

**Appendix B:
Biological Resources Supporting Information**

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Antioch North (3812117) OR Denverton (3812128) OR Birds Landing (3812127) OR Rio Vista (3812126) OR Honker Bay (3812118) OR Jersey Island (3812116) OR Clayton (3712188) OR Antioch South (3712187) OR Brentwood (3712186))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Acipenser medirostris pop. 1</i> green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	SSC
<i>Actinemys marmorata</i> northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
<i>Alkali Meadow</i> Alkali Meadow	CTT45310CA	None	None	G3	S2.1	
<i>Alkali Seep</i> Alkali Seep	CTT45320CA	None	None	G3	S2.1	
<i>Ambystoma californiense pop. 1</i> California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
<i>Amsinckia grandiflora</i> large-flowered fiddleneck	PDBOR01050	Endangered	Endangered	G1	S1	1B.1
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S1	
<i>Anniella pulchra</i> Northern California legless lizard	ARACC01020	None	None	G3	S2S3	SSC
<i>Anomobryum julaceum</i> slender silver moss	NBMUS80010	None	None	G5	S2	4.2
<i>Anthicus antiochensis</i> Antioch Dunes anthicid beetle	IICOL49020	None	None	G3	S3	
<i>Anthicus sacramento</i> Sacramento anthicid beetle	IICOL49010	None	None	G4	S4	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Apodemia mormo langei</i> Lange's metalmark butterfly	IILEPH7012	Endangered	None	G5T1	S1	
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Archoplites interruptus</i> Sacramento perch	AFCQB07010	None	None	G1	S1	SSC
<i>Arctostaphylos auriculata</i> Mt. Diablo manzanita	PDERI04040	None	None	G2	S2	1B.3
<i>Arctostaphylos manzanita ssp. laevigata</i> Contra Costa manzanita	PDERI04273	None	None	G5T2	S2	1B.2



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<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Arizona elegans occidentalis</i> California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
<i>Asio flammeus</i> short-eared owl	ABNSB13040	None	None	G5	S2	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	S2	SSC
<i>Atriplex cordulata var. cordulata</i> heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
<i>Atriplex depressa</i> brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
<i>Blepharizonia plumosa</i> big tarplant	PDAST1C011	None	None	G1G2	S1S2	1B.1
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
<i>Bombus crotchii</i> Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
<i>Bombus pensylvanicus</i> American bumble bee	IIHYM24260	None	None	G3G4	S2	
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Branchinecta mesovallensis</i> midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	PMLIL0D160	None	None	G2	S2	1B.2
<i>Centromadia parryi ssp. parryi</i> pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
<i>Charadrius montanus</i> mountain plover	ABNNB03100	None	None	G3	S2	SSC
<i>Charadrius nivosus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC



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<i>Chloropyron molle ssp. hispidum</i> hispid salty bird's-beak	PDSCR0J0D1	None	None	G2T1	S1	1B.1
<i>Chloropyron molle ssp. molle</i> soft salty bird's-beak	PDSCR0J0D2	Endangered	Rare	G2T1	S1	1B.2
<i>Cicuta maculata var. bolanderi</i> Bolander's water-hemlock	PDAP10M051	None	None	G5T4T5	S2?	2B.1
<i>Circus hudsonius</i> northern harrier	ABNKC11011	None	None	G5	S3	SSC
<i>Cirsium hydrophilum var. hydrophilum</i> Suisun thistle	PDAST2E1G1	Endangered	None	G2T1	S1	1B.1
<i>Cismontane Alkali Marsh</i> Cismontane Alkali Marsh	CTT52310CA	None	None	G1	S1.1	
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
<i>Coastal Brackish Marsh</i> Coastal Brackish Marsh	CTT52200CA	None	None	G2	S2.1	
<i>Coelus gracilis</i> San Joaquin dune beetle	IICOL4A020	None	None	G1	S1	
<i>Cophura hurdi</i> Antioch cophuran robberfly	IIDIP06010	None	None	GX	SX	
<i>Cordylanthus nidularius</i> Mt. Diablo bird's-beak	PDSCR0J0F0	None	Rare	G1	S1	1B.1
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S2	SSC
<i>Cryptantha hooveri</i> Hoover's cryptantha	PDBOR0A190	None	None	GH	SH	1A
<i>Delphinium californicum ssp. interius</i> Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
<i>Dipodomys heermanni berkeleyensis</i> Berkeley kangaroo rat	AMAFD03061	None	None	G4T1	S2	
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
<i>Dumontia oregonensis</i> hairy water flea	ICBRA23010	None	None	G1G3	S1	
<i>Efferia antiochi</i> Antioch efferian robberfly	IIDIP07010	None	None	G1G2	S1S2	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Elaphrus viridis</i> Delta green ground beetle	IICOL36010	Threatened	None	G1	S1	



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<i>Eriastrum erterae</i> Lime Ridge eriastrum	PDPLM030F0	None	Candidate Endangered	G1	S1	1B.1
<i>Eriogonum nudum var. psychicola</i> Antioch Dunes buckwheat	PDPGN0849Q	None	None	G5T1	S1	1B.1
<i>Eriogonum truncatum</i> Mt. Diablo buckwheat	PDPGN085Z0	None	None	G1	S1	1B.1
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	PDAP10Z130	None	None	G2	S2	1B.2
<i>Erysimum capitatum var. angustatum</i> Contra Costa wallflower	PDBRA16052	Endangered	Endangered	G5T1	S1	1B.1
<i>Eschscholzia rhombipetala</i> diamond-petaled California poppy	PDPAP0A0D0	None	None	G1	S1	1B.1
<i>Eucerceris ruficeps</i> redheaded sphecid wasp	IIHYM18010	None	None	G1G3	S2	
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
<i>Fritillaria agrestis</i> stinkbells	PMLIL0V010	None	None	G3	S3	4.2
<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>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S2	
<i>Grimmia torenii</i> Toren's grimmia	NBMUS32330	None	None	G2	S2	1B.3
<i>Helianthella castanea</i> Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
<i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	IMGASC2362	None	None	G3T1	S1S2	
<i>Hesperolinon breweri</i> Brewer's western flax	PDLIN01030	None	None	G2	S2	1B.2
<i>Hibiscus lasiocarpus var. occidentalis</i> woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
<i>Hygrotus curvipes</i> curved-foot hygrotus diving beetle	IICOL38030	None	None	G2	S2	
<i>Hypomesus transpacificus</i> Delta smelt	AFCHB01040	Threatened	Endangered	G1	S1	
<i>Idiostatus middlekauffi</i> Middlekauff's shieldback katydid	IIORT31010	None	None	G1G2	S1	



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<i>Isocoma arguta</i> Carquinez goldenbush	PDAST57050	None	None	G1	S1	1B.1
<i>Lanius ludovicianus</i> loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Lasiurus frantzii</i> western red bat	AMACC05080	None	None	G4	S3	SSC
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
<i>Lathyrus jepsonii var. jepsonii</i> Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S3	
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
<i>Limosella australis</i> Delta mudwort	PDSCR10030	None	None	G5	S2	2B.1
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Lytta molesta</i> molestan blister beetle	IICOL4C030	None	None	G2	S2	
<i>Madia radiata</i> showy golden madia	PDAST650E0	None	None	G3	S3	1B.1
<i>Malacothamnus hallii</i> Hall's bushmallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
<i>Melospiza melodia maxillaris</i> Suisun song sparrow	ABPBXA301K	None	None	G5T3	S2	SSC
<i>Melospiza melodia pop. 1</i> song sparrow ("Modesto" population)	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
<i>Metapogon hurdi</i> Hurd's metapogon robberfly	IIDIP08010	None	None	G1G2	S1S2	
<i>Microseris paludosa</i> marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2



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<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Myrmosula pacifica</i> Antioch multilid wasp	IIHYM15010	None	None	GH	SH	
<i>Nannopterum auritum</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Navarretia gowenii</i> Lime Ridge navarretia	PDPLM0C120	None	None	G1	S1	1B.1
<i>Navarretia leucocephala ssp. bakeri</i> Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
<i>Navarretia nigelliformis ssp. radians</i> shining navarretia	PDPLM0C0J2	None	None	G4T2T3	S2S3	1B.2
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Northern Claypan Vernal Pool</i> Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
<i>Oenothera deltooides ssp. howellii</i> Antioch Dunes evening-primrose	PDONA0C0B4	Endangered	Endangered	G5T1	S1	1B.1
<i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	SSC
<i>Perdita hirticeps luteocincta</i> yellow-banded andrenid bee	IIHYM01021	None	None	GNRTX	SX	
<i>Perdita scitula antiochensis</i> Antioch andrenid bee	IIHYM01031	None	None	G1T1	S2	
<i>Perognathus inornatus</i> San Joaquin pocket mouse	AMAFD01060	None	None	G2G3	S2S3	
<i>Phacelia phacelioides</i> Mt. Diablo phacelia	PDHYD0C3Q0	None	None	G2	S2	1B.2
<i>Philanthus nasalis</i> Antioch spetid wasp	IIHYM20010	None	None	G2	S2	
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G4	S4	SSC
<i>Plagiobothrys hystriculus</i> bearded popcornflower	PDBOR0V0H0	None	None	G2	S2	1B.1
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	AFCJB34020	None	None	G3	S3	SSC
<i>Potamogeton zosteriformis</i> eel-grass pondweed	PMPOT03160	None	None	G5	S3	2B.2
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G2	S2	1B.2
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S2	FP



