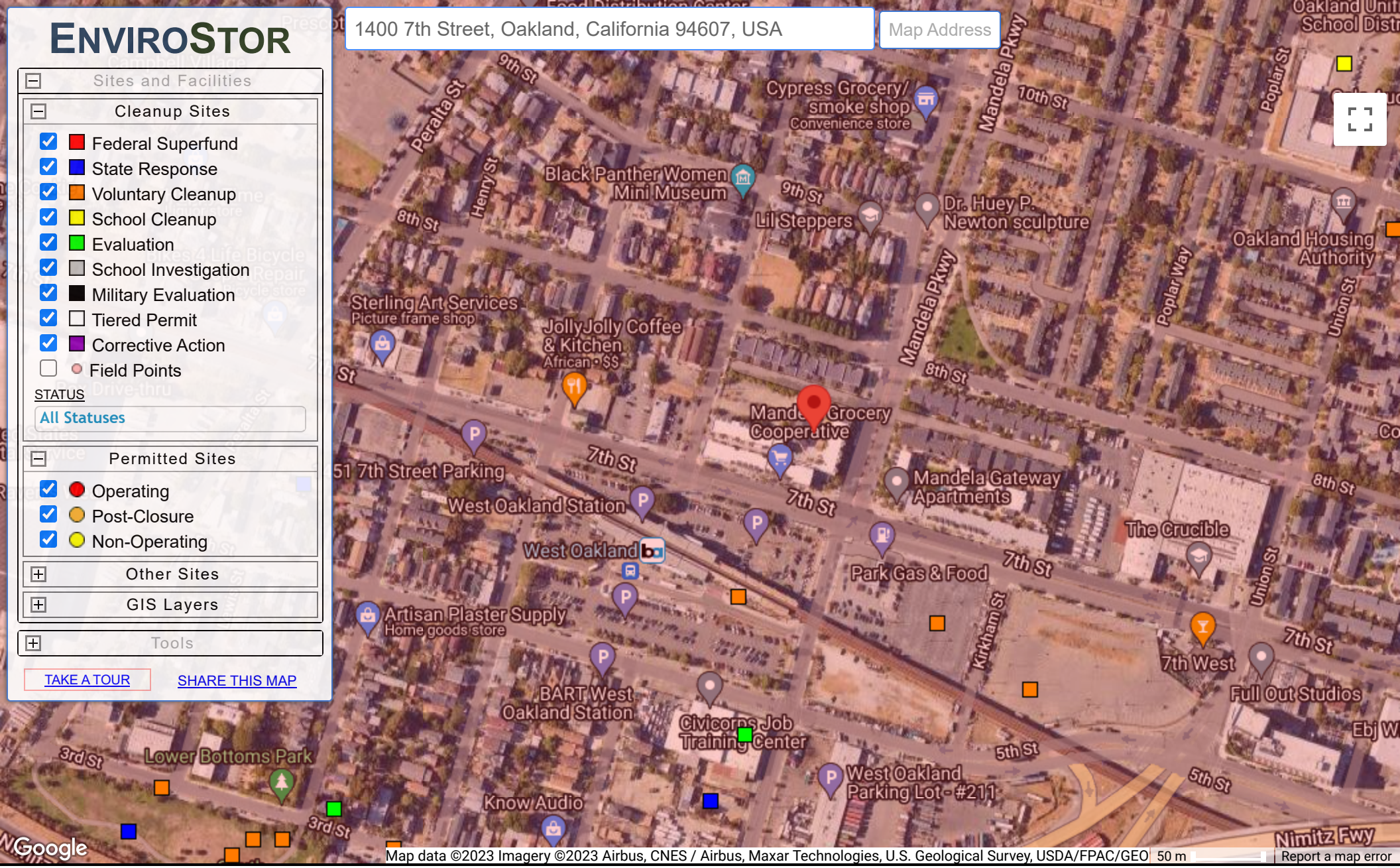
1400 7th Street, Oakland, California 94607, USA

Map Address

- Sites and Facilities
  - Cleanup Sites
    - [x] Federal Superfund
    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

    STATUS: All Statuses
  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

TAKE A TOUR | SHARE THIS MAP



SITES FOUND IN SEARCH RADIUS

39 SITES LISTED

EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
1536 THIRD STREET	REFER: OTHER AGENCY	EVALUATION	1536 THIRD STREET	OAKLAND
528 LEWIS STREET	CERTIFIED	STATE RESPONSE	528 LEWIS STREET	OAKLAND
ADELINE CLEANERS	REFER: RWQCB	EVALUATION	985 7TH STREET	OAKLAND
AMCO CHEMICAL	ACTIVE	FEDERAL SUPERFUND	1414 THIRD STREET	OAKLAND
AMTRAK MAINTENANCE FACILITY	CERTIFIED / OPERATION & MAINTENANCE	VOLUNTARY CLEANUP	3RD & UNION STREETS	OAKLAND
AUTO - CHLOR SYSTEM	NO FURTHER ACTION	EVALUATION	1350 14TH STREET	OAKLAND
CALIFORNIA SODA COMPANY	NO FURTHER ACTION	EVALUATION	355 MANDELA PKWY	OAKLAND
CARNATION DAIRIES	REFER: OTHER AGENCY	STATE RESPONSE	1310 14TH STREET/1315 16TH STREET	OAKLAND
CENTRAL ADMINISTRATIVE CENTER AT COLE CAMPUS	ACTIVE	SCHOOL CLEANUP	1011 UNION STREET	OAKLAND

ENVIROSTOR

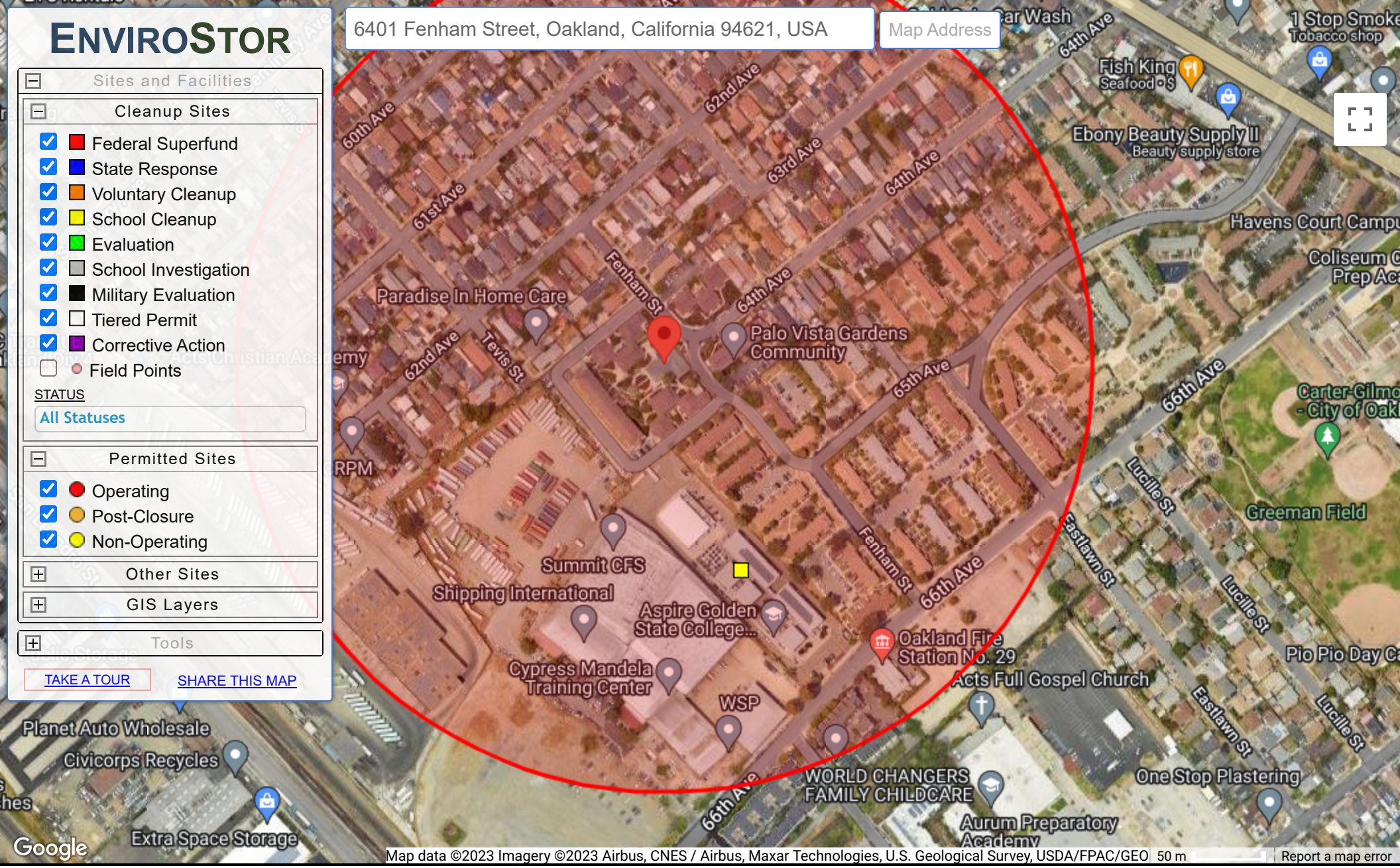
6401 Fenham Street, Oakland, California 94621, USA

Map Address

- Sites and Facilities
  - Cleanup Sites
    - [x] Federal Superfund
    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

    STATUS: All Statuses
  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

TAKE A TOUR | SHARE THIS MAP



SITES FOUND IN SEARCH RADIUS

1 SITES LISTED

EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
ASPIRE SCHOOL SITE/66TH AVENUE CHRTR SCH	REFER: LOCAL AGENCY	SCHOOL CLEANUP	1009 66TH AVENUE	OAKLAND

ENVIROSTOR

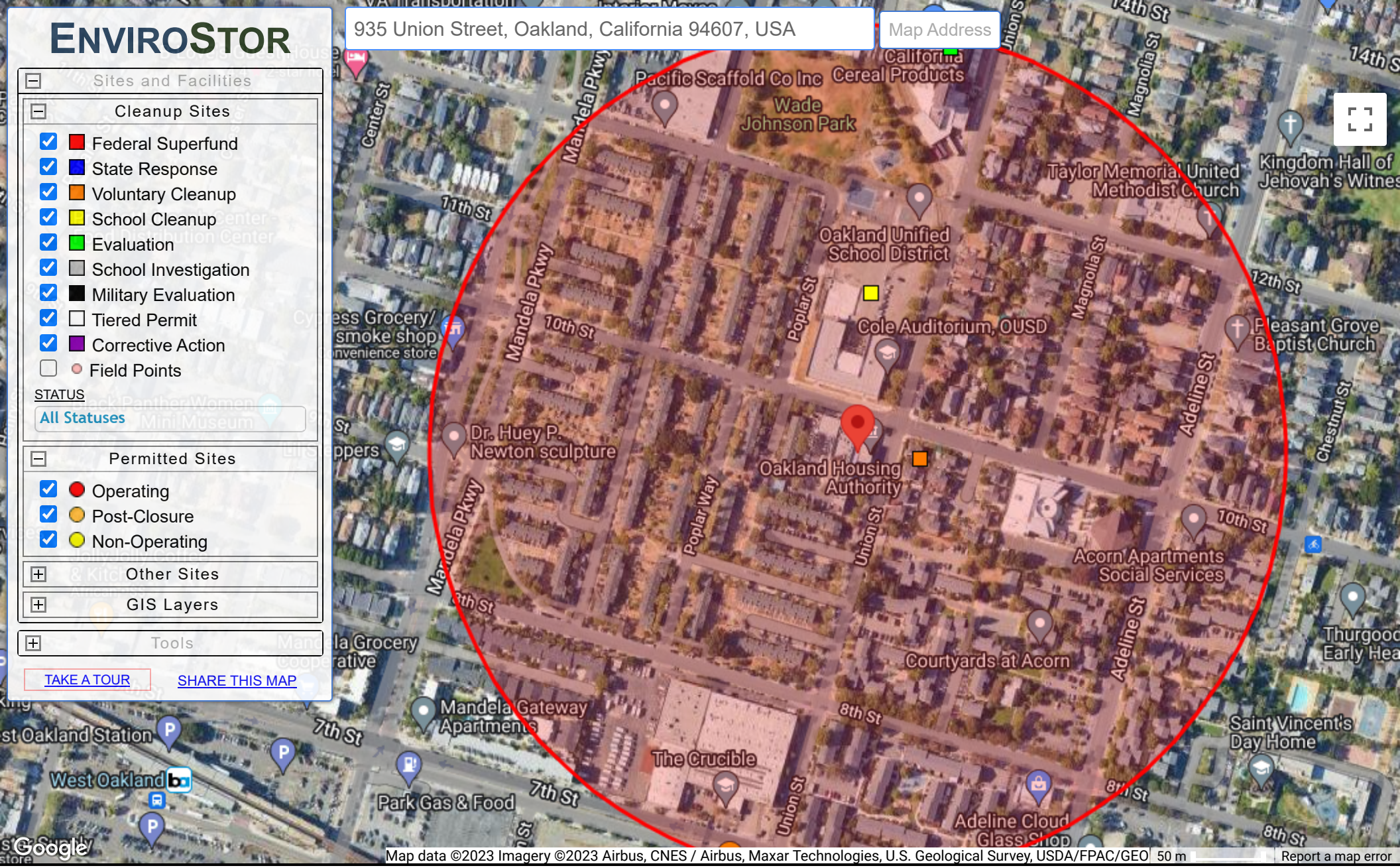
935 Union Street, Oakland, California 94607, USA

Map Address

- Sites and Facilities
  - Cleanup Sites
    - [x] Federal Superfund
    - [x] State Response
    - [x] Voluntary Cleanup
    - [x] School Cleanup
    - [x] Evaluation
    - [x] School Investigation
    - [x] Military Evaluation
    - [x] Tiered Permit
    - [x] Corrective Action
    - [ ] Field Points

    STATUS: All Statuses
  - Permitted Sites
    - [x] Operating
    - [x] Post-Closure
    - [x] Non-Operating
  - Other Sites
  - GIS Layers
- Tools

TAKE A TOUR | SHARE THIS MAP



SITES FOUND IN SEARCH RADIUS

3 SITES LISTED

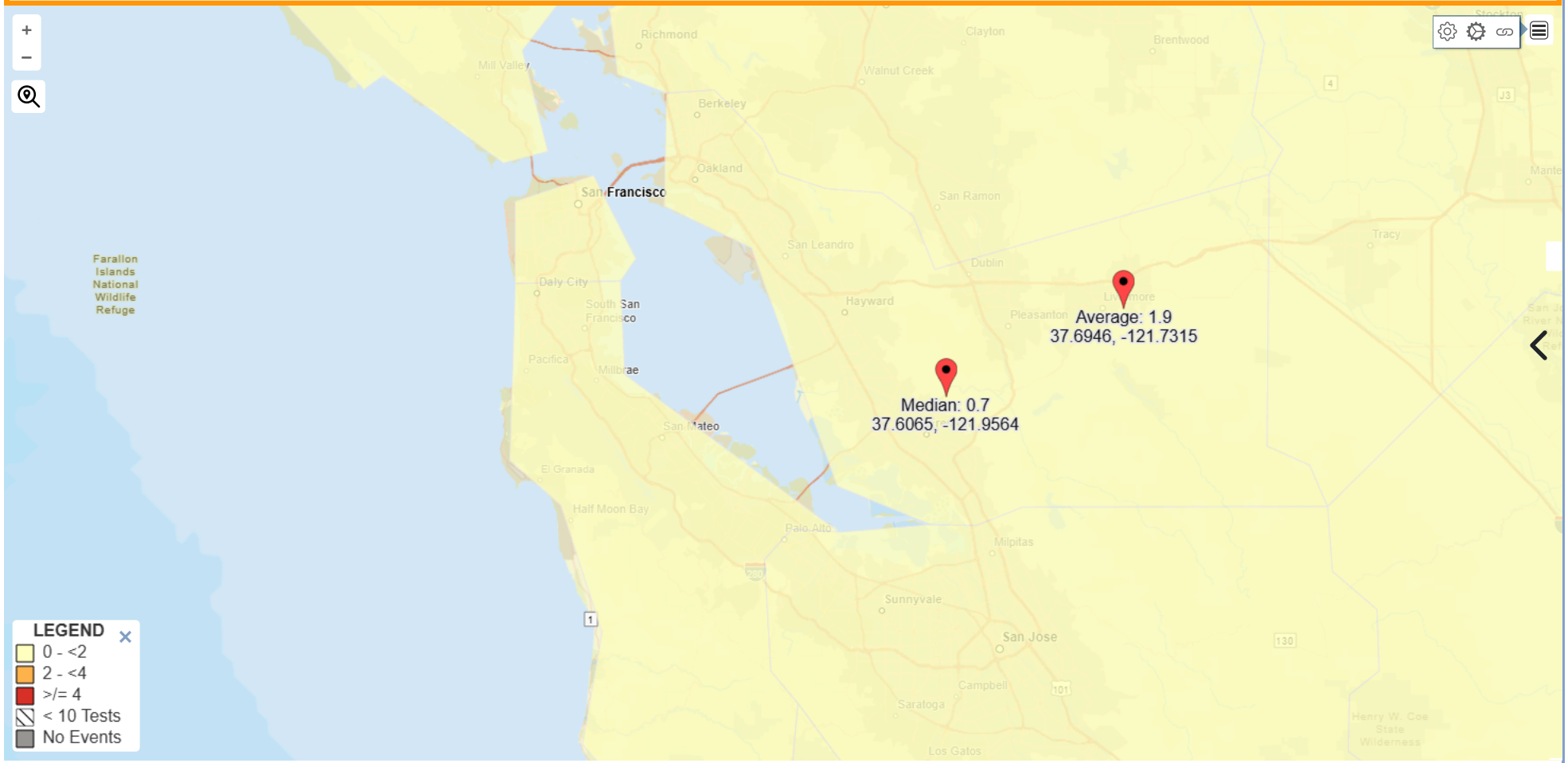
EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
CENTRAL ADMINISTRATIVE CENTER AT COLE CAMPUS	ACTIVE	SCHOOL CLEANUP	1011 UNION STREET	OAKLAND
NABISCO	NO FURTHER ACTION	EVALUATION	1267 14TH STREET	OAKLAND
PALM COURT	NO FURTHER ACTION	VOLUNTARY CLEANUP	902 UNION STREET	OAKLAND

2008-2017

ABOUT DATA

To avoid duplication, do not combine data from state and lab radon datasets. KS and NJ data are available under the "State Radon Data" indicator.



VERSION: AUG 17, 2023 (CURRENT)
- Article I. - Scope
- Article II. - Enforcement
- Article III. - Fees and Inspections
- Article IV. - Definitions
- Article V. - Habitable Space
- Article VI. - Structural
- Article VII. - Mechanical and Electrical
- Article VIII. - Exiting
- Article IX. - Fire Protection
- Article X. - Substandard and Public Nuisance Buildings
  - 15.08.340 - Substandard Buildings (HSC § 17920.3). modified
- Article XI. - Declaration of Public Nuisance—Substandard
- Article XII. - Administrative Hearing modified
- Article XIII. - Lead Hazard Control and Abatement
- Article XIV. - Delay of Enforcement for Accessory Dwelling Units
- Article XV. - Delay of Enforcement for

(Ord. No. 13575 , § 5(Exh. A), 12-10-2019; Ord. No. 13529, § 3, 4-16-2019; Ord. No. 13407, § 4(Exh. A), 12-13-2016)

15.08.420—15.08.460 - Reserved.

Article XIII. - Lead Hazard Control and Abatement

15.08.510 - Purpose and scope.

new

The purpose of this Article is to promote the health, safety, and general welfare of the people of Oakland by requiring the removal of lead hazards throughout the City. This Chapter shall apply to all buildings and portions thereof including the premises on which they are located, including dwellings, dwelling units, hotels, motels, guest rooms, childcare facilities, buildings open to the public, yards, soil, and any premises or areas inhabited or frequented by children. The property owner shall be responsible for the removal or the control of all lead hazards. The extent of the removal or the control of the lead hazard shall be determined by a lead risk assessment report prepared by a third-party State of California certified Lead Risk Assessor retained by the property owner.

(Ord. No. 13719 , § 5, 12-20-2022)

15.08.520 - Definitions.

new

"Abatement" means measures designed to permanently eliminate known lead hazards, including, but not limited to, the following:

1. The removal of lead-based paint from a building component, the replacement of a building component painted with a lead-based paint or the enclosure or encapsulation of lead-based paint;
2. Removal or covering of lead contaminated soil and dust;
3. Removal of any item found to be a lead hazard to a child;
4. All preparation, clean-up, worker protection, disposal, and post abatement clearance testing activities associated with such measures.

"Child" means any person who is under six (6) years of age.

"Encapsulation" means a method of abatement that involves the coating and sealing of surfaces with durable surface coatings specifically formulated to be elastic, able to withstand sharp and blunt impacts, long-lasting, and resilient, while also resistant to cracking, peeling, algae, fungus, and ultraviolet light, so as to prevent any part of lead-based paint from becoming part of house dust or otherwise accessible to children. Paint is not an encapsulant unless approved for such use by the U.S. Environmental Protection Agency or the State of California Department of Health Services.

"Enclosure" means a method of abatement that involves the resurfacing or covering of surfaces with durable materials such as gypsum board or paneling and sealing or caulking the edges and joints so as to prevent or control caulking, flaking, peeling, scaling, or loose lead-based paint from becoming part of house dust or otherwise accessible to children.

"Interim Controls" means strategies or measures to temporarily reduce a lead hazard to a child including, but not limited to, specialized cleaning, paint stabilization, painting, repairs and maintenance.

"Lead Hazards" includes deteriorated lead-based paint, lead-contaminated dust, and lead-contaminated soil, and also includes disturbing lead-based paint or lead contaminated soil without containment, or

National Flood Hazard Layer FIRMette

FEMA

122°13'26"W 37°48'17"N



122°12'48"W 37°47'49"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

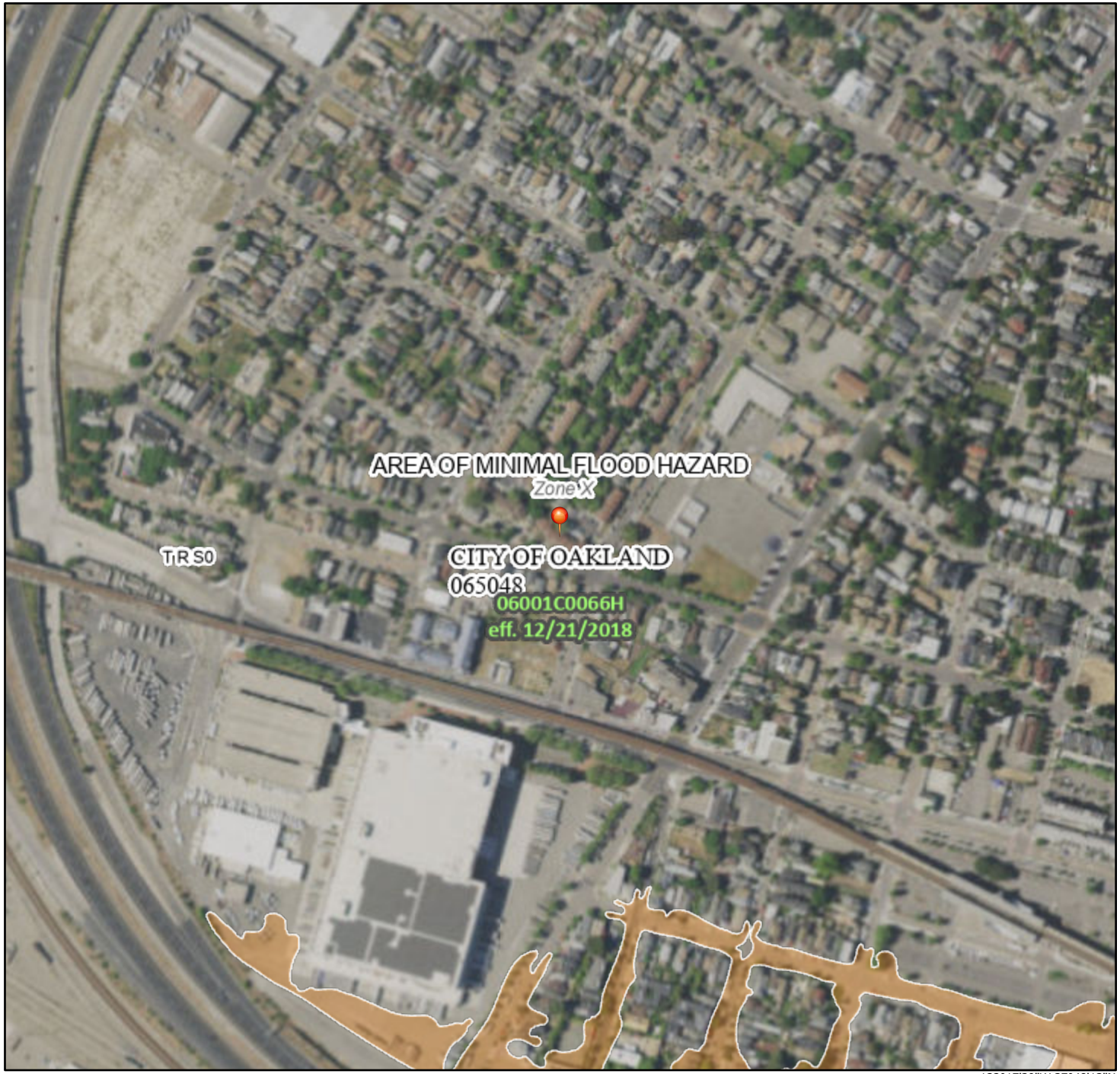
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/1/2023 at 5:28 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

122°18'16"W 37°48'42"N



122°17'39"W 37°48'13"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 — Cross Sections with 1% Annual Chance
- 17.5 — Water Surface Elevation
- Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

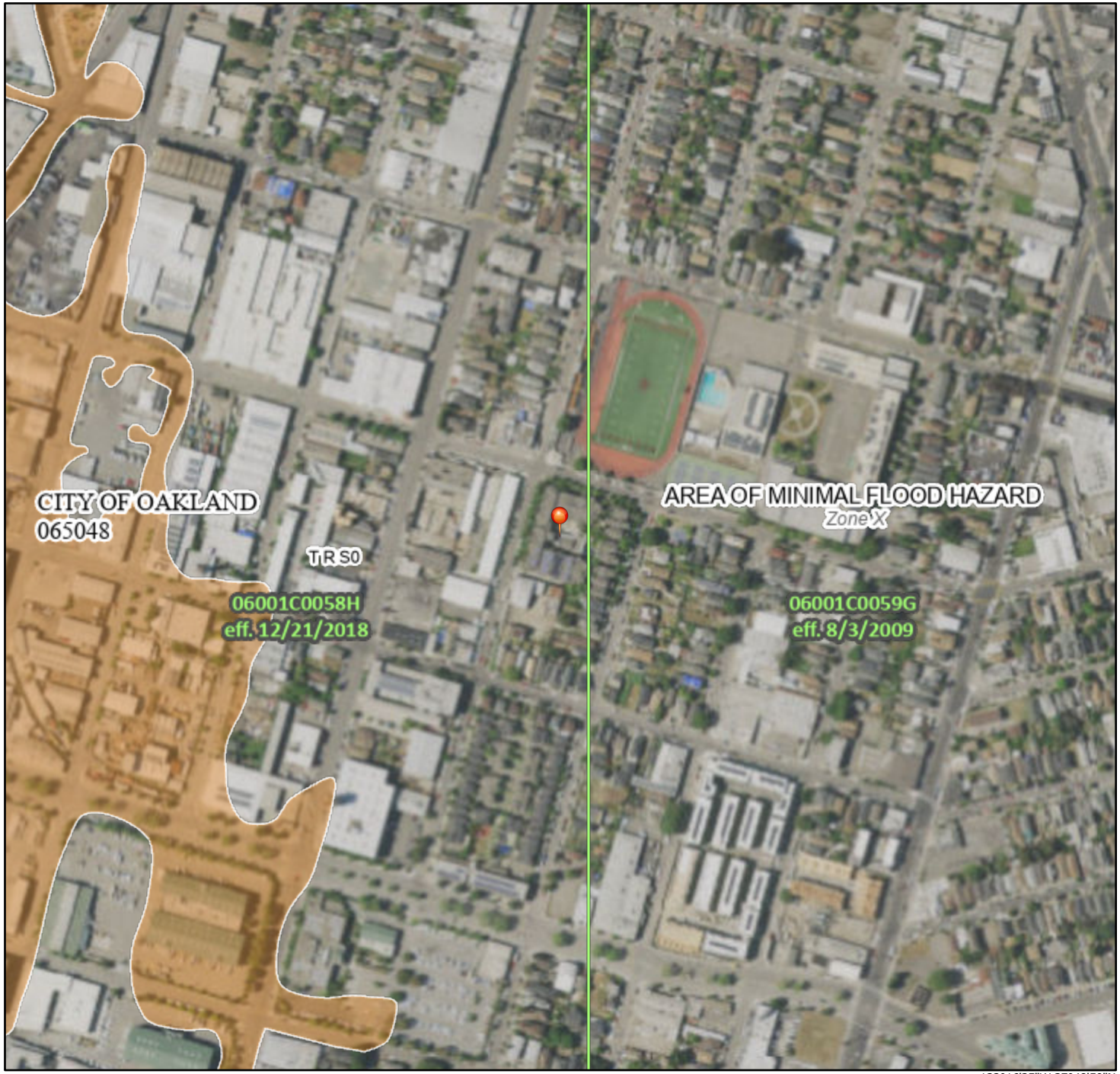
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/30/2023 at 4:48 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

