

MOORE BIOLOGICAL CONSULTANTS

December 23, 2020

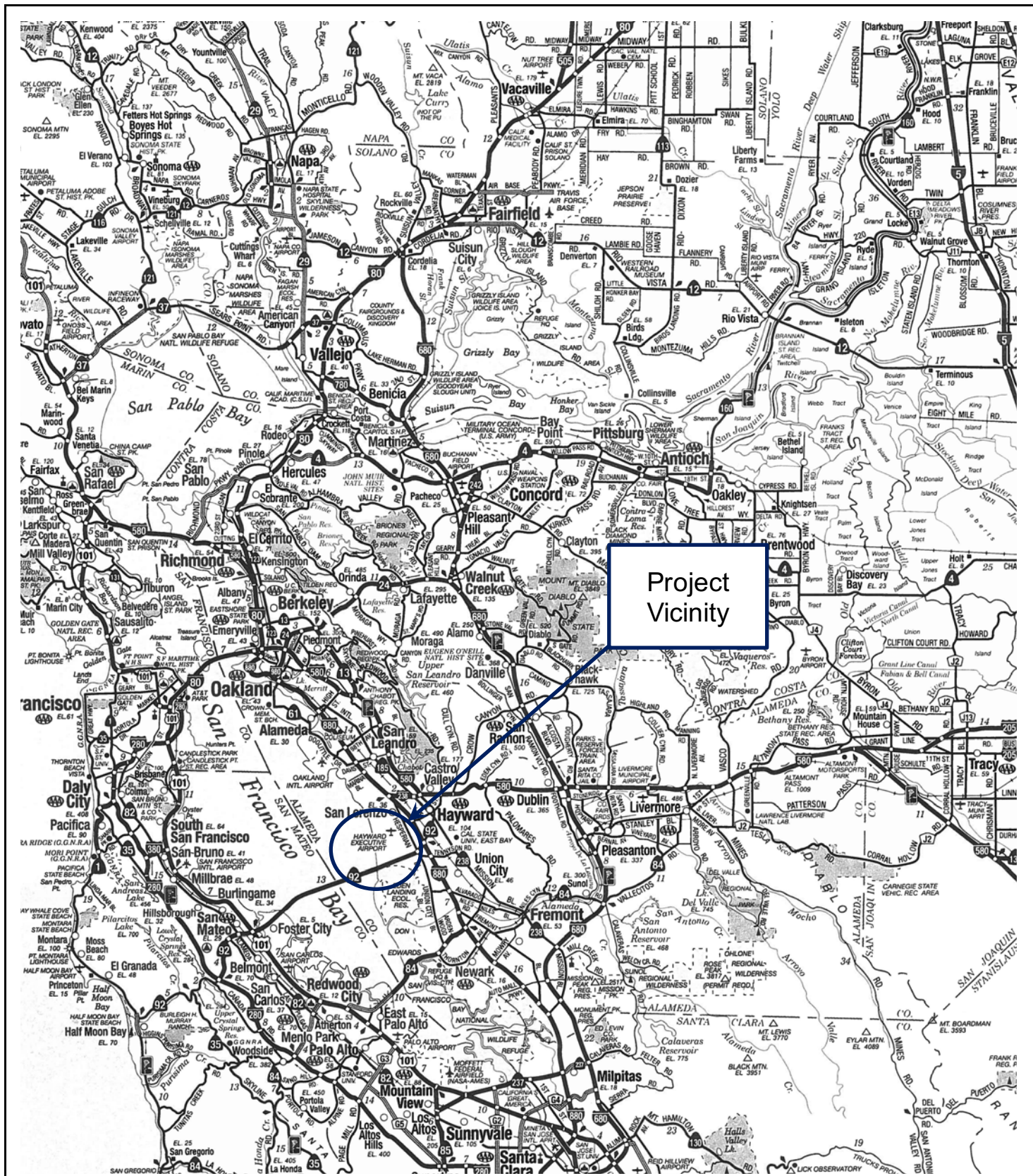
Mr. George Condon
Dermody Properties
5500 Equity Avenue
Reno, NV 89502

Subject: "3600 ENTERPRISE AVENUE", HAYWARD, ALAMEDA COUNTY,
CALIFORNIA: PRELIMINARY WETLANDS AND SPECIAL-STATUS
SPECIES REVIEW

Dear George:

Thank you for asking Moore Biological Consultants to assist with a biological resources due-diligence review of this site in Hayward, Alameda County, California (Figures 1 and 2 and Site Plan in Attachment A). This review is intended to help evaluate the site for industrial development in light of potentially constraining biological resources such as potentially jurisdictional Waters of the U.S. and wetlands, designated critical habitat, special-status species, and/or potentially suitable habitat for special-status species. The preliminary review included a review of aerial photographs, a search of relevant databases, and a field survey conducted on November 23, 2020.

Setting: The project site is located in an industrial portion of Hayward, in Alameda County, California (Figure 1). The site is in an Unnumbered Section within Township 3 South, Range 2 West of the USGS 7.5-minute San Leandro topographic quadrangle (Figure 2). The site is at an elevation of approximately 10 feet above mean sea level.