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<i>Rana boylei</i> pop. 4 foothill yellow-legged frog - central coast DPS	AAABH01054	Threatened	Endangered	G3T2	S2	
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Ravenella exigua</i> chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S3	FP
<i>Rhaphiomidas trochilus</i> San Joaquin Valley giant flower-loving fly	IIDIP05010	None	None	G1	S1	
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S3	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Sanicula saxatilis</i> rock sanicle	PDAP11Z0H0	None	Rare	G2	S2	1B.2
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
<i>Serpentine Bunchgrass</i> Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
<i>Sidalcea keckii</i> Keck's checkerbloom	PDMAL110D0	Endangered	None	G2	S2	1B.1
<i>Sorex ornatus sinuosus</i> Suisun shrew	AMABA01103	None	None	G5T1T2Q	S1S2	SSC
<i>Sphecodogastra antiochensis</i> Antioch Dunes halcetid bee	IIHYM78010	None	None	G1	S1	
<i>Spirinchus thaleichthys</i> pop. 2 longfin smelt - San Francisco Bay-Delta DPS	AFCHB03040	Endangered	Threatened	G5TNRQ	S1	
<i>Stabilized Interior Dunes</i> Stabilized Interior Dunes	CTT23100CA	None	None	G1	S1.1	
<i>Sternula antillarum browni</i> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<i>Streptanthus hispidus</i> Mt. Diablo jewelflower	PDBRA2G0M0	None	None	G2	S2	1B.3
<i>Stuckenia filiformis</i> ssp. <i>alpina</i> northern slender pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
<i>Symphotrichum lentum</i> Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC



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<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Triquetrella californica</i> coastal triquetrella	NBMUS7S010	None	None	G2	S2	1B.2
<i>Tropidocarpum capparideum</i> caper-fruited tropidocarpum	PDBRA2R010	None	None	G1	S1	1B.1
<i>Valley Needlegrass Grassland</i> Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
<i>Viburnum ellipticum</i> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3	2B.3
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S3	

Record Count: 150



CNPS Rare Plant Inventory

Search Results

89 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3812117:3812128:3812127:3812126:3812118:3812116:3712188:3712187:3712186]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	BLOOMING PERIOD	FED LIST	STATE LIST	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED
<i>Amsinckia grandiflora</i>	large-flowered fiddleneck	Boraginaceae	(Mar)Apr-May	FE	CE	S1	1B.1	Yes	1974-01-01
<i>Androsace elongata</i> ssp. <i>acuta</i>	California androsace	Primulaceae	Mar-Jun	None	None	S3S4	4.2		1994-01-01
<i>Anomobryum julaceum</i>	slender silver moss	Bryaceae		None	None	S2	4.2		2001-01-01
<i>Arabis blepharophylla</i>	coast rockcress	Brassicaceae	Feb-May	None	None	S4	4.3	Yes	1974-01-01
<i>Arctostaphylos auriculata</i>	Mt. Diablo manzanita	Ericaceae	Jan-Mar	None	None	S2	1B.3	Yes	1974-01-01
<i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i>	Contra Costa manzanita	Ericaceae	Jan-Mar(Apr)	None	None	S2	1B.2	Yes	1984-01-01
<i>Astragalus tener</i> var. <i>tener</i>	alkali milk-vetch	Fabaceae	Mar-Jun	None	None	S1	1B.2	Yes	1994-01-01
<i>Atriplex cordulata</i> var. <i>cordulata</i>	heartscale	Chenopodiaceae	Apr-Oct	None	None	S2	1B.2	Yes	1988-01-01
<i>Atriplex coronata</i> var. <i>coronata</i>	crownscale	Chenopodiaceae	Mar-Oct	None	None	S3	4.2	Yes	1994-01-01
<i>Atriplex depressa</i>	brittlescale	Chenopodiaceae	Apr-Oct	None	None	S2	1B.2	Yes	1994-01-01
<i>Blepharizonia plumosa</i>	big tarplant	Asteraceae	Jul-Oct	None	None	S1S2	1B.1	Yes	1994-01-01
<i>Calandrinia breweri</i>	Brewer's calandrinia	Montiaceae	(Jan)Mar-Jun	None	None	S4	4.2		1994-01-01
<i>Calochortus pulchellus</i>	Mt. Diablo fairy-lantern	Liliaceae	Apr-Jun	None	None	S2	1B.2	Yes	1974-01-01
<i>Centromadia parryi</i> ssp. <i>parryi</i>	pappose tarplant	Asteraceae	May-Nov	None	None	S2	1B.2	Yes	2004-01-01
<i>Centromadia parryi</i> ssp. <i>rudis</i>	Parry's rough tarplant	Asteraceae	May-Oct	None	None	S3	4.2	Yes	2007-05-22
<i>Chloropyron molle</i> ssp. <i>hispidum</i>	hispid salty bird's-beak	Orobanchaceae	Jun-Sep	None	None	S1	1B.1	Yes	1974-01-01

<u><i>Chloropyron molle</i> ssp. <i>molle</i></u>	soft salty bird's-beak	Orobanchaceae	Jun-Nov	FE	CR	S1	1B.2	Yes	1974-01-01
<u><i>Cicuta maculata</i> var. <i>bolanderi</i></u>	Bolander's water-hemlock	Apiaceae	Jul-Sep	None	None	S2?	2B.1		1974-01-01
<u><i>Cirsium hydrophilum</i> var. <i>hydrophilum</i></u>	Suisun thistle	Asteraceae	Jun-Sep	FE	None	S1	1B.1	Yes	1974-01-01
<u><i>Collomia diversifolia</i></u>	serpentine collomia	Polemoniaceae	May-Jun	None	None	S4	4.3	Yes	1974-01-01
<u><i>Convolvulus simulans</i></u>	small-flowered morning-glory	Convolvulaceae	Mar-Jul	None	None	S4	4.2		1994-01-01
<u><i>Cordylanthus nidularius</i></u>	Mt. Diablo bird's-beak	Orobanchaceae	Jun-Aug	None	CR	S1	1B.1	Yes	1974-01-01
<u><i>Cryptantha hooveri</i></u>	Hoover's cryptantha	Boraginaceae	Apr-May	None	None	SH	1A	Yes	1974-01-01
<u><i>Delphinium californicum</i> ssp. <i>interius</i></u>	Hospital Canyon larkspur	Ranunculaceae	Apr-Jun	None	None	S3	1B.2	Yes	1984-01-01
<u><i>Downingia pusilla</i></u>	dwarf downingia	Campanulaceae	Mar-May	None	None	S2	2B.2		1980-01-01
<u><i>Eleocharis parvula</i></u>	small spikerush	Cyperaceae	(Apr)Jun-Aug(Sep)	None	None	S3	4.3		1980-01-01
<u><i>Eriastrum ertterae</i></u>	Lime Ridge eriastrum	Polemoniaceae	Jun-Jul	None	CC	S1	1B.1	Yes	2013-12-19
<u><i>Eriogonum nudum</i> var. <i>psychicola</i></u>	Antioch Dunes buckwheat	Polygonaceae	Jul-Oct	None	None	S1	1B.1	Yes	2010-06-21
<u><i>Eriogonum truncatum</i></u>	Mt. Diablo buckwheat	Polygonaceae	Apr-Sep(Nov-Dec)	None	None	S1	1B.1	Yes	1974-01-01
<u><i>Eriogonum umbellatum</i> var. <i>bahiiforme</i></u>	bay buckwheat	Polygonaceae	Jul-Sep	None	None	S3	4.2	Yes	2001-01-01
<u><i>Eriophyllum jepsonii</i></u>	Jepson's woolly sunflower	Asteraceae	Apr-Jun	None	None	S3	4.3	Yes	1974-01-01
<u><i>Eryngium jepsonii</i></u>	Jepson's coyote-thistle	Apiaceae	Apr-Aug	None	None	S2	1B.2	Yes	2016-09-13
<u><i>Erysimum capitatum</i> var. <i>angustatum</i></u>	Contra Costa wallflower	Brassicaceae	Mar-Jul	FE	CE	S1	1B.1	Yes	1974-01-01
<u><i>Erythranthe inconspicua</i></u>	small-flowered monkeyflower	Phrymaceae	May-Jun	None	None	S4	4.3	Yes	1974-01-01
<u><i>Eschscholzia rhombipetala</i></u>	diamond-petaled California poppy	Papaveraceae	Mar-Apr	None	None	S1	1B.1	Yes	1980-01-01
<u><i>Extriplex joaquinana</i></u>	San Joaquin spearscale	Chenopodiaceae	Apr-Oct	None	None	S2	1B.2	Yes	1988-01-01
<u><i>Fritillaria agrestis</i></u>	stinkbells	Liliaceae	Mar-Jun	None	None	S3	4.2	Yes	1980-01-01
<u><i>Fritillaria liliacea</i></u>	fragrant fritillary	Liliaceae	Feb-Apr	None	None	S2	1B.2	Yes	1974-01-01
<u><i>Galium andrewsii</i> ssp. <i>gatense</i></u>	phlox-leaf serpentine bedstraw	Rubiaceae	Apr-Jul	None	None	S3	4.2	Yes	1994-01-01