122°17'12"W 37°49'19"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

122°16'35"W 37°48'50"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

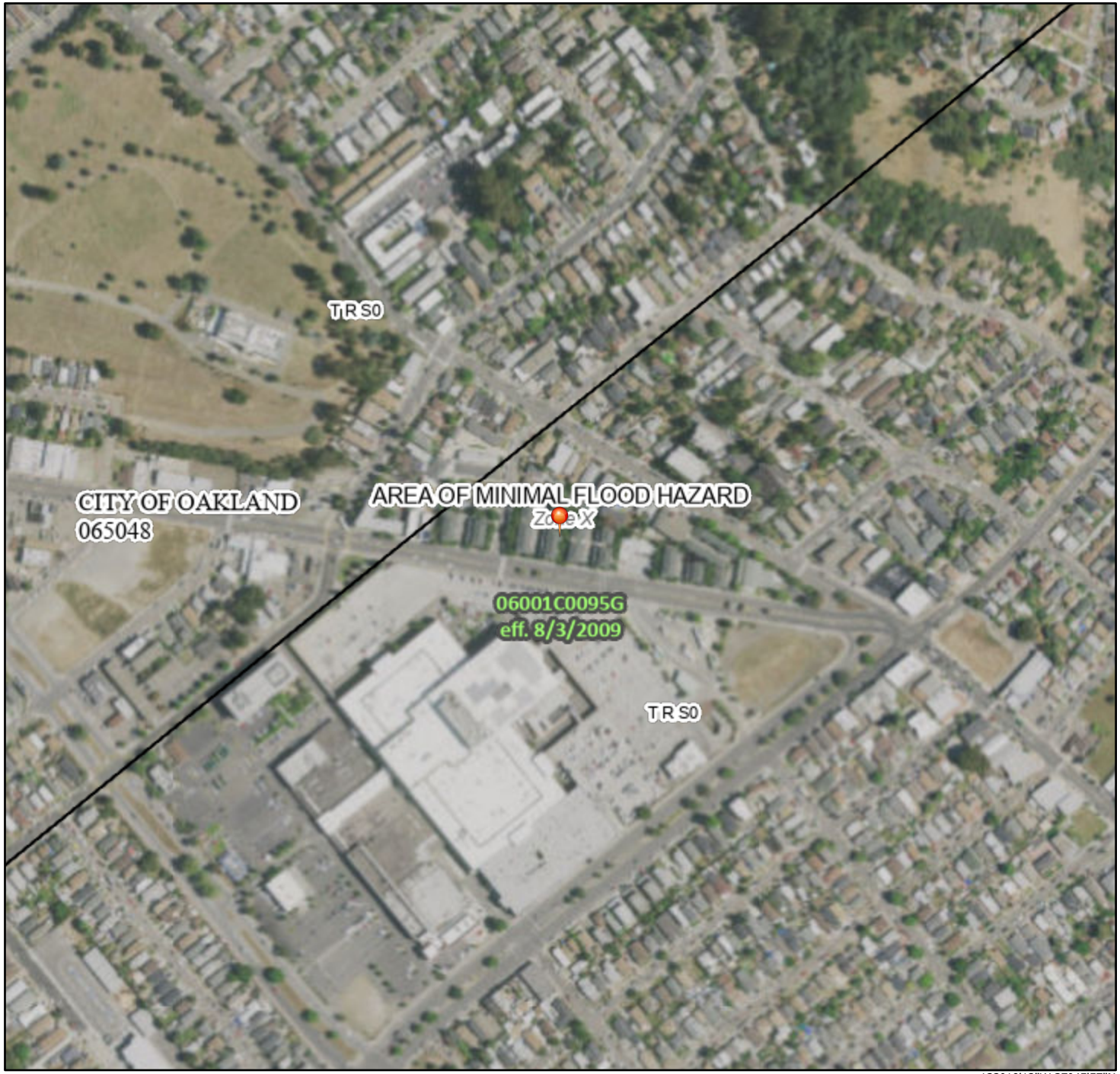
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/30/2023 at 5:36 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

122°10'50"W 37°46'26"N



122°10'12"W 37°45'57"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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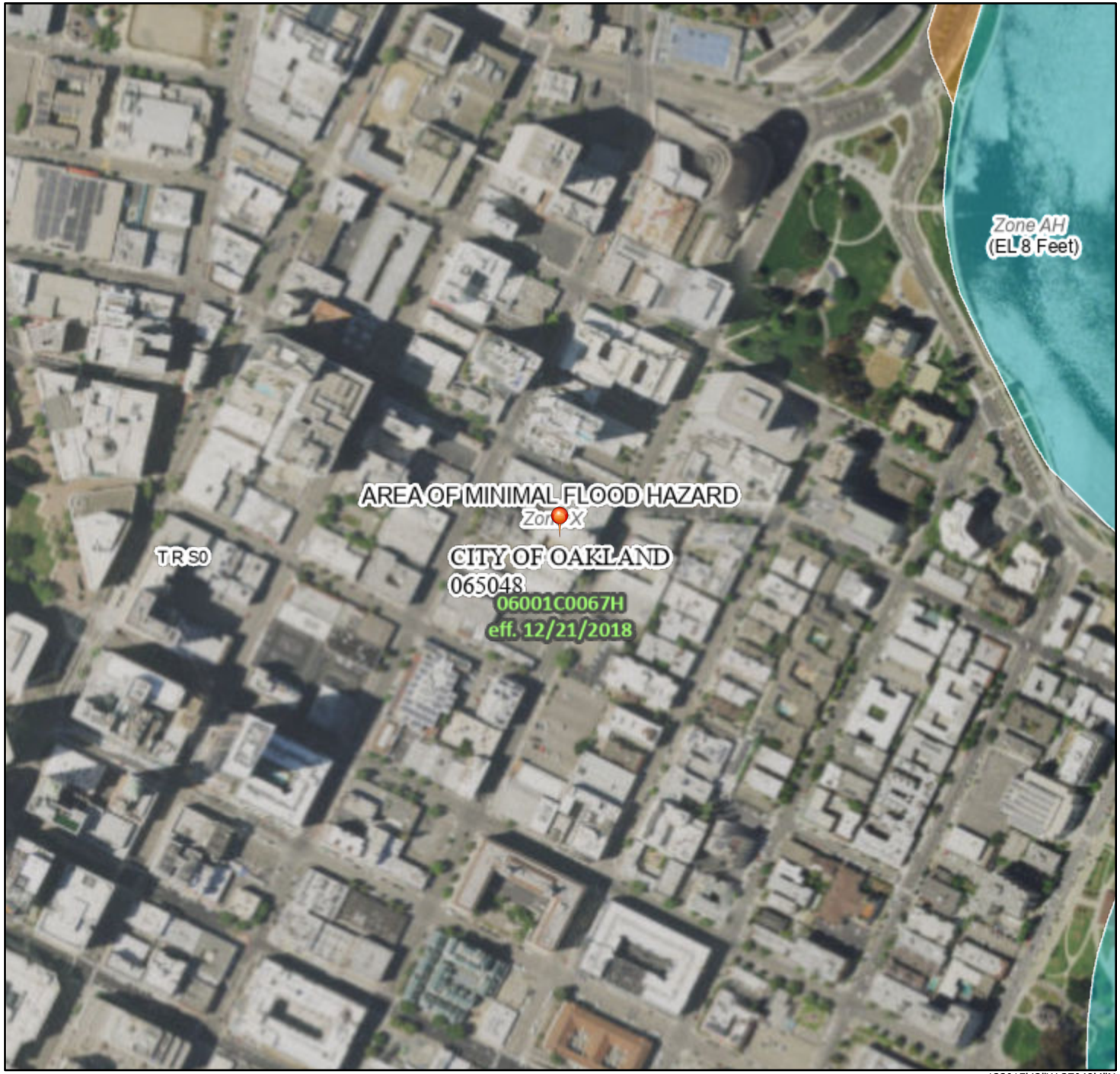
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/1/2023 at 5:15 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

122°16'19"W 37°48'32"N



122°15'42"W 37°48'4"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
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- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

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The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/30/2023 at 5:51 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

122°12'10"W 37°45'38"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

122°11'32"W 37°45'10"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
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OTHER AREAS
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- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/30/2023 at 5:11 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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PHILADELPHIA INSURANCE COMPANIES
A Member of the Tokio Marine Group
HOUSING INSURANCE SERVICES INC
PO BOX 189
CHESHIRE, CT 064100189

MAY 14, 2025

OAKLAND HOUSING AUTHORITY
1619 HARRISON ST
OAKLAND, CA 94612

Policy Number: 5010016386

Insured(s): OAKLAND HOUSING AUTHORITY
Property Location: 2001 MACARTHUR BLVD
OAKLAND, CA 94602-2261

Flood Insurance Policy Packet

This packet includes:

- **Your Flood Insurance Declarations Page**
- **A National Flood Insurance Program Summary of Coverage**
- **Claims Guidelines in Case of a Flood**

If you would like to electronically view or print a copy of the Standard Flood Insurance Policy, please visit https://phlyflood.manageflood.com, click View Important Flood Documents link and select from the list of documents. Your consent to this policy delivery option is assumed, unless you contact us to request a mailed or e-mailed copy of the policy.

If you would like a copy of the Standard Flood Insurance Policy e-mailed or mailed to you, please contact our customer service team at 877-721-9519 or phlyflood@torrentcorp.com.

Important Information About The National Flood Insurance Program

Federal law requires insurance companies that participate in the National Flood Insurance Program to provide you with the enclosed Summary of Coverage. It's important to understand that the Summary of Coverage provides only a general overview of the coverage afforded under your policy. You will need to review your flood insurance policy, Declarations Page, and any applicable endorsements for a complete description of your coverage. The enclosed Declarations Page indicates the coverage you purchased, your policy limits and the amount of your deductible.

You will soon receive additional information about the National Flood Insurance Program. This information will include a Claims Handbook, a history of flood losses that have occurred on your property as contained in FEMA's data base, and an acknowledgement letter.

If you have any questions about your flood insurance policy, please contact your agent or your insurance company.

CLAIM GUIDELINES IN CASE OF A FLOOD

For the protection of you and your family, the following claim guidelines are provided by the National Flood Insurance Program (NFIP). If you are ever in doubt as to what action is needed, consult your insurance representative.

Insurance Agent: HOUSING INSURANCE SERVICES INC
Agent's Phone Number: (203) 272-8220

• Notify us or your insurance agent, in writing, as soon as possible after the flood.

• Your claim will be assigned to an NFIP certified adjuster.

• Identify the claims adjuster assigned to your claim and contact him or her if you have not been contacted within 24 hours after you reported the claim to your insurance representative.

• As soon as possible, separate damaged property from undamaged property so that damage can be inspected and evaluated.

• To help the claims adjuster, take photographs of the outside of the premises showing the flooding and the damage and photographs of the inside of the premises showing the height of the water and the damaged property.

• Place all account books, financial records, receipts, and other loss verification material in a safe place for examination and evaluation by the claims adjuster.

• Work cooperatively with the claims adjuster to promptly determine and document all claim items. Be prepared to advise the claims adjuster of the cause and responsible party(ies) if the flooding resulted from other than natural cause.

• Make sure that the claims adjuster fully explains, and that you fully understand, all allowances and procedures for processing claim payments. This policy requires you to send us a signed and sworn-to, detailed proof of loss within 60 days after the loss.

• Any and all coverage problems and claim allowance restrictions must be communicated directly from the NFIP. Claims adjusters are not authorized to approve or deny claims; their job is to report to the NFIP on the elements of flood cause and damage.

At our option, we may accept an adjuster’s report of the loss instead of your proof of loss. The adjuster’s report will include information about your loss and the damages to your insured property.

PHILADELPHIA INSURANCE COMPANIES
A Member of the Tokio Marine Group

HOUSING INSURANCE SERVICES INC
PO BOX 189
CHESHIRE, CT 064100189

Agency Phone: (203) 272-8220

NFIP Policy Number: 5010016386
Company Policy Number: 5010016386
Agent: HOUSING INSURANCE SERVICES INC

Payor: INSURED
Policy Term: 05/25/2025 12:01 AM - 05/25/2026 12:01 AM
Policy Form: GENERAL PROPERTY

To report a claim visit or call us at: https://phlyflood.manageflood.com (888) 200-5603

NEW FLOOD INSURANCE POLICY DECLARATIONS

NATIONAL FLOOD INSURANCE PROGRAM

DELIVERY ADDRESS

OAKLAND HOUSING AUTHORITY
1619 HARRISON ST
OAKLAND, CA 94612

INSURED NAME(S) AND MAILING ADDRESS

OAKLAND HOUSING AUTHORITY
1619 HARRISON ST
OAKLAND, CA 94612

COMPANY MAILING ADDRESS

PHILADELPHIA INDEMNITY INSURANCE COMPANY
PO BOX 200584
DALLAS, TX 75320-0584

INSURED PROPERTY LOCATION

2001 MACARTHUR BLVD
OAKLAND, CA 94602-2261

BUILDING DESCRIPTION: ENTIRE APARTMENT BUILDING
BUILDING DESCRIPTION DETAIL: N/A

RATING INFORMATION

BUILDING OCCUPANCY: OTHER RESIDENTIAL BUILDING
NUMBER OF UNITS: N/A
PRIMARY RESIDENCE: NO
PROPERTY DESCRIPTION: CRAWLSPACE (ELEVATED OR NON-ELEVATED SUBGRADE CRAWLSPACE), 5 FLOOR(S)
PRIOR NFIP CLAIMS: 0 CLAIM(S)

REPLACEMENT COST VALUE: $6,364,368.00
DATE OF CONSTRUCTION: 01/01/1985
CURRENT FLOOD ZONE: A
FIRST FLOOR HEIGHT (FEET): 1.1
FIRST FLOOR HEIGHT METHOD: FEMA DETERMINED

MORTGAGEE / ADDITIONAL INTEREST INFORMATION

FIRST MORTGAGEE: **LOAN NO:** N/A

SECOND MORTGAGEE: **LOAN NO:** N/A

ADDITIONAL INTEREST: **LOAN NO:** N/A

DISASTER AGENCY: **CASE NO:** N/A
DISASTER AGENCY: N/A

RATE CATEGORY — RATING ENGINE

	COVERAGE	DEDUCTIBLE
BUILDING:	**$500,000**	**$1,250**
CONTENTS:	**N/A**	**N/A**

COVERAGE LIMITATIONS MAY APPLY. SEE YOUR POLICY FORM FOR DETAILS.
Please review this declaration page for accuracy. If any changes are needed, contact your agent.
Notes: The "FULL RISK PREMIUM" is for this policy term only. It is subject to change annually if there is any change in the rating elements. Your property's NFIP flood claims history can affect your premium, for questions please contact your agency. "MITIGATION DISCOUNTS" may apply if there are approved flood vents and/or the machinery & equipment is elevated appropriately. To learn more about your flood risk, please visit FloodSmart.gov/floodcosts.

COMPONENTS OF TOTAL AMOUNT DUE

BUILDING PREMIUM:	$2,689.00
CONTENTS PREMIUM:	$0.00
INCREASED COST OF COMPLIANCE (ICC) PREMIUM:	$51.00
MITIGATION DISCOUNT:	($0.00)
COMMUNITY RATING SYSTEM REDUCTION:	($0.00)
FULL RISK PREMIUM:	**$2,740.00**
ANNUAL INCREASE CAP DISCOUNT:	($0.00)
STATUTORY DISCOUNTS:	($0.00)
DISCOUNTED PREMIUM:	**$2,740.00**
RESERVE FUND ASSESSMENT:	$493.00
HFIAA SURCHARGE:	$250.00
FEDERAL POLICY FEE:	$47.00
PROBATION SURCHARGE:	$0.00
TOTAL ANNUAL PREMIUM:	**$3,530.00**

IN WITNESS WHEREOF, we have signed this policy below and hereby enter into this insurance agreement.

John Glomb / President and CEO

Edward Sayago / VP & Deputy CLO

This declarations page along with the Standard Flood Insurance Policy Form constitutes your flood insurance policy.

Zero Balance Due - This Is Not A Bill

Policy issued by: PHILADELPHIA INDEMNITY INSURANCE COMPANY

Insurer NAIC Number: 18058

Printed 05/14/2025

PHILADELPHIA INSURANCE COMPANIES

PRIVACY POLICY NOTICE

Philadelphia Indemnity Insurance Company

The Philadelphia Insurance Companies value your privacy and we are committed to protecting personal information that we collect during the course of our business relationship with you.

The collection use and disclosure of certain nonpublic personal information are regulated by law.

This notice is for your infomation only and requires no action on your part. It will inform you about the types of information that we collect and how it may be disclosed. this does not reflect a change in the way we do business or handle your information.

Information We Collect:

We collect personal information about you from the following sources.

- Applications or other forms such as claims forms or underwriting questionairs completed by you;
- Information about your transactions with us, our affiliates or others; and
- Depending on the type of transaction you are conducting with us, information may be collected from consumer reporting agencies, health care providers, employers and other third parties.

Information We Disclose:

We will only disclose the information described above to our affiliates and non-affiliated thrid parties, as permitted by law, and when necessary to conduct our normal business activities.

For Example we may make disclosures to the following types of third parties:

- Your agent or broker (producer)
- Parties who perform a business, professional or insurance functions for our company, including our reinsurance companies;
- Independent claims adjusters, investigators, attorneys, other insurers or medical care providers who need infomation to investigate, defend or settle a claim involving you;
- Regulatory agencies in connection with the regulation of our business; and
- Lienholders, mortgagees, lessors or other persons shown on our records as having a legal or beneficial interest in your policy.

We do not sell your information to others for marketing purposes. We do not disclose the personal information of persons who have ceased to be our customers.

Protection of Information:

The Philadelphia Insurance Companies maintain physical, electronic and procedural safegaurds that comply with state andd federal regulations to protect the confidentiality of your personal information. We also limit employee access to personally identifiable information to those with a business reason for knowing such information.

Use of Cookies:

We may place electronic "cookies" in the browser files of your computer when you access this website. Cookies are text files placed on your computer to enable our systems to recognize your browser and to tailor the information on our website to your interests. We or our third-party service providers or business partners may place cookies on your computer's hard drive to enable us to match personal information that we maintain about you so that we are able to prepopulate on-line forms with your information. We also use cookes to help us analyze use of our website to understand which areas of our site are most useful to you. You may refuse the use of cookies by selecting the appropriate settings on your browser. Please note that if you do this, you may not be able to use the full functionality of the website.

How to Contact Us:

Philadelphia Insurance Companies,
One Bala Plaza, Suite 100, Bala Cynwyd, PA 19004
Attention: Chief Privacy Officer
Phone (877) 438 - 7459

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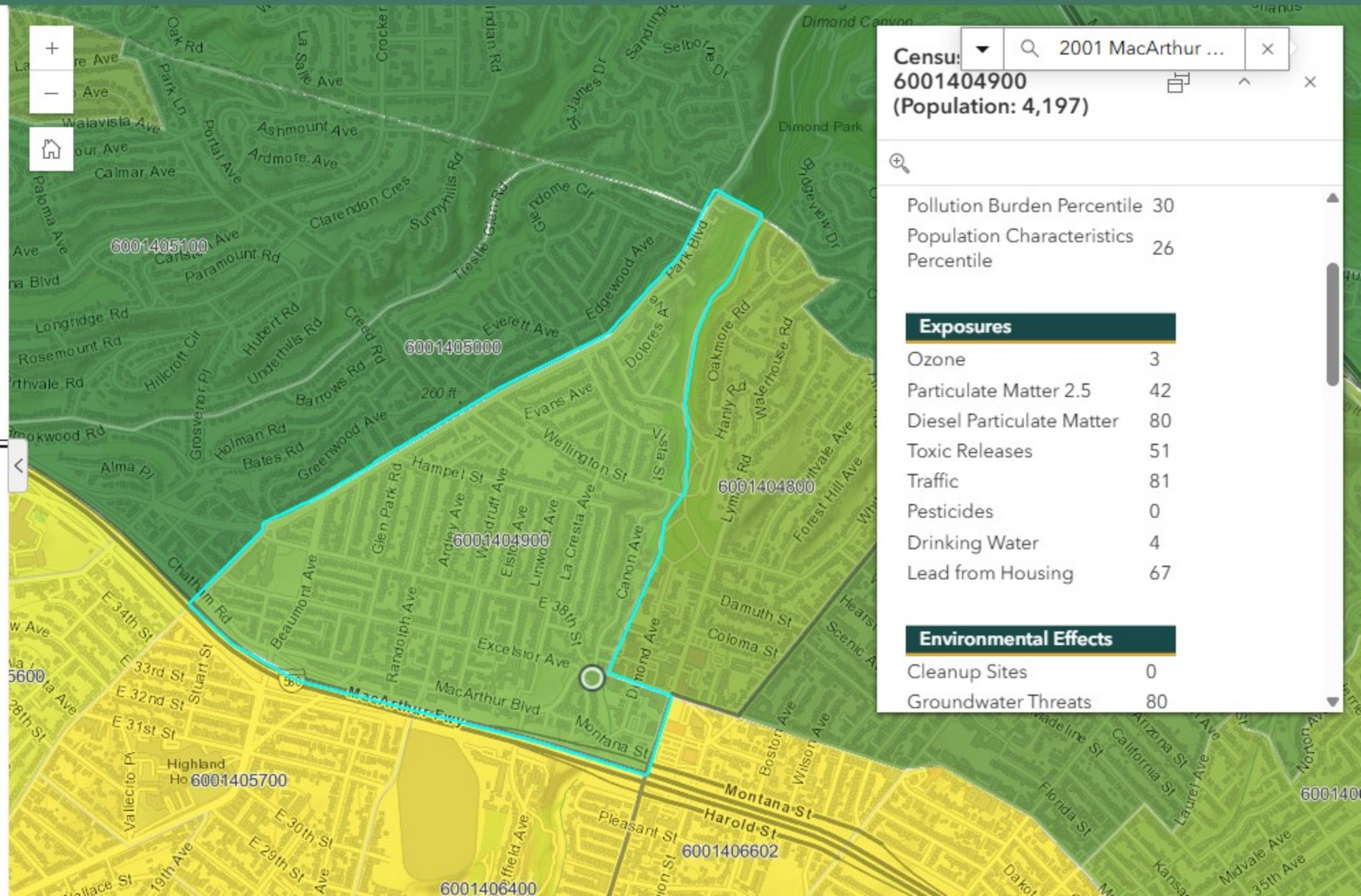
How to use this map

- Use your mouse or touchpad to pan around.
- Zoom in/out with a mouse wheel or the +/- icons.
- Search by location or census tract number with the **search icon**.
- Click on a census tract to view additional information in the pop-up window.
- Dock the pop-up window to the side of the screen by clicking the **dock** icon.
- Export a map view that includes the legend and popup using the **screenshot** widget.
- Learn more about CalEnviroScreen 4.0 and how this map was created **here**.
- Click the links in the header to view additional maps related to CalEnviroScreen 4.0.

Overall Percentile

CalEnviroScreen 4.0 Results

- >90 - 100 (Highest Scores)
- >80 - 90
- >70 - 80
- >60 - 70
- >50 - 60
- >40 - 50
- >30 - 40
- >20 - 30
- >10 - 20



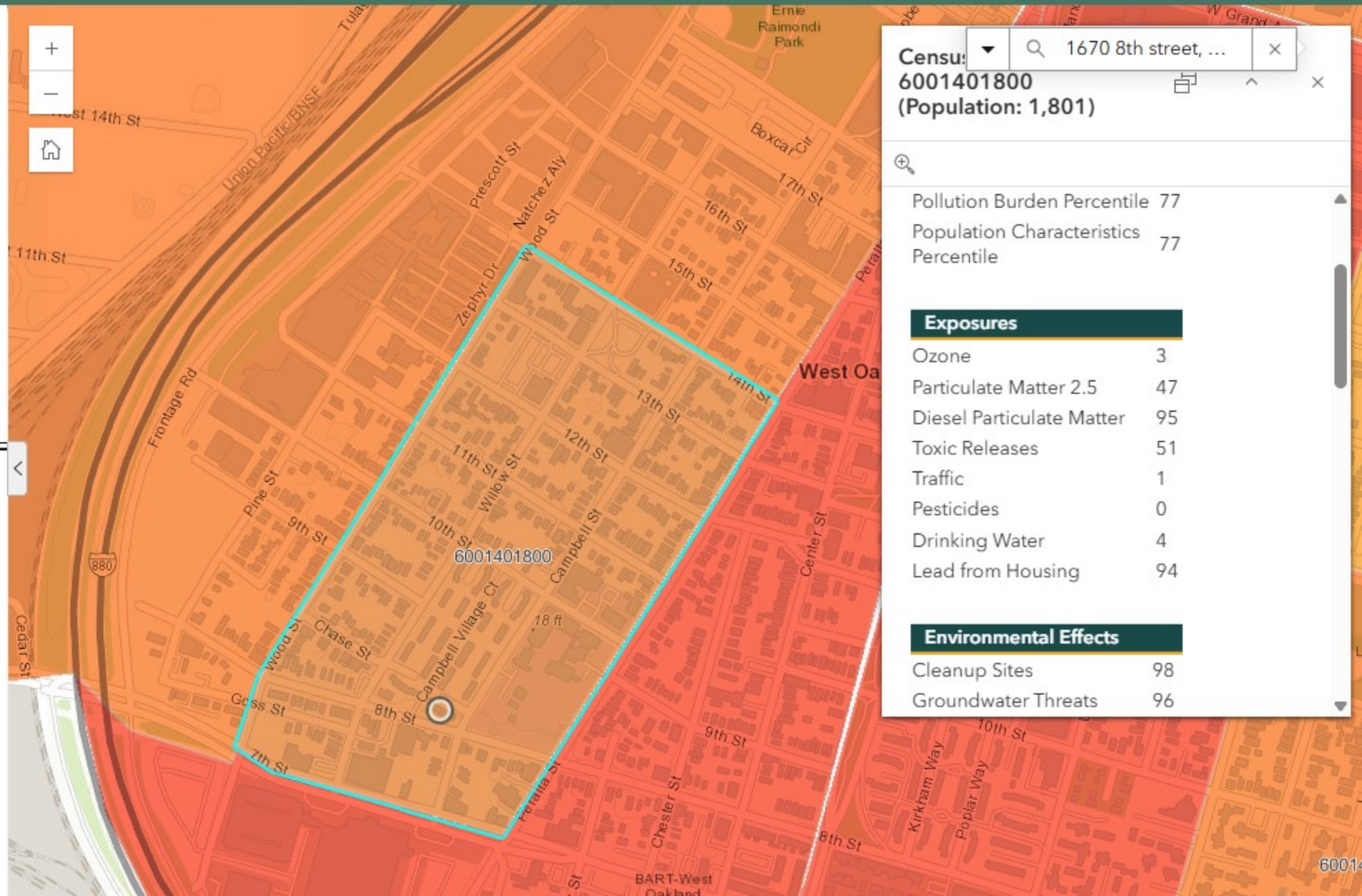
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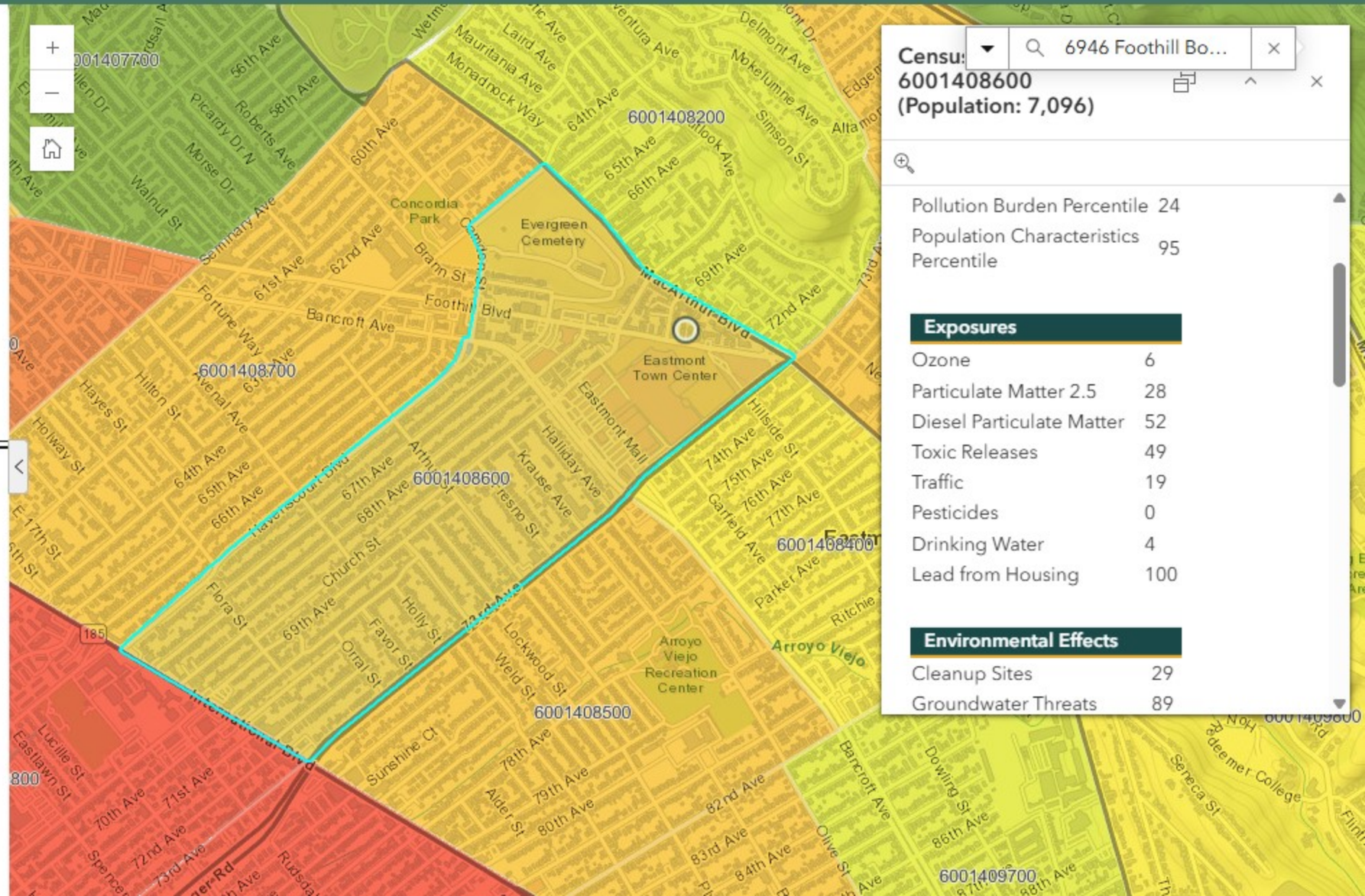
How to use this map