Source: California State
Automobile Association

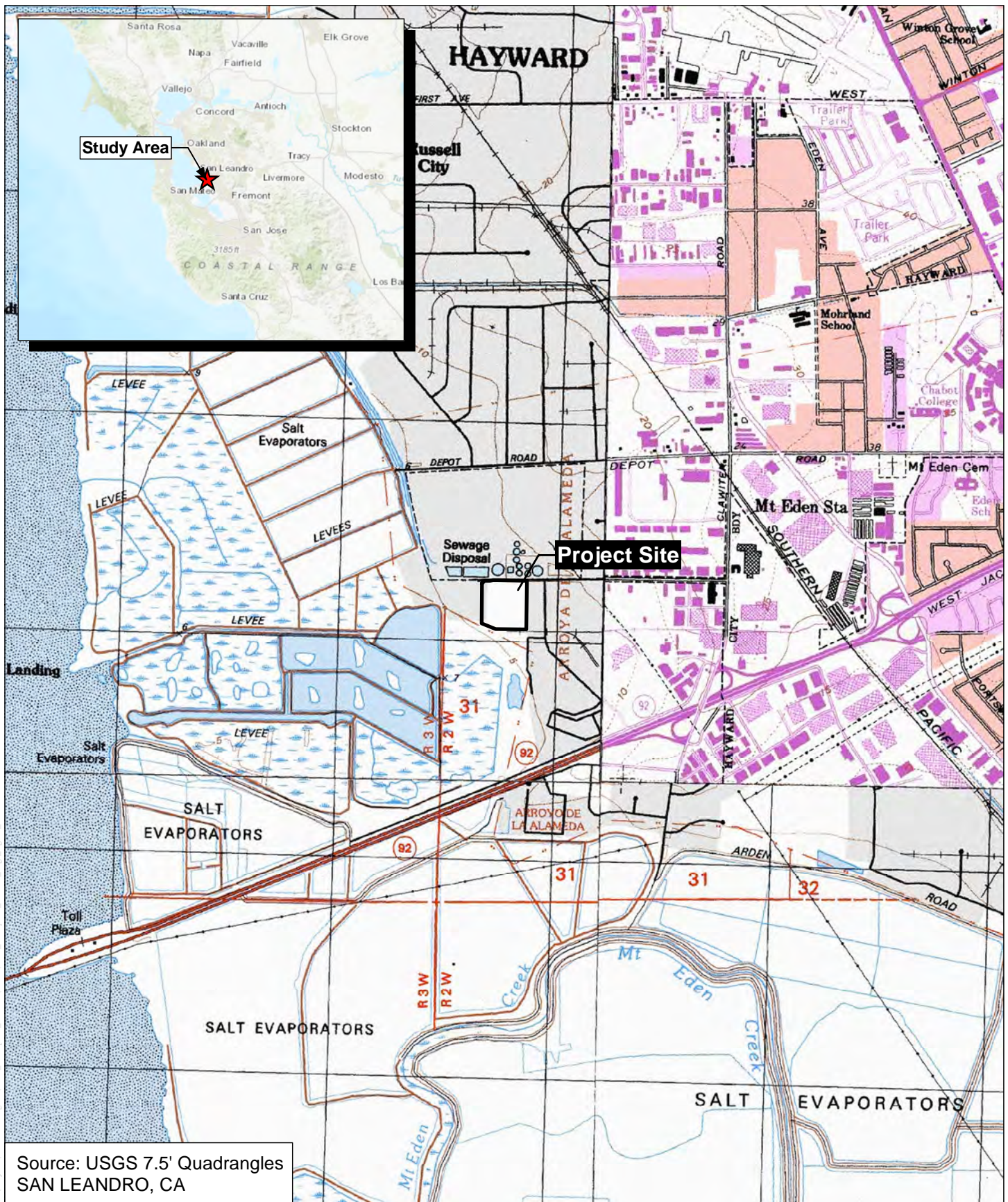
**Moore Biological
Consultants**



0 9 18 Miles

FIGURE 1

PROJECT VICINITY



Source: USGS 7.5' Quadrangles
SAN LEANDRO, CA

Figure 2

Moore Biological
Consultants

0 1,000 2,000
Feet



Map Date: 11/24/2020

USGS

3600 Enterprise Avenue

City of Hayward, Alameda County, CA

The project site is an open field with a row of ornamental trees and shrubs on the west edge of the site and a few trees along the south edge of the site (Figure 3 and photographs in Attachment B). There are four radio towers in the central part of the site, and a maintenance shed associated with the radio operations.


Land uses in this portion of Alameda County are primarily commercial and industrial; there is a complex of salt evaporation ponds located along the edge of the San Francisco Bay, generally west of the site. Enterprise Avenue borders the north edge of the site and there is a water treatment facility north of Enterprise Avenue. There is a large building to the west of the site. The east edge of the site is adjacent to a vacant lot that was previously developed, but is now an elevated gravel pad. The south edge of the site is adjacent to an area consisting of a mosaic of wetlands and grasslands, as well as a commercial building.

The body of the site is an open grassland field, most of which is periodically mowed and/or disked for weed abatement purposes (see photographs in Attachment B). Vegetation within the site is best described as ruderal and highly disturbed. Dominant grassland species observed in the site include oats (*Avena* sp.), soft brome (*Bromus hordeaceus*), yellow star thistle (*Centaurea solstitialis*), black mustard (*Brassica nigra*), common mallow (*Malva neglecta*), bristly oxtongue (*Helminthotheca echioides*), alkali heath (*Frankenia salina*), and fireweed (*Epilobium brachycarpum*).

There is a row of ornamental trees and shrubs along the west edge of the site ranging in size from a few feet to approximately 20 feet in height. There are also two relatively large ornamental trees along the south edge of the site.

Waters of the U.S. and Wetlands: Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, their tributaries, and adjacent wetlands. State and federal agencies regulate these habitats and Section 404 of the Clean Water Act requires that a permit be secured prior to the discharge of dredged or fill



Figure 3	<p>0 150 300 Feet</p> 	AERIAL
		3600 Enterprise Avenue <i>City of Hayward, Alameda County, CA</i>
Moore Biological Consultants	<p>Map Date: 11/24/2020 Aerial Source: Maxar (2019)</p>	

materials into any waters of the U.S., including wetlands. ACOE, California Department of Fish and Wildlife (CDFW), and the California Regional Water Quality Control Board (RWQCB) have jurisdiction over modifications to riverbanks, lakes, stream channels and other wetland features.

Jurisdictional wetlands are vegetated areas that meet specific vegetation, soil, and hydrologic criteria defined by the ACOE *Wetlands Delineation Manual* and Regional Supplement (ACOE, 1987; 2008). Jurisdictional wetlands are adjacent to or hydrologically associated with Waters of the U.S. Isolated wetlands are outside federal jurisdiction, but can still be regulated by the RWQCBs as “Waters of the State”.

While the National Wetlands Inventory (NWI) map does not identify any aquatic features in the site (Attachment C), there are a few potentially jurisdictional Waters of the U.S. or wetlands within the site (Figure 4). The southwest part of the site is adjacent to a mosaic of wetlands and grasslands with a complex of salt evaporation fields further southwest of the site. There are four seasonal wetlands within the site encompassing approximately 0.45 acres. All of the wetlands are highly disturbed from periodic mowing and disking of the site over many years.