<u><i>Grimmia torenii</i></u>	Toren's grimmia	Grimmiaceae		None	None	S2	1B.3	Yes	2014-05-14
<u><i>Helianthella castanea</i></u>	Diablo helianthella	Asteraceae	Mar-Jun	None	None	S2	1B.2	Yes	1974-01-01
<u><i>Hesperervax caulescens</i></u>	hogwallow starfish	Asteraceae	Mar-Jun	None	None	S3	4.2	Yes	2001-01-01
<u><i>Hesperolinon breweri</i></u>	Brewer's western flax	Linaceae	May-Jul	None	None	S2	1B.2	Yes	1974-01-01
<u><i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i></u>	woolly rose-mallow	Malvaceae	Jun-Sep	None	None	S3	1B.2	Yes	1974-01-01
<u><i>Isocoma arguta</i></u>	Carquinez goldenbush	Asteraceae	Aug-Dec	None	None	S1	1B.1	Yes	1994-01-01
<u><i>Lasthenia conjugens</i></u>	Contra Costa goldfields	Asteraceae	Mar-Jun	FE	None	S1	1B.1	Yes	1974-01-01
<u><i>Lasthenia glabrata</i> ssp. <i>coulteri</i></u>	Coulter's goldfields	Asteraceae	Feb-Jun	None	None	S2	1B.1		1994-01-01
<u><i>Lathyrus jepsonii</i> var. <i>jepsonii</i></u>	Delta tule pea	Fabaceae	May-Jul(Aug-Sep)	None	None	S2	1B.2	Yes	1974-01-01
<u><i>Legenere limosa</i></u>	legenere	Campanulaceae	Apr-Jun	None	None	S2	1B.1	Yes	1974-01-01
<u><i>Leptosiphon ambiguus</i></u>	serpentine leptosiphon	Polemoniaceae	Mar-Jun	None	None	S4	4.2	Yes	1994-01-01
<u><i>Leptosiphon grandiflorus</i></u>	large-flowered leptosiphon	Polemoniaceae	Apr-Aug	None	None	S3S4	4.2	Yes	1994-01-01
<u><i>Lessingia hololeuca</i></u>	woolly-headed lessingia	Asteraceae	Jun-Oct	None	None	S2S3	3	Yes	1994-01-01
<u><i>Lilaeopsis masonii</i></u>	Mason's lilaeopsis	Apiaceae	Apr-Nov	None	CR	S2	1B.1	Yes	1974-01-01
<u><i>Lilium rubescens</i></u>	redwood lily	Liliaceae	(Mar)Apr-Aug(Sep)	None	None	S3	4.2	Yes	1974-01-01
<u><i>Limosella australis</i></u>	Delta mudwort	Scrophulariaceae	May-Aug	None	None	S2	2B.1		1994-01-01
<u><i>Lupinus albifrons</i> var. <i>abramsii</i></u>	Abrams' lupine	Fabaceae	Apr-Jun	None	None	S3?	3.2	Yes	1974-01-01
<u><i>Madia radiata</i></u>	showy golden madia	Asteraceae	Mar-May	None	None	S3	1B.1	Yes	1988-01-01
<u><i>Malacothamnus hallii</i></u>	Hall's bushmallow	Malvaceae	(Apr)May-Sep(Oct)	None	None	S2	1B.2	Yes	1974-01-01
<u><i>Meesia triquetra</i></u>	three-ranked hump moss	Meesiaceae	Jul	None	None	S4	4.2		2001-01-01
<u><i>Microseris paludosa</i></u>	marsh microseris	Asteraceae	Apr-Jun(Jul)	None	None	S2	1B.2	Yes	2001-01-01
<u><i>Microseris sylvatica</i></u>	sylvan microseris	Asteraceae	Mar-Jun	None	None	S4	4.2	Yes	2001-01-01
<u><i>Monolopia gracilens</i></u>	woodland woollythreads	Asteraceae	(Feb)Mar-Jul	None	None	S3	1B.2	Yes	2010-04-06

<u><i>Myosurus minimus</i> ssp. <i>apus</i></u>	little mousetail	Ranunculaceae	Mar-Jun	None	None	S2	3.1		1980-01-01
<u><i>Navarretia gowenii</i></u>	Lime Ridge navarretia	Polemoniaceae	May-Jun	None	None	S1	1B.1	Yes	2008-05-15
<u><i>Navarretia heterandra</i></u>	Tehama navarretia	Polemoniaceae	Apr-Jun	None	None	S4	4.3		1974-01-01
<u><i>Navarretia leucocephala</i> ssp. <i>bakeri</i></u>	Baker's navarretia	Polemoniaceae	Apr-Jul	None	None	S2	1B.1	Yes	1994-01-01
<u><i>Navarretia nigelliformis</i> ssp. <i>radians</i></u>	shining navarretia	Polemoniaceae	(Mar)Apr-Jul	None	None	S2S3	1B.2	Yes	1994-01-01
<u><i>Oenothera deltooides</i> ssp. <i>howellii</i></u>	Antioch Dunes evening-primrose	Onagraceae	Mar-Sep	FE	CE	S1	1B.1	Yes	1974-01-01
<u><i>Phacelia phacelioides</i></u>	Mt. Diablo phacelia	Hydrophyllaceae	Apr-May	None	None	S2	1B.2	Yes	1974-01-01
<u><i>Piperia michaelii</i></u>	Michael's rein orchid	Orchidaceae	Apr-Aug	None	None	S3	4.2	Yes	1984-01-01
<u><i>Plagiobothrys hystriculus</i></u>	bearded popcornflower	Boraginaceae	Apr-May	None	None	S2	1B.1	Yes	1974-01-01
<u><i>Potamogeton zosteriformis</i></u>	eel-grass pondweed	Potamogetonaceae	Jun-Jul	None	None	S3	2B.2		1994-01-01
<u><i>Puccinellia simplex</i></u>	California alkali grass	Poaceae	Mar-May	None	None	S2	1B.2		2015-10-15
<u><i>Ranunculus lobbii</i></u>	Lobb's aquatic buttercup	Ranunculaceae	Feb-May	None	None	S3	4.2		1974-01-01
<u><i>Ravenella exigua</i></u>	chaparral harebell	Campanulaceae	May-Jun	None	None	S2	1B.2	Yes	1974-01-01
<u><i>Sagittaria sanfordii</i></u>	Sanford's arrowhead	Alismataceae	May-Oct(Nov)	None	None	S3	1B.2	Yes	1984-01-01
<u><i>Sanicula saxatilis</i></u>	rock sanicle	Apiaceae	Apr-May	None	CR	S2	1B.2	Yes	1974-01-01
<u><i>Senecio aphanactis</i></u>	chaparral ragwort	Asteraceae	Jan-Apr(May)	None	None	S2	2B.2		1994-01-01
<u><i>Senecio hydrophiloides</i></u>	sweet marsh ragwort	Asteraceae	May-Aug	None	None	S4	4.2		1984-01-01
<u><i>Sidalcea keckii</i></u>	Keck's checkerbloom	Malvaceae	Apr-May(Jun)	FE	None	S2	1B.1	Yes	1974-01-01
<u><i>Spergularia macrotheca</i> var. <i>longistyla</i></u>	long-styled sand-spurrey	Caryophyllaceae	Feb-May	None	None	S2	1B.2	Yes	2017-06-16
<u><i>Streptanthus albidus</i> ssp. <i>peramoenus</i></u>	most beautiful jewelflower	Brassicaceae	(Mar)Apr-Sep(Oct)	None	None	S2	1B.2	Yes	1988-01-01
<u><i>Streptanthus hispidus</i></u>	Mt. Diablo jewelflower	Brassicaceae	Mar-Jun	None	None	S2	1B.3	Yes	1974-01-01
<u><i>Stuckenia filiformis</i> ssp. <i>alpina</i></u>	northern slender pondweed	Potamogetonaceae	May-Jul	None	None	S2S3	2B.2		1994-01-01
<u><i>Stuckenia striata</i></u>	broadleaf pondweed	Potamogetonaceae	(Jun)Jul-Aug	None	None	S2S3	2B.3		2024-01-30

<u><i>Symphotrichum lentum</i></u>	Suisun Marsh aster	Asteraceae	(Apr)May- Nov	None	None	S2	1B.2	Yes	1974-01-01
<u><i>Triquetrella californica</i></u>	coastal triquetrella	Pottiaceae		None	None	S2	1B.2		2001-01-01
<u><i>Tropidocarpum capparideum</i></u>	caper-fruited trepidocarpum	Brassicaceae	Mar-Apr	None	None	S1	1B.1	Yes	1974-01-01
<u><i>Viburnum ellipticum</i></u>	oval-leaved viburnum	Viburnaceae	May-Jun	None	None	S3	2B.3		1974-01-01

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Suggested Citation:

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 24 September 2024].

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

Contra Costa 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. 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. IPaC only shows species that are regulated by USFWS (see FAQ).

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
<p>Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613</p>	Endangered
<p>San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873</p>	Endangered

Birds

NAME	STATUS
<p>California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8193</p>	Endangered
<p>California Least Tern <i>Sternula antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104</p>	Endangered
<p>California Ridgway's Rail <i>Rallus obsoletus obsoletus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240</p>	Endangered

Reptiles

NAME	STATUS
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Northwestern Pond Turtle *Actinemys marmorata*

Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1111>

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<https://ecos.fws.gov/ecp/species/2891>California Tiger Salamander *Ambystoma californiense*

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<https://ecos.fws.gov/ecp/species/2076>Foothill Yellow-legged Frog *Rana boylei*

Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5133>Western Spadefoot *Spea hammondi*

Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5425>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi* Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

Vernal Pool Tadpole Shrimp *Lepidurus packardii* Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

Flowering Plants

NAME

STATUS

Colusa Grass *Neostapfia colusana* Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/5690>

Contra Costa Goldfields *Lasthenia conjugens* Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

Keck's Checker-mallow *Sidalcea keckii* Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/5704>

Soft Bird's-beak *Cordylanthus mollis* ssp. *mollis* Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/8541>

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
Delta Smelt <i>Hypomesus transpacificus</i> For information on why this critical habitat appears for your project, even though Delta Smelt is not on the list of potentially affected species at this location, contact the local field office. https://ecos.fws.gov/ecp/species/321#crithab	Final

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>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.</p> <p>https://ecos.fws.gov/ecp/species/1626</p>	Breeds Jan 1 to Aug 31
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>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.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "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.

