

Appendix BIO

Biological Resources Memorandum



Rincon Consultants, Inc.

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August 30, 2019
Project No: 19-07539

Mr. Rick Waddle
STACK Infrastructure
2001 Fortune Drive
San Jose, California 95131

**Subject: Biological Resources for the Data Center Expansion Project, 2001 Fortune Drive,
San José, Santa Clara County, California**

Dear Mr. Waddle:

Rincon Consultants, Inc. (Rincon) was retained by Stack Infrastructure to assess the potential for special status biological resources to occur at the Data Center expansion project located at 2001 Fortune Drive in the City of San José in Santa Clara County, California (Attachment A). The purpose of this biological resources letter report is to document the results of a biological resources records search of the project site and desktop analysis of potential impacts to biological resources. Rincon understands that the current project is seeking a Mitigated Negative Declaration under the California Environmental Quality Act (CEQA) and that the City of San José is serving as the lead agency.

Project Description

The project involves demolition of an existing 60,000 square foot commercial building and construction of a 2-story, 225,000 square foot data and office building. The project would include two new fuel tanks, rooftop equipment, new screening, fencing and gates, and up to 120 vehicle parking spaces. The project would include 20 generators when complete; however, there are 10 existing and active onsite generators for the existing data center.

Desktop Biological Evaluation

Methods

Rincon conducted a desktop analysis of existing biological conditions at the project site. The evaluation was based on aerial imagery of the site and surrounding area, on photos taken during a site visit by Rincon environmental planners (Attachment B), and on a review of available information on special status biological resources in the region, including the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California, the CDFW Biogeographic Information and Observation System (BIOS), and the U.S. Fish and Wildlife Service (USFWS) Information for Consultation and Planning (IPaC).



Setting

The site itself does not support any natural vegetation communities and does not include any features that would function as suitable habitat for special status plants or wildlife. The site does include several trees of significant height. The site is surrounded on all sides by significant residential and commercial urban development.

Findings and Recommendations

Based on the existing conditions at the site which include no native vegetation communities, no significant vegetation of any type aside from landscaped trees, grass, and shrubs, a paved and fully developed lot, and the surrounding urban development, Rincon has concluded that the site does not function as suitable habitat for any special status, rare or listed species of plants or wildlife. There is no suitable habitat for rare plants or wildlife because the site is fully paved, surrounded by urban development and contains no natural vegetation communities. In addition, the site does not contain any jurisdictional waters, or function as a critical or important wildlife movement corridor. Trees and man-made structures on the site provide suitable nesting habitat for a limited number of common bird species that have high tolerance for human activity (e.g., house finch, Anna's hummingbird), and are protected under the California Fish and Game Code (CFGC).

Based on the results of the current study, Rincon recommends a finding of ***less than significant impact to biological resources with mitigation incorporated***, including those considered to be rare, endangered or special status under CEQA, or sensitive vegetation communities, jurisdictional waters, or wildlife movement areas. The following mitigation measure is recommended to ensure the project does not result in violations to CFGC regarding nesting birds:

Preconstruction Nesting Bird Surveys: If construction activity will occur outside the nesting season (September 1 to January 31), no measures are necessary. If construction activity will occur during the nesting season (February 1 to August 31), a qualified biologist should conduct surveys for nesting birds in landscaped areas (bushes, trees, and lawn) and along building eaves and outer walls, not more than 14 days prior to construction activity. If active nests are located, an avoidance zone from the nest should be established by the qualified biologist. The avoidance zone should be based on the specific species, but not less than 50-feet for non-raptor bird species and not less than 300-feet for raptor species. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer. A report of these preconstruction nesting bird surveys shall be submitted to the City to document compliance within 30 days of its completion.

Sincerely,

Rincon Consultants, Inc.

Anastasia G. Ennis, M.S.
Associate Biologist

David Daitch, Ph.D.,
Program Manager/Senior Biologist

Attachments

- Attachment A Figures
- Attachment B Site Photographs
- Attachment C Special Status Species Summary

Attachment A

Figures



Figure 2 Project Location Map



Imagery provided by Microsoft Bing and its licensors © 2019.

Fig. 2 Project Location

Attachment B

Site Photographs



Photograph 1. View of trees in parking lot.



Photograph 2. Additional view of landscaped trees in parking lot.



Attachment C

Special Status Species Summary



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October 22, 2019
Project No: 19-07539

Mr. Rick Waddle
STACK Infrastructure
2001 Fortune Drive
San Jose, California 95131

Subject: Appendices to the Biological Resources for the Data Center Expansion Project, 2001 Fortune Drive, San José, Santa Clara County, California

Dear Mr. Waddle:

Attached are the search results for special status biological resources in the region from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California, and the U.S. Fish and Wildlife Service (USFWS) Information for Consultation and Planning (IPaC). Database searches included the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle in which the project located (*Milpitas*) and the 8 surrounding quadrangles (*Newark, Niles, La Costa Valley, Mountain View, Calaveras Reservoir, Cupertino, San Jose West, and San Jose East*). The Biogeographic Information and Observation System (BIOS) was also referenced to determine if occurrences had been reported within the project site.