Three of the seasonal wetlands are isolated, situated in shallow basins in the body of the site. Due to spatial and hydrologic separation between these wetlands and jurisdictional Waters of the U.S., these wetlands are believed to be outside ACOE jurisdiction. In contrast, the wetland along the south edge of the site is part of a larger wetland extending off site to the south and southwest that is adjacent to a creek or slough that is tributary to the San Francisco Bay, and is believed to be federally jurisdictional. To ascertain the extent of jurisdictional Waters of the U.S. and wetlands, a wetland delineation would need to be submitted to ACOE for verification. The RWQCB would likely regulate all of the seasonal wetlands in the site as “Waters of the State”.

C:\Users\owner\Documents\FEC_ING\Projects\Moore Biological\3600_Enterprise_Avenue\MXD\3600_enterprise_avenue_waters_figure_4.mxd



Moore Biological
Consultants

Map Date: 12/16/2020
Aerial Source: Google Earth (03/2017)

Special-Status Species: A search of CDFW's California Natural Diversity Database (CNDDDB, 2020) was undertaken to identify special-status species that have been documented in the greater project vicinity or have the potential to occur based on presence of suitable habitat and geographical distribution.

There are a few records of special-status plants within and in close proximity to the project site CNDDDB (2020). The most notable special-status plant record in the CNDDDB is a record of Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), which was documented in the project site in 2009. The CNDDDB record describes Congdon's tarplant growing in a highly disturbed seasonal wetland in the site surrounded by common weedy species. Site conditions do not appear to have changed in the past decade and it is quite possible that Congdon's tarplant occurs in one or more of seasonal wetlands in the site.

Contra Costa goldfields (*Lasthenia conjugens*) is the only other special-status plant in the CNDDDB (2020) search with potential to occur in the site. This species is known to occur in a variety of habitats including seasonal wetlands and low depressions in grassland environments and could occur in the seasonal wetlands in the site. The nearest record of Contra Costa goldfields in the CNDDDB (2020) is a 1959 record approximately 1-mile northwest of the site that is described in the CNDDDB as being along the shore of the San Francisco Bay. The remaining special-status plants identified in the CNDDDB (2020) search occur in specific habitat types not found within the project site, precluding their presence.

The recent survey was conducted outside the blooming seasons of Congdon's tarplant and Contra Costa goldfields and neither species was observed in the site. Botanical surveys would need to be conducted in the spring or summer to confirm presence or absence of Congdon's tarplant, Contra Costa goldfields, or other special-status plants.

Due to the relatively small size of the site, lack of suitable habitat, and the location of the site within a highly developed portion of Alameda County, it is

considered unlikely that special-status wildlife species utilize habitats in the site on more than an occasional or transitory basis. Most of the special-status wildlife species identified in the CNDDDB (2020) search area occur in more natural areas associated with the San Francisco Bay to the west of the site.

Salt-marsh harvest mouse (*Reithrodontomys raviventris*) occurs in emergent wetlands dominated by pickleweed (*Salicornia pacifica*) and has been observed in the “Salt Marsh Harvest Mouse Preserve”, which is located within 0.5 miles southwest of the project site (CNDDDB, 2020). While the body of the site does not contain suitable habitat for this species, there are a few patches of pickleweed in the southwest part of the site, as well as much more developed emergent wetlands just south and southwest of the site. Although considered unlikely, salt-marsh harvest mouse may wander on to the site on occasion.

Despite levels of disturbance, a few special-status species of birds may forage within the site and could potentially nest in trees and shrubs along the edges of the site. There are a few ground squirrel burrows in the site, but none the burrows contained evidence of past or present occupancy by burrowing owl (*Athene cunicularia*). The nearest occurrence of this species in the CNDDDB (2020) search area is approximately 2 miles southeast of the project site.

The seasonal wetlands in the site are highly disturbed from continual mowing and/or disking and are not be expected to support vernal pool branchiopods including vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardii*). Further, special-status vernal pool branchiopods are not recorded in the CNDDDB (2020) search area.

Critical Habitat: The United States Fish and Wildlife Service (USFWS) on-line-maps of designated critical habitat were downloaded and plotted with respect to the site (Attachment E). The site is not within designated critical habitat for any federally listed special status plants or wildlife.

Summary: This project site is an open field vegetated with ruderal grasses and weeds that is routinely disked and mowed. There are also a few trees and shrubs in the site.

- There are four relatively small seasonal wetlands in the site encompassing approximately 0.45 acres. Most of these wetlands are believed to be outside ACOE jurisdiction. A wetland along the south edge of the site is believed to be federally jurisdictional. To ascertain the extent of jurisdictional Waters of the U.S. and wetlands, a wetland delineation would need to be submitted to ACOE for verification. The RWQCB would likely regulate all of the seasonal wetlands in the site as “Waters of the State”.
- Permits from ACOE and/or RWQCB could likely be secured to allow the fill of the on-site wetlands. However, the permit processes would likely take well over a year and the agencies would likely require compensatory mitigation to provide for “no net loss” of Waters of the U.S. and/or Waters of the State.
- Congdon’s tarplant and Contra Costa goldfields are the only special-status plants with much potential to occur within the project sites. Botanical surveys would need to be conducted in the spring or summer to confirm presence or absence of Congdon’s tarplant, Contra Costa goldfields, or other special-status plants.
- Salt marsh harvest mouse may wander on to the site on occasion, but would not be expected to utilize habitats in the site extensively. Special-status birds may fly over or forage in the site on occasion and trees and shrubs in the site may be suitable for a variety of nesting birds. Special-status bats may also fly over or forage in the site on occasion, but would not be expected to roost in trees in the site. Due to a lack of suitable habitat, no other special-status wildlife species is expected to occur on site on more than an occasional or transitory basis.

- The trees and grasslands in the site may be used by nesting birds protected by the Migratory Bird Treaty Act of 1918 and Fish and Game Code of California. If vegetation removal and/or project construction occurs between February 1 and August 31, a pre-construction nesting bird survey is recommended. If active nests are found within the survey area, vegetation removal and/or project construction should be delayed until a qualified biologist determines nesting is complete.