- 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 $0.05/0.25 = 0.2$.
- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Breeding Season (■)

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

Survey Effort (|)

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

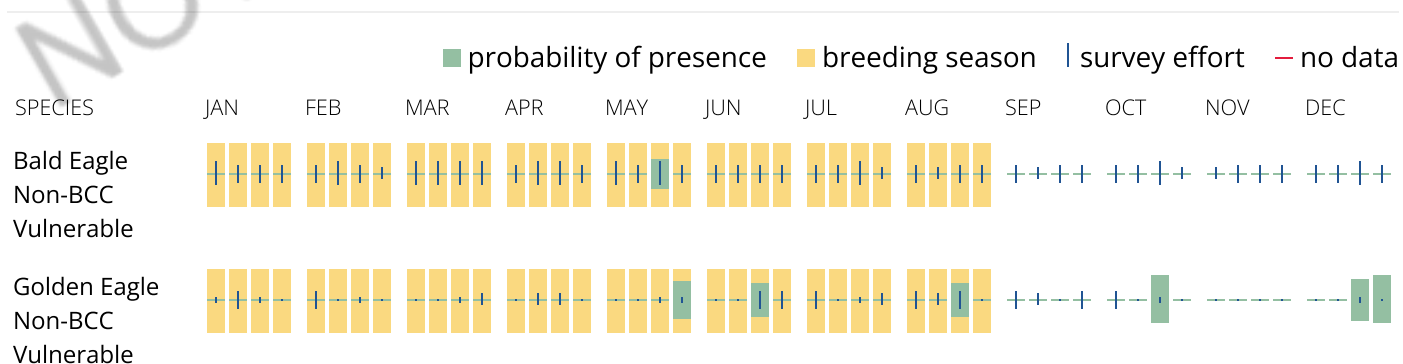
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

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

Survey Timeframe

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



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project

intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

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

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

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

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty 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 habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

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

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>

- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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

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

NAME	BREEDING SEASON
<p>Allen's Hummingbird <i>Selasphorus sasin</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637</p>	Breeds Feb 1 to Jul 15
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>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</p>	Breeds Jan 1 to Aug 31
<p>Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8</p>	Breeds Apr 1 to Aug 15

- Bullock's Oriole** *Icterus bullockii* Breeds Mar 21 to Jul 25
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
- California Gull** *Larus californicus* Breeds Mar 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
- California Thrasher** *Toxostoma redivivum* Breeds Jan 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
- 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** *Spinus 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>
- Northern Harrier** *Circus hudsonius* Breeds Apr 1 to Sep 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/8350>
- Nuttall's Woodpecker** *Dryobates nuttallii* Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/9410>

<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>Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31
<p>Santa Barbara Song Sparrow <i>Melospiza melodia graminea</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/5513</p>	Breeds Mar 1 to Sep 5
<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>Western Grebe <i>Aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743</p>	Breeds Jun 1 to Aug 31
<p>Western Gull <i>Larus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 21 to Aug 25
<p>Western Screech-owl <i>Megascops kennicottii carolinensis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Mar 1 to Jun 30
<p>Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read

["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "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.

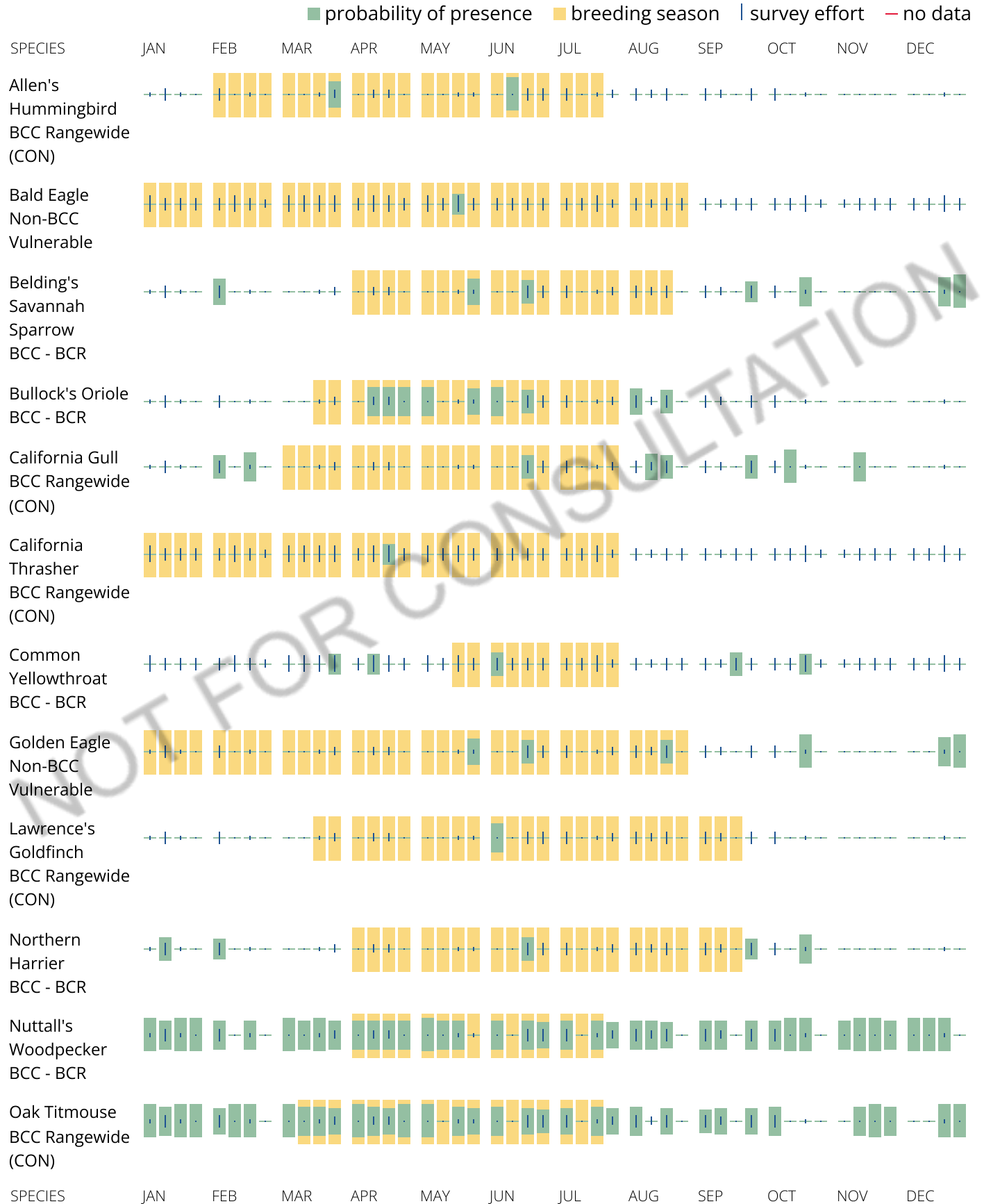
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

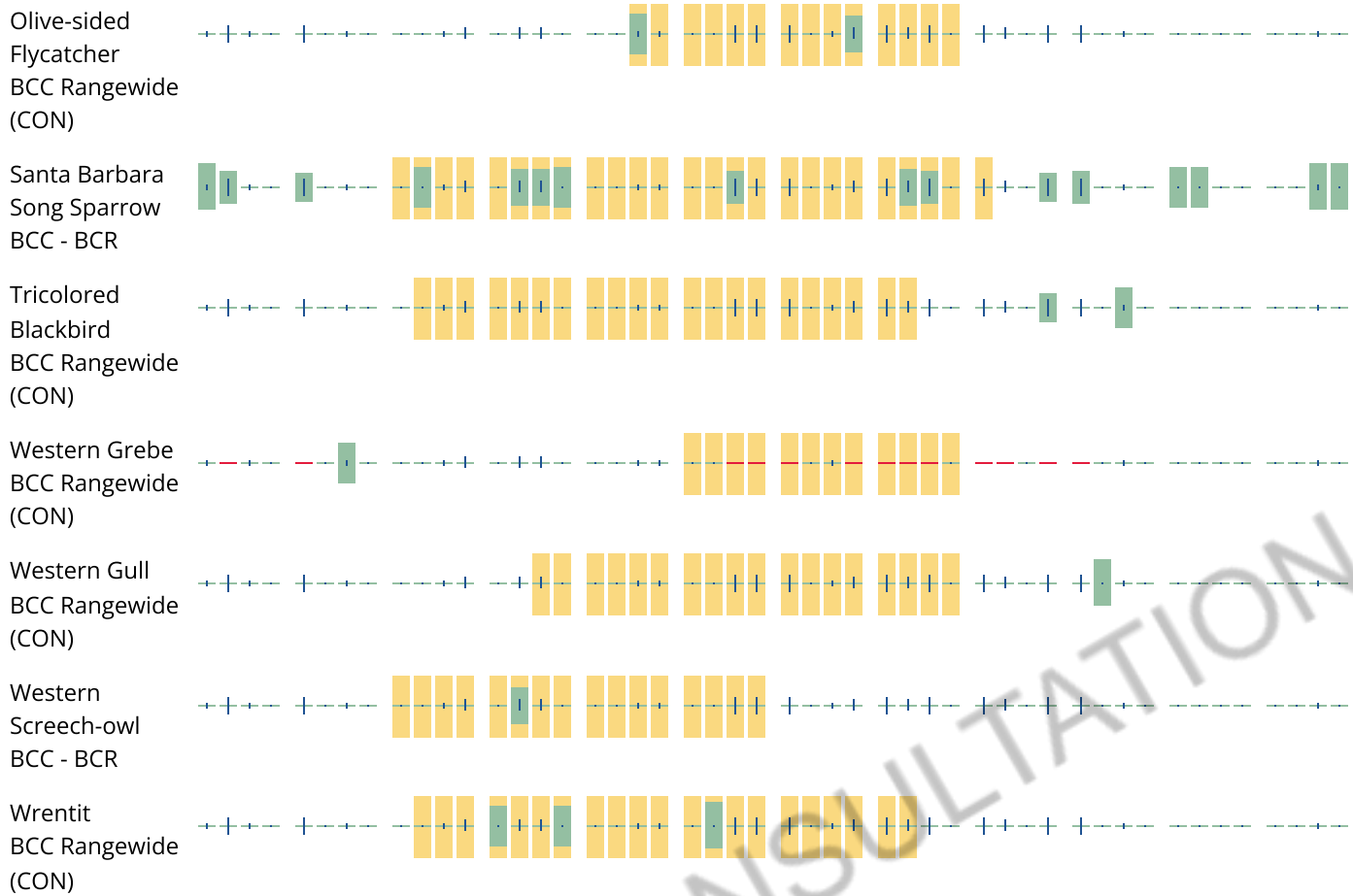
No Data (—)