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- >50 - 60
- >40 - 50
- >30 - 40
- >20 - 30
- >10 - 20



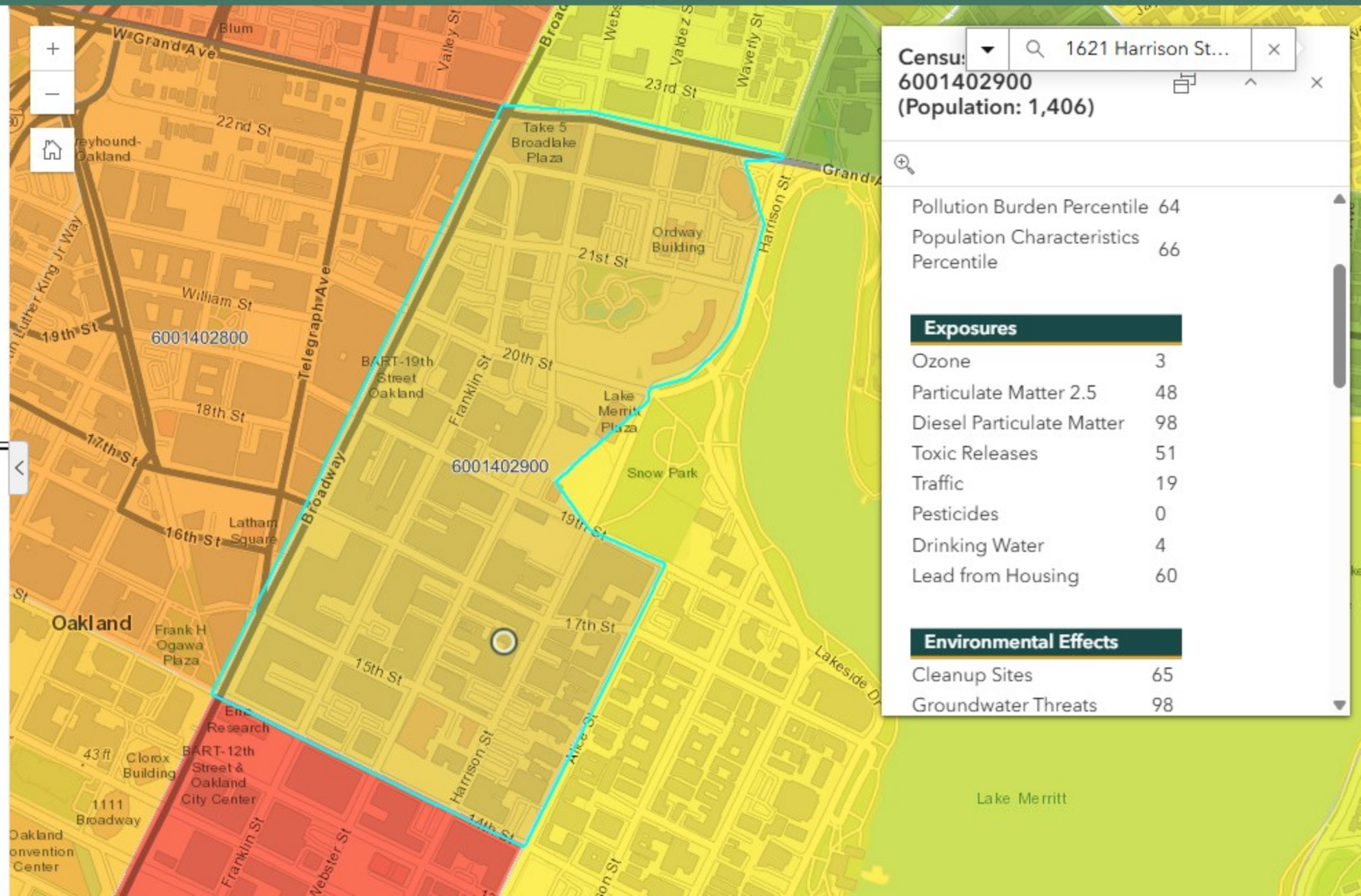
How to use this map

- Use your mouse or touchpad to pan around.
- Zoom in/out with a mouse wheel or the +/- icons.
- Search by location or census tract number with the **search icon**.
- Click on a census tract to view additional information in the pop-up window.
- Dock the pop-up window to the side of the screen by clicking the **dock** icon.
- Export a map view that includes the legend and popup using the **screenshot** widget.
- Learn more about CalEnviroScreen 4.0 and how this map was created **here**.
- Click the links in the header to view additional maps related to CalEnviroScreen 4.0.

Overall Percentile

CalEnviroScreen 4.0 Results

- >90 - 100 (Highest Scores)
- >80 - 90
- >70 - 80
- >60 - 70
- >50 - 60
- >40 - 50
- >30 - 40
- >20 - 30
- >10 - 20



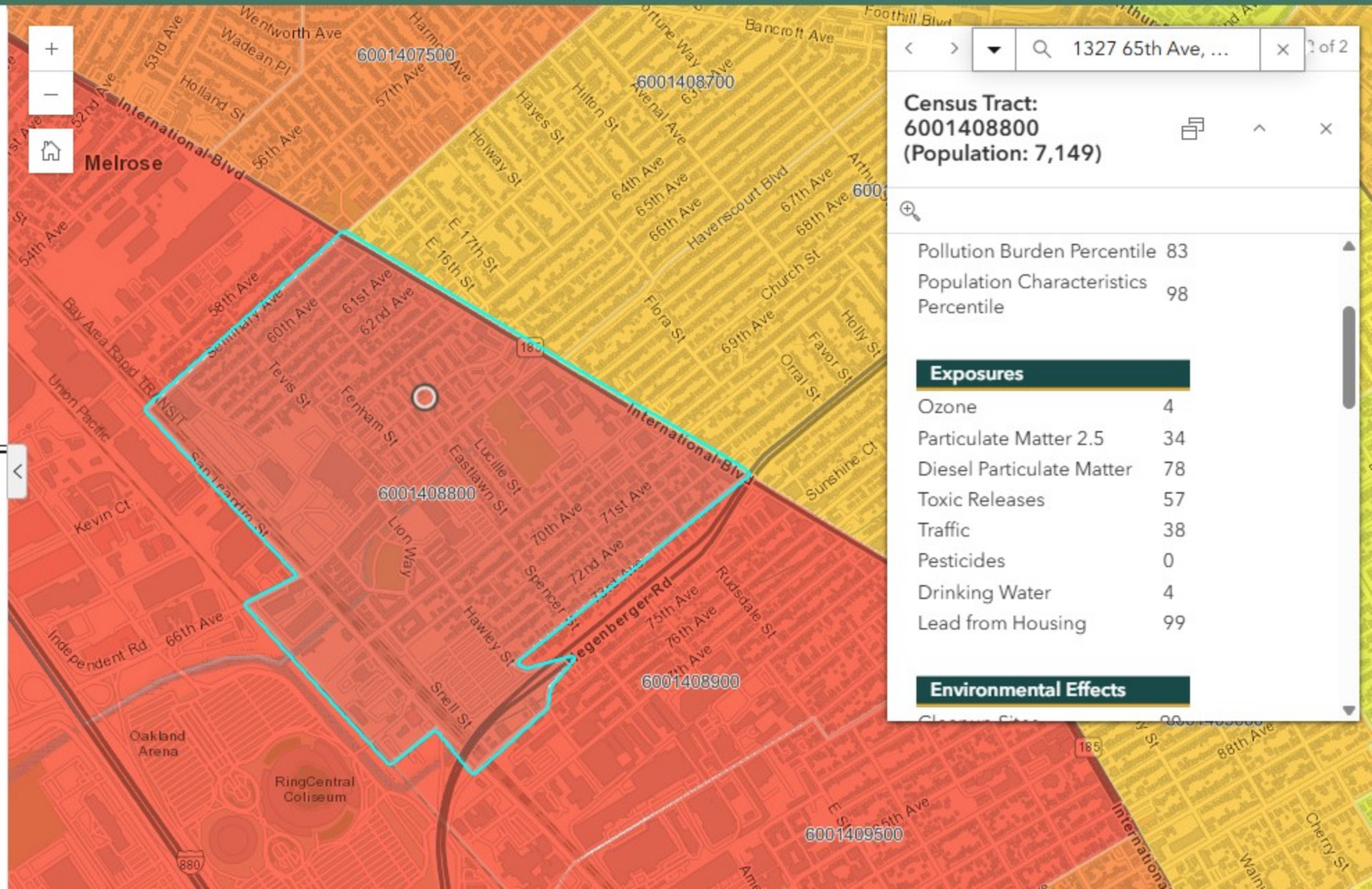
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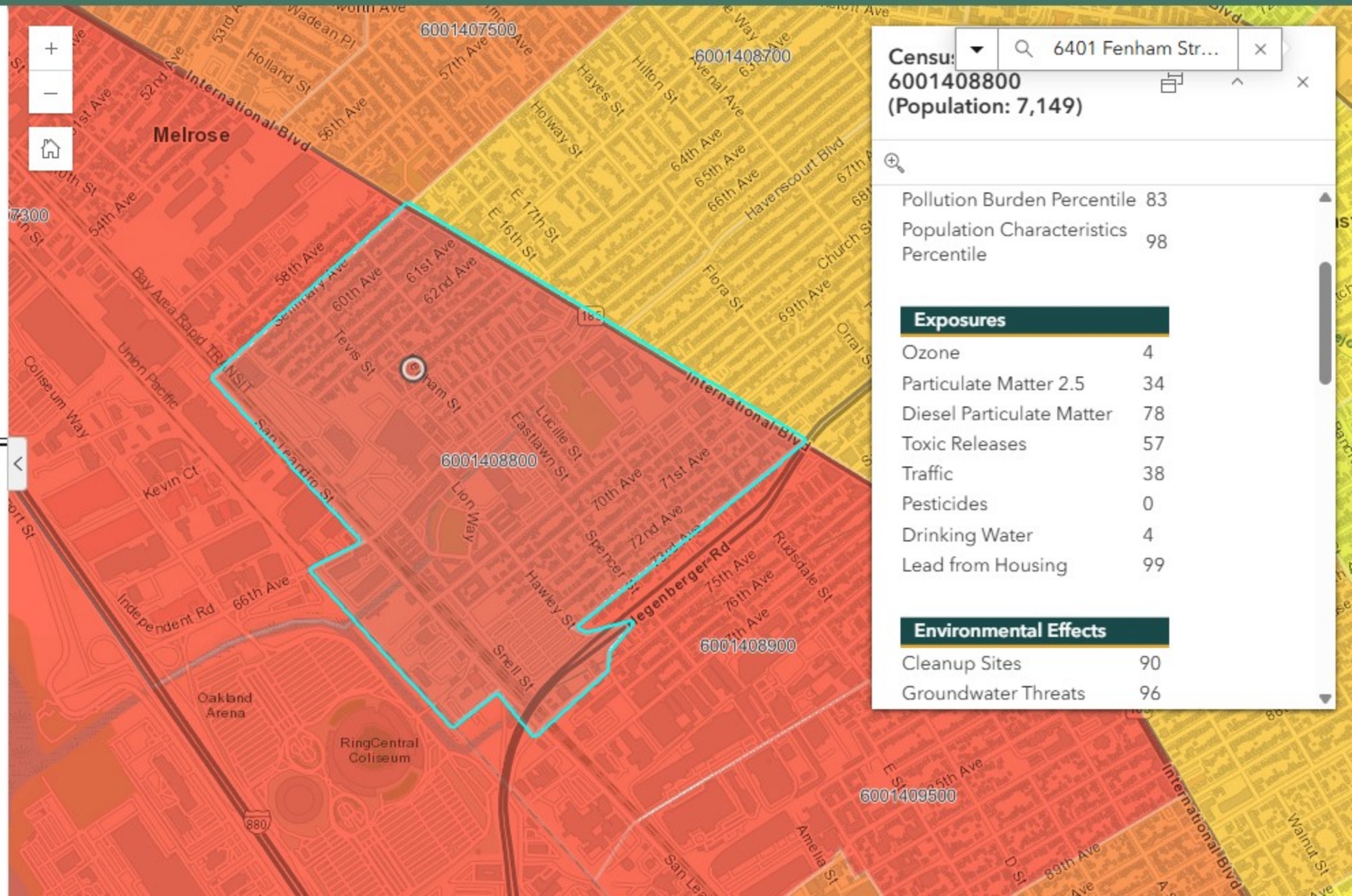
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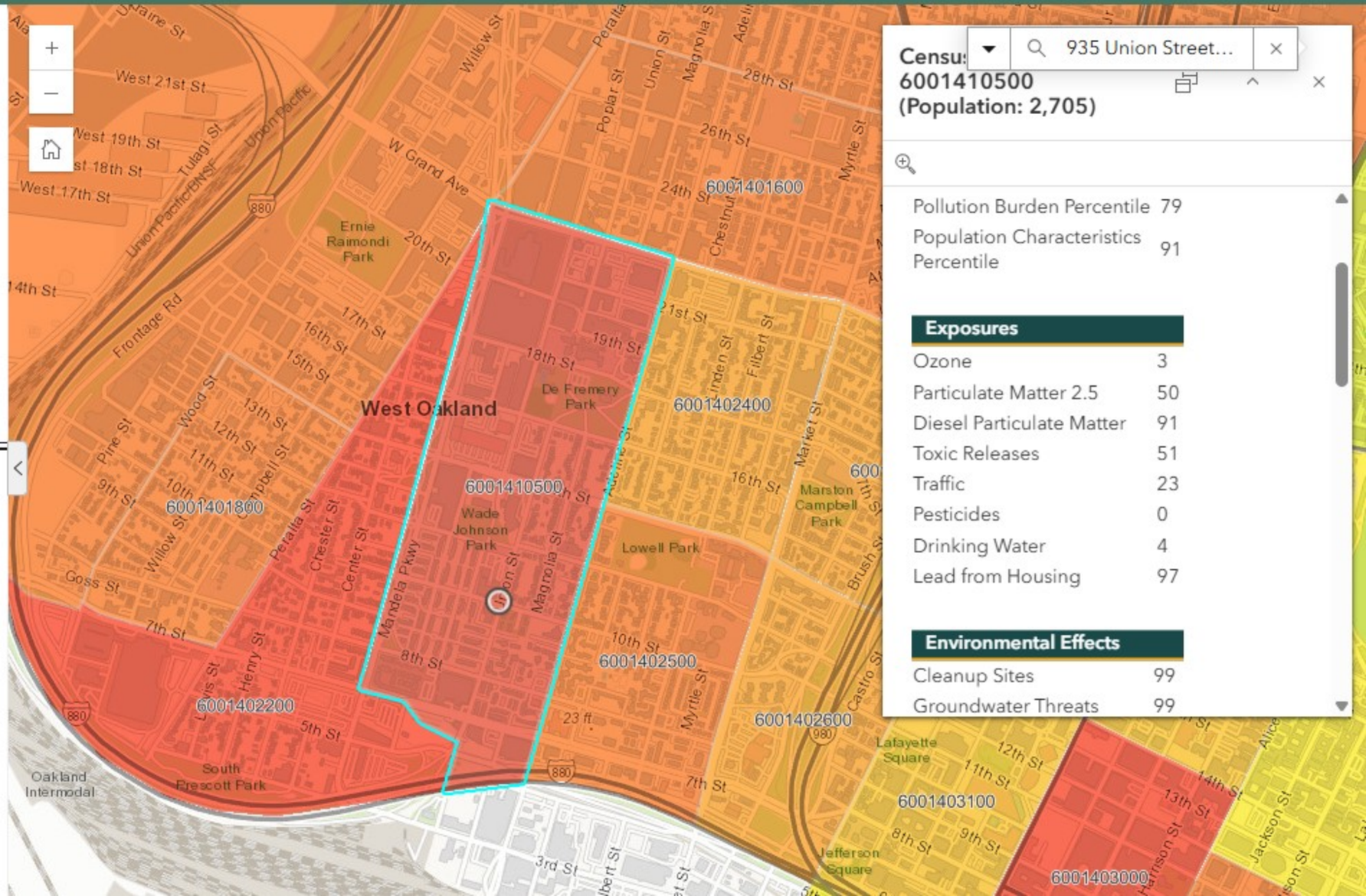
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- >80 - 90
- >70 - 80
- >60 - 70
- >50 - 60
- >40 - 50
- >30 - 40
- >20 - 30
- >10 - 20




Blackberry Bistro
Satellite Senior Home
Les Petits Francophones
Geraldine Lim, DDS & Eric Yabu, DDS, Inc
Glenfield Ave
Townsend Ave
La Cresta Ave
Park Blvd
Wellington St
Everett Ave
Vista St
Duck Pond
Hampel St
Tanja Odzak-Goppold, Realtor, Our East Bay...
Glenview Elementary School
Rhino Builders
(Dimond Canyon)
Dimond Canyon Trail
Hanly Rd
Waterhouse Rd
Friends of Sausal Creek Native Plant...
Suzanne Drolet Yoga Therapy
Fruitvale Ave
Forest Hill Ave
Lions Pool at Dimond Park
Dimond Park
Creekside hiking trails & a public pool
Park Restrooms
Lyman Rd
Big Family Movers - Moving Company
Whittle Ave
Brighton Ave
Glen Park Rd
Randolph Ave
Ardley Ave
Woodruff Ave
Elston Ave
Linwood Ave
Canon Ave
Sausal Creek
Dimond Tot Lot
Voci Women's Vocal Ensemble
Bright Minds Childcare and Preschool
Dimond Park Tennis Courts
Manalo Tennis Solutions
Delmer St
Wilbur St
One Big Love Art Camp
Empilates
Anti-anxiety coaching
Ketubot By Naomi
Catalyst Club | ADHD Community
Excelsior Ave
St Paul Lutheran Church
Excelsior German Center
Oakland Montessori School
Damuth St
Sequoia Elementary School
Linfanzia Daycare
Scenic Ave
Coloma St
Lincoln Ave
Hearst Ave
Laguna Ave
Evers Ave
Melissa Ford Cox Nutrition
Community Realty Property...
St. Louis Veterinary Clinic
Amazon Locker - Laurence
Safeway
DogifurLux
United Fencers of Oakland
Red Bud Florals Florist of the East Bay:...
Florist
Grand Lake Kitchen - Dimond
American • $$
E 38th St
Altenheim Senior Housing
KANNAseed Dispensary Oakland
Flower Lounge
Chinese • $
Dimond Slice Pizza
Pizza • $
Adell Ct
Lotus Cleaning Services
7 Seas Food & Liquor
Liquor store
Mohka House
May Ct
MacArthur Blvd
Lincoln Court Apartments
Maries African Hair Braiding
Bombera
Mexican • $$
Konstantin John MD, MPH
Monte Tavor - Laguna
Montana St
Dimond Canyon
Bienati Way
Fruitvale Ave
Creature Comfort Holistic
Dallas Liquor
Liquor store
Kasper's Hot Dogs
A Little Off The Top Barber Sh
Palmetto St
Champion St
Boston Ave
CVS
Drug store
Sing Thing Family Singing: Sandi Morey
Oakland City Church
Rhoda Ave
Coolidge Ave
Delaware St
Grace Chapel Foursquare Church
Harold St
Woodbine Ave
Tommy's Flowers
Florist
St. Jarlath Church
Pleasant St
Castello St
Notes Music Academy
Francisco Mendoza tree service
Piedmont Painting
Sheffield Ave
Sausal St
La Hacienda Real Taco Truck
Mexican
Redwood Day School
Reservoir Baseball Diamond
Central Reservoir
E 32nd St
E 31st St
22nd Ave
23rd Ave
580
22B
23
Arthur Fwy
MacArthur Fwy
Harold St
Lincoln Ave
Monarch
Exquisi
Damuth St
Scenic Ave
Coloma St
Hearst Ave
Laguna Ave
Whittle Ave
Delmer St
Wilbur St
Lincoln Ave
Carl
Tiffin
Waterhouse Rd
Hanly Rd
Dimond Canyon Trail
Vista St
Everett Ave
Wellington St
Hampel St
Park Blvd
Glenfield Ave
Townsend Ave
La Cresta Ave
Evans Ave
Glen Park Rd
Brighton Ave
Randolph Ave
Ardley Ave
Woodruff Ave
Elston Ave
Linwood Ave
Canon Ave
Sausal Creek
Lyman Rd
Fruitvale Ave
Whittle Ave
Forest Hill Ave
Fruitvale Ave
Hampel St
La Cresta Ave
Park Restrooms

6946 Foothill Blvd, Oakland, CA 94605, USA

LIMIT TO SITES WITHIN 1000 FEET OF THIS LOCATION GO

REMOVE SEARCH RADIUS

LEGEND - CHOOSE MORE SITES

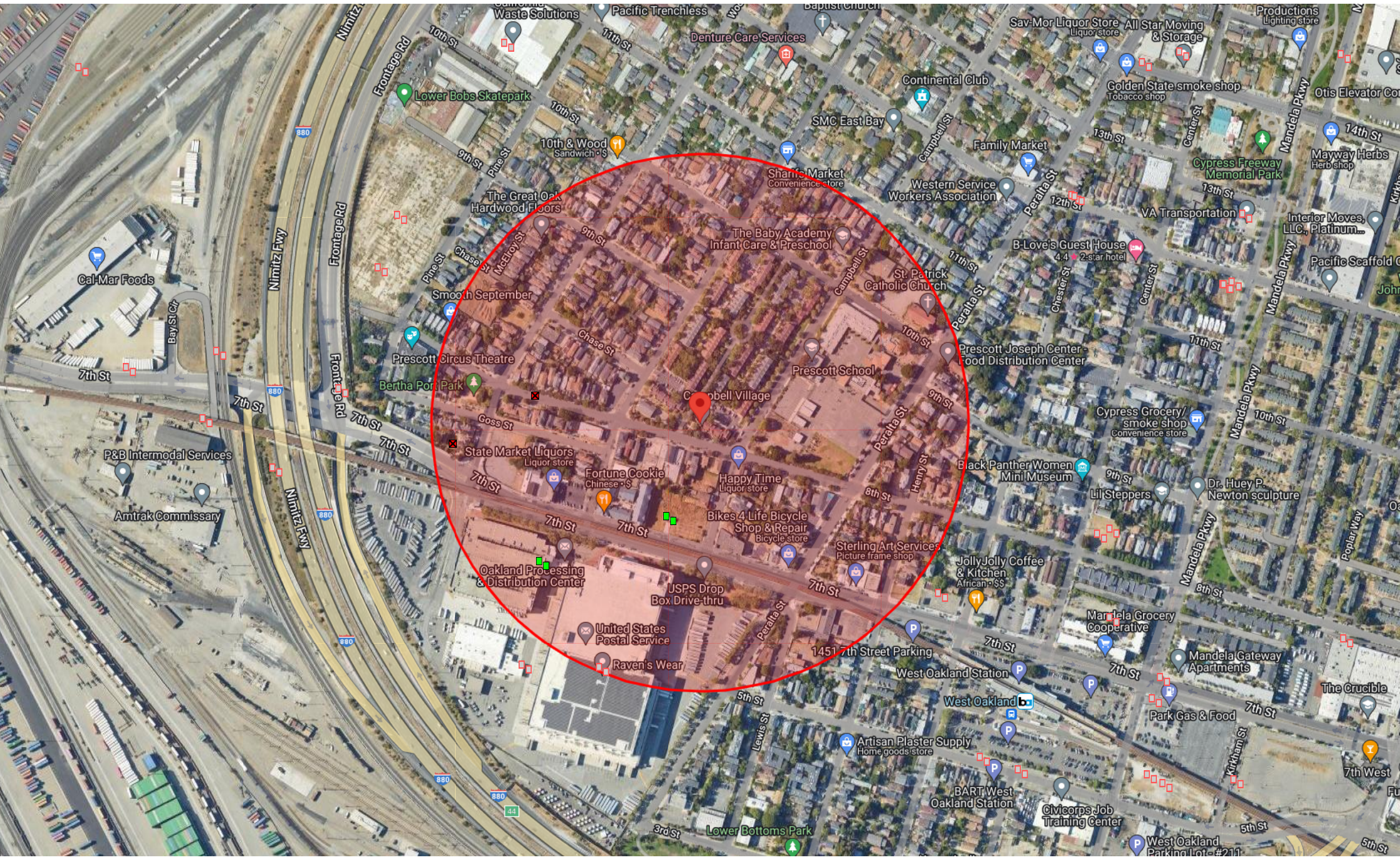
- LUST Cleanup Sites - REMOVE
- Cleanup Program Sites - REMOVE
- Military Cleanup Sites - REMOVE
- Military Privatized Sites - REMOVE
- Military UST Sites - REMOVE

☒ *Signifies a Closed Site*

SITES VISIBLE ON MAP - CHOOSE FIELDS

SITE NAME	STATUS
BETTER HOMES REALTY	COMPLETED - CASE CLOSED
CITY OF OAKLAND FIRE STATION #23	COMPLETED - CASE CLOSED
EASTMONT MALL	COMPLETED - CASE CLOSED
JC PENNY / FIRESTONE	COMPLETED - CASE CLOSED
SPARKLE CLEANERS	OPEN - SITE ASSESSMENT

Map data ©2023 Imagery ©2023 Airbus, CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO 50 m Report a map error



LEGEND - CHOOSE MORE SITES

- LUST Cleanup Sites - REMOVE
- Cleanup Program Sites - REMOVE
- Military Cleanup Sites - REMOVE
- Military Privatized Sites - REMOVE
- Military UST Sites - REMOVE

☒ *Signifies a Closed Site*

ACTIVE MAP COVERAGES:

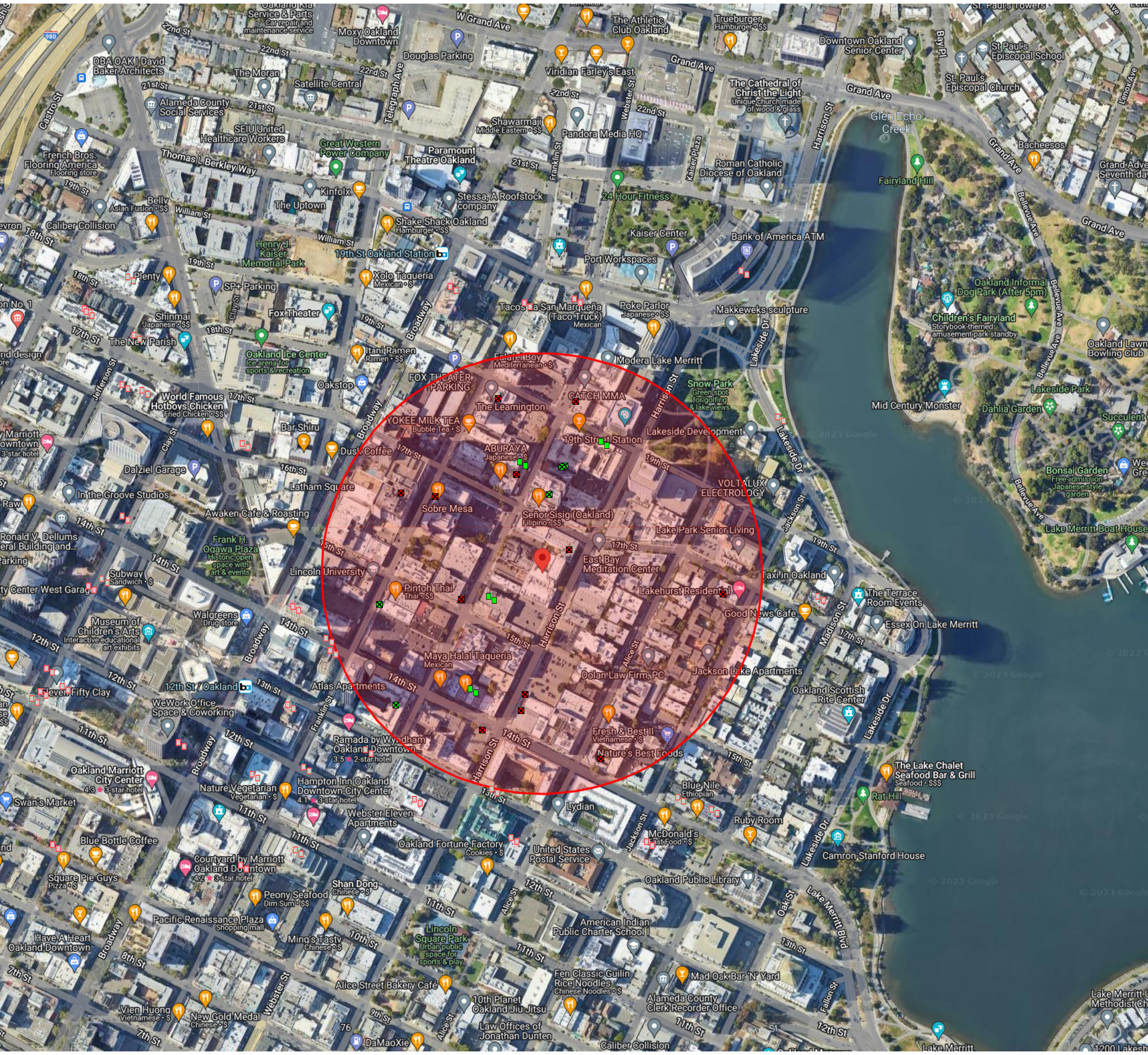
- Military Bases - REMOVE

SITES VISIBLE ON MAP - CHOOSE FIELDS

SITE NAME	STATUS
7TH & CAMPBELL	OPEN - SITE ASSESSMENT
CHURCHS FRIED CHICKEN / CALTRANS CYPRESS AREA 2	COMPLETED - CASE CLOSED
GOSSWOOD HOUSING ASSOCIATION	COMPLETED - CASE CLOSED
USPS - MAIN POST OFFICE ELEVATOR	OPEN - SITE ASSESSMENT