We hope this information is useful. Please call me at (209) 745-1159 with any questions.

Sincerely,



Diane S. Moore, M.S.
Principal Biologist

References and Literature Consulted

ACOE (U.S. Army Corps of Engineers). 1987. Technical Report Y87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MI.

ACOE. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. U.S. Army Engineer Research and Development Center, Vicksburg, MS. September.

CNDDDB (California Natural Diversity Database). 2020. California Department of Fish and Wildlife's Natural Heritage Program, Sacramento, California.

Attachment A

Site Plan



PROJECT DATA:			
SITE AREA:			
GROSS:		10.94 AC	
		476,488 SF	
DETENTION:	@ 4%	19,121 SF	
NET:		10.50 AC	
		457,367 SF	
BUILDING FOOTPRINT:		222,680 SF	
BUILDING USE:			
WAREHOUSE		211,546 SF	
OFFICE	@ 5%	11,134 SF	
COVERAGE:		47%	
GROSS:		47%	
NET:		49%	
PARKING REQUIRED:			
WAREHOUSE	1/2000 SF	106 STALLS	
OFFICE	1/250 SF	45 STALLS	
TOTAL		150 STALLS	
PARKING PROVIDED:			
AUTO:		169 STALLS	
		@0.76/1000 SF	
REQ. ACCESSIBLE		6 STALLS	
TRAILER:		57 STALLS	
TRUCK DOCKS:			
DOCK-HIGH DOORS		27	
GRADE-LEVEL DOORS		2	

DEVELOPMENT STANDARDS:	
ZONING:	IG
MAX. F.A.R.:	0.80
MAX. HEIGHT:	75 FT
MAX. COVERAGE:	NA
BUILDING SETBACKS:	
FRONT:	20 FT
SIDE:	0 FT
REAR:	0 FT
LANDSCAPE SETBACKS:	
FRONT:	10 FT
SIDE:	0 FT
REAR:	12 FT
LANDSCAPE REQ.:	
	5%
OFF-STREET PARKING:	
STANDARD:	9X19
COMPACT:	8X15
COMPACT %:	30%
DRIVE AISLE:	26 FT
FIRE LANE:	24 FT
OVERHANG:	NA
TREE WELL:	6 FT
REQ. PARKING RATIO BY USE:	
WAREHOUSE:	1/2000 SF
OFFICE:	1/250 SF

NOTES:

1 1.0 for each 500 square feet of gross floor area, or
If the building or structure has leasable bays of 2,500 square feet or greater, the minimum off-street parking required is 1.0 space for each 1,000 square feet of gross floor area, or
If a building or structure has leasable bays of 10,000 square feet or greater, the minimum off-street parking required is 1.0 space for each 1,500 square feet of gross floor area, or
If a building or structure has leasable bays of 20,000 square feet or greater, the minimum off-street parking required is 1.0 space for each 2,000 square feet of gross floor area.

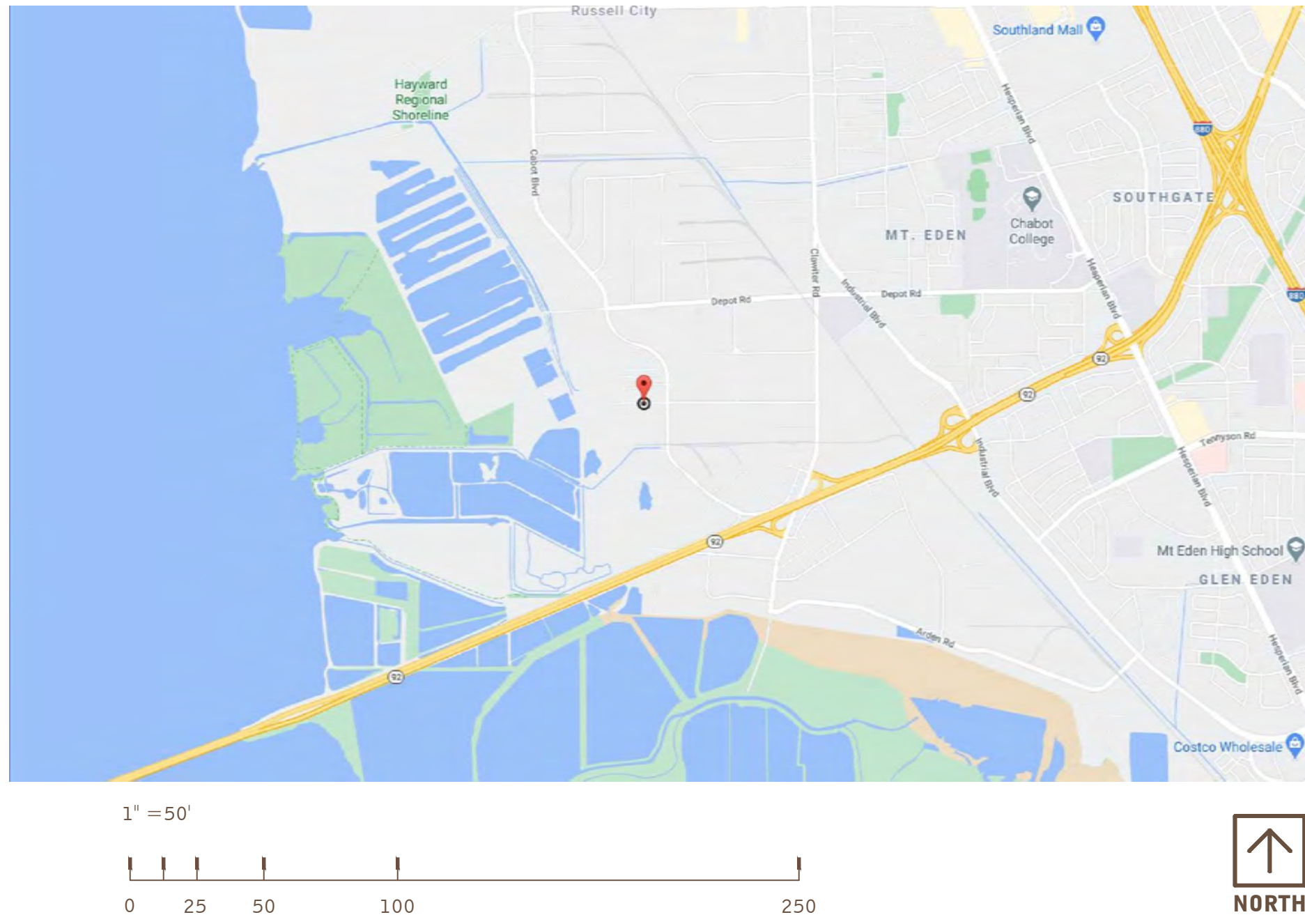
2 A minimum 12-foot wide landscape buffer planted with a minimum of one 15-gallon evergreen tree per 20 linear feet shall be provided along all property lines abutting the BART and railroad right-of-way.