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](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

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

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

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

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

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

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go 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 or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

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

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

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

Data exclusions

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

Table 1: Special-status Plant Species Evaluated

Scientific Name Common Name	Status			Habitat Description ⁴	Occurrence Determination and Rationale ⁵
	USFWS ¹	CDFW ²	CNPS ³		
<i>Amsinckia grandiflora</i> Large-flowered fiddleneck	FE	CE	1B.1	Cismontane woodland, valley and foothill grassland in various soils. Elevation: 275-550 m. Bloom period: April-May	None: Project site does not contain suitable grassland or cismontane woodland habitat. The project site has been subjected to many years of anthropogenic disturbances. This species was not observed during the field survey.
<i>Arctostaphylos auriculata</i> Mt. Diablo manzanita	—	—	1B.3	Chaparral, cismontane woodland. In canyons and on slopes; on sandstone. Elevation: 180-565 m. Bloom period: January-March	None: Project site does not contain chaparral or cismontane woodland habitats that support this species.
<i>Arctostaphylos manzanita</i> <i>ssp. Laevigata</i> Contra Costa Manzanita	—	—	1B.2	Chaparral (Rocky) Elevation: 430-1100 m. Blooming period: January-March(April)	None: The project site does not contain suitable habitat in the form of chaparral.
<i>Astragalus tener var. tener</i> Alkali milk-vetch	—	—	1B.2	(adobe clay), vernal pools chenopod scrub, meadows and seeps, Valley and foothill grassland (sandy) Elevation: 1-60 m. Blooming period: March-June	None: The project site does not contain suitable habitat in the form of vernal pools, chenopod scrub, meadows and seeps, valley and foothill grasslands.
<i>Atriplex cordulata var. cordulata</i> Heartscale	—	—	1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland (sandy) Elevation: 0-560 m. Blooming period: April-October	None: The project site does not contain chenopod scrub, meadows and seeps, valley and foothill grassland.
<i>Atriplex depressa</i> Brittlescale	—	—	1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools Elevation: 1-320 m. Blooming period: April-October	None: The project site does not contain suitable habitat in the form of chenopod scrub, meadows and seeps, playas, valley and foothill grasslands or vernal pools.
<i>Blepharizonia plumosa</i> Big tarplant	—	—	1B.1	Valley and foothill grassland. Often in dry hills and plains in annual grassland. Clay to clay-loam soils; usually on slopes and often in burned areas. Elevation: 60-505 m. Bloom period: July-October	None: Project site does not contain valley or foothill grassland habitats that support this species. The project site has been subjected to many years of anthropogenic disturbances.

Scientific Name Common Name	Status			Habitat Description ⁴	Occurrence Determination and Rationale ⁵
	USFWS ¹	CDFW ²	CNPS ³		
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	—	—	1B.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. On wooded and brushy slopes. Elevation: 45-915 m. Bloom period: April-June	None: The project site does not contain chaparral, woodland or grassland habitat on wooded or brushy slopes to support this species. This species was not observed during the field survey.
<i>Centromadia parryi</i> ssp. <i>Hispidum</i> Pappose tarplant	—	—	1B.2	Chaparral, Coastal prairie, Marshes and swamps (coastal salt), Meadows and seeps, Valley and foothill grassland (vernally mesic) Elevation: 0-420 m. Blooming period: May-November	None: The project site does not contain suitable habitat in the form of chaparral, coastal prairie, marshes and swamps (coastal salt), meadows and seeps, or valley and foothill grassland.
<i>Chlorophyron molle</i> ssp. <i>Hispidum</i> Hispid salty bird's-beak	—	—	1B.1	Meadows and seeps, Playas, Valley and foothill grassland Elevation: 1-155 m. Blooming period: June-September	None: The project site does not contain suitable habitat in the form of meadows and seeps, playas, valley and foothill grassland.
<i>Chloropyron molle</i> ssp. <i>Molle</i> Soft salty bird's-beak	FE	CR	1B.2	Marshes and swamps (coastal salt) Elevation: 0-3 m. Blooming period: June-November	None: The project site does not contain suitable habitat in the form of marshes and swamps.
<i>Cicuta maculata</i> var. <i>bolanderi</i> Bolander's water-hemlock	—	—	2B.1	Marshes and swamps. In fresh or brackish water. Elevation: 0-20 m. Bloom period: July-September	None: Project site does not contain marshes or swamps that support this species.
<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i> Suisun thistle	FE	—	1B.1	Marshes and swamps (salt) Elevation: 0-1 m. Blooming period: June-September	None: The project site does not contain suitable habitat in the form of marshes and swamps.
<i>Cordylanthus nidularius</i> Mt. Diablo bird's-beak	—	CR	1B.1	Chaparral (serpentinite) Elevation: 600-800 m. Blooming period: June-August	None: The project site does not contain suitable habitat in the form of chaparral.
<i>Cryptantha hooveri</i> Hoover's cryptantha	—	—	1A	Valley and foothill grassland, inland dunes. In coarse sand. Elevation: 50-365 m. Bloom period: April-May	None: The project site has been subjected to many years of anthropogenic disturbances. No dune habitat is present onsite.

Scientific Name Common Name	Status			Habitat Description ⁴	Occurrence Determination and Rationale ⁵
	USFWS ¹	CDFW ²	CNPS ³		
<i>Delphinium californicum</i> ssp. <i>Interius</i> Hospital Canyon larkspur	—	—	1B.2	Chaparral (openings), Cismontane woodland (mesic), Coastal scrub Elevation: 195-1095 m. Blooming period: April-June	None: The project site does not contain suitable habitat in the form of chaparral, cismontane woodland or coastal scrub.
<i>Downingia pusilla</i> Dwarf downingia	—	—	2B.2	Valley and foothill grassland (mesic), Vernal pools Elevation: 1-445 m. Blooming period: March-May	None: The project site does not contain suitable habitat in the form of valley and foothill grassland or vernal pools.
<i>Eriastrum erterrae</i> Lime Ridge eriastrum	—	—	1B.1	Chaparral (edges, openings) Elevation: 200-290 m. Blooming period: June-July	None: The project stie does not contain suitable habitat in the form of chaparral.
<i>Eriogonum nudum</i> var. <i>psychicola</i> Antioch Dunes buckwheat	—	—	1B.1	Grows on the Antioch Dunes (interior dune system) with <i>Lupinus albifrons</i> , <i>Gutierrezia californica</i> , and introduced grasses and other weeds. Primary host plant for endangered Lange's metalmark butterfly. Elevation: 0-20 m. Bloom period: July-October	None: Project site does not contain dune habitat and is located outside the Antioch Dunes.
<i>Eriogonum truncatum</i> Mt. Diablo buckwheat	—	—	1B.1	Chaparral, coastal scrub, valley and foothill grassland. Dry, exposed clay or sandy substrates Elevation: 105-350 m. Bloom period: April-September	None: The project site does not contain chaparral, coastal scrub, or valley and foothill grassland habitats. The project site lacks suitable substrates. This species was not observed during the field survey.
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	—	—	1B.2	Vernal pools, valley and foothill grassland on clay soils. Elevation: 3-305 m. Bloom period: April-August	None: Project site does not contain vernal pools, or valley and foothill grassland habitat to support this species. This species was not observed during the field survey.
<i>Erysimum capitatum</i> var. <i>angustatum</i> Contra Costa wallflower	FE	SE	1B.1	Inland dunes. Stabilized dunes of sand and clay near Antioch along the San Joaquin River Elevation: 3-10 m. Bloom period: March-July	None: The project site does not contain suitable habitat to support this species. This species was not observed during the field survey.
<i>Eschscholzia rhombipetala</i> Diamond-petaled California poppy	—	—	1B.1	Valley and foothill grassland. Alkaline, clay slopes and flats. Elevation: 30-625 m. Bloom period: March-April	None: The project site does not contain suitable habitat to support this species.

Scientific Name Common Name	Status			Habitat Description ⁴	Occurrence Determination and Rationale ⁵
	USFWS ¹	CDFW ²	CNPS ³		
<i>Extriplex joaquinana</i> San Joaquin spearscale	—	—	1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland Elevation: 1-835 m. Blooming period: April-October	None: The project site does not contain suitable habitat in the form of chenopod scrub, meadows and seeps, playas, valley and foothill grassland.
<i>Fritillaria liliacea</i> Fragrant fritillary	—	—	1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland Elevation: 3-410 m. Blooming period: February-April	None: The project site does not contain suitable habitat in the form of cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland.
<i>Grimmia torenii</i> Toren's grimmia	—	—	1B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest Elevation: 325-1160 m Blooming period:	None: The project site does not contain suitable habitat in the form of chaparral, cismontane woodland, or lower montane coniferous forest.
<i>Helianthella castanea</i> Diablo helianthella	—	—	1B.2	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Usually in chaparral/oak woodland interface in rocky, azonal soils. Often in partial shade Elevation: 45-1070 m. Bloom period: March-June	None: Project site does not contain chaparral or oak woodland habitat and does not contain azonal soils or conditions to support this species. This species was not observed during the field survey.
<i>Hesperolinon breweri</i> Brewer's western flax	—	—	1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Often in rocky serpentine soil in chaparral and grassland. Elevation: 195-910 m. Bloom period: May-July	None: The project site does not contain chaparral, cismontane woodland, or valley and foothill grassland and does not contain serpentine soils to support this species. This species was not observed during the field survey.
<i>Hibiscus lasiocarpus var. occidentalis</i> Woolly-rose-mallow	—	—	1B.2	Marshes and swamps (freshwater) Elevation: 0-120 m. Blooming period: June-September	None: The project site does not contain suitable habitat in the form of marshes and swamps.
<i>Isocoma arguta</i> Carquinez goldenbush	—	—	1B.1	Valley and foothill grassland (alkaline) Elevation: 1-20 m. Blooming period: August-December	None: The project site does not contain suitable habitat in the form of valley and foothill grasslands.
<i>Lasthenia conjugens</i> Contra Costa goldfields	FE	—	1B.1	Vernal pools, swales, low depressions, in open grassy areas. Elevation: 1-450 m. Bloom period: March-June	None: Project site does not contain suitable habitat to support this species. This species was not observed during the field survey.