Map data ©2023 50 m Report a map error

Sites Shown on Map: 84 Total Sites 26 Open Sites 58 Closed Sites 0 Sites w/Water Quality Data



LEGEND - CHOOSE MORE SITES
- LUST Cleanup Sites - REMOVE
- Cleanup Program Sites - REMOVE
- Military Cleanup Sites - REMOVE
- Military Privatized Sites - REMOVE
- Military UST Sites - REMOVE

☒ *Signifies a Closed Site*

ACTIVE MAP COVERAGES:
- Military Bases - REMOVE

SITES VISIBLE ON MAP - CHOOSE FIELDS

SITE NAME	STATUS
1510 WEBSTER ST REDEVELOPMENT	OPEN - REMEDIATION
1700 WEBSTER LLC (330 17TH STREET)	COMPLETED - CASE CLOSED - LAND USE RESTRICTIONS
A. BACHARACH TRUST & B. BORSUK	COMPLETED - CASE CLOSED
BUTTNER PROPERTY	COMPLETED - CASE CLOSED
CHEVRON #9-0020	COMPLETED - CASE CLOSED
CHEVRON #9-4816	COMPLETED - CASE CLOSED
DOUGLAS PARKING CO	COMPLETED - CASE CLOSED
FRANK MAR COMMUNITY HOUSING PROJECT	COMPLETED - CASE CLOSED
FRANKLIN HOME HEATING	COMPLETED - CASE CLOSED
IDEAL CLEANERS	OPEN - SITE ASSESSMENT

Map data ©2023 Imagery ©2023 Airbus, CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO 50 m Report a map error

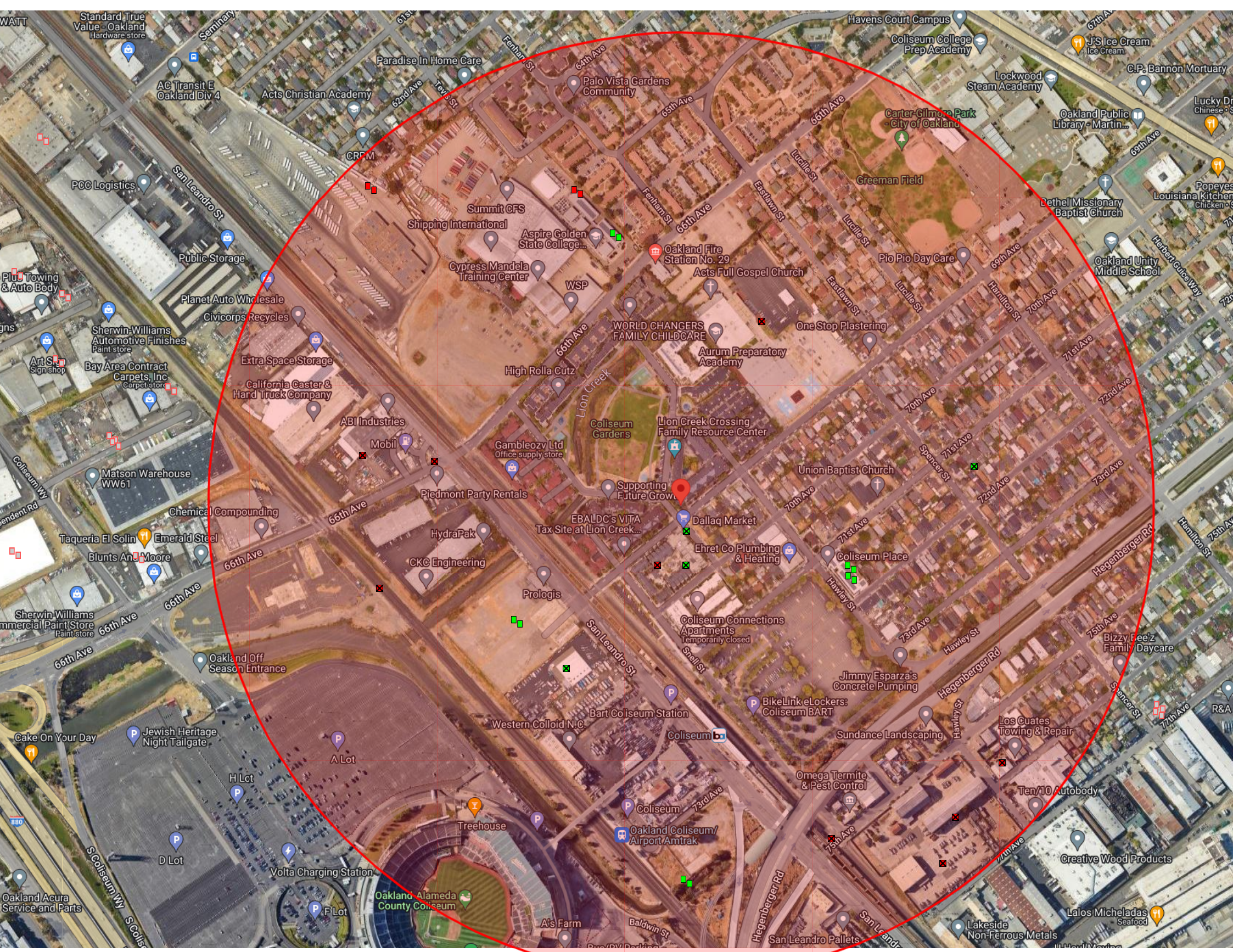


LEGEND - CHOOSE MORE SITES
- LUST Cleanup Sites - REMOVE
- Cleanup Program Sites - REMOVE
- Military Cleanup Sites - REMOVE
- Military Privatized Sites - REMOVE
- Military UST Sites - REMOVE

☒ *Signifies a Closed Site*

LIST SITES VISIBLE ON MAP

Map data ©2023 Imagery ©2023 Airbus, CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO 50 m
Report a map error



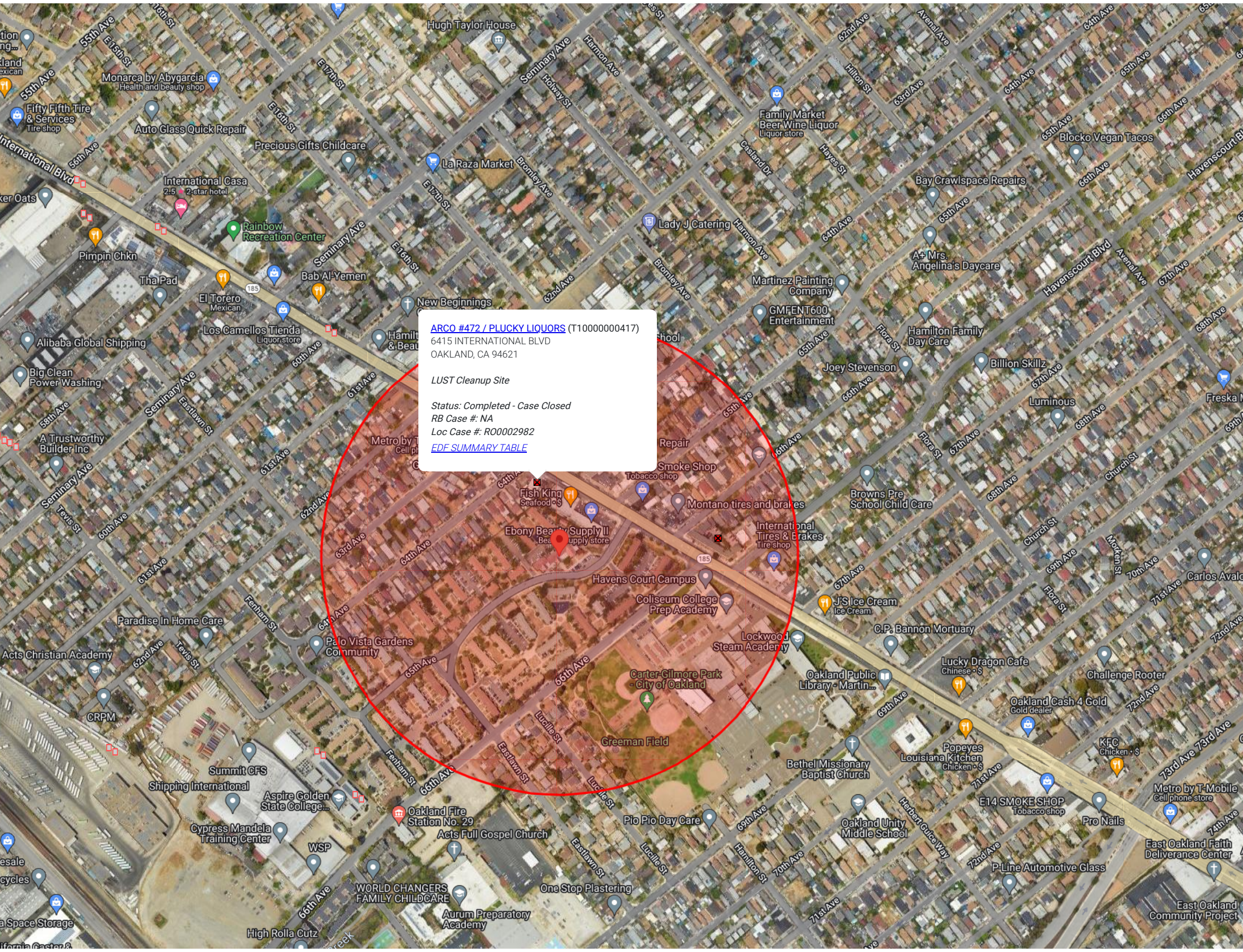
LEGEND - CHOOSE MORE SITES
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- Military Cleanup Sites - REMOVE
- Military Privatized Sites - REMOVE
- Military UST Sites - REMOVE

☒ *Signifies a Closed Site*

SITES VISIBLE ON MAP - CHOOSE FIELDS

SITE NAME	STATUS
AC TRANSIT	OPEN - REMEDIATION
ACE RECYCLING INC	COMPLETED - CASE CLOSED
ACTS FULL GOSPEL CHURCH	COMPLETED - CASE CLOSED
ASPIRE PUBLIC SCHOOLS	OPEN - REMEDIATION
BOSTRUM BERGER METAL PRODUCTS / WEBER PROPERTY	COMPLETED - CASE CLOSED
CHEVRON #9-2338	COMPLETED - CASE CLOSED
CITY OF OAKLAND FIRE STATION #29	COMPLETED - CASE CLOSED
COLISEUM PLACE	OPEN - REMEDIATION
COLISEUM PLACE - LONG TERM MONITORING	OPEN - LONG TERM MANAGEMENT
CRUISE AMERICA INC / MCGUIRE HESTER	COMPLETED - CASE CLOSED

Map data ©2023 Imagery ©2023 Airbus, CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO 50 m Report a map error



LEGEND - CHOOSE MORE SITES
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- Military Cleanup Sites - REMOVE
- Military Privatized Sites - REMOVE
- Military UST Sites - REMOVE

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- Military Bases - REMOVE

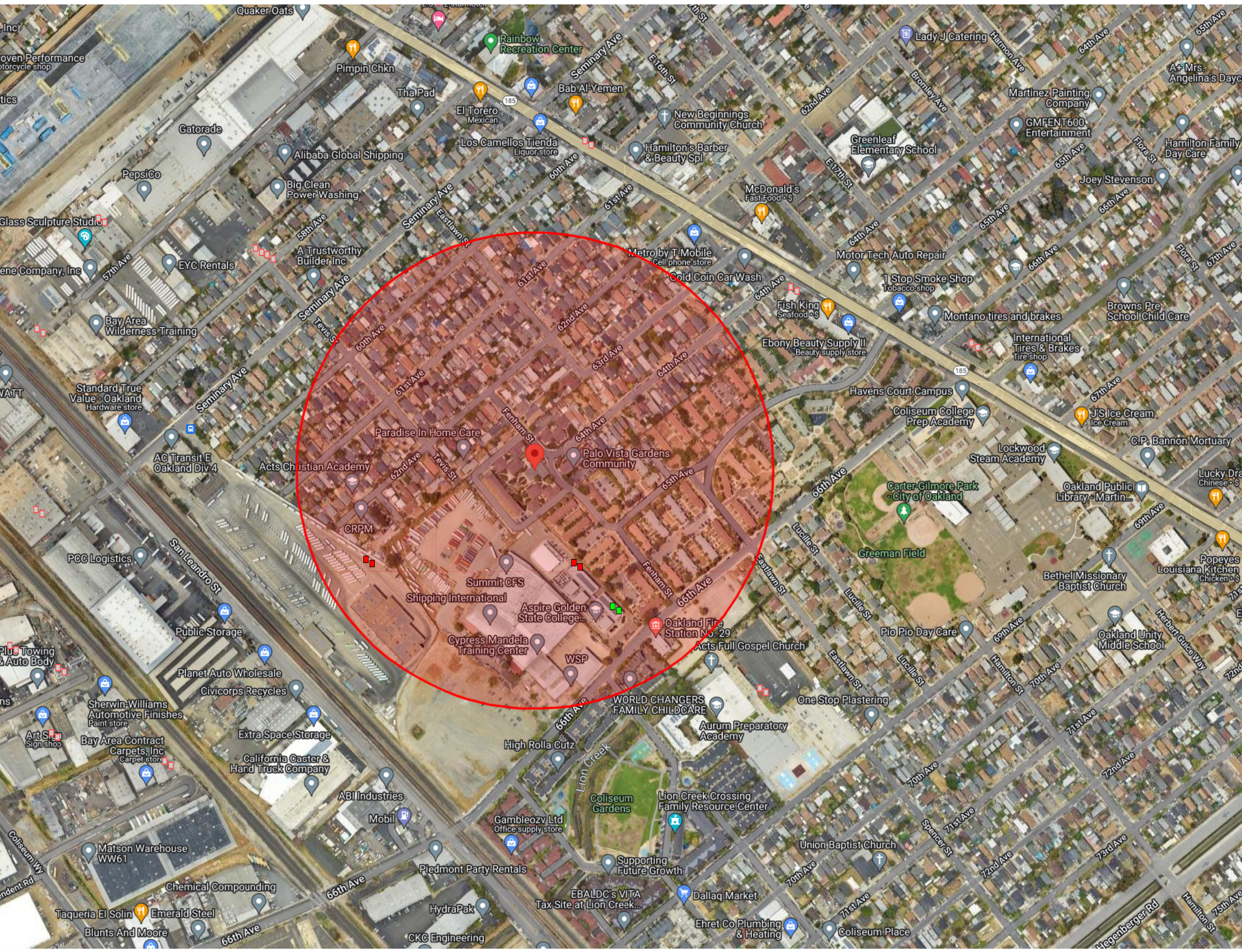
SITES VISIBLE ON MAP - CHOOSE FIELDS

SITE NAME	STATUS
ARCO #472 / PLUCKY LIQUORS	COMPLETED - CASE CLOSED
EXXON #7-0236	COMPLETED - CASE CLOSED

Map data ©2023 Imagery ©2023 Airbus, CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO 50 m Report a map error



Sites Shown on Map: 94 Total Sites | 30 Open Sites | 64 Closed Sites | 0 Sites w/Water Quality Data



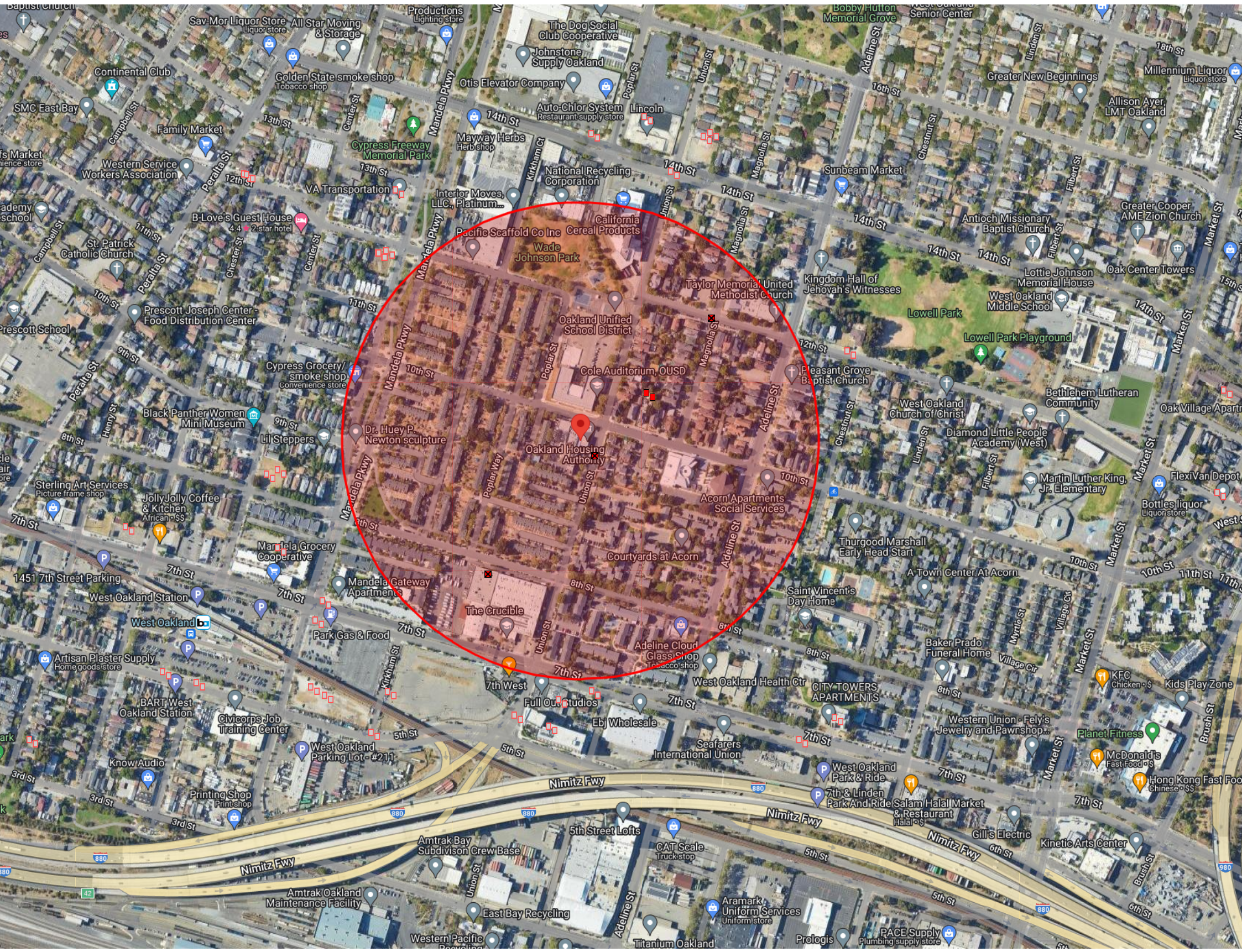
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LIST SITES VISIBLE ON MAP

Map data ©2023 Imagery ©2023 Airbus, CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO 50 m Report a map error



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- Cleanup Program Sites - REMOVE
- Military Cleanup Sites - REMOVE
- Military Privatized Sites - REMOVE
- Military UST Sites - REMOVE

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ACTIVE MAP COVERAGES:

- Military Bases - REMOVE

SITES VISIBLE ON MAP - CHOOSE FIELDS

SITE NAME	STATUS
ARMORED TRANSPORT	COMPLETED - CASE CLOSED
CONTAINER FREIGHT	OPEN - REMEDIATION
COOPER TIRE SHOP	COMPLETED - CASE CLOSED
OAKLAND CITY OF HOUSING AUTHORITY	COMPLETED - CASE CLOSED

Map data ©2023 Imagery ©2023 Airbus, CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO 50 m Report a map error

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER

CASE SUMMARY

REPORT DATE	HAZARDOUS MATERIAL INCIDENT REPORT FILED WITH OES?
1/27/1988	N

I. REPORTED BY -

UNKNOWN

CREATED BY

UNKNOWN

III. SITE LOCATION

FACILITY NAME
CHEVRON #9-0020

FACILITY ID

FACILITY ADDRESS
1633 HARRISON STREET
Oakland, CA 94612
ALAMEDA COUNTY

ORIENTATION OF SITE TO STREET

CROSS STREET
17th Street

V. SUBSTANCES RELEASED / CONTAMINANT(S) OF CONCERN

GASOLINE
WASTE OIL / MOTOR / HYDRAULIC / LUBRICATING

VI. DISCOVERY/ABATEMENT

DATE DISCHARGE BEGAN

DATE DISCOVERED	HOW DISCOVERED	DESCRIPTION
12/17/1987	Other Means	

DATE STOPPED	STOP METHOD	DESCRIPTION
1/1/1965	Other Means	

VII. SOURCE/CAUSE

SOURCE OF DISCHARGE
Tank

CAUSE OF DISCHARGE
Unknown

DISCHARGE DESCRIPTION

VIII. CASE TYPE

CASE TYPE
Other Groundwater (uses other than drinking water)

IX. REMEDIAL ACTION

REMEDIAL ACTION	BEGIN DATE	END DATE	DESCRIPTION
Excavation	1/7/1992	1/22/1992	Excavation at MW-4 area.
Excavation	1/18/2008	2/6/2008	810 cu yards by bucket auger near second generation USTs & 112 cu yards by excavation about the waste oil UST.
Excavation	1/1/2011	6/10/2011	342 cu. yds excavated; tonnage estimated at 1.5 tons per yard.

X. GENERAL COMMENTS

Not all historic documents for the fuel leak case may be available on GeoTracker. A complete case file for this site is located on the Alameda County Environmental Health website at: http://ehgis.acgov.org/dehpublic/dehpublic.jsp.

The subject site was used as a service station until 1972 when the site was demolished and the tanks removed. The station building, two dispenser islands, one waste oil UST, and two gasoline USTs were removed. An earlier generation of USTs had previously been removed. Since 1975 it has been used as a parking lot. A soil vapor survey was conducted in 1988 to determine if the site had been impacted, three wells were installed in October 1988, four wells were installed in 1989, four wells were installed offsite in June 1990, two offsite wells were installed in October 1991, and another two wells were installed offsite in late 1992, for a total of 16 wells. Limited soil excavation was conducted in January 1992. An SVE system operated onsite in 1993, but showed minimal effectiveness. In June 2004 the first generation UST pit was investigated and impacts were discovered. In April 2007 four bores were installed to investigate the extent of contamination associated with the first generation USTs. In June 2007 a vapor survey was conducted and elevated concentrations were detected in all vapor points. In early 2008 105 bucket auger bores were installed to remove impacted soil associated with the first generation USTs. A report on the installation of a post-remediation groundwater monitoring well and the installation of several soil bores to infill a data gap in the downgradient extent of the groundwater plume was generated. Well MW-17 was installed in October 2010. Additional excavation of soil impacted by the second generation USTs and the waste oil UST was conducted between January and June 2011 as part of the redevelopment project for the subject site.

XI. CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION REPORTED HEREIN IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

XII. REGULATORY USE ONLY

LOCAL AGENCY CASE NUMBER	REGIONAL BOARD CASE NUMBER
RO0000143	01-0331

LOCAL AGENCY

CONTACT NAME	INITIALS	ORGANIZATION_NAME	EMAIL ADDRESS
MARK DETTERMAN	MD	ALAMEDA COUNTY LOP	mark.detterman@acgov.org

ADDRESS
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 945026577

CONTACT DESCRIPTION

PHONE TYPE	PHONE NUMBER	EXTENSION
PHONE1	(510)-567-6876	

REGIONAL BOARD

CONTACT NAME	INITIALS	ORGANIZATION_NAME	EMAIL ADDRESS
Regional Water Board	UUU	SAN FRANCISCO BAY RWQCB (REGION 2)	

ADDRESS
1515 CLAY ST SUITE 1400
OAKLAND, CA 94612

CONTACT DESCRIPTION
Office main line: (510) 622-2300 Our Website with Program info/contacts- https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/

PHONE TYPE	PHONE NUMBER	EXTENSION
DoD/DoE	(510)-622-2447	
SCP General Contact	(510)-622-2481	
UST General Contact	(510)-622-3277	

OAKLAND CITY OF HOUSING AUTHORITY (T0600100378) - (MAP)

SIGN UP FOR EMAIL ALERTS

935 UNION ST
OAKLAND, CA 94607
ALAMEDA COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 6/30/1993 - *DEFINITION*
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN FRANCISCO BAY RWQCB (REGION 2) *(LEAD)* - *CASE #: 01-0414*
CASE MANAGER: *Regional Water Board*
ALAMEDA COUNTY LOP - *CASE #: 213*

Summary Cleanup Action Report Regulatory Activities *Environmental Data (ESI)* *Site Maps / Documents* Community Involvement *Related Cases*

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 6/30/1993 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE

POTENTIAL MEDIA OF CONCERN
UNDER INVESTIGATION

FILE LOCATION

DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC

DWR GROUNDWATER SUB-BASIN NAME
Santa Clara Valley - East Bay Plain (2-009.04)

CALWATER WATERSHED NAME
South Bay - East Bay Cities (204.20)

Site History

No site history available

Copyright © 2023 State of California

Find address or place | Basemap | Imagery | Draw | Erase | Save Session | Tools | More Data

Measure

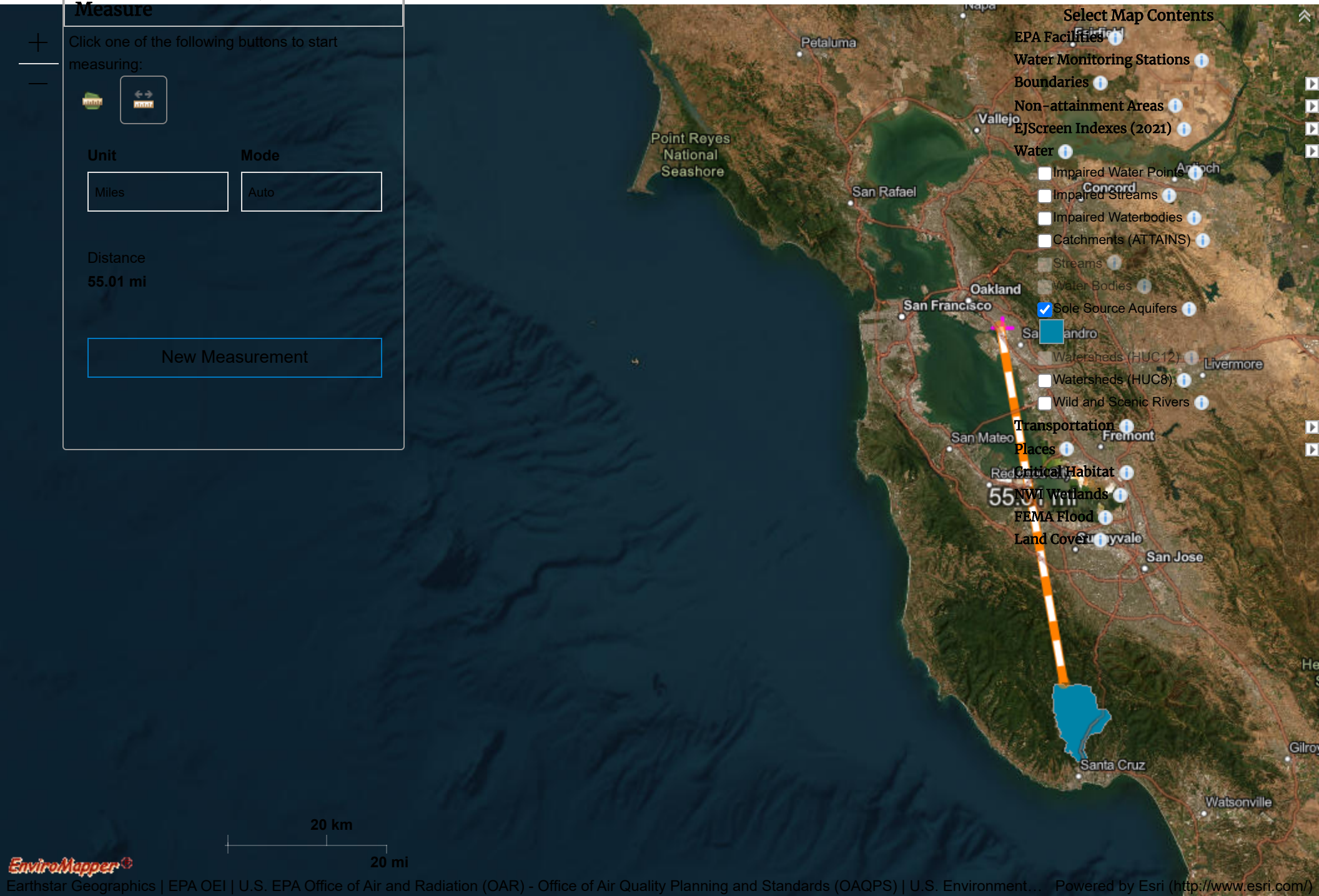
Click one of the following buttons to start measuring:

Unit: Miles

Mode: Auto

Distance
55.01 mi

New Measurement



2001 MacArthur Boulevard

Basemap | Imagery | Draw | Erase | Save Session | Tools | More Data

Measure

Click one of the following buttons to start measuring:

Unit: Miles

Mode: Auto

Distance
68.17 mi

New Measurement

Select Map Contents

- EPA Facilities
- Water Monitoring Stations
- Boundaries
- Non-attainment Areas
- EJScreen Indexes (2021)
- Water
  - Impaired Water Points
  - Impaired Streams
  - Impaired Waterbodies
  - Catchments (ATTAINS)
  - Streams
  - Water Bodies
  - Sole Source Aquifers
  - Watersheds (HUC12)
  - Watersheds (HUC8)
  - Wild and Scenic Rivers
- Transportation
- Places
- Critical Habitat
- NWI Wetlands
- FEMA Flood
- Land Cover

68.17 mi

Clearlake, Lake Berryessa, Woodland, Sacramento, Elk Grove, Santa Rosa, Sonoma Coast State Park, Vacaville, Napa, Petaluma, Fairfield, Vallejo, Point Reyes National Seashore, San Rafael, Antioch, Concord, Stockton, Oakland, San Francisco, San Leandro, Tracy, Livermore, San Mateo, Fremont

30 km
20 mi

EnviroMapper

-->

BASEMAPS

- STREETS
- HYBRID
- GRAY
- USGS TOPO
- USDA NAIP IMAGERY

MAP LAYERS

☑ CBRS Units

Click here to learn more about CBRS Units.