3

4 Parking areas shall include a minimum of one 15-gallon parking lot tree for every 6 parking stalls, except where restricted because of design constraints. Parking lot trees shall be planted in tree wells or landscape medians located within the parking area, unless an alternative location is approved by the Director of Community and Economic Development/Planning Director. Required street and buffer trees shall not qualify as parking lot trees.

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

Boundary Source:
GIS MAP & AERIAL IMAGE



scheme: 4

Conceptual Site Plan

Whitesell St & Enterprise Ave
Hayward, CA 94545, USA

WARE MALCOMB

SNR20-0127-00
10.27.2020

SHEET
1

Attachment B

Photographs



Ruderal grassland in the south part of the site, looking north; 11/23/20.



Ruderal grassland in the southeast part of the site, looking northwest; 11/23/20.



North edge of the site, looking west along Enterprise Avenue from the northeast corner of the site; 11/23/20.



Entrance to the site from Enterprise Avenue, looking south; 11/23/20.



Ruderal grassland in the northeast part of the site, looking west; 11/23/20.



Elevated berm along the west edge of the site, looking north; 11/23/20.



Ruderal grassland in the east part of the site, looking north from the southeast corner of the site; 11/23/20.



Ground squirrel burrow in the southeast part of the site; 11/23/20. None of the burrows in the site had evidence of burrowing owl occupancy.



Potential seasonal wetland in the west part of the site, looking north; 11/23/20.



Seasonal wetland in the southeast part of the site, looking east; 11/23/20.

Attachment C

National Wetland Inventory



U.S. Fish and Wildlife Service

National Wetlands Inventory

3600 Enterprise Avenue



November 17, 2020

Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
	Freshwater Pond		Riverine		

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Attachment D

CNDDB Summary Report and Exhibits & USFWS IPaC Trust Resource Report



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (San Leandro (3712262) OR Hayward (3712261) OR Redwood Point (3712252) OR Newark (3712251))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Accipiter striatus</i> sharp-shinned hawk	ABNKC12020	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Asio flammeus</i> short-eared owl	ABNSB13040	None	None	G5	S3	SSC
<i>Astragalus tener var. tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Centromadia parryi ssp. congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
<i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
<i>Chloropyron maritimum ssp. palustre</i> Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
<i>Chorizanthe robusta var. robusta</i> robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
<i>Circus hudsonius</i> northern harrier	ABNKC11011	None	None	G5	S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S1S2	SSC
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Eryngium aristulatum var. hooveri</i> Hoover's button-celery	PDAP10Z043	None	None	G5T1	S1	1B.1
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	PDAP10Z130	None	None	G2	S2	1B.2
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Gilia millefoliata</i> dark-eyed gilia	PDPLM04130	None	None	G2	S2	1B.2
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S1S2	
<i>Helianthella castanea</i> Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
<i>Hoita strobilina</i> Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
<i>Holocarpha macradenia</i> Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
<i>Horkelia cuneata var. sericea</i> Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S	None	None	G5T2?	S2S3	SSC
<i>Microcina lumi</i> Lum's micro-blind harvestman	ILARA47050	None	None	G1	S1	



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Northern Coastal Salt Marsh</i> Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus pop. 8</i> steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
<i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Plagiobothrys glaber</i> hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
<i>Polygonum marinense</i> Marin knotweed	PDPGN0L1C0	None	None	G2Q	S2	3.1
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G5T1	S1	FP
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Rynchops niger</i> black skimmer	ABNNM14010	None	None	G5	S2	SSC
<i>Sanicula maritima</i> adobe sanicle	PDAP11Z0D0	None	Rare	G2	S2	1B.1
<i>Scapanus latimanus parvus</i> Alameda Island mole	AMABB02031	None	None	G5THQ	SH	SSC
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
<i>Setophaga petechia</i> yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
<i>Spergularia macrotheca var. longistyla</i> long-styled sand-spurrey	PDCAR0W062	None	None	G5T2	S2	1B.2
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	