Scientific Name Common Name	Status			Habitat Description ⁴	Occurrence Determination and Rationale ⁵
	USFWS ¹	CDFW ²	CNPS ³		
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	—	—	1B.2	Marshes and swamps. In freshwater and brackish marshes, often on marsh and slough edges. Elevation: 0-5 m. Bloom period: May-July	None: Project site does not contain marshes, swamps, or sloughs to support this species. This species was not observed during the field survey.
<i>Legenere limosa</i> Legenere	—	—	1B.1	Vernal pools. Elevation: 1-880 m. Blooming period: April-June	None: The project site does not contain suitable habitat in the form of vernal pools.
<i>Lessingia hololeuca</i> Woolly-headed lessingia	—	—	3	Broadleafed upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland Elevation: 15-305 m. Blooming period: June-October	None: The project site does not contain suitable habitat in the form of broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	—	CR	1B.1	Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or riverbank erosion. In brackish or freshwater. Elevation: 0-10 m. Bloom period: April-November	None: The project site does not contain suitable aquatic habitat to support this species. This species was not observed during the field survey.
<i>Limosella australis</i> Delta mudwort	—	—	2B.1	Riparian scrub, marshes and swamps. Usually on mud banks of the Delta in marshy or scrubby riparian associations; Elevation: 0-5 m. Bloom period: May-August	None: The project site lacks riparian habitat, marshes, or swamps to support this species.
<i>Lupinus albifrons</i> var. <i>abramsii</i> Abram's lupine	—	—	3.2	Broadleafed upland forest, Chaparral, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland Elevation: 125-2000 m. Bloom period: April-June	None: The project site does not contain suitable habitat in the form of broadleafed upland forest, chaparral, coastal scrub, lower montane coniferous forest, valley and foothill grassland.
<i>Madia radiata</i> Showy golden madia	—	—	1B.1	Valley and foothill grassland, cismontane woodland. Mostly on adobe clay in grassland or among shrubs. Elevation: 75-1220 m. Bloom period: March-May	None: Project site does not contain valley and foothill grassland, cismontane woodland, or suitable substrate to support this species.

Scientific Name Common Name	Status			Habitat Description ⁴	Occurrence Determination and Rationale ⁵
	USFWS ¹	CDFW ²	CNPS ³		
<i>Malacothamnus hallii</i> Hall's bush-mallow	—	—	1B.2	Chaparral, coastal scrub. Some populations are found on serpentine. Elevation: 10-735 m. Bloom period: March-September	None: The project site does not contain chaparral or coastal scrub habitat to support this species. This species was not observed during the field survey.
<i>Microseris paludosa</i> Marsh microseris	—	—	1B.2	Cismontane woodland, Closed-cone coniferous forest, Coastal scrub, Valley and foothill grassland Elevation: 5-355 m. Blooming period: April-June(July)	None: The project site does not contain suitable habitat in the form of cismontane woodland, closed-cone coniferous forest, coastal scrub, valley and foothill grassland.
<i>Monolopia gracilens</i> Woodland woollythreads	—	—	1B.2	Broadleafed upland forest (openings), Chaparral (openings), Cismontane woodland, North Coast coniferous forest (openings), Valley and foothill grassland Elevation: 100-1200 m. Blooming period: (February)March-July	None: The project site does not contain suitable habitat in the form of broadleafed upland forest, chaparral, cismontane woodland, north coast coniferous forest, or valley and foothill grassland.
<i>Myosurus minimus ssp. Apus</i> Little mousetail	—	—	3.1	Valley and foothill grassland, Vernal pools (alkaline) Elevation: 20-640 m. Blooming period: March-June	None: The project site does not contain suitable habitat in the form of valley and foothill grassland or vernal pools.
<i>Navarretia gowenii</i> Lime ridge navarretia	—	—	1B.1	Chaparral Elevation: 180-305 m. Blooming period: May-June	None: The project site does not contain suitable habitat in the form of chaparral.
<i>Navarretia leucocephala ssp. Bakeri</i> Baker's navarretia	—	—	1B.1	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools Elevation: 5-1740 m. Blooming period: April-July	None: The project site does not contain suitable habitat in the form of cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grasslands or vernal pools.
<i>Navarretia nigelliformis ssp. radians</i> Shining navarreitia	—	—	1B.2	Cismontane woodland, valley and foothill grassland, vernal pools. Elevation: 60-975 m. Bloom period: April-July	None: The project site does not contain vernal pool habitat. The grasslands present have been subjected to many years of anthropogenic disturbances. This species was not observed during the field survey.
<i>Oenothera deltooides ssp. howellii</i> Antoch Dunes evening-primrose	FE	SE	1B.1	Interior dunes. Remnant river bluffs and sand dunes east of Antioch. Elevation: 1-15 m. Bloom period: March-September	None: The project site does not contain dune habitat to support this species. This species was not observed during the field survey.

Scientific Name Common Name	Status			Habitat Description ⁴	Occurrence Determination and Rationale ⁵
	USFWS ¹	CDFW ²	CNPS ³		
<i>Phacelia phacelioides</i> Mt. Diablo phacelia	—	—	1B.2	Chaparral, Cismontane woodland Elevation: 500-1370 m. Blooming period: April-May	None: The project site does not contain suitable habitat in the form of chaparral, cismontane woodland.
<i>Plagiobothrys hystriculus</i> Bearded popcornflower	—	—	1B.1	Valley and foothill grassland (mesic), Vernal pools (margins) Elevation: 0-274 m. Blooming period: April-May	None: The project stie does not contain suitable habitat in the form of valley and foothill grassland or vernal pools.
<i>Potamogeton zosteriformis</i> Eel-grass pondweed	—	—	2B.2	Marshes and swamps (freshwater) Elevation: 0-1860 m. Blooming period: June-July	None: The project site does not contain suitable habitat in the form of marshes and swamps.
<i>Puccinellia simplex</i> California Alkali grass	—	—	1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools Elevation: 2-930 m. Blooming period: March-May	None: The project site does not contain suitable habitat in the form of chenopod scrub, meadows and seeps, valley and foothill grasslands or vernal pools.
<i>Ravenlla exigua</i> Chaparral harebell	—	—	1B.2	Chaparral (rocky, usually serpentinite) Elevation: 275-1250 m. Blooming period: May-June	None: The project site does not contain suitable habitat in the form of chaparral.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	—	—	1B.1	Marshes and swamps (shallow freshwater) Elevation: 0-650 m. Blooming period: May-October(November)	None: The project site does not contain suitable habitat in the form of marshes and swamps.
<i>Sanicula saxatilis</i> Rock Sanicle	—	CR	1B.2	Broadleafed upland forest, Chaparral, Valley and foothill grassland Elevation: 620-1175 m. Blooming period: April-May	None: The project stie does not contain suitable habitat in the form of broadleafed upland forest, chaparral, or valley and foothill grassland.
<i>Senecio aphanactis</i> Chaparral ragwort	—	—	2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevation: 20-1020 m. Bloom period: January-April	None: The project site does contain chaparral, woodland, or coastal scrub habitat to support this species.
<i>Sidalcea keckii</i> Keck's checkerbloom	FE	—	1B.1	Cismontane woodland, Valley and foothill grassland Elevation: 75-650 m. Blooming period: April-May(June)	None: The project site does not contain suitable habitat in the form of cismontane woodland, valley and foothill grassland.

Scientific Name Common Name	Status			Habitat Description ⁴	Occurrence Determination and Rationale ⁵
	USFWS ¹	CDFW ²	CNPS ³		
<i>Spergularia macrotheca</i> var. <i>longistyla</i> Long-styled sand-spurrey	–	–	1B.2	Marshes and swamps, Meadows and seeps Elevation: 0-255 m. Blooming period: February-May	None: The project site does not contain suitable habitat in the form of marshes and swamps, meadows or seeps.
<i>Streptanthus albidus</i> ssp. <i>Peramoenus</i> Most beautiful jewelflower	–	–	1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland Elevation: 95-1000 m. Blooming period: March-June	None: The project site does not contain suitable habitat in the form of chaparral, cismontane woodland, valley or foothill grassland.
<i>Streptanthus hispidus</i> Mt. Diablo Jewelflower	–	–	1B.2	Chaparral, Valley and foothill grassland Elevation: 365-1200 m. Blooming period: March-June	None: The project site does not contain suitable habitat in the form of chaparral, valley and foothill grassland.
<i>Stuckenia filiformis</i> ssp. <i>Alpina</i> Northern slender pondweed	–	–	2B.2	Marshes and swamps (shallow freshwater) Elevation: 300-2150 m. Blooming period: May-July	None: The project site does not contain suitable habitat in the form of marshes and swamps.
<i>Stuckenia striata</i> Broadleaf pondweed	–	–	2B.2	Marshes and swamps Elevation: -70-2135 m. Blooming period: (June)July-August	None: The project site does not contain suitable habitat in the form of marshes and swamps.
<i>Symphyotrichum lentum</i> Suisun Marsh aster	–	–	1B.2	Marshes and swamps (brackish and freshwater). Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. Elevation: 0-15 m. Bloom period: March-November	None: The project site does not contain marsh or swamp habitat to support this species. This species was not observed during the field survey.
<i>Coastal triquetrella</i> Triquetrella California	–	–	1B.2	Coastal bluff scrub, Coastal scrub Elevation: 10-100 m. Blooming period: NA	None: The project site does not contain suitable habitat in the form of coastal bluff scrub or coastal scrub.
<i>Tropidocarpum capparideum</i> Caper-fruited tropidocarpum	–	–	1B.1	Valley and foothill grassland on alkaline clay Elevation: 0-360 m. Bloom period: March-April	None: The project site does not contain valley or foothill grassland with alkaline soils.
<i>Viburnum ellipticum</i> Oval-leaved viburnum	–	–	2B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest Elevation: 215-1400 m. Blooming period: May-June	None: The project site does not contain suitable habitat in the form of chaparral, cismontane woodland, or lower montane coniferous forest.