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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

NOT FOR CONSULTATION

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

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Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander Ambystoma californiense — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2076

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Pallid Manzanita Arctostaphylos pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8292	Threatened
Presidio Clarkia Clarkia franciscana Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3890	Endangered
Robust Spineflower Chorizanthe robusta var. robusta Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9287	Endangered

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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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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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
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Aug 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

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 (■)

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

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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.

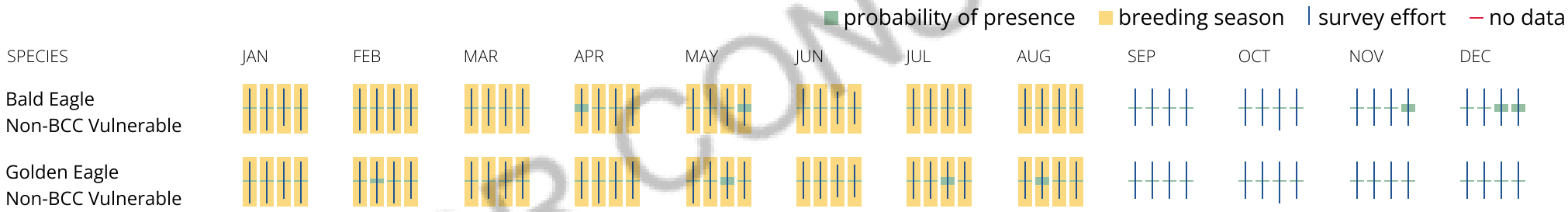
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

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What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

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- Supplemental Information for Migratory Birds and Eagles in IPaC
  https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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
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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi 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/8	Breeds Apr 1 to Aug 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

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Black Skimmer Rynchops niger — Breeds May 20 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Black Turnstone Arenaria melanocephala — Breeds elsewhere

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

Bullock's Oriole Icterus bullockii — Breeds Mar 21 to Jul 25

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

California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

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

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

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Gull-billed Tern Gelochelidon nilotica — Breeds May 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/9501

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

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

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

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

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Tricolored Blackbird Agelaius tricolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Western Grebe aechmophorus occidentalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

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 (■)

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.

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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.

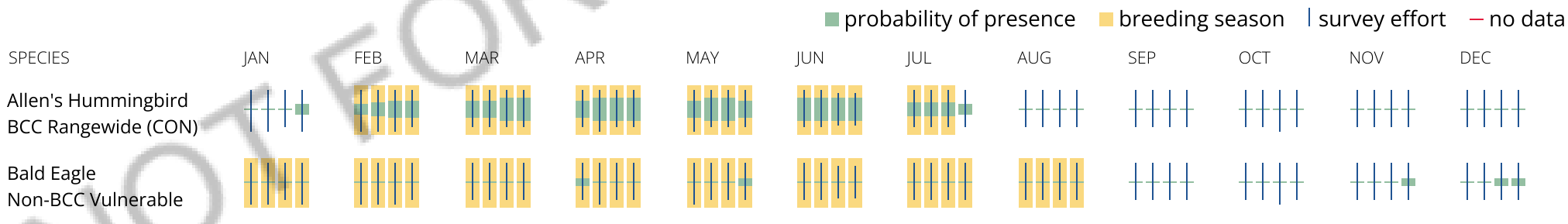
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

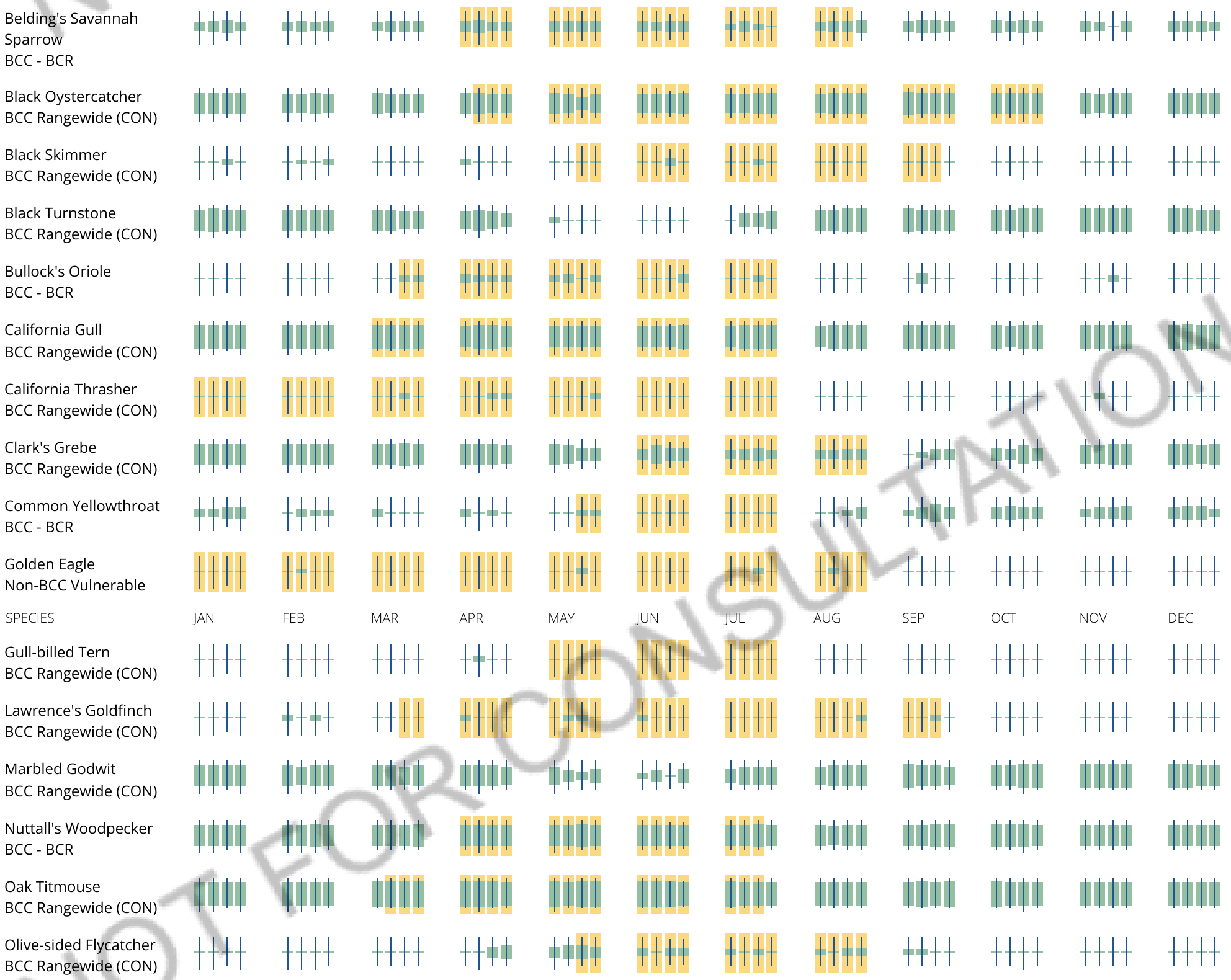
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

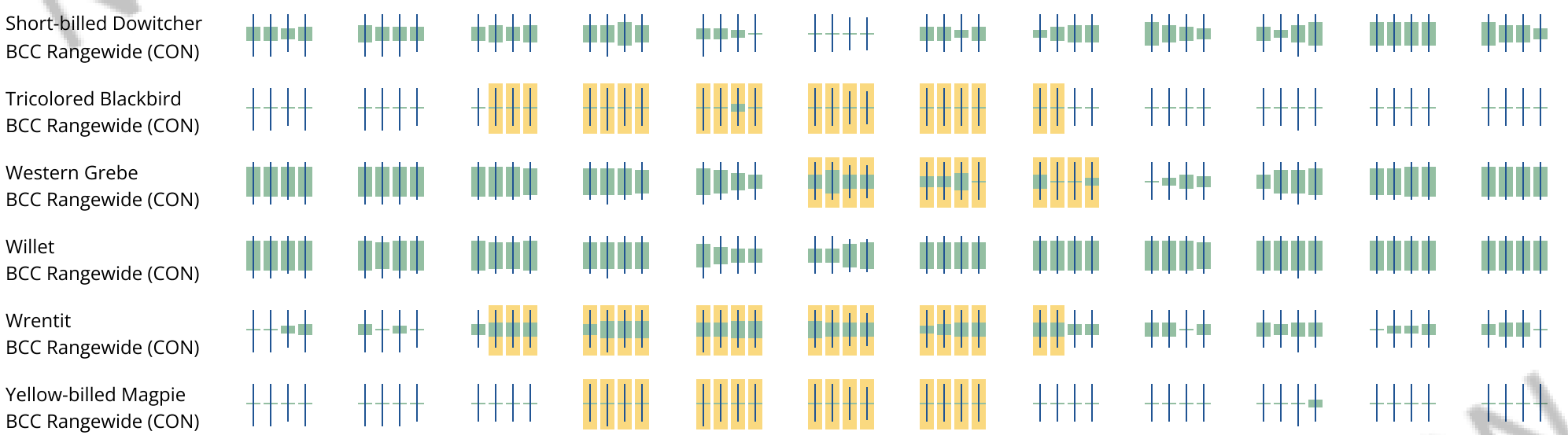
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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.

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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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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

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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 (NWI)

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.

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

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R4SBCx

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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 tuberficid 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

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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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

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Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Green Sea Turtle Chelonia mydas — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/6199

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
California Seablite Suaeda californica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Santa Cruz Tarplant Holocarpha macradenia Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6832	Threatened

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

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Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 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

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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 (■)

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.

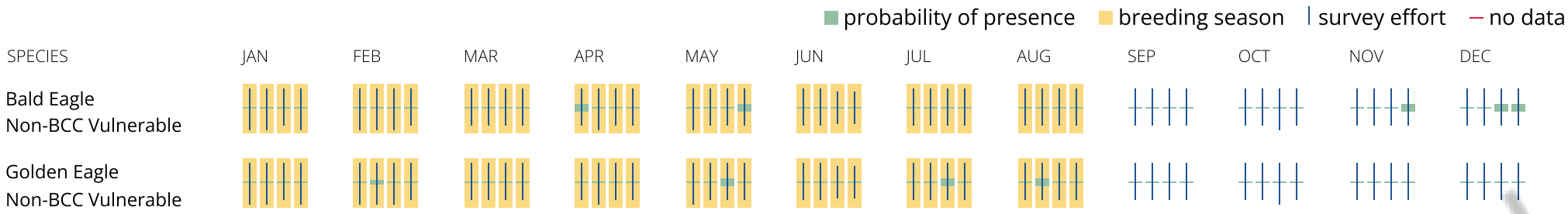
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

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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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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.

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NAME	BREEDING SEASON
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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi 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/8	Breeds Apr 1 to Aug 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
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Black Turnstone Arenaria melanocephala This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25

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California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

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

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Gull-billed Tern Gelochelidon nilotica — Breeds May 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/9501

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

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Marbled Godwit Limosa fedoa
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481
Breeds elsewhere

Nuttall's Woodpecker Picoides nuttallii
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
Breeds Apr 1 to Jul 20

Oak Titmouse Baeolophus inornatus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656
Breeds Mar 15 to Jul 15

Olive-sided Flycatcher Contopus cooperi
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914
Breeds May 20 to Aug 31

Short-billed Dowitcher Limnodromus griseus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480
Breeds elsewhere

Tricolored Blackbird Agelaius tricolor
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910
Breeds Mar 15 to Aug 10

Western Grebe aechmophorus occidentalis
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743
Breeds Jun 1 to Aug 31

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Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

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 (■)

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.

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

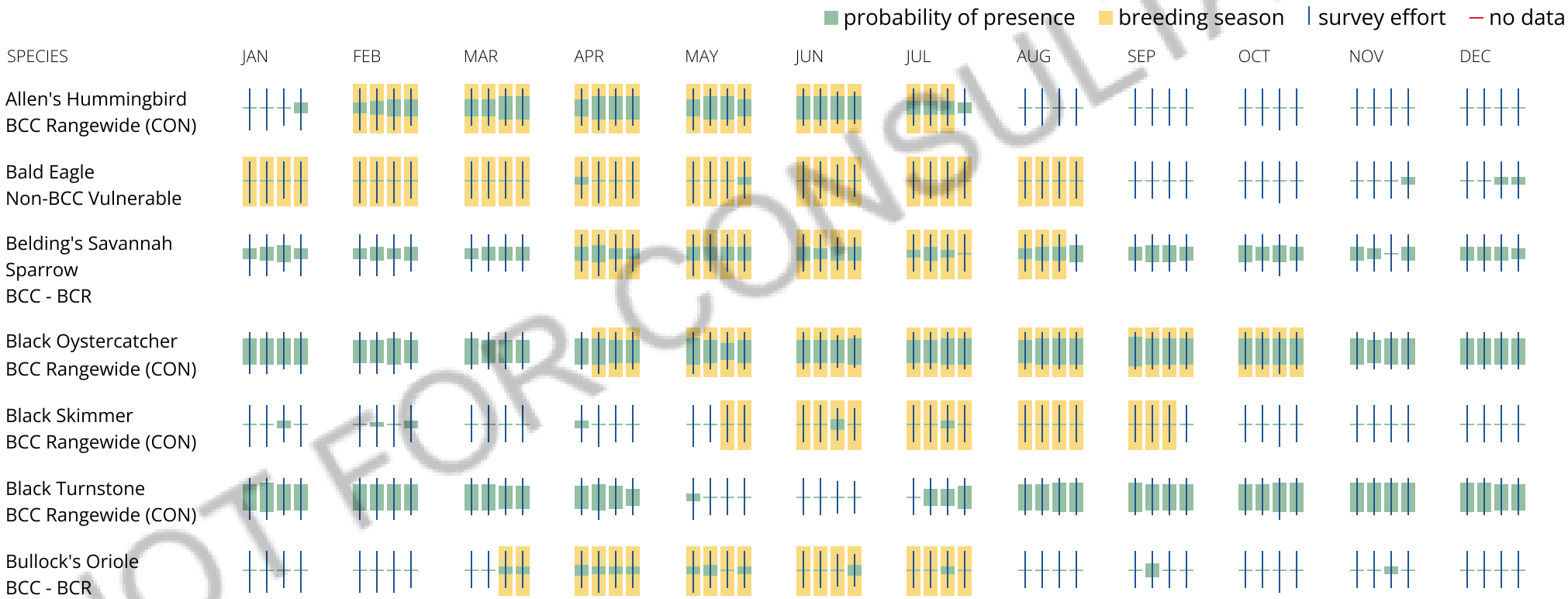
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

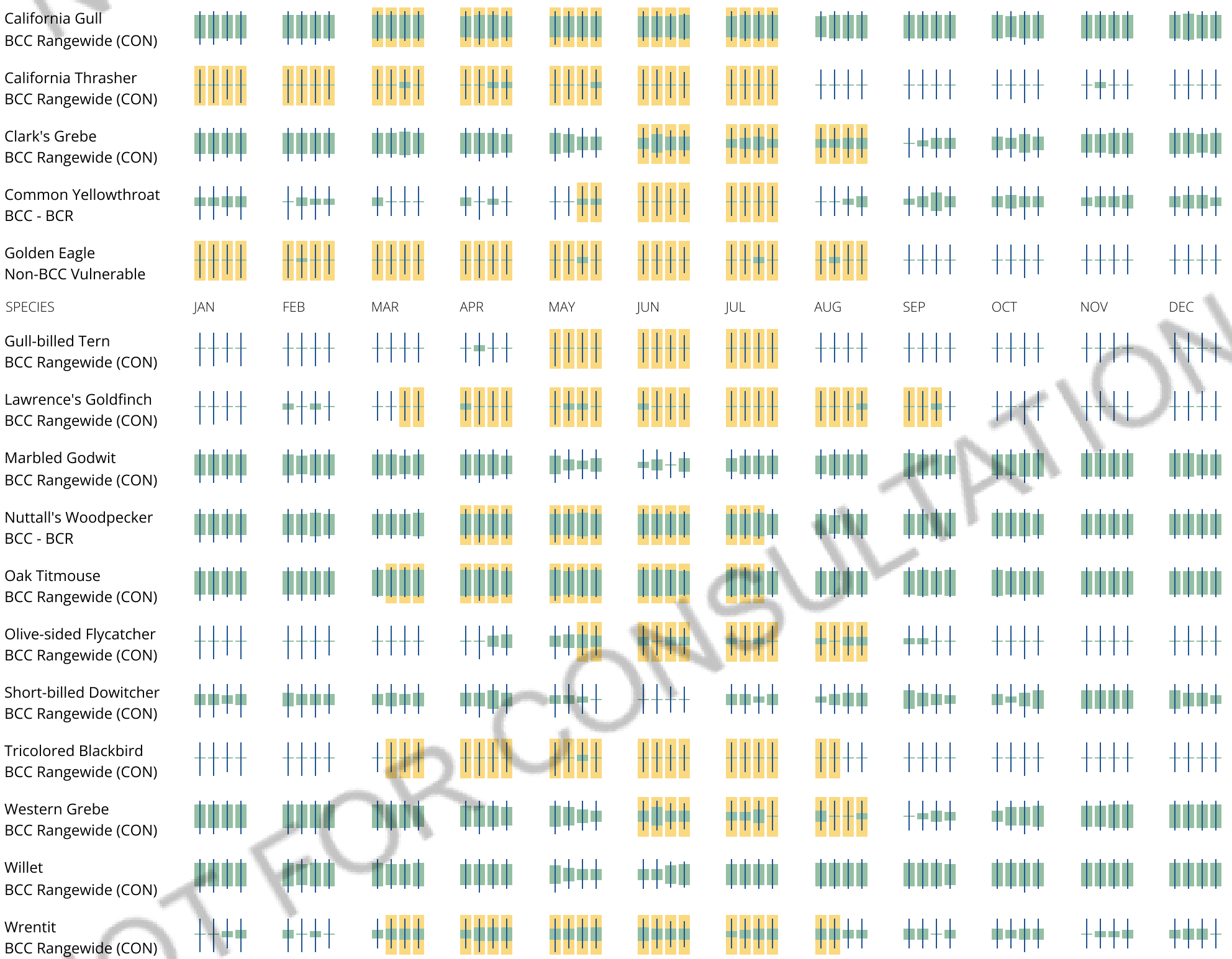
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



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Yellow-billed Magpie
BCC Rangewide (CON)



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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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:

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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.

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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 (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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

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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 tuberficid 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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

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Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Green Sea Turtle Chelonia mydas — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/6199

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
California Seablite Suaeda californica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Santa Cruz Tarplant Holocarpha macradenia Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6832	Threatened

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

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Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 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

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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 (■)

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.

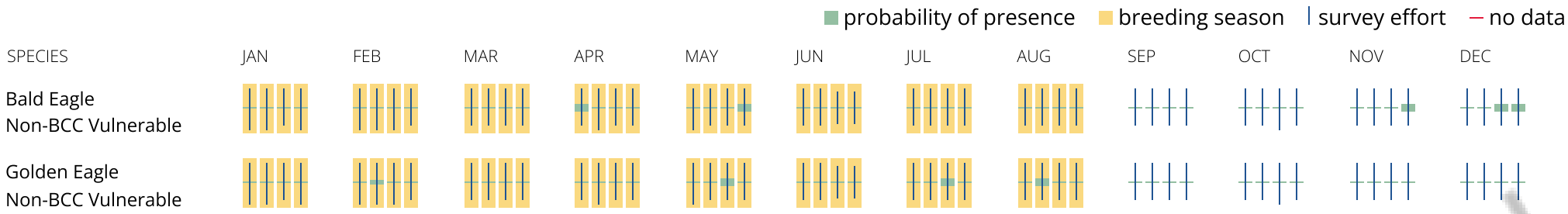
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

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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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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.

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NAME	BREEDING SEASON
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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi 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/8	Breeds Apr 1 to Aug 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
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Black Turnstone Arenaria melanocephala This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25

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California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

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

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Gull-billed Tern Gelochelidon nilotica — Breeds May 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/9501

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

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Marbled Godwit Limosa fedoa
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481
Breeds elsewhere

Nuttall's Woodpecker Picoides nuttallii
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
Breeds Apr 1 to Jul 20

Oak Titmouse Baeolophus inornatus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656
Breeds Mar 15 to Jul 15

Olive-sided Flycatcher Contopus cooperi
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914
Breeds May 20 to Aug 31

Short-billed Dowitcher Limnodromus griseus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480
Breeds elsewhere

Tricolored Blackbird Agelaius tricolor
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910
Breeds Mar 15 to Aug 10

Western Grebe aechmophorus occidentalis
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743
Breeds Jun 1 to Aug 31

NOT FOR CONSULTATION

Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

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 (■)

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.

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

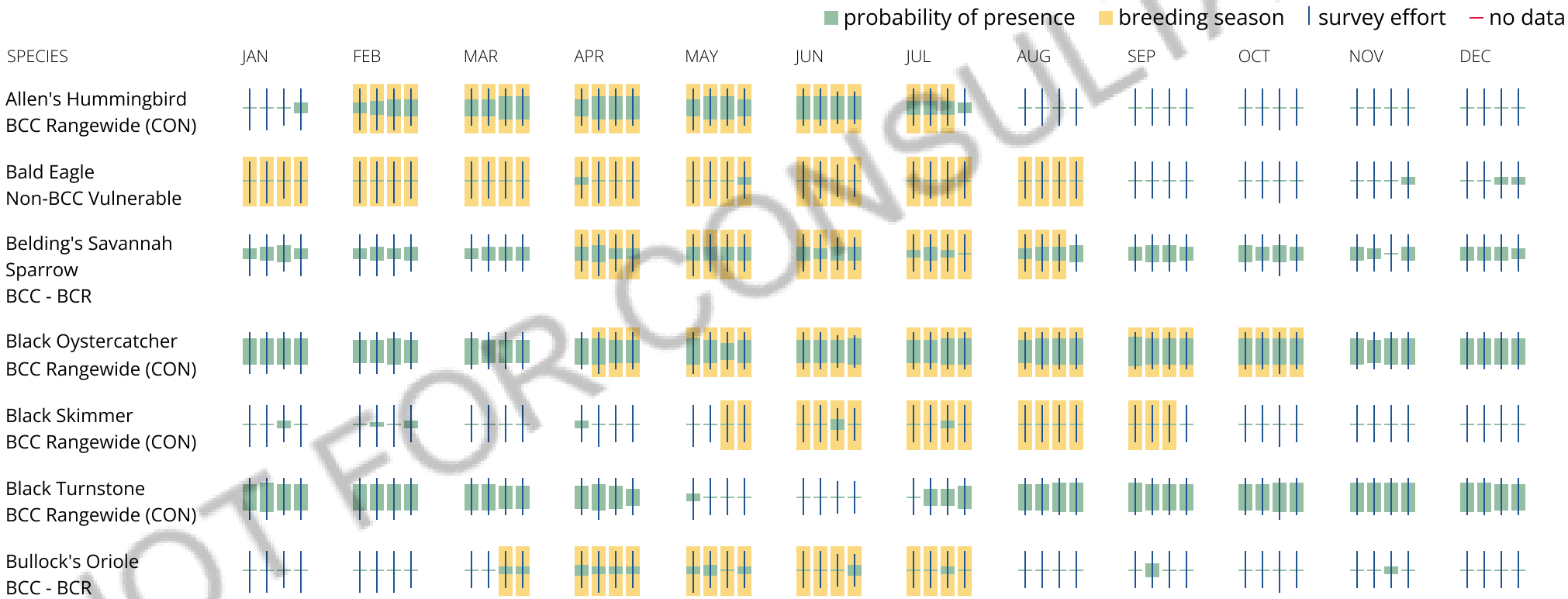
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

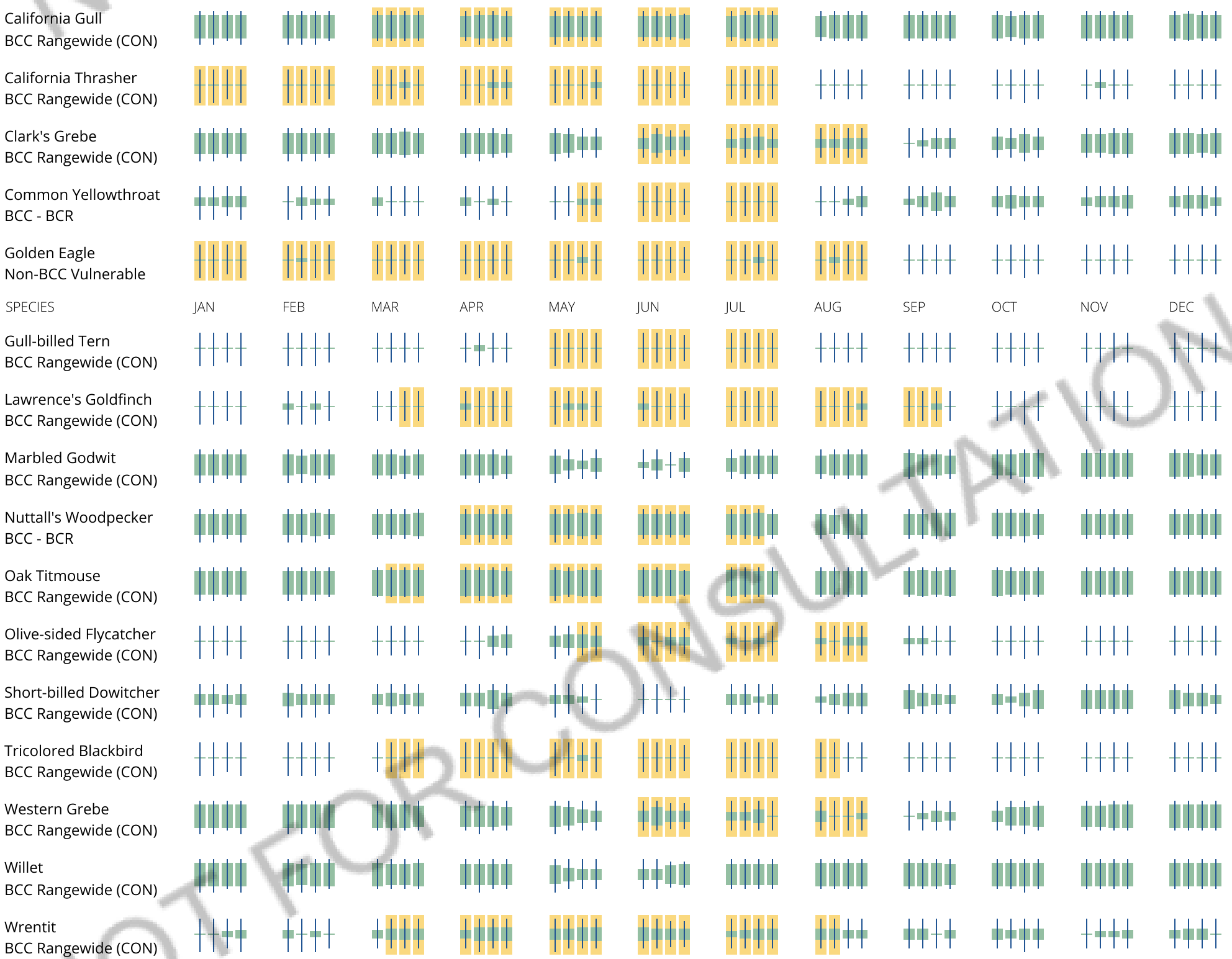
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



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Yellow-billed Magpie
BCC Rangewide (CON)



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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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:

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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.

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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 (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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

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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 tuberficid 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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

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Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander Ambystoma californiense — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2076

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Pallid Manzanita Arctostaphylos pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8292	Threatened
Presidio Clarkia Clarkia franciscana Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3890	Endangered
Robust Spineflower Chorizanthe robusta var. robusta Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9287	Endangered

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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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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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
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Aug 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

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 (■)

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

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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.