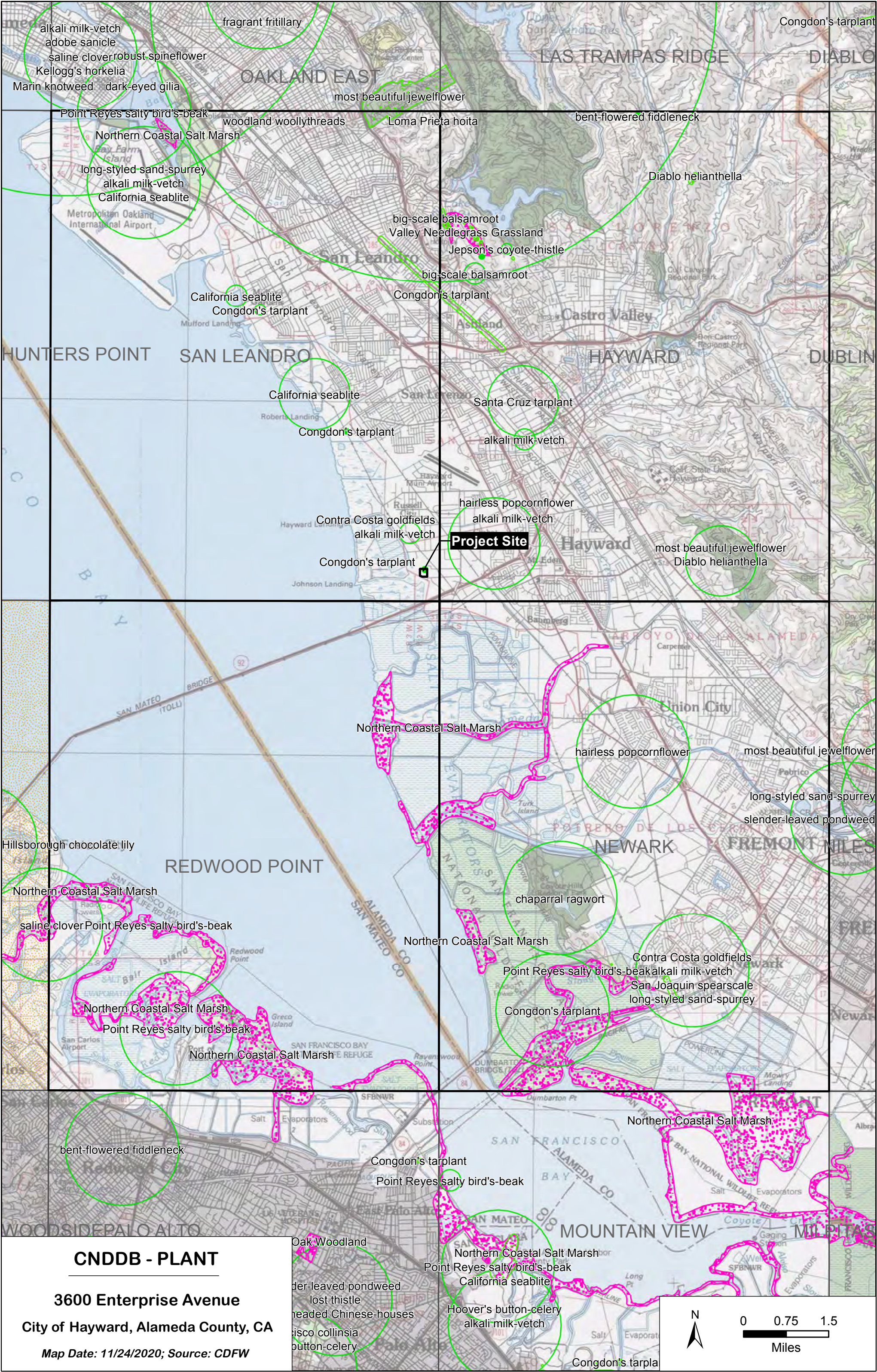


Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Sternula antillarum browni</i> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
<i>Streptanthus albidus ssp. peramoenus</i> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<i>Stuckenia filiformis ssp. alpina</i> slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
<i>Suaeda californica</i> California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	

Record Count: 68



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 offices

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

San Francisco Bay-Delta Fish And Wildlife

☎ (916) 930-5603

📠 (916) 930-5654

650 Capitol Mall

Suite 8-300

Sacramento, CA 95814

[http://kim_squires@fws.gov](mailto:kim_squires@fws.gov)

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

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

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

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

Mammals

NAME	STATUS
------	--------

Salt Marsh Harvest Mouse *Reithrodontomys raviventris*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/613>

Birds

NAME

STATUS

California Clapper Rail *Rallus longirostris obsoletus*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4240>California Least Tern *Sterna antillarum browni*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8104>Western Snowy Plover *Charadrius nivosus nivosus*

Threatened

There is **final** critical habitat for this species. Your location overlaps the critical habitat.<https://ecos.fws.gov/ecp/species/8035>Yellow-billed Cuckoo *Coccyzus americanus*

Threatened

There is **proposed** critical habitat for this species. Your location is outside the critical habitat.<https://ecos.fws.gov/ecp/species/3911>

Reptiles

NAME

STATUS

Alameda Whipsnake (=striped Racer) *Masticophis lateralis euryxanthus*

Threatened

There is **final** critical habitat for this species. Your location is outside 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>San Francisco Garter Snake *Thamnophis sirtalis tetrataenia*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5956>

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

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

<https://ecos.fws.gov/ecp/species/2891>

California Tiger Salamander *Ambystoma californiense*

Threatened

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

<https://ecos.fws.gov/ecp/species/2076>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

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

<https://ecos.fws.gov/ecp/species/321>

Tidewater Goby *Eucyclogobius newberryi*

Endangered

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

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

Insects

NAME

STATUS

San Bruno Elfin Butterfly *Callophrys mossii bayensis*

Endangered

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

<https://ecos.fws.gov/ecp/species/3394>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

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

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

Vernal Pool Tadpole Shrimp *Lepidurus packardii*

Endangered

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

<https://ecos.fws.gov/ecp/species/2246>

Flowering Plants

NAME	STATUS
California Seablite <i>Suaeda californica</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Contra Costa Goldfields <i>Lasthenia conjugens</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/7058	Endangered
San Mateo Thornmint <i>Acanthomintha obovata</i> ssp. <i>duttonii</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2038	Endangered
Santa Cruz Tarplant <i>Holocarpha macradenia</i> There is final critical habitat for this species. Your location is outside 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.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Western Snowy Plover <i>Charadrius nivosus nivosus</i> https://ecos.fws.gov/ecp/species/8035#crithab	Final

Migratory birds

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

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

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

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

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

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

NAME

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

Allen's Hummingbird *Selasphorus sasin*

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

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

Breeds Feb 1 to Jul 15

Black Oystercatcher *Haematopus bachmani*

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

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

Breeds Apr 15 to Oct 31

Black Rail *Laterallus jamaicensis*

Breeds Mar 1 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/7717>

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.

Burrowing Owl *Athene cunicularia*

Breeds Mar 15 to Aug 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/9737>

Clark's Grebe *Aechmophorus clarkii*

Breeds Jan 1 to Dec 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>

Long-billed Curlew *Numenius americanus*

Breeds elsewhere

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

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

Marbled Godwit *Limosa fedoa*

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

Rufous Hummingbird *selasphorus rufus*

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

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

Breeds elsewhere

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

Song Sparrow *Melospiza melodia*

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

Breeds Feb 20 to Sep 5

Spotted Towhee *Pipilo maculatus clementae*

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

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

Breeds Apr 15 to Jul 20

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

Whimbrel *Numenius phaeopus*

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

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

Breeds elsewhere

Willet *Tringa semipalmata*

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

Breeds elsewhere

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.