The search of the CDFW CNDDDB found 88 plant and animal species and the CNPS Online Inventory of Rare and Endangered Plants of California found 35 plant species in the USGS 7.5-minute topographic quadrangle in which the project is located (*Milpitas*) and the 8 surrounding quadrangles. The USFWS IPAC query of the project site found 14 animals and 3 plants that are federally listed and known to occur on or near the project area. The CDFW BIOS was also queried to determine if occurrences had been reported within the project site. BIOS found 7 historic occurrences of rare plant and animal species at the project site, with the most recent from 1979 and the other 6 ranging from 1882 to 1954.

These results are evaluated to analyze impacts to biological resources.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in blue ink that reads "Anastasia G. Ennis".

Anastasia G. Ennis, M.S.
Associate Biologist

A handwritten signature in blue ink that reads "David Daitch".

David Daitch, Ph.D.,
Program Manager/Senior Biologist

Appendices

Appendix A CNDDDB Web Search and Table of Results
Appendix B CNPS Search Results
Appendix C USFWS IPaC Results

Appendix A

CNDDDB Web Search and Table of Results

Query	Results	Occurrence Details	Reports	BIOS	Export/Import	Help
Query tool for CNDDDB License Agreement						
Elements						
Change visible columns Print View Clear Search Boxes 88 elements (647 total occurrences) returned						
Image Search	Scientific Name	Common Name	Taxonomic Group	Element Code		
	Case sensitive filter...					
g± / Ca	Accipiter cooperii	Cooper's hawk	Birds	ABNKC1		
g± / Ca	Accipiter striatus	sharp-shinned hawk	Birds	ABNKC1		
g± / Ca	Adela oplerella	Opler's longhorn moth	Insects	IILEE0G		
g± / Ca	Agelaius tricolor	tricolored blackbird	Birds	ABPBXB		
g± / Ca	Ambystoma californiense	California tiger salamander	Amphibians	AAAAA0		
g± / Ca	Aneides niger	Santa Cruz black salamander	Amphibians	AAAAD0		
g± / Ca	Anniella pulchra	northern California legless lizard	Reptiles	ARACCO		
g± / Ca	Antrozous pallidus	pallid bat	Mammals	AMACC1		
g± / Ca	Aquila chrysaetos	golden eagle	Birds	ABNKC2		
g± / Ca	Ardea herodias	great blue heron	Birds	ABNGAC		
g± / Ca	Astragalus tener var. tener	alkali milk-vetch	Dicots	PDFAB0		
Occurrences by Selected Element						

SciName	ComName	TaxonGroup	TotalOccs	FedList	CallList	RPlantRank	OthrStatus	Habitats
Accipiter cooperii	Cooper's hawk	Birds	118	None	None		CDFW_WL-Watch List IUCN_LC-Least Concern	Cismontane woodland Riparian forest Riparian woodland Upper montane coniferous forest
Accipiter striatus	sharp-shinned hawk	Birds	22	None	None		CDFW_WL-Watch List IUCN_LC-Least Concern	Cismontane woodland Lower montane coniferous forest Riparian forest Riparian woodland
Adela oplerella	Opler's longhorn moth	Insects	14	None	None			Ultramafic Valley & foothill grassland
Agelaius tricolor	tricolored blackbird	Birds	955	None	Threatened		BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	Freshwater marsh Marsh & swamp Swamp Wetland

<i>Ambystoma californiense</i>	California tiger salamander	Amphibians	1205	Threatene	Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	Cismontane woodland Meadow & seep Riparian woodland Valley & foothill grassland Vernal pool Wetland
<i>Aneides niger</i>	Santa Cruz black salamander	Amphibians	78	None	None	CDFW_SSC-Species of Special Concern	
<i>Anniella pulchra</i>	northern California legless lizard	Reptiles	375	None	None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Chaparral Coastal dunes Coastal scrub
<i>Antrozous pallidus</i>	pallid bat	Mammals	420	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	Chaparral Coastal scrub Desert wash Great Basin grassland Great Basin scrub Mojavean desert scrub Riparian woodland Sonoran desert scrub Upper montane coniferous forest Valley & foothill grassland

<i>Aquila chrysaetos</i>	golden eagle	Birds	321	None	None		BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC- Least Concern USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest Cismontane woodland Coastal prairie Great Basin grassland Great Basin scrub Lower montane coniferous forest Pinon & juniper woodlands Upper montane coniferous forest Valley & foothill grassland
<i>Ardea herodias</i>	great blue heron	Birds	155	None	None		CDF_S-Sensitive IUCN_LC-Least Concern	Brackish marsh Estuary Freshwater marsh Marsh & swamp Riparian forest Wetland
<i>Astragalus tener</i> var. tener	alkali milk-vetch	Dicots	65	None	None	1B.2		Alkali playa Valley & foothill grassland Vernal pool Wetland