Scientific Name Common Name	Status			Habitat Description ⁴	Occurrence Determination and Rationale ⁵
	USFWS ¹	CDFW ²	CNPS ³		
Code Designations					
¹ Federal Status: 2024 USFWS Listing			² State Status: 2024 CDFW Listing		³ CNPS: 2024 CNPS Listing
ESU = Evolutionary Significant Unit is a distinctive population. FE = Listed as endangered under the FESA. FT = Listed as threatened under the FESA. FC = Candidate for listing (threatened or endangered) under FESA. FD = Delisted in accordance with the FESA. FPD = Federally Proposed to be Delisted. MBTA = protected by the Migratory Bird Treaty Act — = Not federally listed			SE = Listed as endangered under the CESA. ST = Listed as threatened under the CESA. SSC = Species of Special Concern as identified by the CDFW. FP = Listed as fully protected under FGC. CFG = FGC =protected by FGC 3503.5 CR = Rare in California. — = Not state listed		Rank 1A = Plants species that presumed extinct in California. Rank 1B = Plant species that are rare, threatened, or endangered in California and elsewhere. Rank 2 = Plant species that are rare, threatened, or endangered in California, but more common elsewhere. Rank 3 = Plants about which we need more information—A Review List Rank 4 = Plants of limited distribution—A Watch List Blooming period: Months in parentheses are uncommon.
⁴ Habitat Description: Habitat description adapted from CNDDDB ¹ and CNPS online inventory ² or other specified source*.					
⁵ Potential to Occur and Rationale: Location of recorded species occurrences determined by geospatial information from BIOS 6 ³ or other specified source*.					

¹ California Department of Fish and Wildlife (CDFW). 2024. CNDDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>. Accessed September 16, 2024.

² California Native Plant Society (CNPS). 2024. California Native Plant Society Rare and Endangered Plant Inventory. Website: <http://www.rareplants.cnps.org/>. Accessed September 16, 2024.

³ California Department of Fish and Wildlife (CDFW). 2024. Biogeographic Information and Observation System (BIOS 6). Website: <https://map.dfg.ca.gov/bios/>. Accessed September 16, 2024.

Table 2: Special-status Wildlife Species Evaluated

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
Amphibians				
<i>Ambystoma californiense</i> pop.1 California tiger salamander	FT	ST WL	Found in grassland, oak savanna, edges of mixed woodland and lower elevation coniferous forest. Nocturnal, and fossorial, spending most time underground in animal burrows, especially those of California ground squirrels, valley pocket gophers, and moles. This salamander needs both suitable upland terrestrial habitat with mammal burrows for refuge and temporary breeding ponds in order to survive.	None: The project site does not contain suitable habitat to support this species. The site lacks
<i>Rana boylei</i> pop. 4 Foothill yellow-legged frog – central coast DPS	FT	SE	Found in aquatic, riparian forest, riparian scrub, riparian woodland and south coast flowing waters.	None: The project site does not contain suitable habitat in the form of aquatic, riparian forest, riparian scrub, riparian woodland and south coast flowing waters.
<i>Rana draytonii</i> California red-legged frog	FT	— SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	None: The project site does not contain riparian habitat or other aquatic features that contain permanent water. Dispersal barriers between this occurrence and the project site are present in the form of extensive urban development.
Birds				
<i>Agelaius tricolor</i> Tricolored blackbird	—	CT, SSC	Found in freshwater marsh, marsh and swamps and wetlands.	None: The project site does not contain suitable habitat in the form of freshwater marsh, swamps or wetlands.
<i>Athene cunicularia</i> burrowing owl	— MBTA	— SSC	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel (<i>Otospermophilus beecheyi</i>).	None: The project site does not contain marginal grassland habitat to support this species. No suitable ground squirrel burrow complexes or signs of burrowing owl presence were observed during initial field survey.
<i>Aquila chrysaetos</i> Golden eagle	— MBTA	— FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	None: The project site does not contain suitable habitat in the form of rolling foothills, mountain areas, sage-juniper flats, and desert.
<i>Asio flammeus</i> Short-eared owl	—	SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields.	None: The project site does not contain suitable habitat in the form of swamp lands, fresh and salt; lowland meadows or irrigated alfalfa fields.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
<i>Buteo swainsoni</i> Swainson's hawk	— MBTA	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	None: The project site does not contain suitable habitat in the form of grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations
<i>Charadrius montaus</i> Mountain plover	—	SSC	Found in short grasslands, freshly plowed fields, newly sprouting grainfields, and sometimes sod farms.	None: The project site does not contain suitable habitat in the form of short grasslands, freshly plowed fields, newly sprouting grainfields, or sod farms.
<i>Charadrius nivosus nivosus</i> Western snowy plover	FT	SSC	Found in wetlands, and alkali lakes.	None: The project site does not contain suitable habitat in the form of wetlands and alkali lakes.
<i>Circus hudsonius</i> Northern harrier	—	SSC	Found in coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas.	None: The project site does not contain suitable habitat in the form of coastal salt and freshwater marsh.
<i>Coturnicops noveboracensis</i> Yellow rail	—	SSC	Found in freshwater marsh, meadows and seeps.	None: The project site does not contain suitable habitat in the form of freshwater marsh, meadows and seeps.
<i>Elanus leucurus</i> white-tailed kite	— MBTA	— FP	Preferred habitat includes rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Forages in open grasslands, meadows, or marshes. Often found perching and nesting in isolated, dense-topped trees.	None: The project site does not contain suitable habitat in the form of rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodlands.
<i>Falco peregrinus anatum</i> American peregrine falcon	FD	—	Found near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human made structures.	None: The project site does not contain suitable habitat in the form of wetlands, lakes, rivers and other waters.
<i>Geothlypis trichas sinuosa</i> Saltmarsh common yellowthroat	— MBTA	— SSC	Resident of the San Francisco Bay region, in fresh and saltwater marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	None: The project site does not contain aquatic features including fresh or saltwater marshes to support this species.
<i>Lanius ludovicianus</i> Loggerhead shrike	—	SSC	Found in broke woodlands, savannahs, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes.	None: The project site does not contain suitable habitat in the form of broke woodlands, savannahs, pinyon-juniper, Joshua trees, and riparian woodlands, desert oases, scrub and washes.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
<i>Laterallus jamaicensis coturniculus</i> California black rail	— MBTA	ST FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	None: The project site does not contain aquatic features including freshwater or saltwater marshes, or wet meadows to support this species.
<i>Melospiza melodia</i> Song sparrow	— MBTA	— SSC	Inhabits emergent freshwater marshes dominated by tules and cattails as well as riparian willow thickets. Needs moderately dense vegetation to supply cover for nests.	None: The project site does not contain riparian vegetation or aquatic features including marshes to support this species.
<i>Melospiza melodia maxillaris</i> Suisun song sparrow	— MBTA	— SSC	Resident of brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules and other sedges, and Salicornia; also known to frequent tangles bordering sloughs.	None: The project site does not contain hydrophytic vegetation or aquatic features including marshes to support this species.
<i>Phalacrocorax auritus</i> Double-crested cormorant	— MBTA	—	Requires large water bodies big enough to support their mostly fish diet. However, they may roost and form breeding colonies on smaller lagoons or ponds. In addition to fishing waters, cormorants need high, airy perches to dry off and digest their meals (rocks, wires, tops of dead trees, ship masts). This species tend to form breeding colonies in clusters of trees in or near water. Nests can be on the ground, on rocks or reefs with no vegetation, or atop trees.	None: The project site does not contain suitable large water bodies capable of supporting this species.
<i>Rallus obsoletus obsoletus</i> California Ridgeway's rail	FE	SE	Found in brackish marsh, marsh and swamps, salt marsh and wetlands.	None: The project site does not contain suitable habitat in the form of brackish marsh, marsh and swamps, salt marsh and wetlands.
<i>Riparia riparia</i> Bank swallow	—	ST	Found in riparian scrub and riparian woodland.	None: The project site does not contain suitable habitat in the form of riparian scrub or riparian woodland.
<i>Sternula antillarum browni</i> California least tern	FE MBTA	SE FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas.	None: The project site does not contain coastal habit including sand beaches, or alkali flats to support this species.
Fish				
<i>Acipenser medirostris pop.1</i> Green sturgeon – southern DPS	FT	—	Aquatic, estuary, marine bay, Sacramento/San Joaquin flowing waters.	None: The project site does not contain suitable habitat in the form of aquatic, estuary, marine bay, or Sacramento/San Joaquin flowing waters.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
<i>Hypomesus transpacificus</i> Delta smelt	FT	SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay. Usually found in water with salinities < 2ppt.	None. The project site does not contain suitable aquatic habitat to support this species.
<i>Oncorhynchus mykiss irideus</i> (pop. 11) steelhead (central valley coast DPS)	FT	—	This population occurs in the Sacramento and San Joaquin rivers and their tributaries. Require cool, swift, shallow water & clean loose gravel for spawning, & suitably large pools in which to spend the summer. Minimum water depth for upstream migration is 18 cm. Water velocities greater than 3-4 m/sec may impede upstream progress.	None: The project site does not contain suitable aquatic habitat to support this species.
<i>Spirinchus thaleichthys</i> Longfin smelt	FC	ST	Found in open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities between 15 and 30 ppt, but can also be found in either fresh or saltwater.	None: The project site does not contain suitable aquatic habitat to support this species.
Invertebrates				
<i>Apodemia mormo langei</i> Lange's metalmark butterfly	FE	—	Inhabits stabilized dunes along the San Joaquin River. Endemic to Antioch Dunes, Contra Costa County. Primary host plant is <i>Eriogonum nudum var auriculatum</i> ; feeds on nectar of other wildflowers, as well as host plant.	None: The project site does not contain dune habitat or floral resources to support this species.
<i>Bombus crotchii</i> Crotch bumble bee	—	CE	Grassland and scrub areas, requiring a hotter and drier environment than other bumblebee species, and can only tolerate a very narrow range of climatic conditions. Nests underground, often in abandoned rodent dens	None: The project site does not contain suitable grassland and scrub areas to support this species.
<i>Bombus occidentalis</i> Western bumble bee	—	CE	Formerly found in large parts of California but has been reduced in abundance and is now mostly restricted to high meadows or coastal environments. Species requires floral resources, and undisturbed nest and overwintering sites.	None. The project site does not contain suitable high meadows or coastal environments, floral resources, and undisturbed nest sites to support this species.
<i>Branchinecta conservatio</i> Conservation fairy shrimp	FE	—	Valley and foothill grassland, vernal pools, wetlands.	None: The project site does not contain suitable habitat in the form of valley and foothill grassland, vernal pools or wetlands.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT	—	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	None: The project site does not contain suitable aquatic features, including vernal pools, swales, or depressions to support this species.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
<i>Branchinecta lynchi</i> Vernal pool tadpole shrimp	FE	–	Valley and foothill grassland, vernal pool, wetlands.	None: The project site does not contain suitable habitat in the form of valley and foothill grassland, vernal pools or wetlands.
<i>Elaphrus viridis</i> Delta green ground beetle	FT	–	Vernal pools, wetlands.	None: The project site does not contain suitable habitat in the form of vernal pools or wetlands.
Mammals				
<i>Antrozous pallidus</i> Pallid bat	–	SSC	Chaparral coastal scrub, desert wash, Great Basin grassland, broadleaved upland forest, chaparral.	None: The project site does not contain suitable habitat in the form of chaparral coastal scrub, desert wash, great basin grassland, broadleaved upland forest, or chaparral.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	–	SSC	Basin grassland, great basin scrub, Joshua tree woodland, lower montane woodland	None: The project site does not contain suitable habitat in the form of basin grassland, great basin scrub, Joshua tree woodland, or lower montane woodland.
<i>Lasiurus blossevillii</i> Western red bat	–	SSC	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	None: The project site does not contain suitable habitat in the form of mosaics and trees that are protected from above and open below and open areas for foraging.
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	–	SSC	Chaparral, redwood	None: The project site does not contain suitable habitat in the form of chaparral or redwood.
<i>Reithrodontomys raviventris</i> Salt-marsh harvest mouse	FE	SE FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	None: The project site does not contain saline emergent wetlands with associated pickleweed to support this species.
<i>Sorex ornatus sinuosus</i> Suisun shrew	–	SSC	Marsh and swamps, wetlands	None: The project site does not contain suitable habitat in the form of marsh and swamps, or wetlands.
<i>Taxidea taxus</i> American Badger	–	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	None: The project site does not contain suitable habitat to support this species.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE	ST	Found in annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	None: The project site does not suitable habitat to support this species and is cut off from natural San Joaquin kit fox habitat by extensive urban development and high use traffic corridors. The site lacks the proper substrate including loose-textured sandy soils due to previous disturbances.
Reptiles				
<i>Anniella pulchra</i> Northern California legless lizard	—	SSC	Sandy or loose loamy soils under sparse vegetation with chaparral, coastal dunes, and scrub. Soil moisture is essential. They prefer soils with a high moisture content	None: The project site does not contain chaparral, coastal dune, or scrub habitats and is cut off from natural Northern California legless lizard habitat by extensive urban development. Soils on site are highly compacted through previously disturbances. The nearest recorded occurrence is approximately 3 miles north of the project site from 1941 in an area composed of formerly undeveloped grasslands.
<i>Arizona elegans occidentalis</i> California glossy snake		SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	None: The project site does not contain grassland or scrub habitats and is cut off from natural California glossy snake habitat by extensive urban development. The nearest recorded occurrence is approximately 4.4 miles northeast of the project site within the Antioch Dunes.
<i>Emys marmorata</i> western pond turtle	—	— SSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking.	None: The project site does not contain aquatic features to support this species. The project site is surrounded by extensive urban development precluding the presence of this species.
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	FT	ST	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	None: The project site does not contain suitable habitat and the project site is cut off from natural Alameda whipsnake habitat by extensive urban development.
<i>Phrynosoma blainvillii</i> Coast horned lizard	—	SSC	Typically found in chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon and juniper woodlands, riparian scrub, riparian woodland, valley and foothill grassland.	None: The project site does not contain suitable habitat in the form of chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon and juniper woodlands, riparian scrub, riparian woodland, or valley and foothill grassland.
<i>Thamnophis gigas</i> Giant gartersnake	FT	ST	Marsh and swamps, riparian scrub, wetlands	None: The project site does not contain suitable habitat in the form of marsh and swamps, riparian scrub, or wetlands.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
Code Designations				
¹ Federal Status: 2024 USFWS Listing			² State Status: 2024 CDFW Listing	
ESU = Evolutionary Significant Unit is a distinctive population. DPS = Distinct Population Segment. FE = Listed as endangered under the FESA. FT = Listed as threatened under the FESA. FC = Candidate for listing (threatened or endangered) under FESA. FD = Delisted in accordance with the FESA. FPD = Federally Proposed to be Delisted. MBTA = protected by the Migratory Bird Treaty Act — = Not federally listed			SE = Listed as endangered under the CESA. ST = Listed as threatened under the CESA. SSC = Species of Special Concern as identified by the CDFW. FP = Listed as fully protected under FGC. CFG = FGC =protected by FGC 3503.5 CE = Candidate endangered under the CESA. — = Not state listed	
³ Habitat Description: Habitat description adapted from CNDDDB ⁴ or other specified source*. ⁴ Potential to Occur and Rationale: Location of recorded species occurrences determined by geospatial information from BIOS 5 ⁵ or other specified source*.				