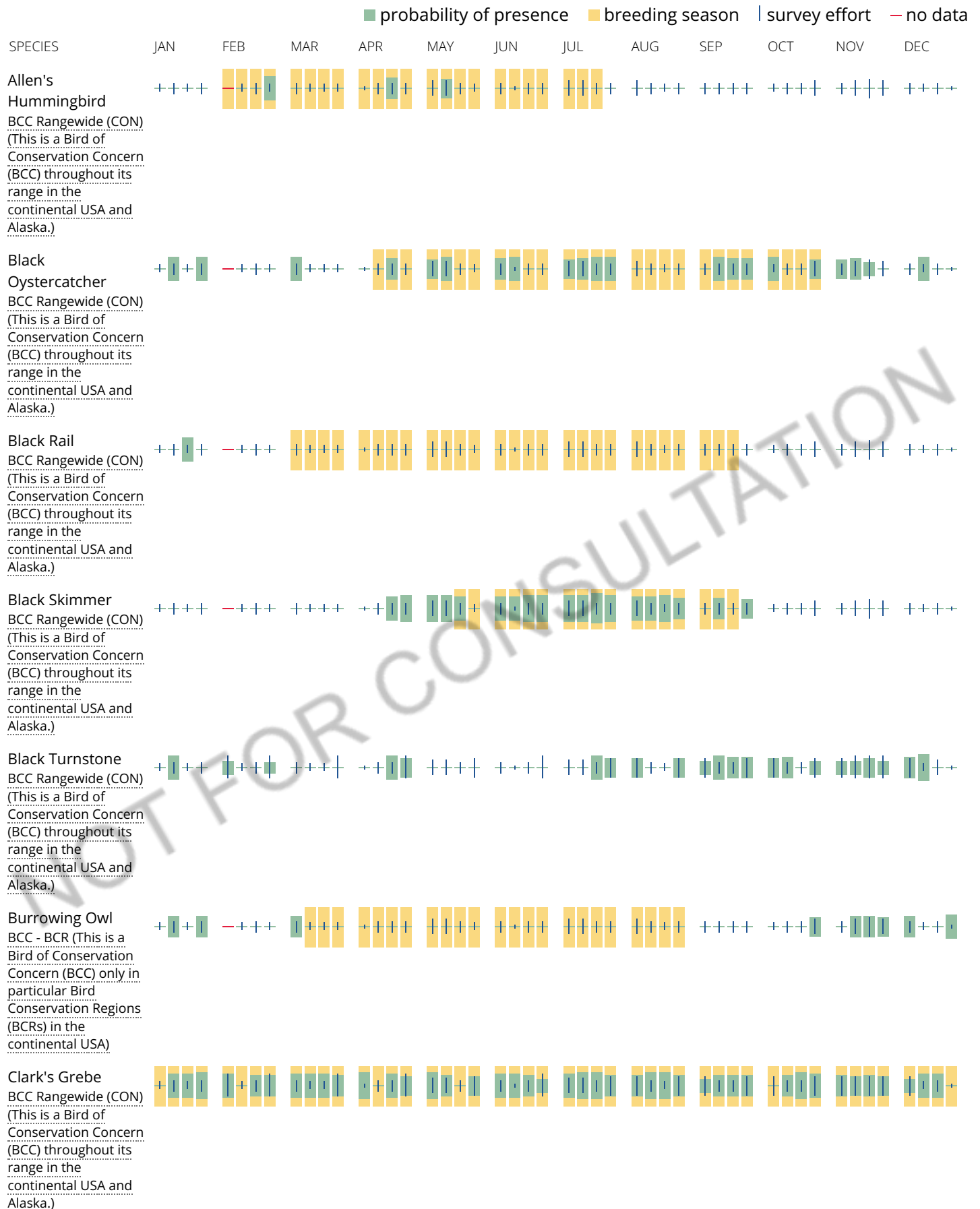
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