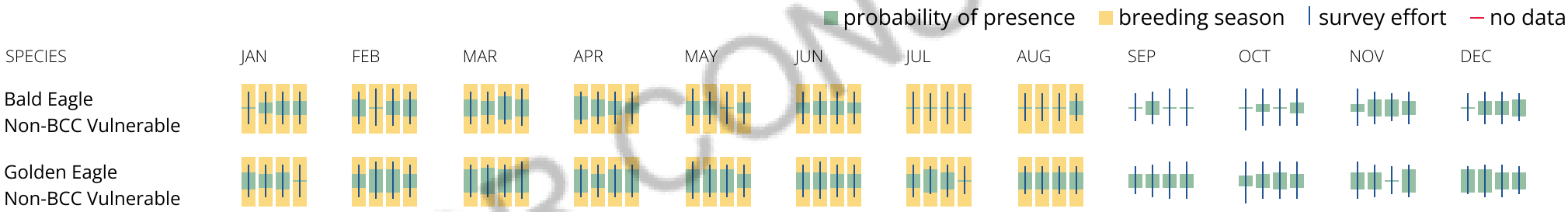
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

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What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

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- Supplemental Information for Migratory Birds and Eagles in IPaC
  https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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
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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi 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/8	Breeds Apr 1 to Aug 15
Black-chinned Sparrow Spizella atrogularis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31

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Bullock's Oriole Icterus bullockii — Breeds Mar 21 to Jul 25

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

California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

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

Cassin's Finch Carpodacus cassinii — Breeds May 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/9462

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

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Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Long-eared Owl asio otus — Breeds Mar 1 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/3631

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

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

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

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

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Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

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 (■)

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.

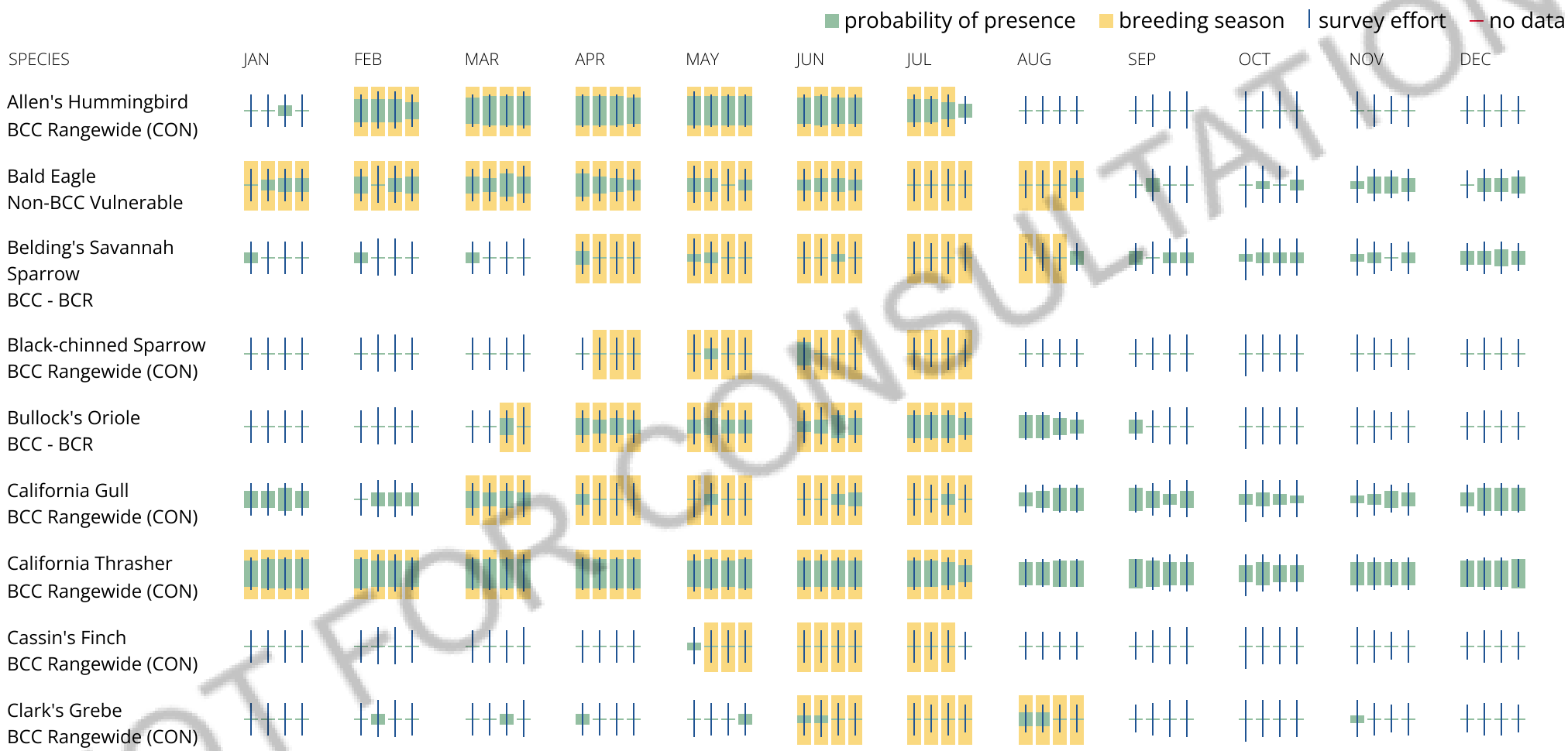
NOT FOR CONSULTATION

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.



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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 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 list of migratory birds that potentially occur 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.

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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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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

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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.

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Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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 tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

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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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

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Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Green Sea Turtle Chelonia mydas — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/6199

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Santa Cruz Tarplant Holocarpha macradenia Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6832	Threatened

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Aug 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

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.

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Probability of Presence (■)

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.

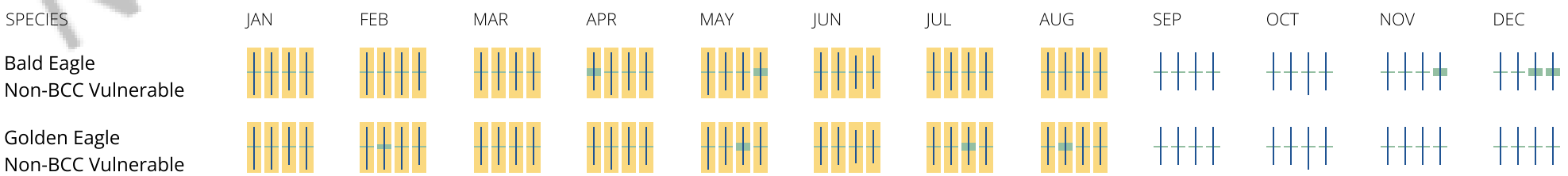
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.

■ probability of presence ■ breeding season | survey effort – no data

NOT FOR CONSULTATION



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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
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

NOT FOR CONSULTATION

Bald Eagle Haliaeetus leucocephalus — Breeds Jan 1 to Aug 31

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.

Belding's Savannah Sparrow Passerculus sandwichensis beldingi — Breeds Apr 1 to Aug 15

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/8

Black Oystercatcher Haematopus bachmani — Breeds Apr 15 to Oct 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9591

Black Skimmer Rynchops niger — Breeds May 20 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Black Turnstone Arenaria melanocephala — Breeds elsewhere

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

Bullock's Oriole Icterus bullockii — Breeds Mar 21 to Jul 25

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

California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

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

NOT FOR CONSULTATION

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Gull-billed Tern Gelochelidon nilotica — Breeds May 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/9501

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

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

NOT FOR CONSULTATION

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

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

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

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

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

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.

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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 (■)

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 (|)

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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.

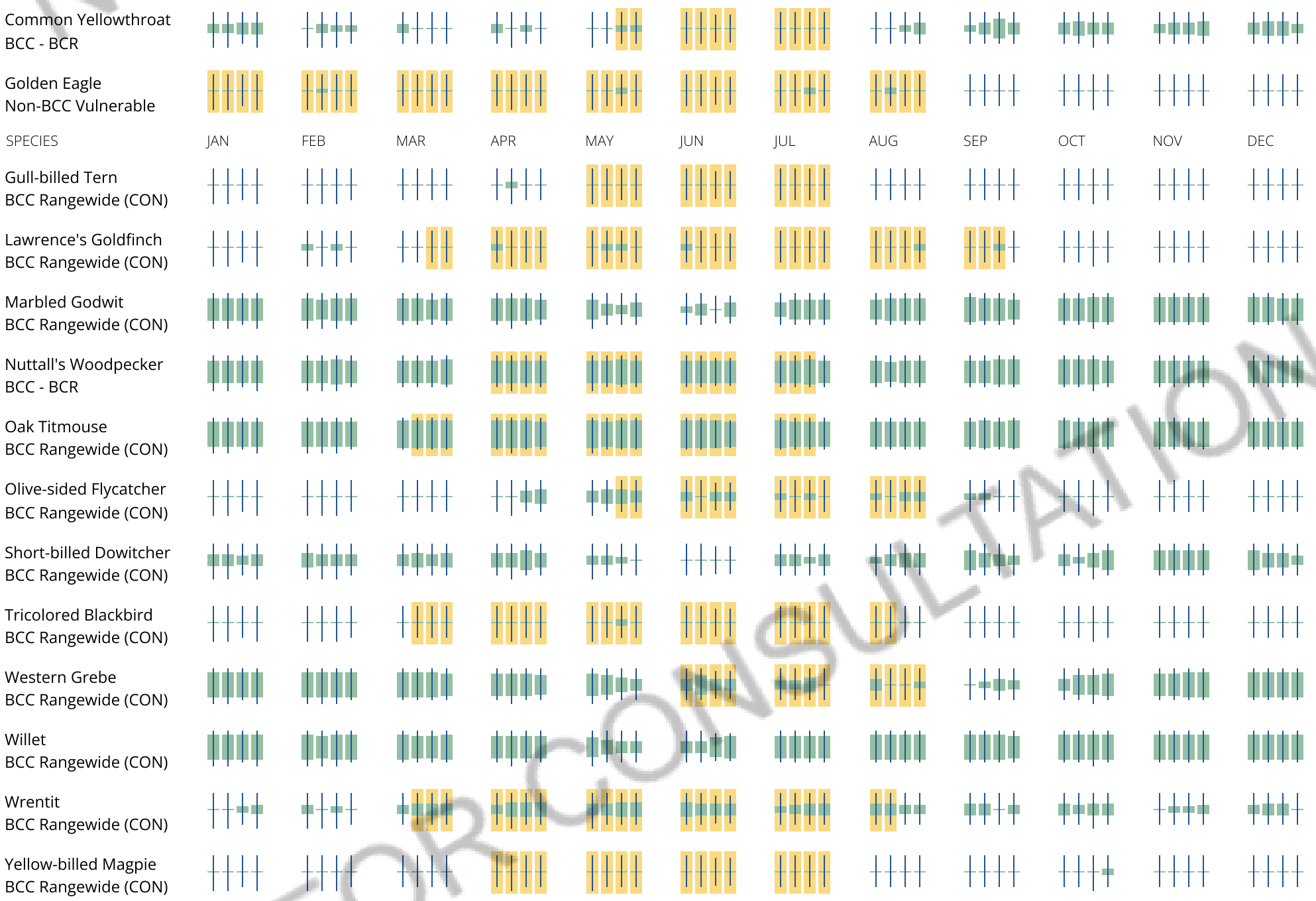
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



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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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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).

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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.

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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 (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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

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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 tuberficid 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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

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Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Green Sea Turtle Chelonia mydas — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/6199

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
California Seablite Suaeda californica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Santa Cruz Tarplant Holocarpha macradenia Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6832	Threatened

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

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Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 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

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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 (■)

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.

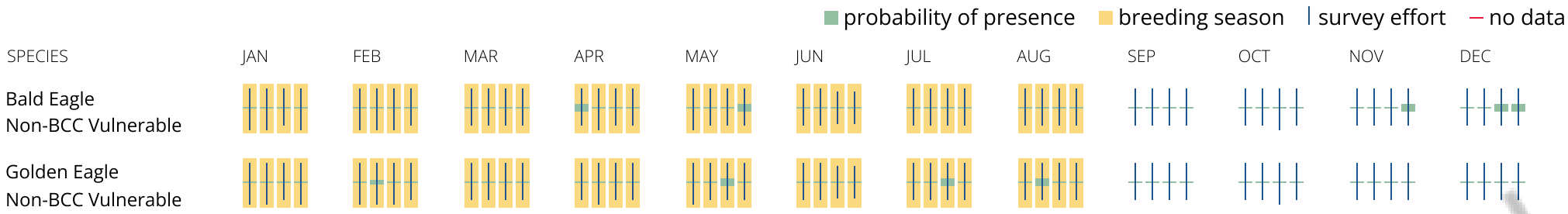
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

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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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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.

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NAME	BREEDING SEASON
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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi 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/8	Breeds Apr 1 to Aug 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
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Black Turnstone Arenaria melanocephala This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25

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California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

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

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Gull-billed Tern Gelochelidon nilotica — Breeds May 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/9501

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

NOT FOR CONSULTATION

Marbled Godwit Limosa fedoa
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481
Breeds elsewhere

Nuttall's Woodpecker Picoides nuttallii
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
Breeds Apr 1 to Jul 20

Oak Titmouse Baeolophus inornatus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656
Breeds Mar 15 to Jul 15

Olive-sided Flycatcher Contopus cooperi
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914
Breeds May 20 to Aug 31

Short-billed Dowitcher Limnodromus griseus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480
Breeds elsewhere

Tricolored Blackbird Agelaius tricolor
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910
Breeds Mar 15 to Aug 10

Western Grebe aechmophorus occidentalis
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743
Breeds Jun 1 to Aug 31

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Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

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 (■)

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.

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

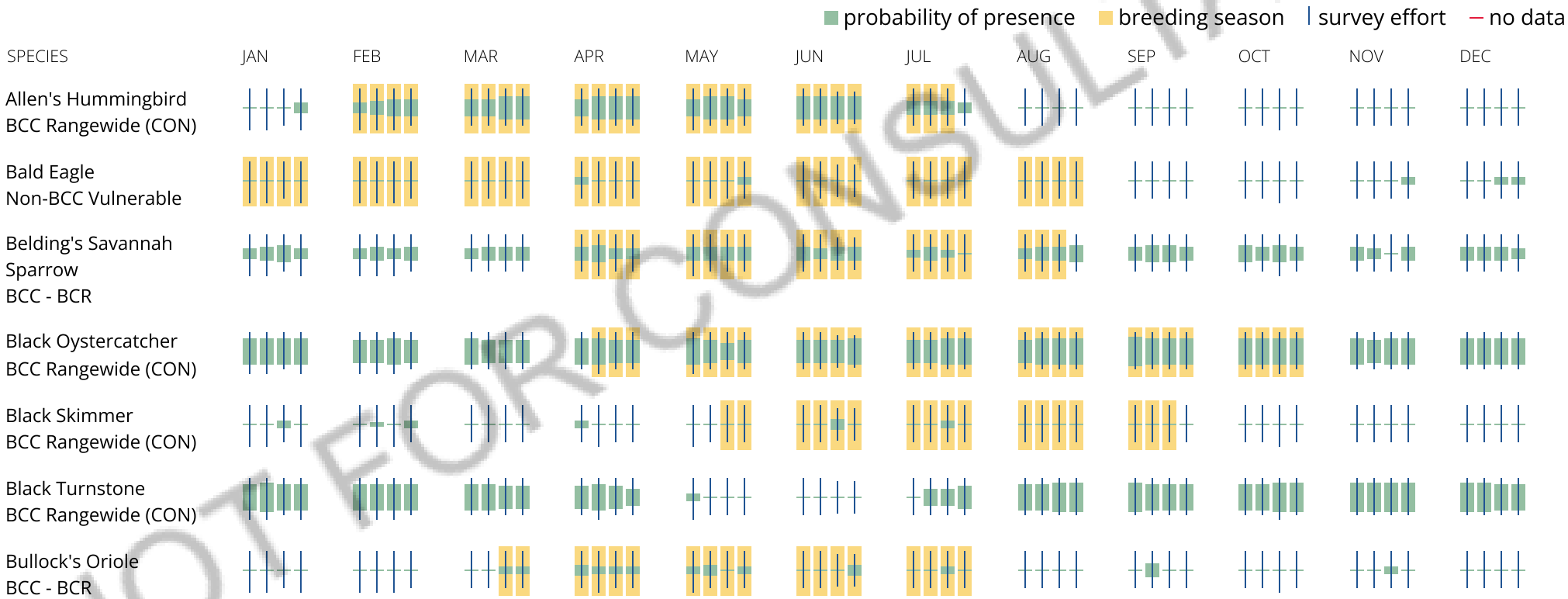
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

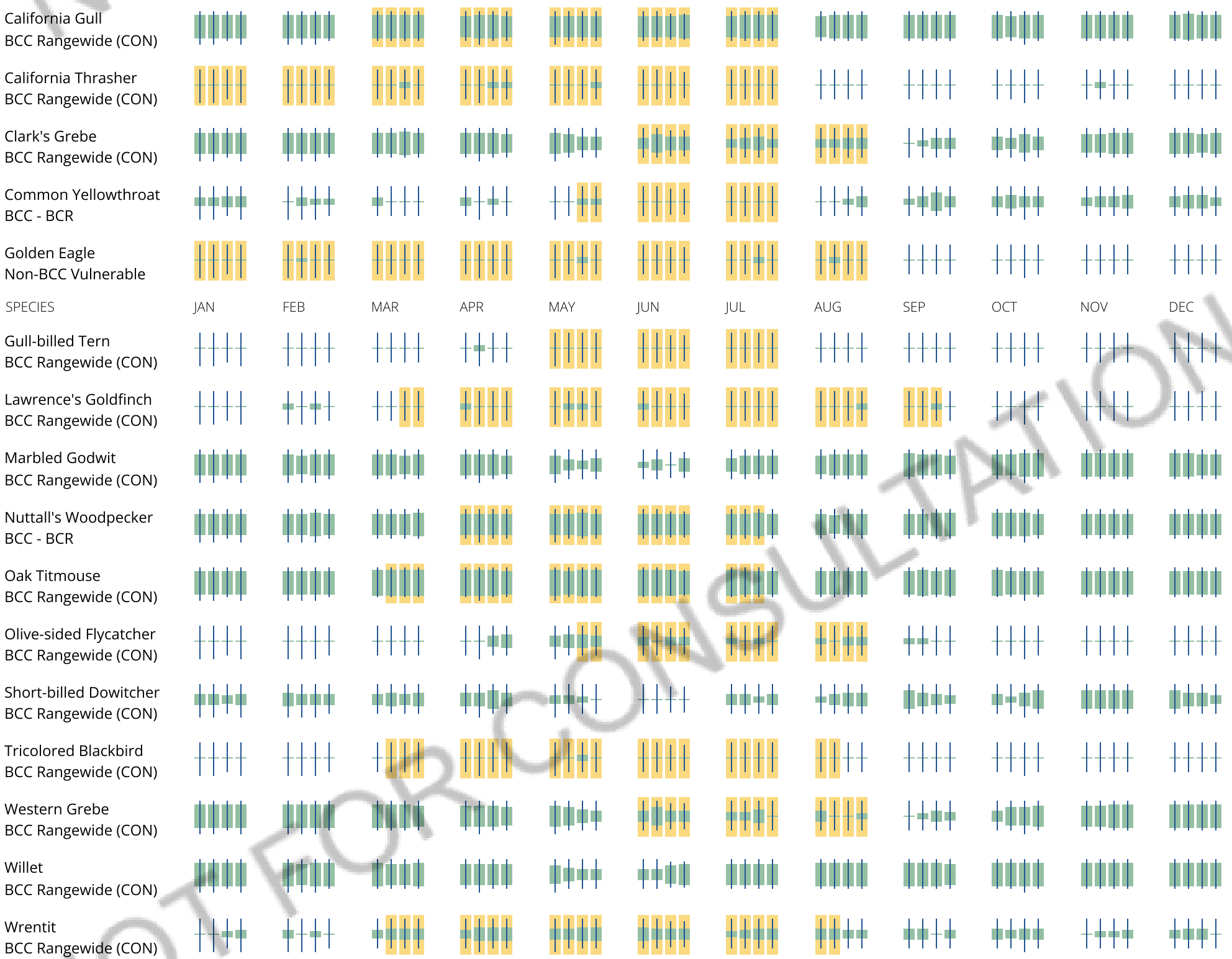
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



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Yellow-billed Magpie
BCC Rangewide (CON)



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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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:

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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.

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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 (NWI)

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

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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 tuberficid 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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

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Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander Ambystoma californiense — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2076

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
California Seablite Suaeda californica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Pallid Manzanita Arctostaphylos pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8292	Threatened
Presidio Clarkia Clarkia franciscana Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3890	Endangered

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Robust Spineflower Chorizanthe robusta var. robusta Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/9287

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

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- Supplemental Information for Migratory Birds and Eagles in IPaC
  https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Aug 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

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 (■)

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:

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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.

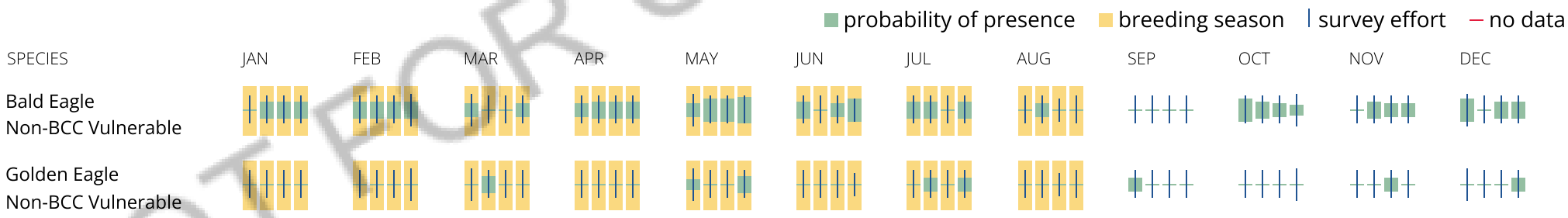
Breeding Season (▬)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

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The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management

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- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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
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
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* 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/8	Breeds Apr 1 to Aug 15

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Black Oystercatcher Haematopus bachmani
Breeds Apr 15 to Oct 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9591

Black Skimmer Rynchops niger
Breeds May 20 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Black Swift Cypseloides niger
Breeds Jun 15 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8878

Black Tern Chlidonias niger
Breeds May 15 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3093

Black Turnstone Arenaria melanocephala
Breeds elsewhere

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

Bullock's Oriole Icterus bullockii
Breeds Mar 21 to Jul 25

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

California Gull Larus californicus
Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum
Breeds Jan 1 to Jul 31

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

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Cassin's Finch Carpodacus cassinii — Breeds May 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/9462

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

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

Mountain Plover Charadrius montanus — 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/3638

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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

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

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

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

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Willet Tringa semipalmata — Breeds elsewhere

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

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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.

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 (■)

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.

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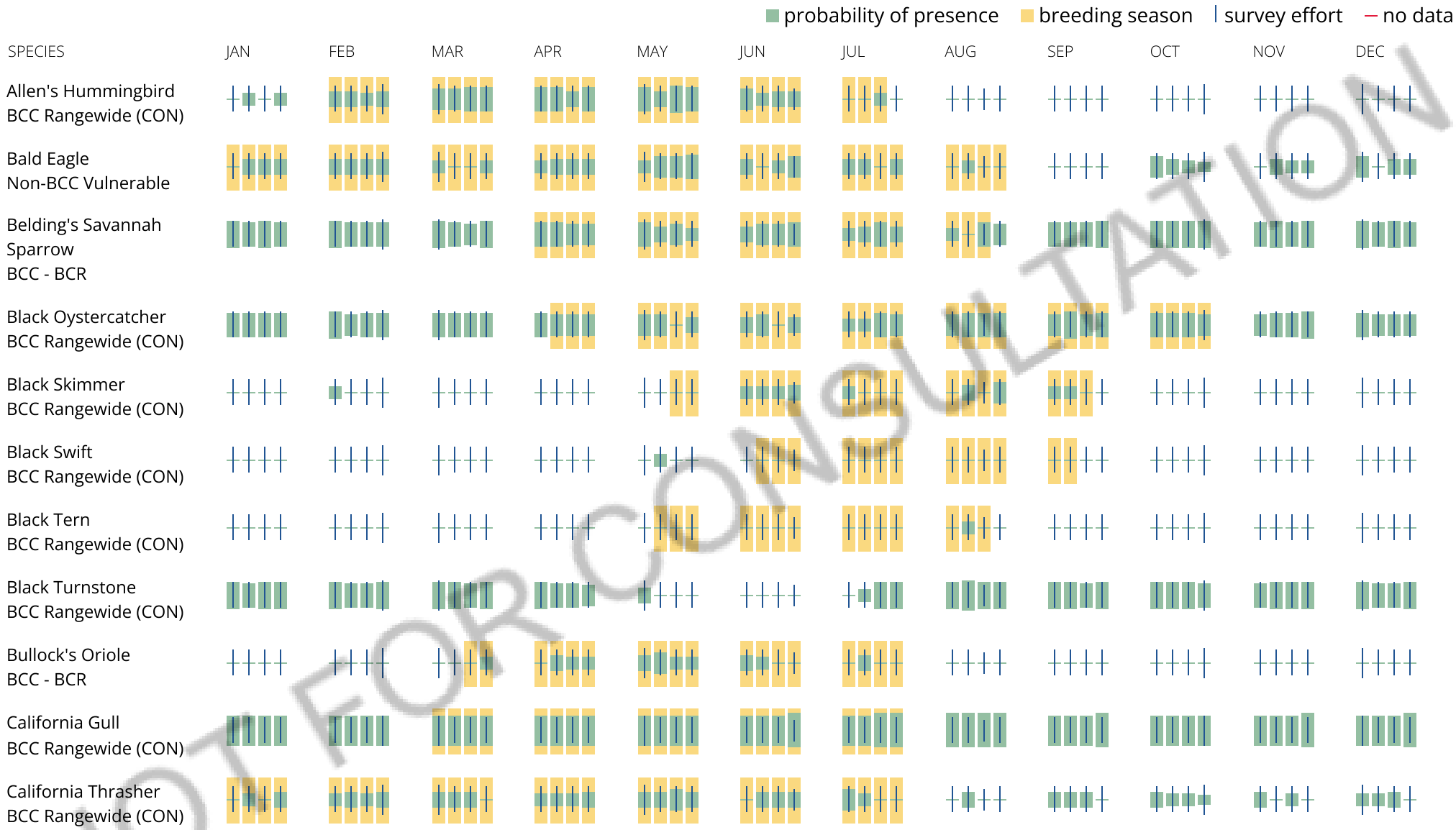
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

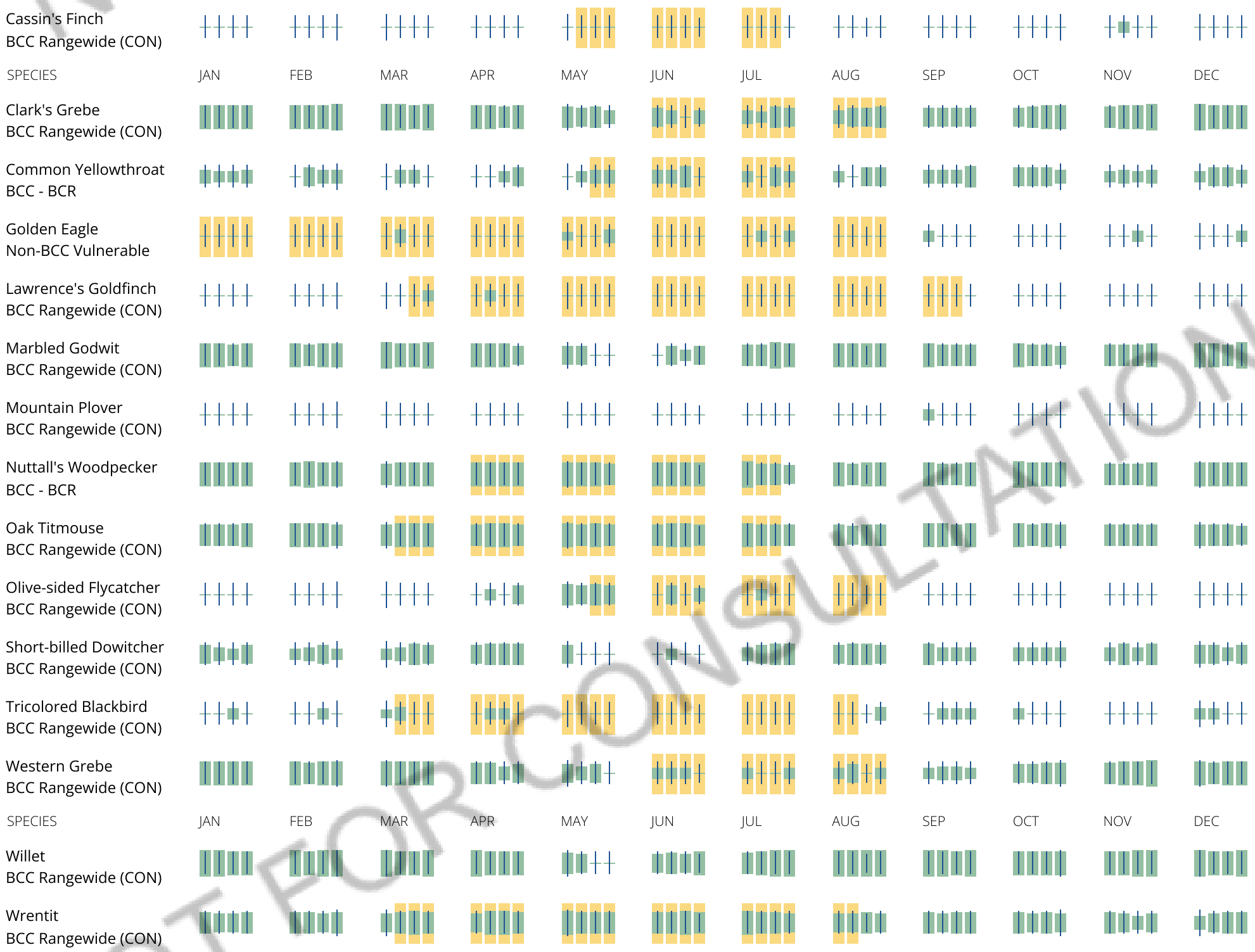
A week is marked as having no data if there were no survey events for that week.