Athene cunicularia	burrowing owl	Birds	1988	None	None		BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Coastal prairie Coastal scrub Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley & foothill grassland
Atriplex depressa	brittlescale	Dicots	60	None	None	1B.2		Alkali playa Chenopod scrub Meadow & seep Valley & foothill grassland Vernal pool Wetland
Atriplex minuscula	lesser saltscale	Dicots	52	None	None	1B.1		Alkali playa Chenopod scrub Valley & foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	Dicots	51	None	None	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Cismontane woodland Ultramafic Valley & foothill grassland
Bombus caliginosus	obscure bumble bee	Insects	181	None	None		IUCN_VU-Vulnerable	
Bombus crotchii	Crotch bumble bee	Insects	234	None	Candidate Endangered			
Bombus occidentalis	western bumble bee	Insects	282	None	Candidate Endangered		USFS_S-Sensitive XERCES_IM-Imperiled	

Buteo swainsoni	Swainson's hawk	Birds	2510	None	Threatened		BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Great Basin grassland Riparian forest Riparian woodland Valley & foothill grassland
Campanula exigua	chaparral harebell	Dicots	50	None	None	1B.2	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral Ultramafic
Centromadia parryi ssp. congdonii	Congdon's tarplant	Dicots	98	None	None	1B.1	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	Valley & foothill grassland
Charadrius alexandrinus nivosus	western snowy plover	Birds	138	Threatene	None		CDFW_SSC-Species of Special Concern NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	Great Basin standing waters Sand shore Wetland
Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	Dicots	68	None	None	1B.2	BLM_S-Sensitive	Marsh & swamp Salt marsh Wetland
Chorizanthe robusta var. robusta	robust spineflower	Dicots	20	Endangere	None	1B.1	BLM_S-Sensitive	Chaparral Cismontane woodland Coastal bluff scrub Coastal dunes

Circus hudsonius	northern harrier	Birds	53	None	None		CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	Coastal scrub Great Basin grassland Marsh & swamp Riparian scrub Valley & foothill grassland Wetland
Cirsium fontinale var. campylon	Mt. Hamilton thistle	Dicots	36	None	None	1B.2	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral Cismontane woodland Ultramafic Valley & foothill grassland
Clarkia concinna ssp. automixa	Santa Clara red ribbons	Dicots	20	None	None	4.3		Chaparral Cismontane woodland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	156	Threatene	Endangered		BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	Riparian forest
Collinsia multicolor	San Francisco collinsia	Dicots	36	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCSC-UC Santa Cruz	Closed-cone coniferous forest Coastal scrub Ultramafic

Corynorhinus townsendii	Townsend's big-eared bat	Mammals	635	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	Broadleaved upland forest Chaparral Chenopod scrub Great Basin grassland Great Basin scrub Joshua tree woodland Lower montane coniferous forest Meadow & seep Mojavean desert scrub Riparian forest Riparian woodland Sonoran desert scrub Sonoran thorn woodland Upper montane coniferous forest Valley & foothill grassland
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Coturnicops noveboracensis	yellow rail	Birds	45	None	None		CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	Freshwater marsh Meadow & seep
Danaus plexippus pop. 1	monarch - California overwintering population	Insects	383	None	None		USFS_S-Sensitive	Closed-cone coniferous forest
Delphinium californicum ssp. interius	Hospital Canyon larkspur	Dicots	28	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral Cismontane woodland Coastal scrub Meadow & seep
Dicamptodon ensatus	California giant salamander	Amphibians	234	None	None		CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	Aquatic Meadow & seep North coast coniferous forest Riparian forest
Dipodomys heermanni berkeleyensis	Berkeley kangaroo rat	Mammals	8	None	None			Chaparral Cismontane woodland
Dipodomys venustus venustus	Santa Cruz kangaroo rat	Mammals	29	None	None			Chaparral

<i>Dirca occidentalis</i>	western leatherwood	Dicots	71	None	None	1B.2	SB_RSABG- Rancho Santa Ana Botanic Garden	Broadleaved upland forest Chaparral Cismontane woodland Closed-cone coniferous forest North coast coniferous forest Riparian forest Riparian woodland
<i>Dudleya abramsii</i> ssp. <i>setchellii</i>	Santa Clara Valley <i>dudleya</i>	Dicots	58	Endangere	None	1B.1	SB_RSABG- Rancho Santa Ana Botanic Garden	Cismontane woodland Ultramafic Valley & foothill grassland
<i>Egretta thula</i>	snowy egret	Birds	20	None	None		IUCN_LC-Least Concern	Marsh & swamp Meadow & seep Riparian forest Riparian woodland Wetland
<i>Elanus leucurus</i>	white-tailed kite	Birds	180	None	None		BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	Cismontane woodland Marsh & swamp Riparian woodland Valley & foothill grassland Wetland

								Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh & swamp Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland
<i>Emys marmorata</i>	western pond turtle	Reptiles	1375	None	None		BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	
<i>Eryngium aristulatum</i> var. <i>hooveri</i>	Hoover's button-celery	Dicots	16	None	None	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Vernal pool Wetland
<i>Euphydryas editha bayensis</i>	Bay checkerspot butterfly	Insects	30	Threatene	None		XERCES_CI-Critically Imperiled	Coastal dunes Ultramafic Valley & foothill grassland
<i>Extriplex joaquinana</i>	San Joaquin spearscale	Dicots	127	None	None	1B.2	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	Alkali playa Chenopod scrub Meadow & seep Valley & foothill grassland

Falco mexicanus	prairie falcon	Birds	460	None	None		CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley & foothill grassland
Falco peregrinus anatum	American peregrine falcon	Birds	56	Delisted	Delisted		CDF_S-Sensitive CDFW_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	
Fritillaria liliacea	fragrant fritillary	Monocots	82	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Cismontane woodland Coastal prairie Coastal scrub Ultramafic Valley & foothill grassland
Geothlypis trichas sinuosa	saltmarsh common yellowthroat	Birds	112	None	None		CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	Marsh & swamp
Hoita strobilina	Loma Prieta hoita	Dicots	34	None	None	1B.1		Chaparral Cismontane woodland Riparian woodland Ultramafic

Lasiurus cinereus	hoary bat	Mammals	238	None	None		IUCN_LC-Least Concern WBWG_M-Medium Priority	Broadleaved upland forest Cismontane woodland Lower montane coniferous forest North coast coniferous forest
Lasthenia conjugens	Contra Costa goldfields	Dicots	36	Endangere	None	1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Alkali playa Cismontane woodland Valley & foothill grassland Vernal pool Wetland
Laterallus jamaicensis coturniculus	California black rail	Birds	303	None	Threatened		BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	Brackish marsh Freshwater marsh Marsh & swamp Salt marsh Wetland
Lepidurus packardi	vernal pool tadpole shrimp	Crustaceans	325	Endangere	None		IUCN_EN-Endangered	Valley & foothill grassland Vernal pool Wetland
Lessingia micradenia var. glabrata	smooth lessingia	Dicots	44	None	None	1B.2	SB_BerrySB-Berry Seed Bank SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral Cismontane woodland Ultramafic Valley & foothill grassland

Linderiella occidentalis	California linderiella	Crustaceans	438	None	None		IUCN_NT-Near Threatened	Vernal pool
Malacothamnus arcuatus	arcuate bush-mallow	Dicots	30	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral Cismontane woodland
Malacothamnus hallii	Hall's bush-mallow	Dicots	36	None	None	1B.2	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral Coastal scrub Ultramafic
Masticophis lateralis euryxanthus	Alameda whipsnake	Reptiles	164	Threatene	Threatened			Chaparral Cismontane woodland Coastal scrub Valley & foothill grassland
Melospiza melodia pusillula	Alameda song sparrow	Birds	38	None	None		CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	Salt marsh
Microcina homi	Hom's micro-blind harvestman	Arachnids	5	None	None			Ultramafic Valley & foothill grassland

Monolopia gracilens	woodland woollythreads	Dicots	68	None	None	1B.2		Broadleaved upland forest Chaparral Cismontane woodland North coast coniferous forest Ultramafic Valley & foothill grassland
Myotis evotis	long-eared myotis	Mammals	139	None	None		BLM_S-Sensitive IUCN_LC-Least Concern WBWG_M-Medium Priority	
Myotis yumanensis	Yuma myotis	Mammals	265	None	None		BLM_S-Sensitive IUCN_LC-Least Concern WBWG_LM-Low-Medium Priority	Lower montane coniferous forest Riparian forest Riparian woodland Upper montane coniferous forest
Navarretia prostrata	prostrate vernal pool navarretia	Dicots	60	None	None	1B.2		Coastal scrub Meadow & seep Valley & foothill grassland Vernal pool Wetland
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	Mammals	42	None	None		CDFW_SSC-Species of Special Concern	Chaparral Redwood
Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	Marsh	53	None	None			Marsh & swamp Wetland
Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	Fish	44	Threatene	None		AFS_TH-Threatened	Aquatic Sacramento/San Joaquin flowing waters