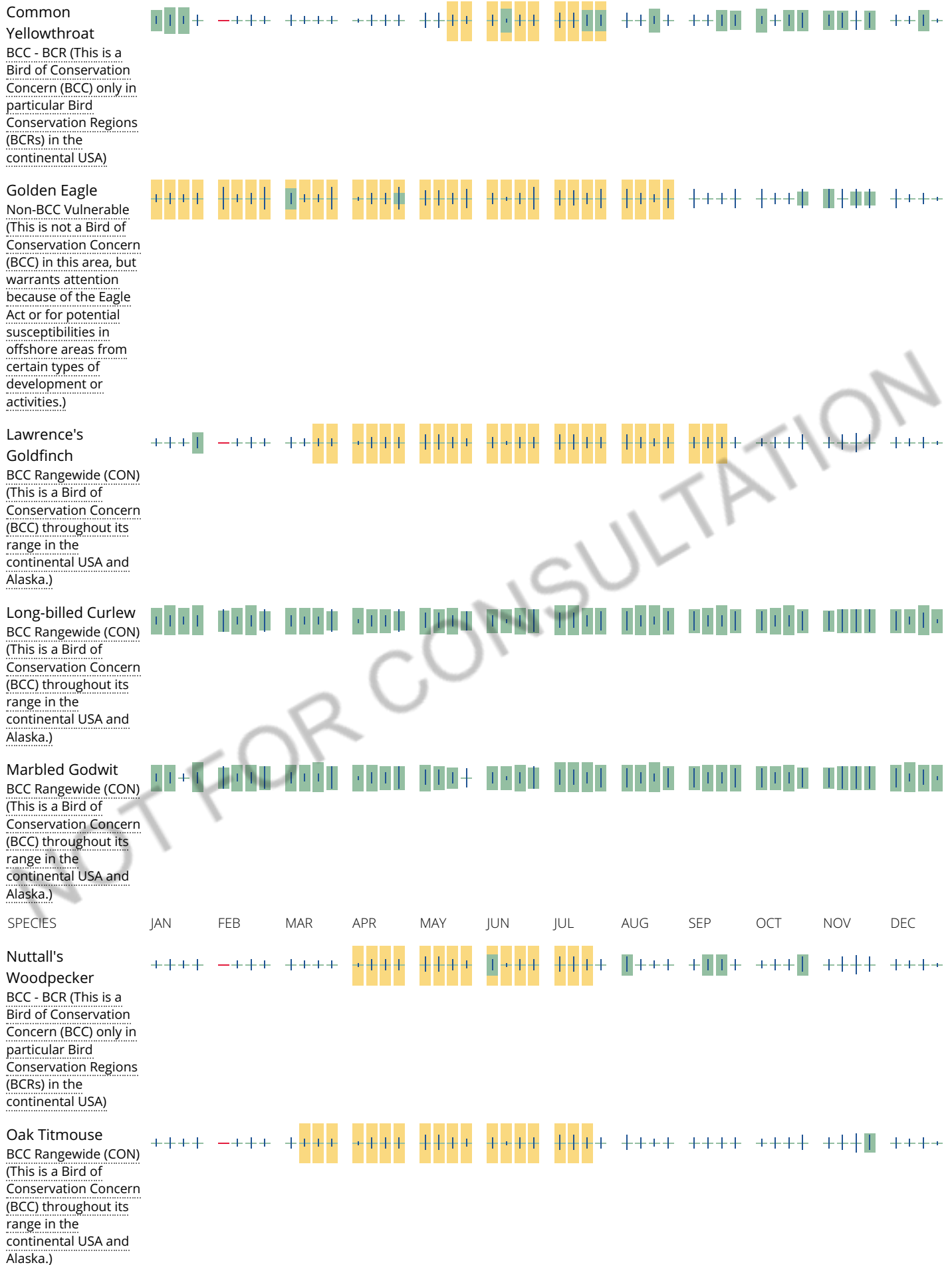
No Data (—)

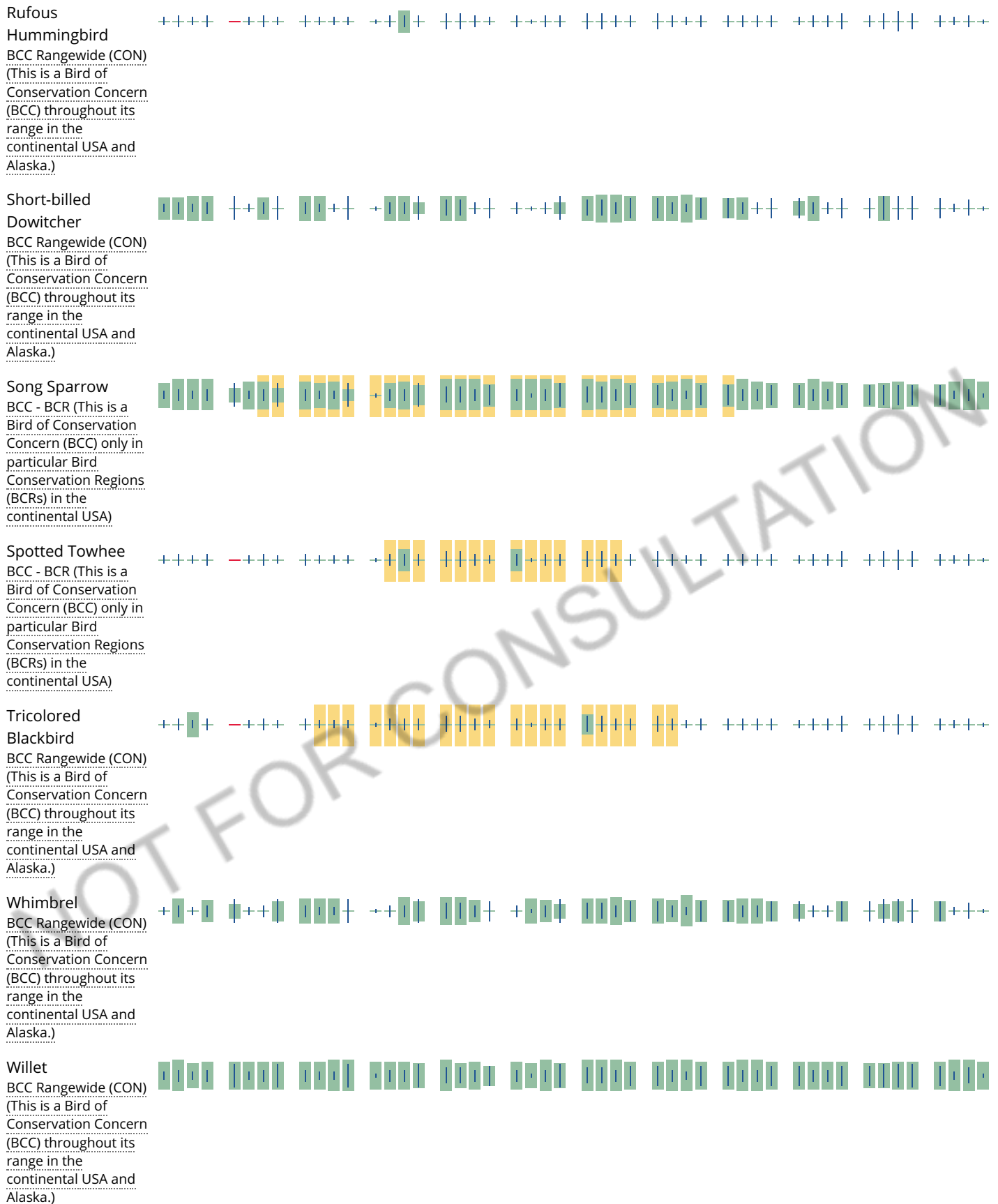
A week is marked as having no data if there were no survey events for that week.

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.







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

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding

their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review.

Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

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

Data limitations

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

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

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

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions





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

local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Attachment E

Designated Critical Habitat

-  Green Sturgeon
-  Alameda whipsnake (=striped racer)
-  California red-legged frog
-  Western snowy plover