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.



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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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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

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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.

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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 (NWI)

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.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R4SBAx

A full description for each wetland code can be found at the National Wetlands Inventory website

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NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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 tuberficid 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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

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Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander Ambystoma californiense — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2076

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
California Seablite Suaeda californica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Pallid Manzanita Arctostaphylos pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8292	Threatened
Presidio Clarkia Clarkia franciscana Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3890	Endangered

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Robust Spineflower Chorizanthe robusta var. robusta Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/9287

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

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- Supplemental Information for Migratory Birds and Eagles in IPaC
  https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Aug 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

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 (■)

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:

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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.

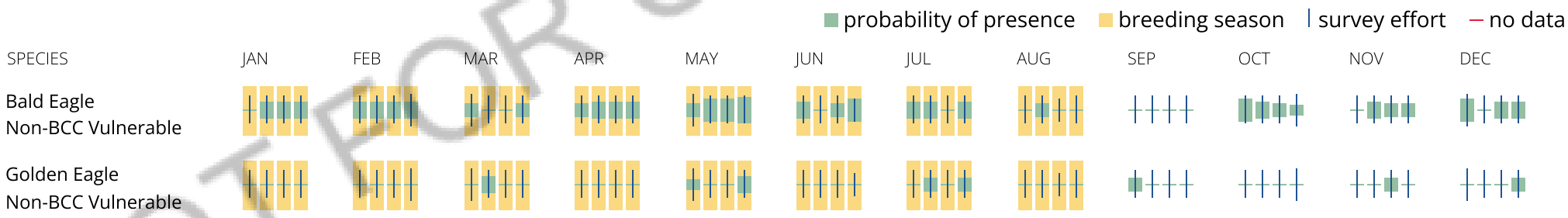
Breeding Season (▬)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

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The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management

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- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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
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
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* 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/8	Breeds Apr 1 to Aug 15

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Black Oystercatcher Haematopus bachmani
Breeds Apr 15 to Oct 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9591

Black Skimmer Rynchops niger
Breeds May 20 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Black Swift Cypseloides niger
Breeds Jun 15 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8878

Black Tern Chlidonias niger
Breeds May 15 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3093

Black Turnstone Arenaria melanocephala
Breeds elsewhere

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

Bullock's Oriole Icterus bullockii
Breeds Mar 21 to Jul 25

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

California Gull Larus californicus
Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum
Breeds Jan 1 to Jul 31

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

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Cassin's Finch Carpodacus cassinii — Breeds May 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/9462

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

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

Mountain Plover Charadrius montanus — 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/3638

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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

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

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

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

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Willet Tringa semipalmata — Breeds elsewhere

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

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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.

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 (■)

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.

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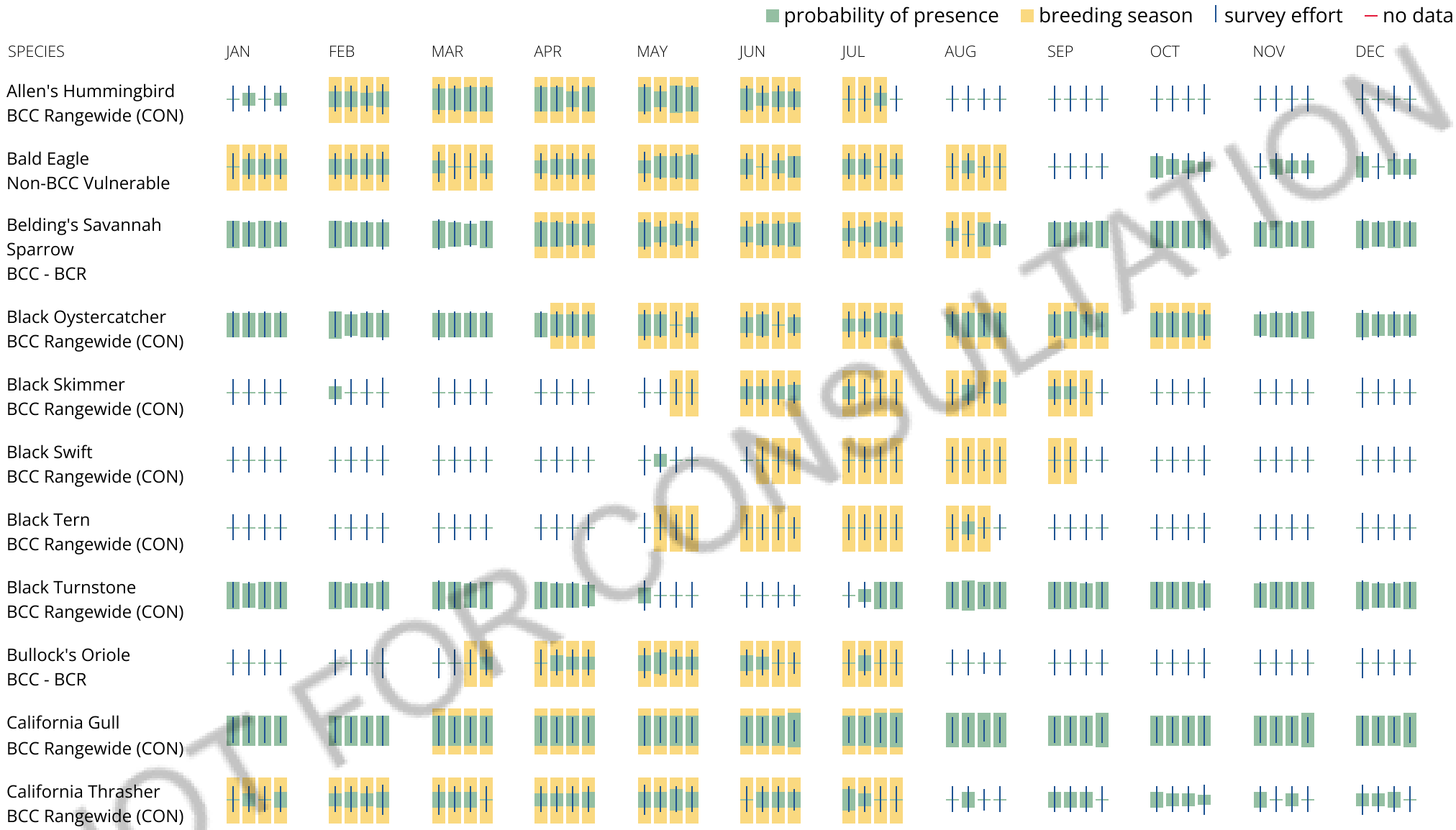
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

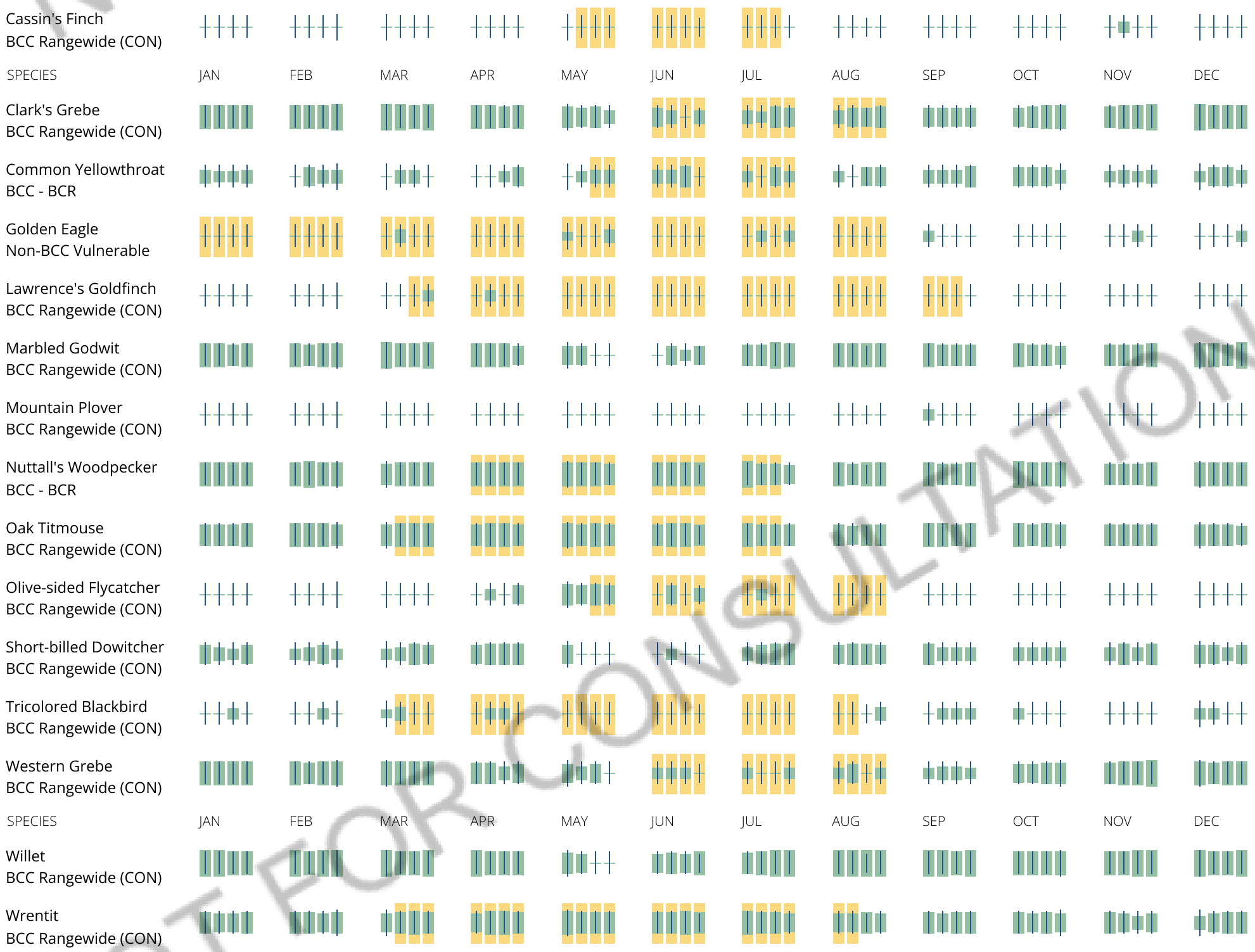
A week is marked as having no data if there were no survey events for that week.

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.



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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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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

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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.

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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 (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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

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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 tuberficid 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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

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Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Green Sea Turtle Chelonia mydas — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/6199

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
California Seablite Suaeda californica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Santa Cruz Tarplant Holocarpha macradenia Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6832	Threatened

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

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Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 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

NOT FOR CONSULTATION

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 (■)

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.

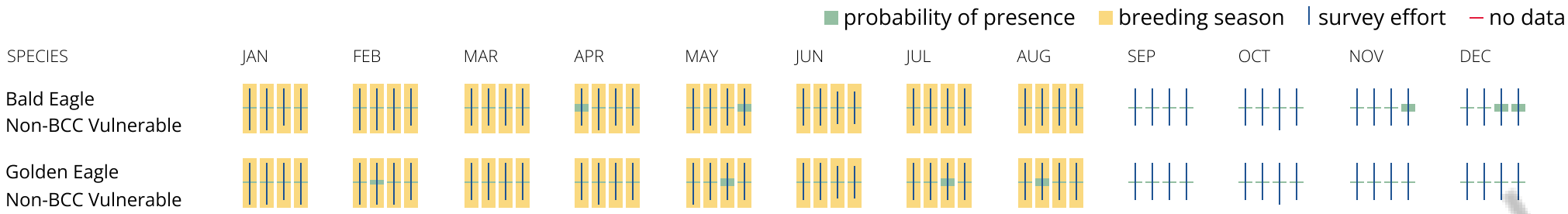
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

NOT FOR CONSULTATION

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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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.

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NAME	BREEDING SEASON
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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi 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/8	Breeds Apr 1 to Aug 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
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Black Turnstone Arenaria melanocephala This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25

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California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

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

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Gull-billed Tern Gelochelidon nilotica — Breeds May 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/9501

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

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Marbled Godwit Limosa fedoa
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481
Breeds elsewhere

Nuttall's Woodpecker Picoides nuttallii
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
Breeds Apr 1 to Jul 20

Oak Titmouse Baeolophus inornatus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656
Breeds Mar 15 to Jul 15

Olive-sided Flycatcher Contopus cooperi
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914
Breeds May 20 to Aug 31

Short-billed Dowitcher Limnodromus griseus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480
Breeds elsewhere

Tricolored Blackbird Agelaius tricolor
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910
Breeds Mar 15 to Aug 10

Western Grebe aechmophorus occidentalis
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743
Breeds Jun 1 to Aug 31

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Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

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 (■)

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.

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

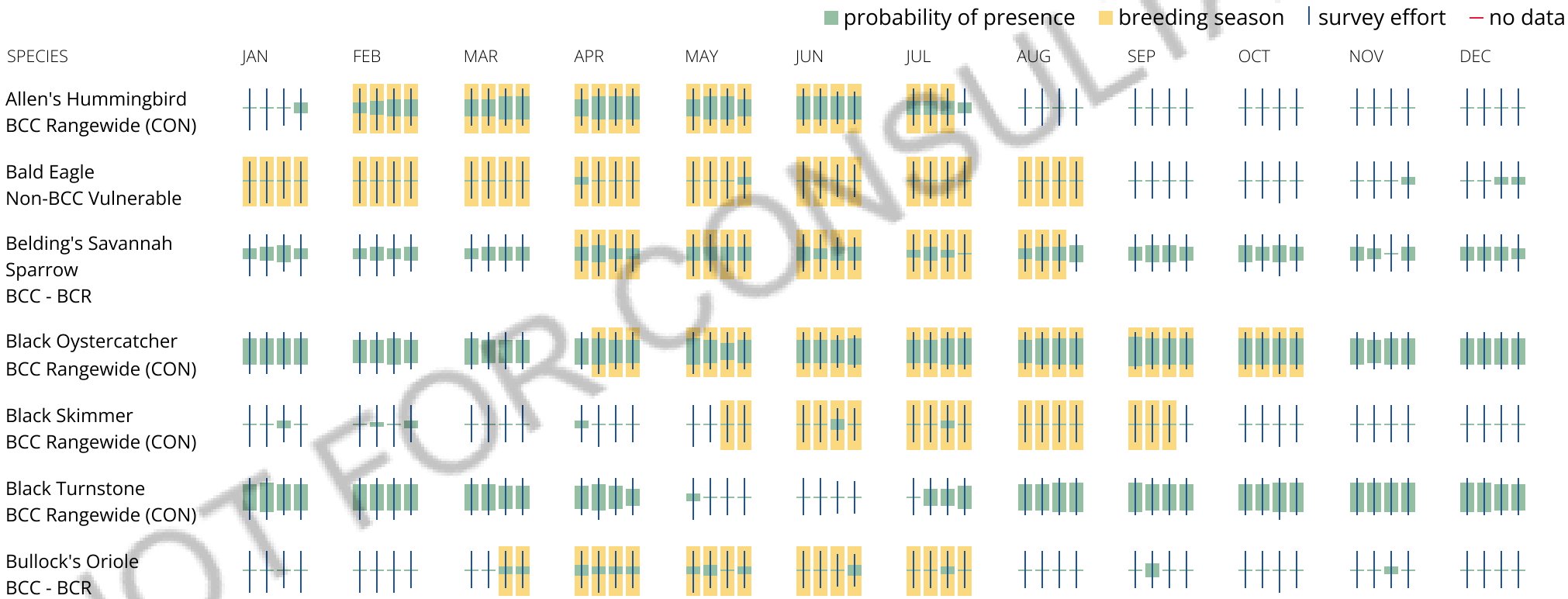
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

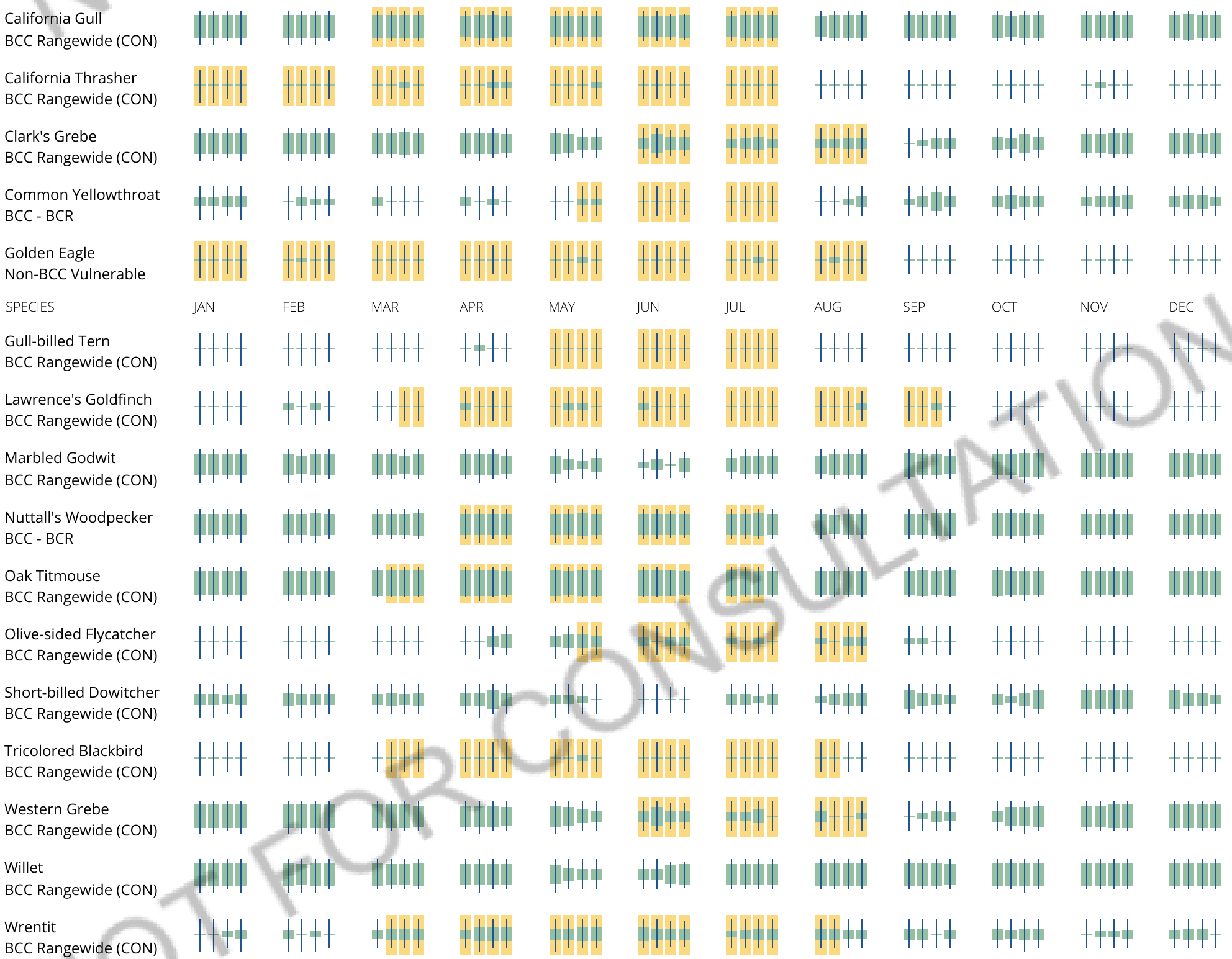
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



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Yellow-billed Magpie
BCC Rangewide (CON)



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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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:

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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.

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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 (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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

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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 tuberficid 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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

NOT FOR CONSULTATION

Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander Ambystoma californiense — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2076

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

NOT FOR CONSULTATION

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
California Seablite Suaeda californica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Pallid Manzanita Arctostaphylos pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8292	Threatened
Presidio Clarkia Clarkia franciscana Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3890	Endangered

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Robust Spineflower Chorizanthe robusta var. robusta Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/9287

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

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- Supplemental Information for Migratory Birds and Eagles in IPaC
  https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Aug 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

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 (■)

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:

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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.

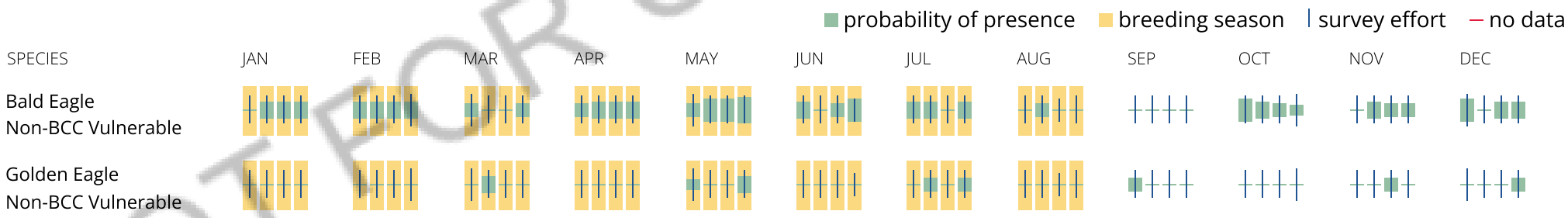
Breeding Season (▬)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

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The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management

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- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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
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
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* 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/8	Breeds Apr 1 to Aug 15

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Black Oystercatcher Haematopus bachmani
Breeds Apr 15 to Oct 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9591

Black Skimmer Rynchops niger
Breeds May 20 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Black Swift Cypseloides niger
Breeds Jun 15 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8878

Black Tern Chlidonias niger
Breeds May 15 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3093

Black Turnstone Arenaria melanocephala
Breeds elsewhere

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

Bullock's Oriole Icterus bullockii
Breeds Mar 21 to Jul 25

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

California Gull Larus californicus
Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum
Breeds Jan 1 to Jul 31

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

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Cassin's Finch Carpodacus cassinii — Breeds May 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/9462

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

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

Mountain Plover Charadrius montanus — 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/3638

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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

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

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

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

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Willet Tringa semipalmata — Breeds elsewhere

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

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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.

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 (■)

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.

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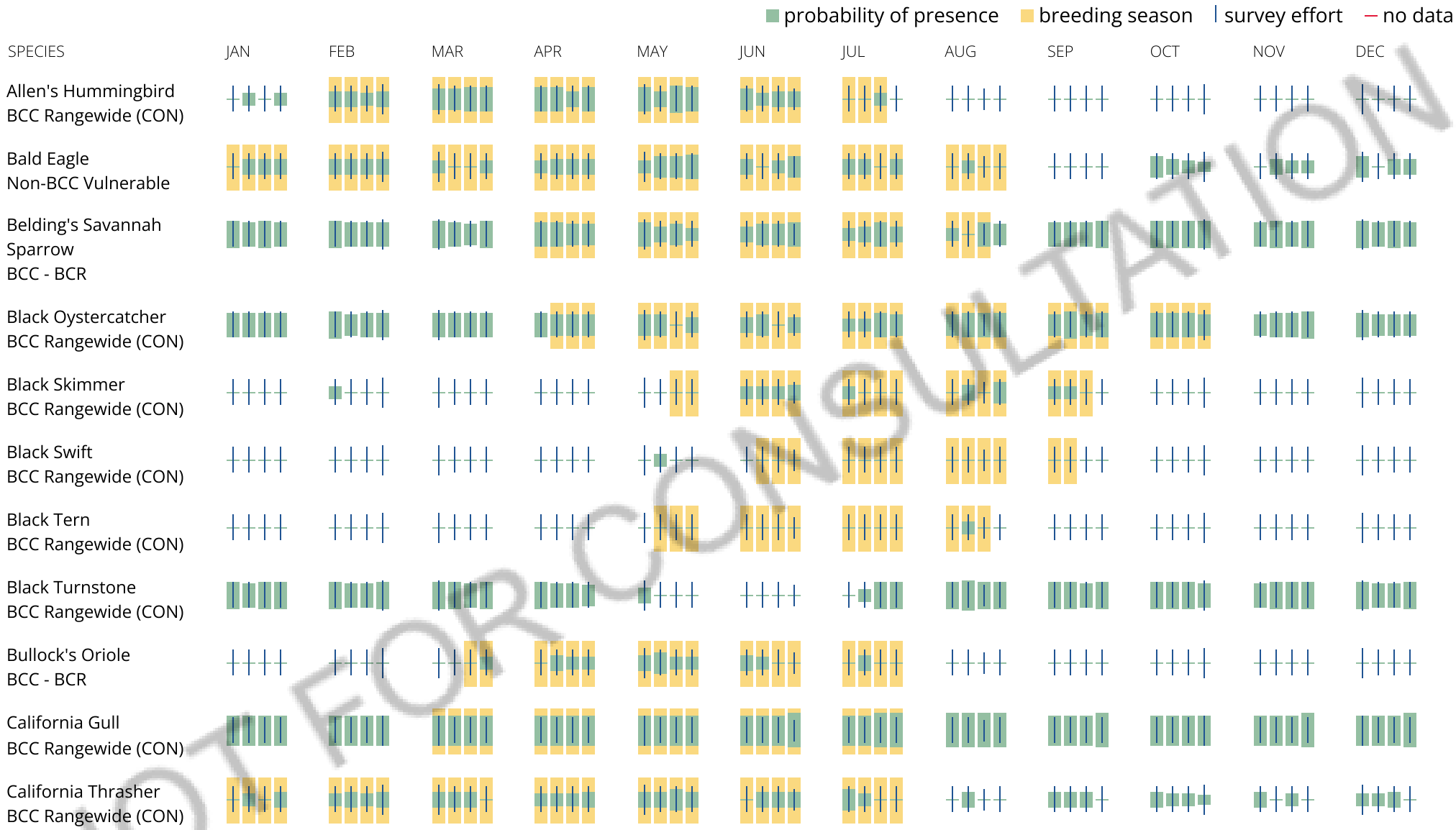
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

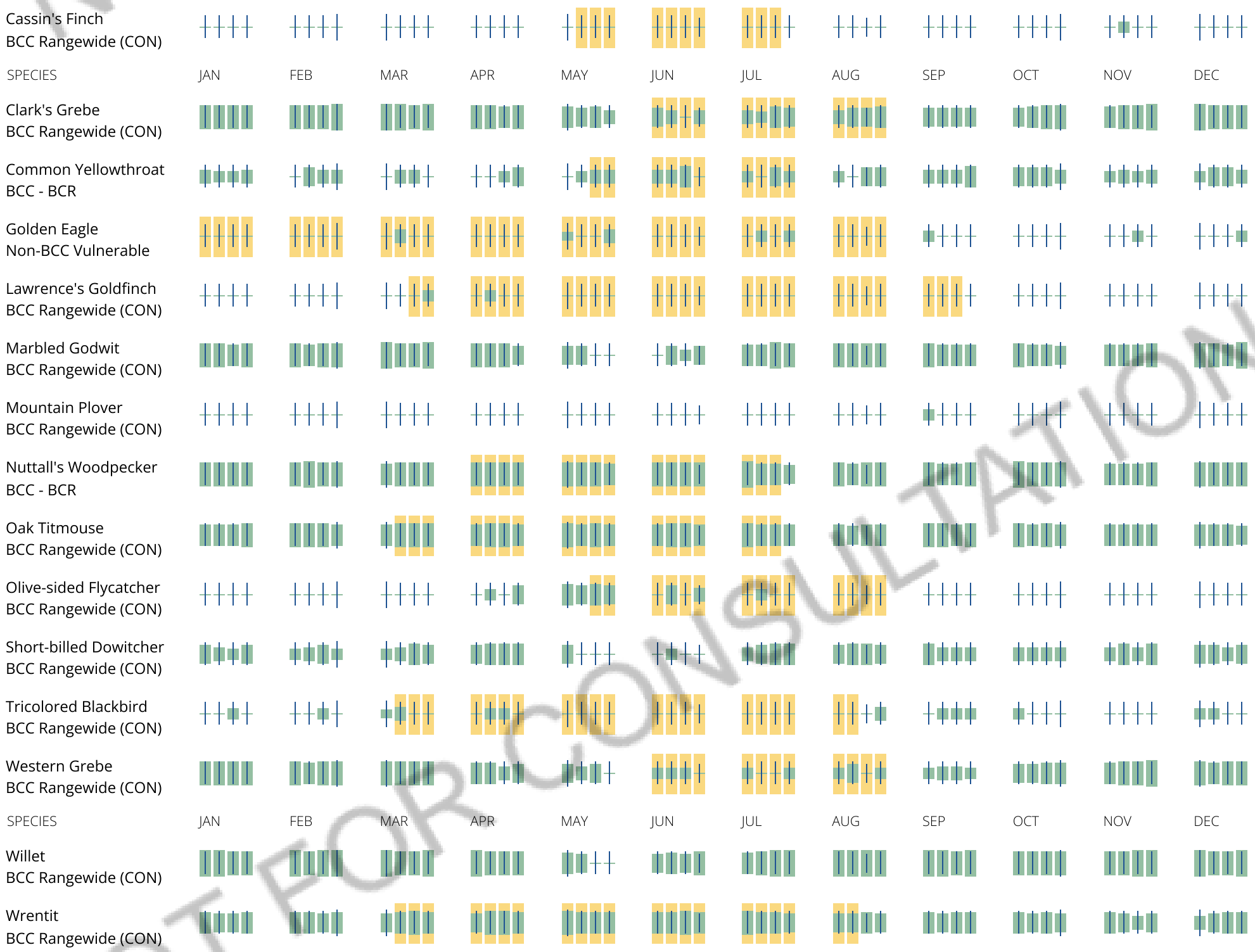
A week is marked as having no data if there were no survey events for that week.