Plagiobothrys glaber	hairless popcornflower	Dicots	9	None	None	1A		Marsh & swamp Salt marsh Vernal pool Wetland
Puccinellia simplex	California alkali grass	Monocots	80	None	None	1B.2		Chenopod scrub Meadow & seep Valley & foothill grassland Vernal pool
Rallus obsoletus obsoletus	California Ridgway's rail	Birds	99	Endangere	Endangered		CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	Brackish marsh Marsh & swamp Salt marsh Wetland
Rana boylei	foothill yellow-legged frog	Amphibians	2468	None	Candidate Threatened		BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	Aquatic Chaparral Cismontane woodland Coastal scrub Klamath/North coast flowing waters Lower montane coniferous forest Meadow & seep Riparian forest Riparian woodland Sacramento/San Joaquin flowing waters

Rana draytonii	California red-legged frog	Amphibians	1540	Threatene	None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	Aquatic Artificial flowing waters Artificial standing waters Freshwater marsh Marsh & swamp Riparian forest Riparian scrub Riparian woodland Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland
Reithrodontomys raviventris	salt-marsh harvest mouse	Mammals	144	Endangere	Endangered	CDFW_FP-Fully Protected IUCN_EN-Endangered	Marsh & swamp Wetland
Riparia riparia	bank swallow	Birds	298	None	Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	Riparian scrub Riparian woodland

Rynchops niger	black skimmer	Birds	7	None	None		CDFW_SSC- Species of Special Concern IUCN_LC-Least Concern NABCI_YWL- Yellow Watch List USFWS_BCC- Birds of Conservation Concern	Alkali playa Sand shore
Senecio aphanactis	chaparral ragwort	Dicots	98	None	None	2B.2	SB_RSABG- Rancho Santa Ana Botanic Garden	Chaparral Cismontane woodland Coastal scrub
Sidalcea malachroides	maple-leaved checkerbloom	Dicots	136	None	None	4.2		Broadleaved upland forest Coastal prairie Coastal scrub North coast coniferous forest Riparian forest
Sorex vagrans halicoetes	salt-marsh wandering shrew	Mammals	12	None	None		CDFW_SSC- Species of Special Concern	Marsh & swamp Wetland
Spergularia macrotheca var. longistyla	long-styled sand- spurrey	Dicots	22	None	None	1B.2		Marsh & swamp Meadow & seep
Spirinchus thaleichthys	longfin smelt	Fish	46	Candidate	Threatened			Aquatic Estuary

Sternula antillarum browni	California least tern	Birds	75	Endangere	Endangered		CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	Alkali playa Wetland
Streptanthus albidus ssp. albidus	Metcalf Canyon jewelflower	Dicots	13	Endangere	None	1B.1	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBBG-UC Berkeley Botanical Garden	Ultramafic Valley & foothill grassland
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Dicots	103	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBBG-UC Berkeley Botanical Garden USFS_S-Sensitive	Chaparral Cismontane woodland Ultramafic Valley & foothill grassland
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Monocots	21	None	None	2B.2		Marsh & swamp Wetland
Suaeda californica	California seablite	Dicots	18	Endangere	None	1B.1		Freshwater marsh Marsh & swamp Wetland
Sycamore Alluvial Woodland	Sycamore Alluvial Woodland	Riparian	17	None	None			Riparian woodland
Trifolium hydrophilum	saline clover	Dicots	49	None	None	1B.2		Marsh & swamp Valley & foothill grassland Vernal pool Wetland

Tryonia imitator	mimic tryonia (=California brackishwater snail)	Mollusks	39	None	None	IUCN_DD-Data Deficient	Aquatic Brackish marsh Estuary Lagoon Marsh & swamp Salt marsh Wetland
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Appendix B

CNPS Search Results

*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

35 matches found. [Click on scientific name for details](#)

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B], Found in Quads 3712251, 3712158, 3712157, 3712241, 3712148, 3712147, 3712231 3712138 and 3712137;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S1	G2T1
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	1B.1	S2	G2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Campanula exigua	chaparral harebell	Campanulaceae	annual herb	May-Jun	1B.2	S2	G2
Centromadia parryi ssp. congdonii	Congdon's tarplant	Asteraceae	annual herb	May-Oct(Nov)	1B.1	S1S2	G3T1T2
Chloropyron maritimum ssp. palustre	Point Reyes bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	1B.2	S2	G4?T2
Chorizanthe robusta var. robusta	robust spineflower	Polygonaceae	annual herb	Apr-Sep	1B.1	S1	G2T1
Cirsium fontinale var. campylon	Mt. Hamilton fountain thistle	Asteraceae	perennial herb	(Feb)Apr-Oct	1B.2	S2	G2T2
Collinsia multicolor	San Francisco collinsia	Plantaginaceae	annual herb	(Feb)Mar-May	1B.2	S2	G2
Delphinium californicum ssp. interius	Hospital Canyon larkspur	Ranunculaceae	perennial herb	Apr-Jun	1B.2	S3	G3T3
Dirca occidentalis	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar(Apr)	1B.2	S2	G2
Dudleya abramsii ssp. setchellii	Santa Clara Valley dudleya	Crassulaceae	perennial herb	Apr-Oct	1B.1	S2	G4T2
Eryngium aristulatum var. hooveri	Hoover's button-celery	Apiaceae	annual / perennial herb	(Jun)Jul(Aug)	1B.1	S1	G5T1
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2

Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2	G2
Helianthella castanea	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Hoita strobilina	Loma Prieta hoita	Fabaceae	perennial herb	May-Jul(Aug-Oct)	1B.1	S2?	G2?
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G1
Lessingia micradenia var. glabrata	smooth lessingia	Asteraceae	annual herb	(Apr-Jun)Jul-Nov	1B.2	S2	G2T2
Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	perennial evergreen shrub	Apr-Sep	1B.2	S2	G2Q
Malacothamnus hallii	Hall's bush-mallow	Malvaceae	perennial evergreen shrub	(Apr)May-Sep(Oct)	1B.2	S2	G2
Monolopia gracilens	woodland woolythreads	Asteraceae	annual herb	(Feb)Mar-Jul	1B.2	S3	G3
Navarretia paradoxiclora	Patterson's navarretia	Polemoniaceae	annual herb	May-Jun(Jul)	1B.3	S2	G2
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G2
Plagiobothrys glaber	hairless popcornflower	Boraginaceae	annual herb	Mar-May	1A	SH	GH
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	1B.2	S2	G3
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Spergularia macrotheca var. longistyla	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May(Jun)	1B.2	S2	G5T2
Streptanthus albidus ssp. albidus	Metcalf Canyon jewelflower	Brassicaceae	annual herb	Apr-Jul	1B.1	S1	G2T1
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	1B.2	S2	G2T2
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S2S3	G5T5
Suaeda californica	California seablite	Chenopodiaceae	perennial evergreen shrub	Jul-Oct	1B.1	S1	G1
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2
Tropidocarpum capparideum	caper-fruited tropidocarpum	Brassicaceae	annual herb	Mar-Apr	1B.1	S1	G1

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 22 October 2019].

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Questions and Comments

rareplants@cnps.org

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Appendix C

USFWS IPaC Results

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.

Project information

NAME

STACK Data Center

LOCATION

Santa Clara County, California



Local office

Sacramento Fish And Wildlife Office

☎ (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. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. 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>

San Joaquin Kit Fox *Vulpes macrotis mutica* Endangered
 No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/2873>

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is proposed critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5524	Threatened

Amphibians

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

California Tiger Salamander <i>Ambystoma californiense</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/2076	

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/321	

Insects

NAME	STATUS
Bay Checkerspot Butterfly <i>Euphydryas editha bayensis</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/2320	
San Bruno Elfin Butterfly <i>Callophrys mossii bayensis</i>	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
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i>	Endangered
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/8246	
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i>	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>	Endangered
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/6310	

Contra Costa Goldfields *Lasthenia conjugens* Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
<https://ecos.fws.gov/ecp/species/7058>

Robust Spineflower *Chorizanthe robusta* var. *robusta* Endangered
There is **final** critical habitat for this species. Your location is outside 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.

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

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.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Jan 1 to Aug 31

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*

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

<https://ecos.fws.gov/ecp/species/7717>

Breeds Mar 1 to Sep 15

- 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
- Burrowing Owl** *Athene cunicularia*
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>
Breeds Mar 15 to Aug 31
- Clark's Grebe** *Aechmophorus clarkii*
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
Breeds Jan 1 to Dec 31
- Common Yellowthroat** *Geothlypis trichas sinuosa*
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/2084>
Breeds May 20 to Jul 31
- Golden Eagle** *Aquila chrysaetos*
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
<https://ecos.fws.gov/ecp/species/1680>
Breeds Jan 1 to Aug 31
- Lawrence's Goldfinch** *Carduelis lawrencei*
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9464>
Breeds Mar 20 to Sep 20
- Lewis's Woodpecker** *Melanerpes lewis*
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9408>
Breeds Apr 20 to Sep 30
- Long-billed Curlew** *Numenius americanus*
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/5511>
Breeds elsewhere

<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Nuttall's Woodpecker <i>Picoides nuttallii</i> 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</p>	Breeds Apr 1 to Jul 20
<p>Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656</p>	Breeds Mar 15 to Jul 15
<p>Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002</p>	Breeds elsewhere
<p>Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480</p>	Breeds elsewhere
<p>Song Sparrow <i>Melospiza melodia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Feb 20 to Sep 5
<p>Spotted Towhee <i>Pipilo maculatus clementae</i> 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</p>	Breeds Apr 15 to Jul 20
<p>Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910</p>	Breeds Mar 15 to Aug 10
<p>Whimbrel <i>Numenius phaeopus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483</p>	Breeds elsewhere
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere

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.

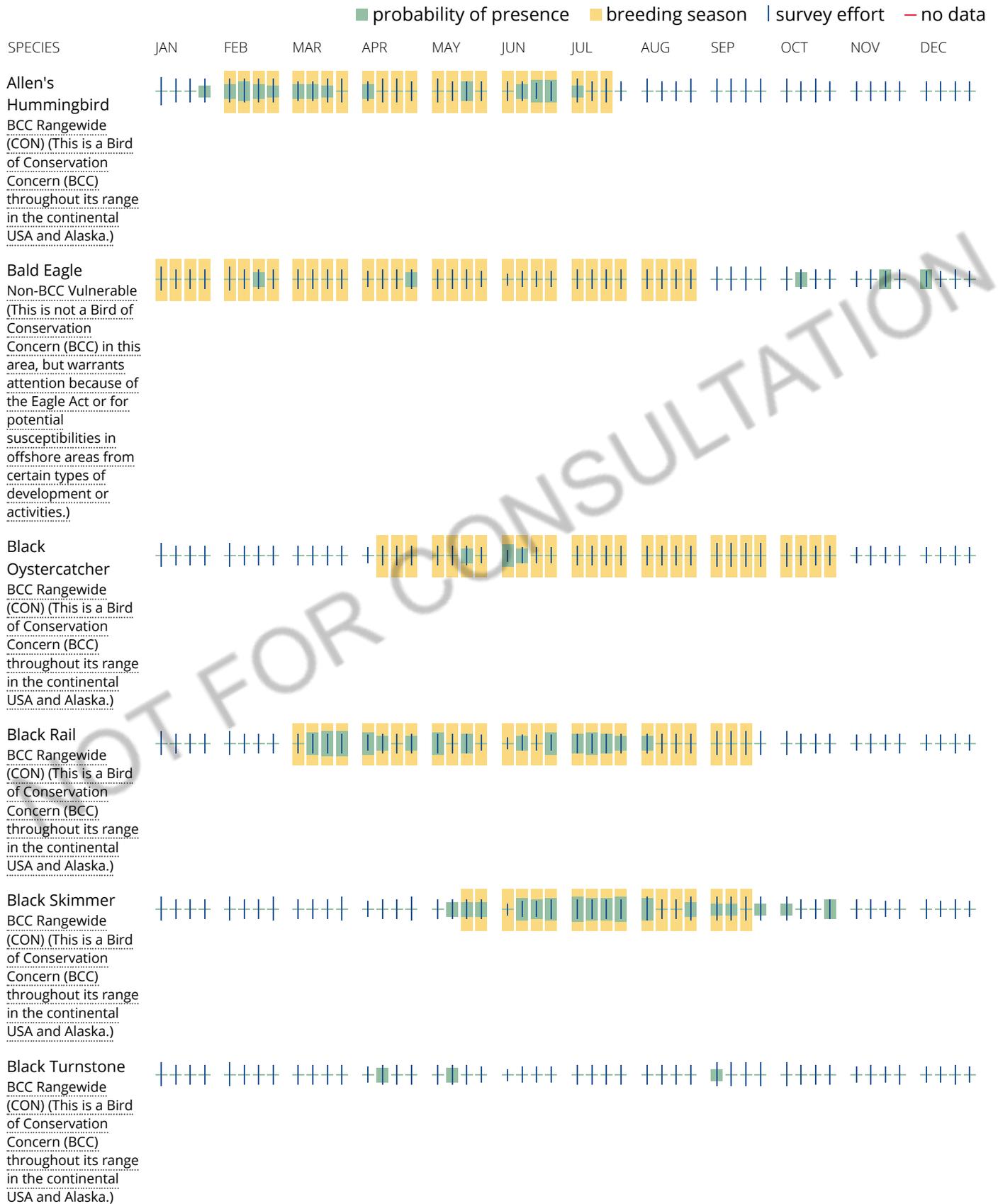
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