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.



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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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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

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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.

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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 (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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

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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 tuberficid 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.

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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

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

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(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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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 species[1] 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 Fisheries[2]).

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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS

NOT FOR CONSULTATION

Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5524

Green Sea Turtle Chelonia mydas — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/6199

Northwestern Pond Turtle Actinemys marmorata — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1111

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2891

Foothill Yellow-legged Frog Rana boylii — Threatened

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS

Tidewater Goby Eucyclogobius newberryi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

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Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
California Seablite Suaeda californica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Santa Cruz Tarplant Holocarpha macradenia Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6832	Threatened

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

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Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 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

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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 (■)

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.

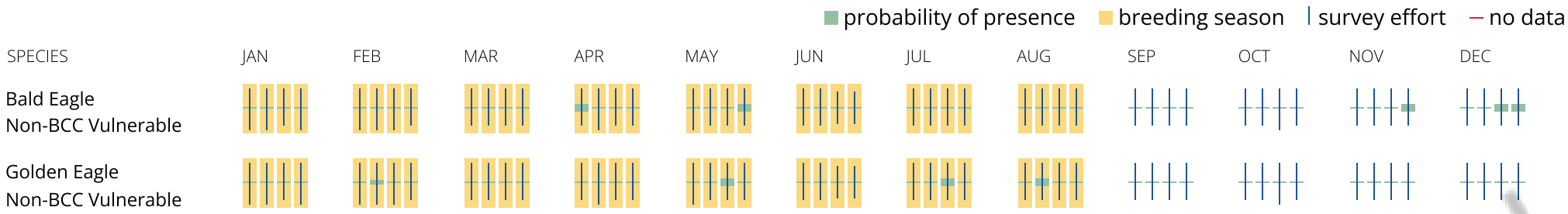
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

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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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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.

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NAME	BREEDING SEASON
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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi 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/8	Breeds Apr 1 to Aug 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
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Black Turnstone Arenaria melanocephala This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25

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California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

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

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Gull-billed Tern Gelochelidon nilotica — Breeds May 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/9501

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

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Marbled Godwit Limosa fedoa
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481
Breeds elsewhere

Nuttall's Woodpecker Picoides nuttallii
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
Breeds Apr 1 to Jul 20

Oak Titmouse Baeolophus inornatus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656
Breeds Mar 15 to Jul 15

Olive-sided Flycatcher Contopus cooperi
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914
Breeds May 20 to Aug 31

Short-billed Dowitcher Limnodromus griseus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480
Breeds elsewhere

Tricolored Blackbird Agelaius tricolor
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910
Breeds Mar 15 to Aug 10

Western Grebe aechmophorus occidentalis
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743
Breeds Jun 1 to Aug 31

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Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

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 (■)

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.

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

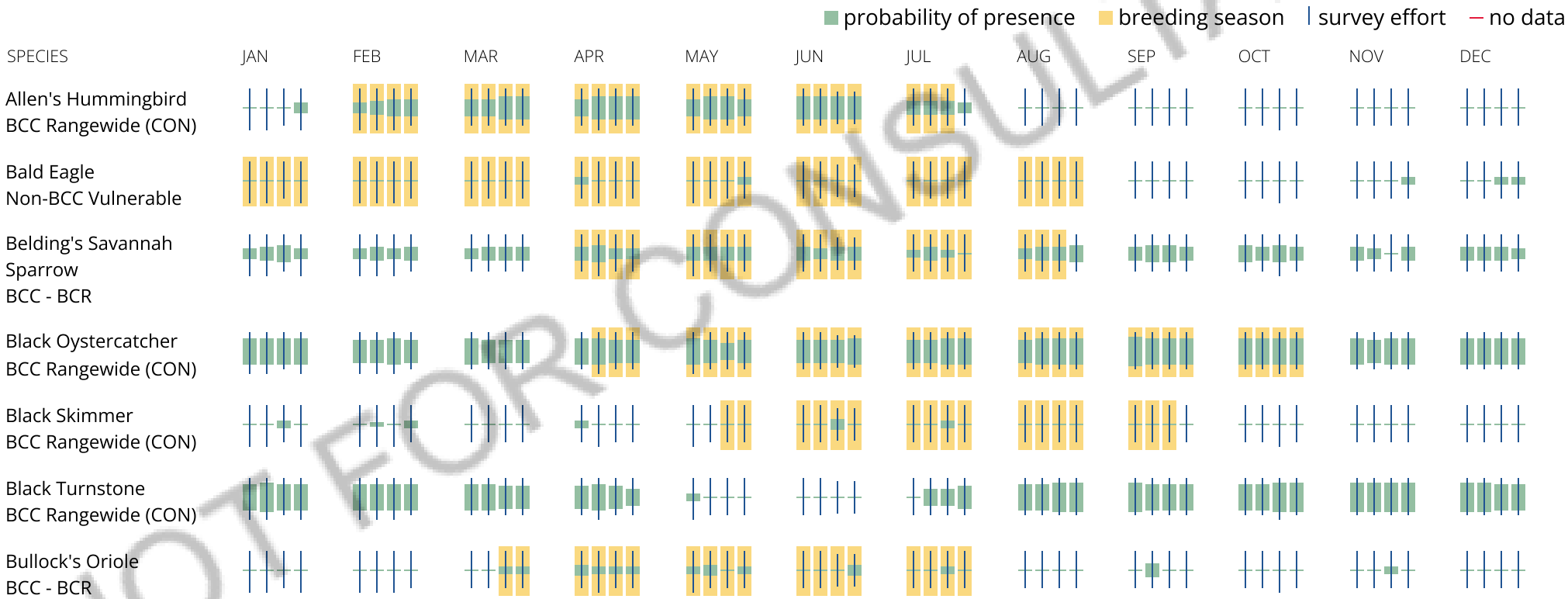
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

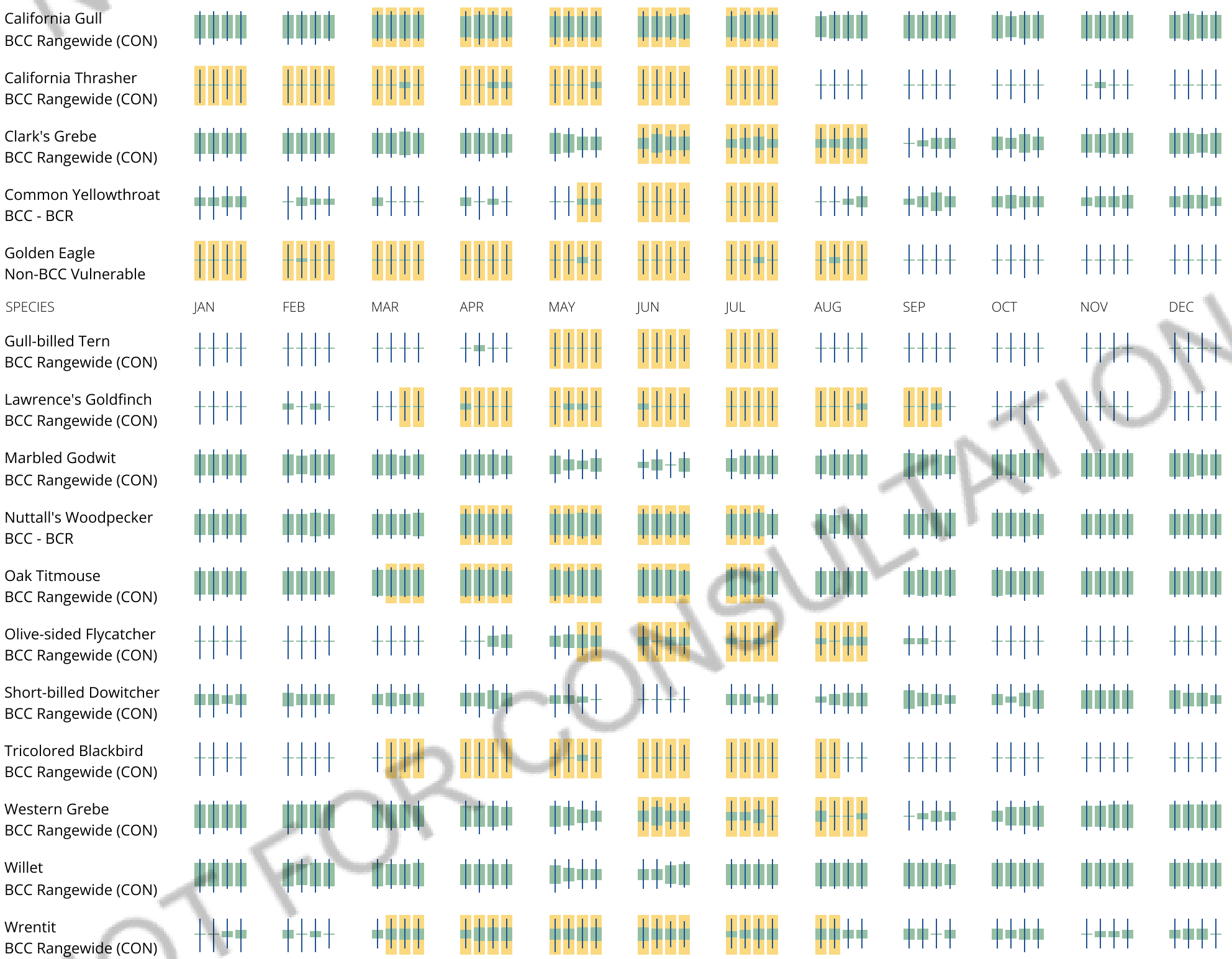
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



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Yellow-billed Magpie
BCC Rangewide (CON)



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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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:

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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.

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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 (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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

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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 tuberficid 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.

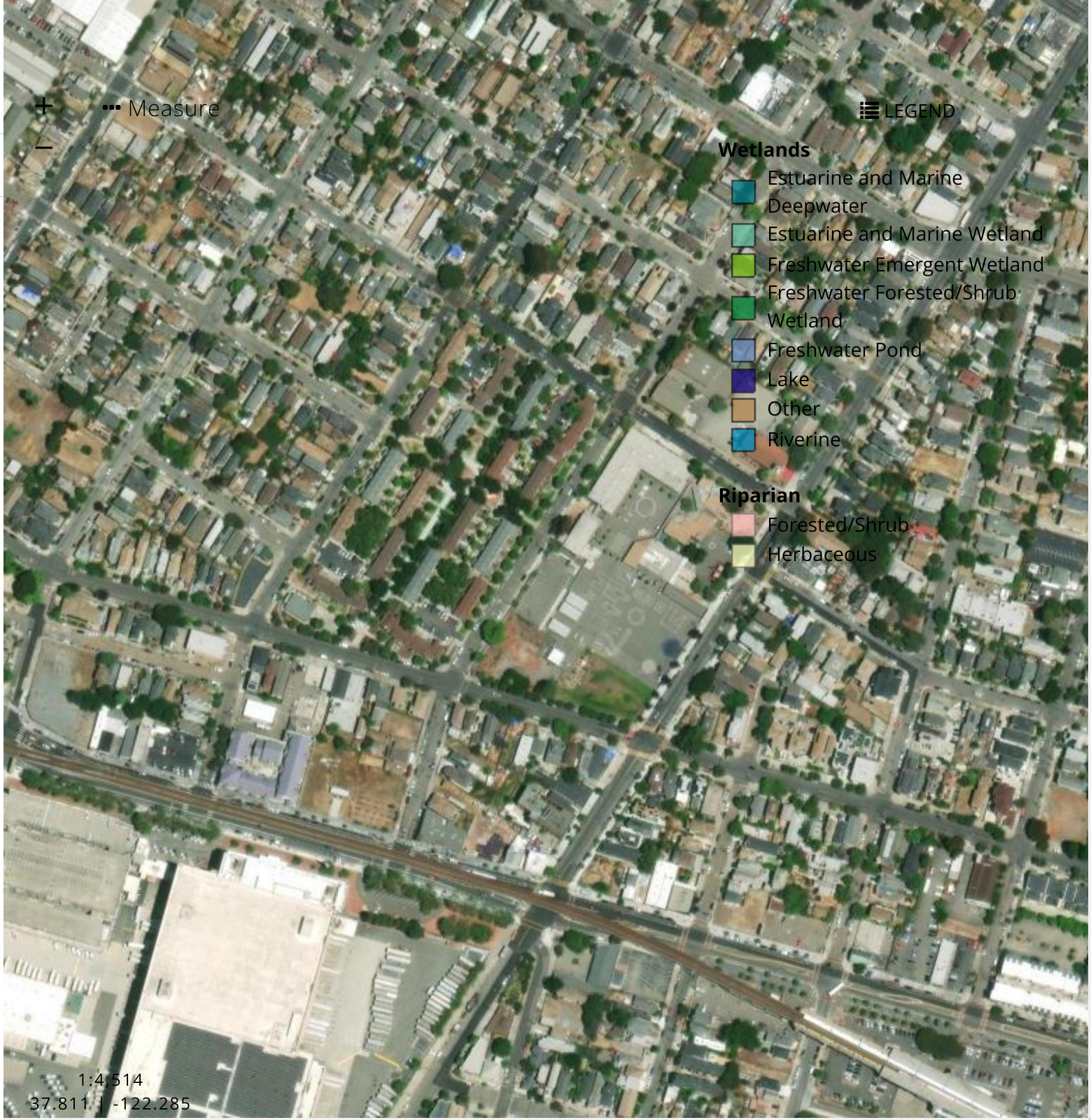
NOT FOR CONSULTATION



BASEMAPS >

MAP LAYERS >

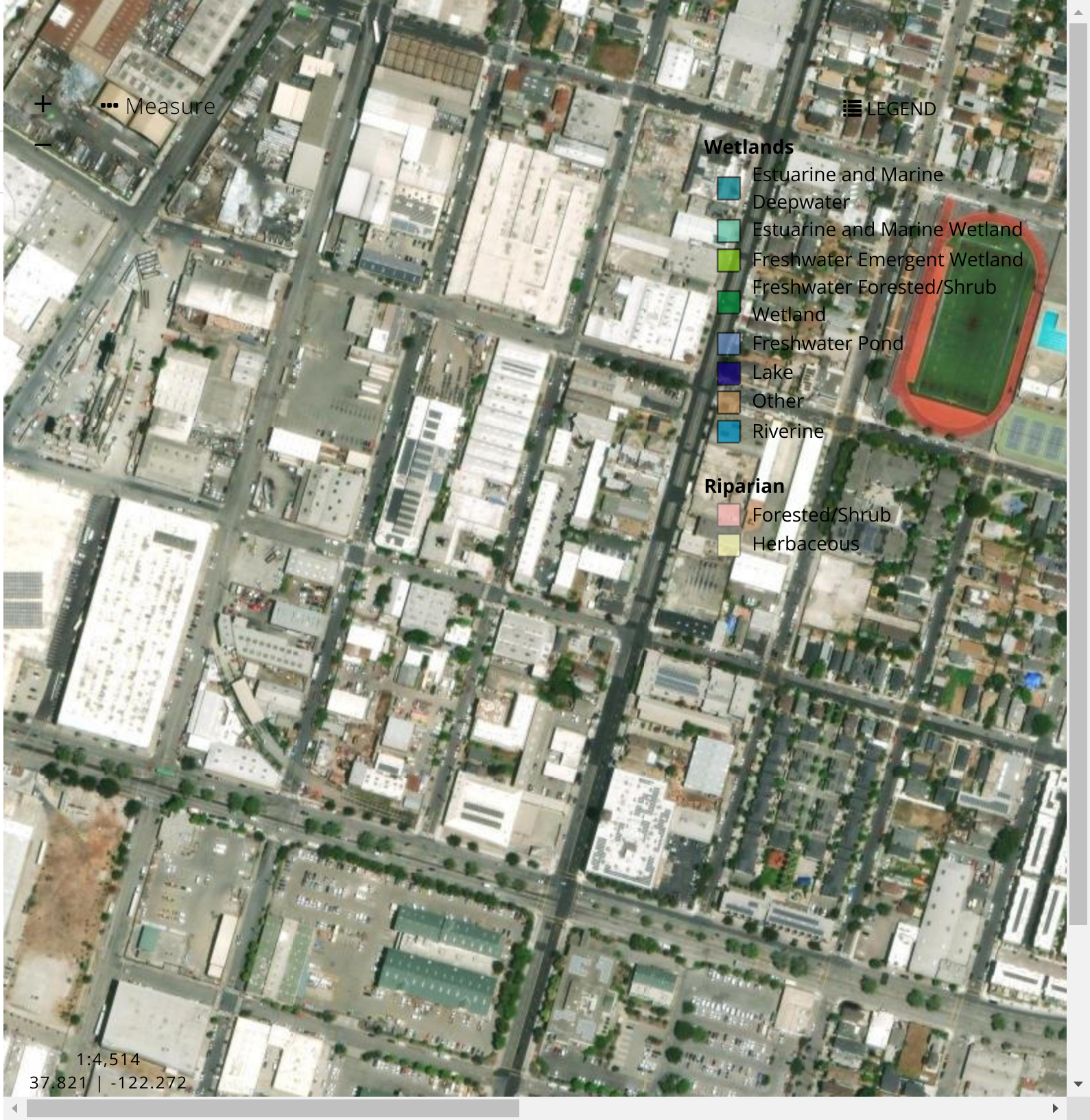
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- [x] Riparian
- [ ] Riparian Mapping Areas
- [x] Data Source
  - Source Type
  - Image Scale
  - Image Year
- [ ] Areas of Interest
- [ ] FWS Managed Lands
- [ ] Historic Wetland Data



BASEMAPS >

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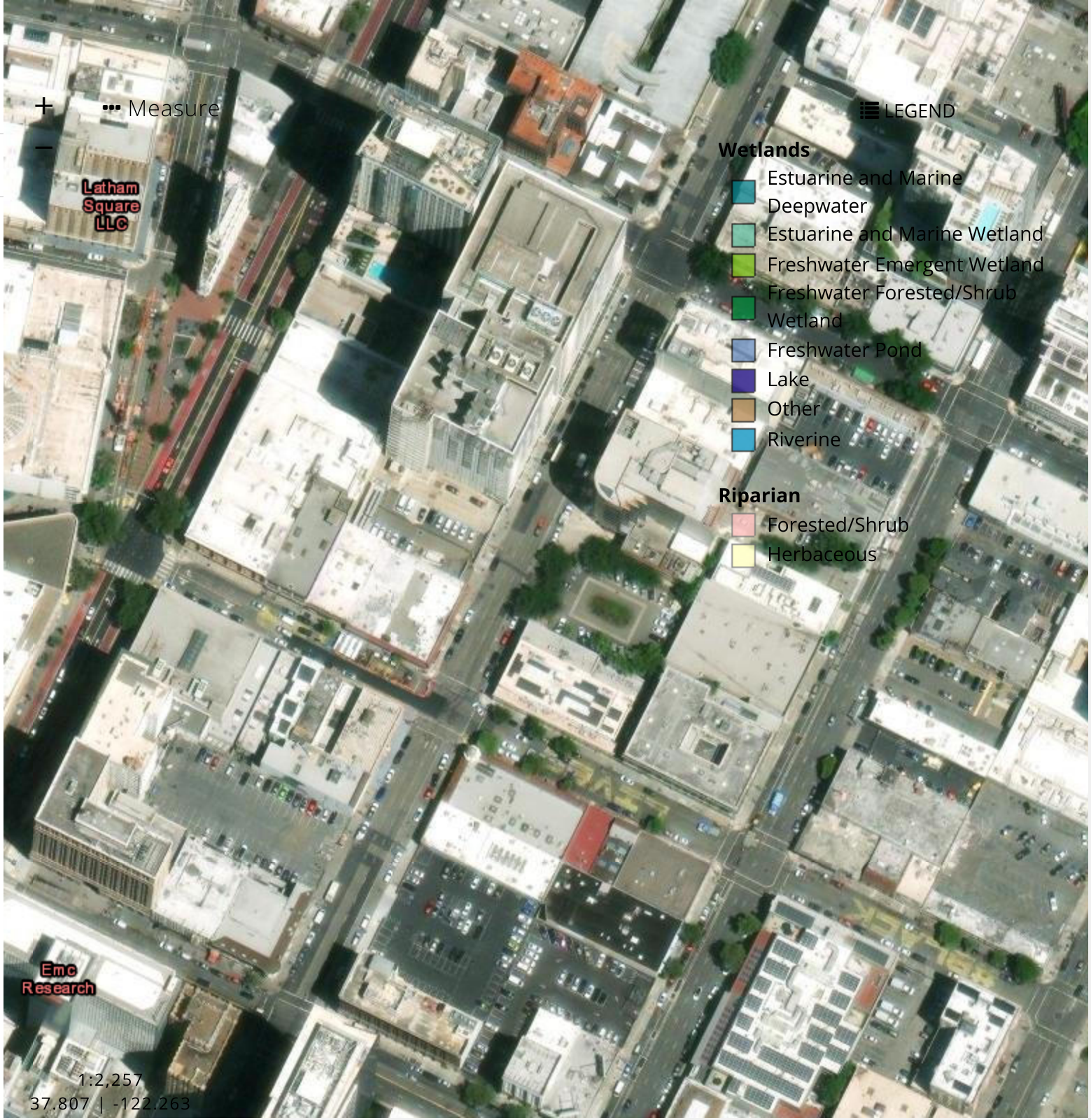


BASEMAPS >

- STREETS
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- HYBRID
- TOPO
- TERRAIN
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- NATGEO
- USGS TOPO
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MAP LAYERS >

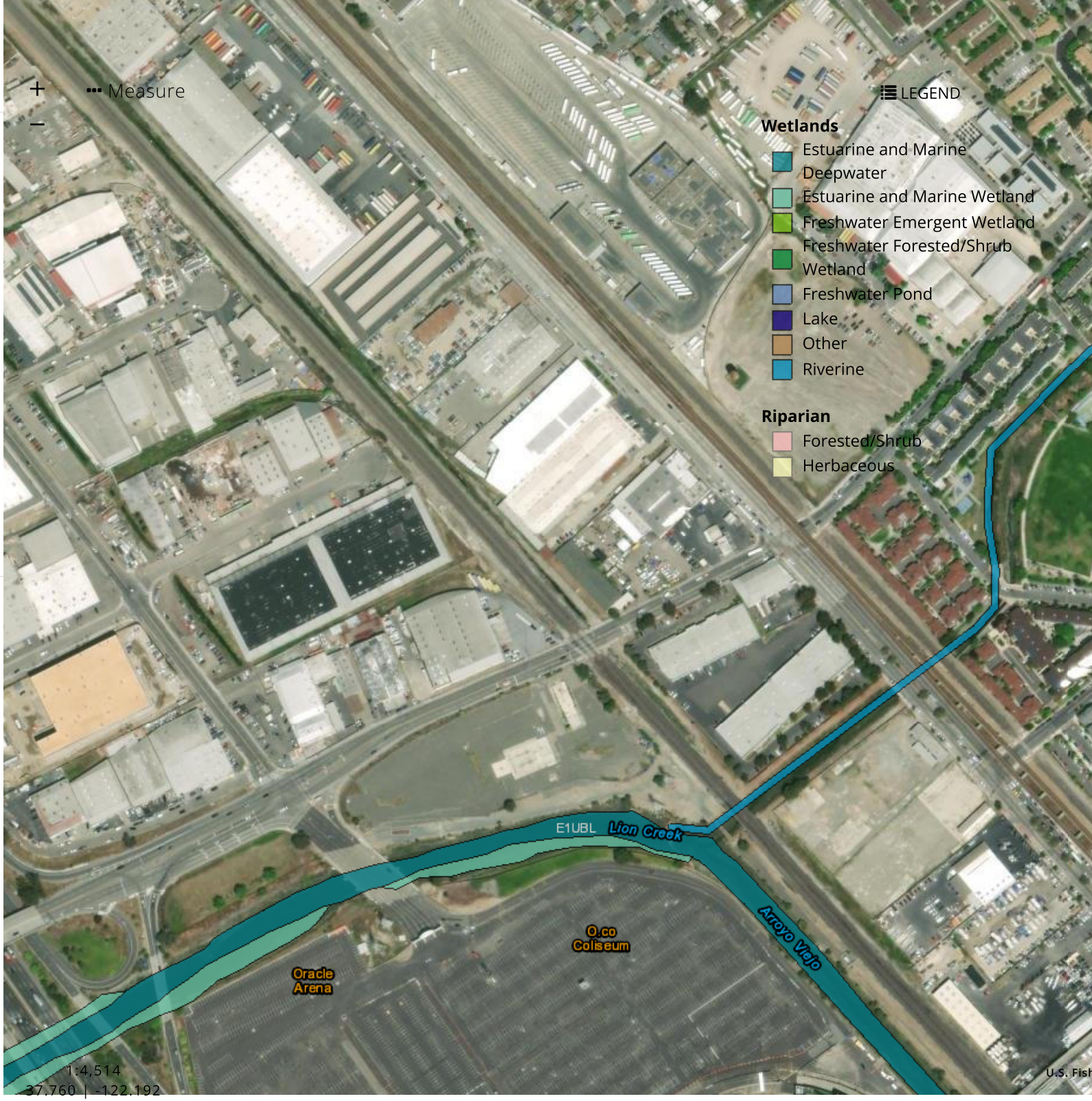
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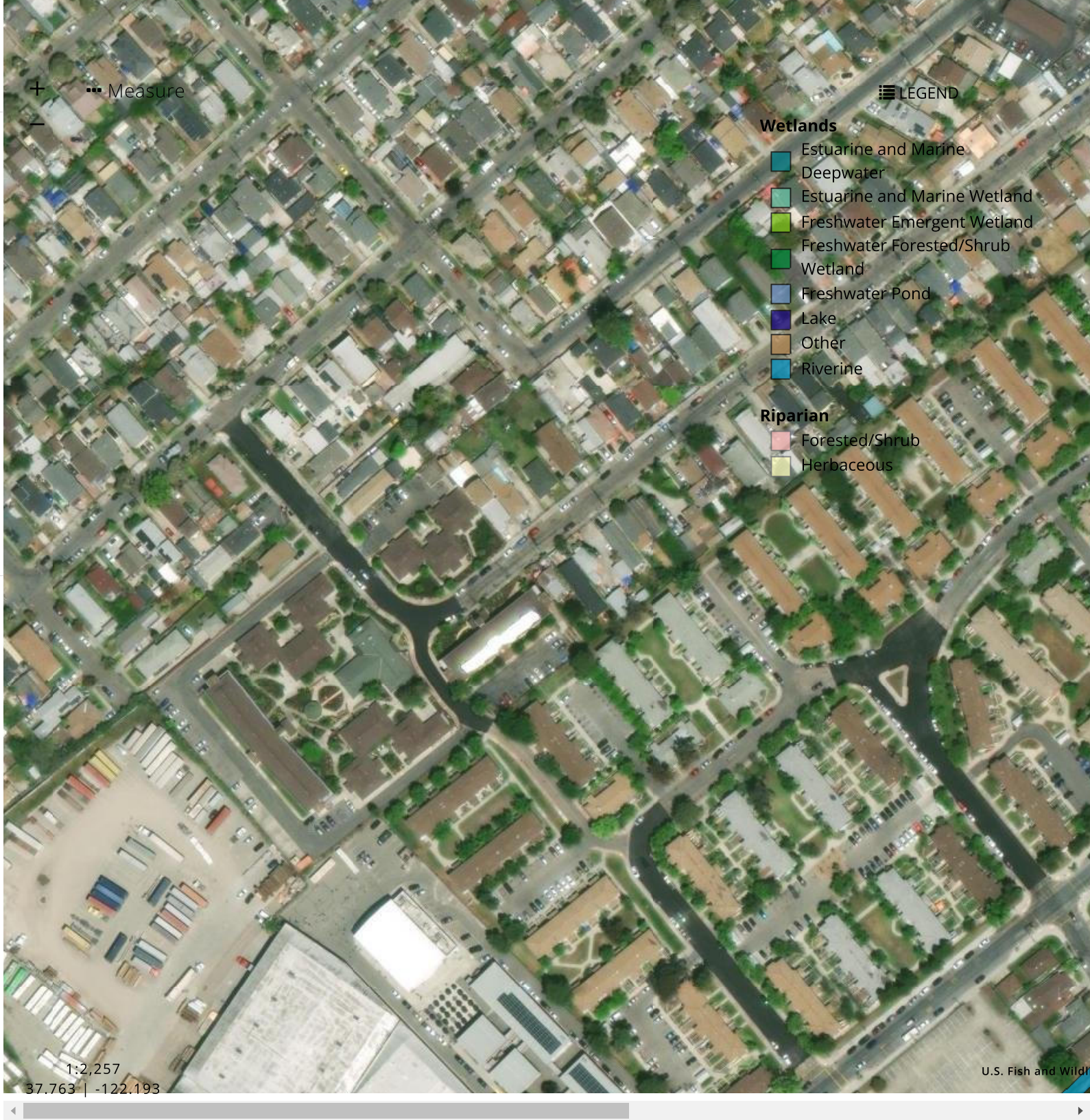


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