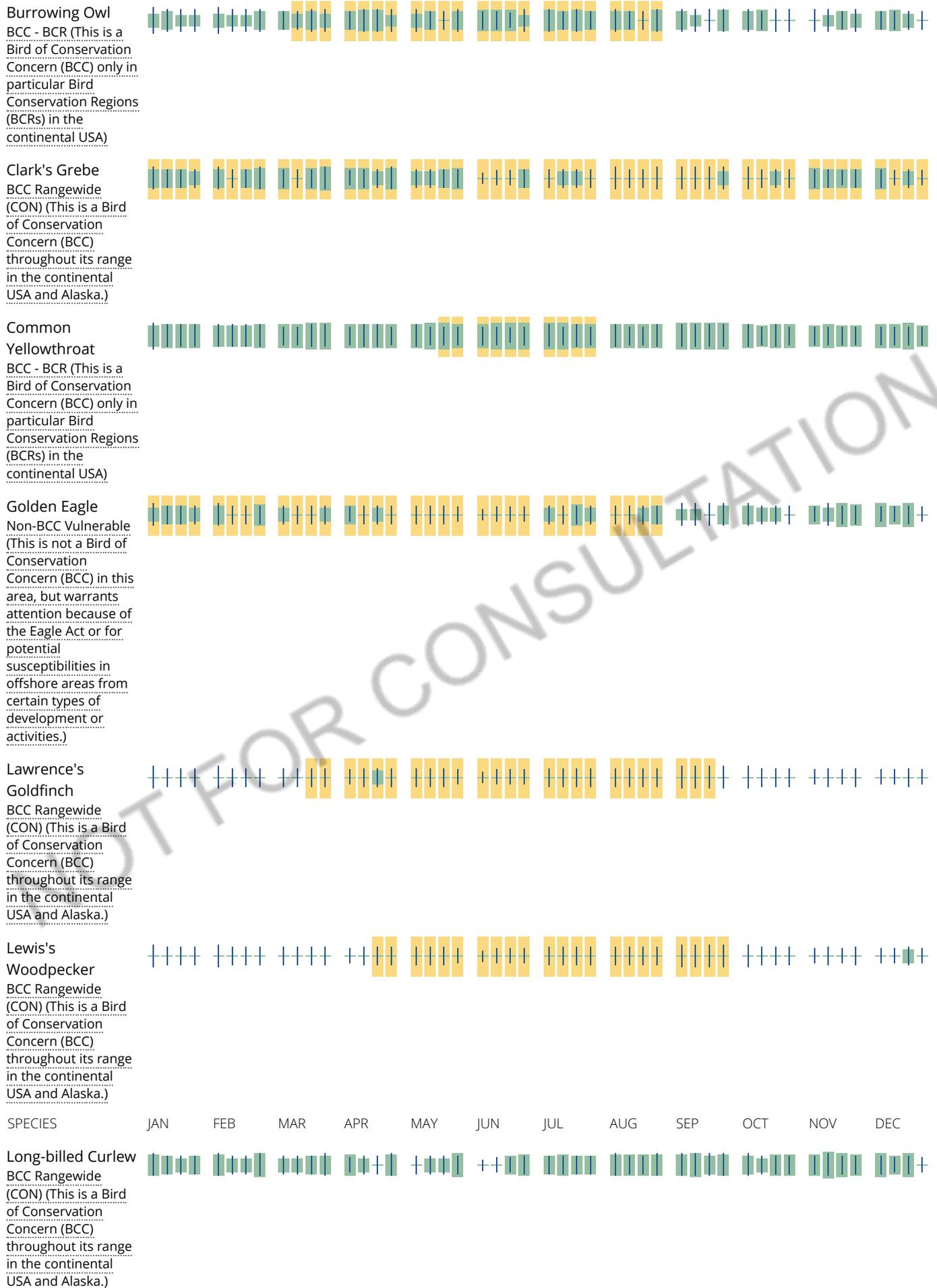
No Data (—)

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.

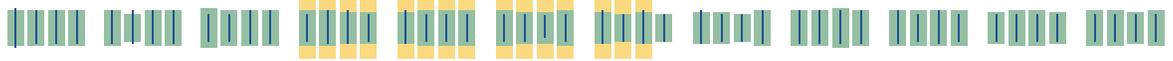




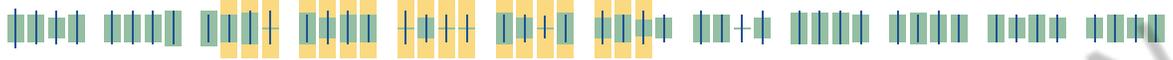
Marbled Godwit
 BCC Rangewide
 (CON) (This is a Bird
 of Conservation
 Concern (BCC)
 throughout its range
 in the continental
 USA and Alaska.)



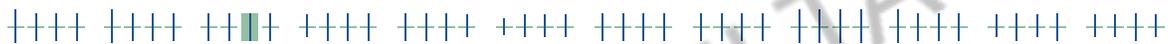
Nuttall's
 Woodpecker
 BCC - BCR (This is a
 Bird of Conservation
 Concern (BCC) only in
 particular Bird
 Conservation Regions
 (BCRs) in the
 continental USA)



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



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



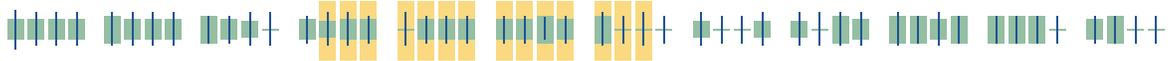
Short-billed
 Dowitcher
 BCC Rangewide
 (CON) (This is a Bird
 of Conservation
 Concern (BCC)
 throughout its range
 in the continental
 USA and Alaska.)



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



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



DRAFT FOR CONSULTATION



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 to 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](#).

THERE ARE NO KNOWN 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.