⁴ California Department of Fish and Wildlife (CDFW). 2024. CNDDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>. Accessed September 16, 2024.

⁵ California Department of Fish and Wildlife (CDFW). 2024. Biogeographic Information and Observation System (BIOS 5). Website: <https://map.dfg.ca.gov/bios/>. Accessed September 16, 2024.

Application Form and Planning Survey Report

To Comply With and Receive Permit Coverage Under The East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan

Please complete this application to apply for take authorization under the state and federal East Contra Costa County HCP/NCCP incidental take permits. The East Contra Costa County Habitat Conservancy ("Conservancy") or local jurisdiction (City of Brentwood, City of Clayton, City of Oakley, City of Pittsburg, and Contra Costa County) may request more information in order to deem the application complete.

I. PROJECT OVERVIEW

PROJECT INFORMATION	
PROJECT NAME: 24-155 Pittsburg Project	
PROJECT TYPE: <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Transportation <input type="checkbox"/> Utility <input type="checkbox"/> Other	
PROJECT DESCRIPTION (BRIEF): New car wash facility, including but not limited to, new concrete walks, drive isles, curbs, landscaping, vacuum stations, utilities, and all associated fixtures, furnishings, and equipment.	
PROJECT ADDRESS/LOCATION: Loveridge Road and North Park Boulevard, Pittsburg CA	
PARCEL/PROJECT SIZE (ACRES): +/- 39,131 Square Feet (0.89 acre)	
PROJECT APN(S): 088-151-045	
APPLICATION SUBMITTAL DATE:	FINAL PSR DATE: (City/County/Conservancy use)
LEAD PLANNER: Ariana Ruiz	
JURISDICTION: <input type="checkbox"/> City of Brentwood <input type="checkbox"/> City of Clayton <input type="checkbox"/> City of Oakley <input checked="" type="checkbox"/> City of Pittsburg <input type="checkbox"/> Contra Costa County <input type="checkbox"/> Participating Special Entity*	
*Participating Special Entities are organizations not subject to the authority of a local jurisdiction. Such organizations may include school districts, irrigation districts, transportation agencies, local park districts, geological hazard abatement districts, or other utilities or special districts that own land or provide public services.	
DEVELOPMENT FEE ZONE: <input checked="" type="checkbox"/> Zone I <input type="checkbox"/> Zone II <input type="checkbox"/> Zone III <input type="checkbox"/> Zone IV	
See figure 9-1 of the HCP/NCCP at www.cocohcp.org for a generalized development fee zone map. Detailed development fee zone maps by jurisdiction are available from the jurisdiction.	

PROJECT APPLICANT INFORMATION	
APPLICANT'S NAME: Vance Shannon	
AUTHORIZED AGENT'S NAME AND TITLE: Vance Shannon, Director	
PHONE NO.: 916.435.1202	APPLICANT'S E-MAIL: vshannon@dontdrivedirty.com
MAILING ADDRESS: 230 Russell Road, Auburn Ca 95603	

BIOLOGIST INFORMATION ¹	
BIOLOGICAL/ENVIRONMENTAL FIRM: HELIX Environmental Planning, Inc.	
CONTACT NAME AND TITLE: Michael Scaffidi	
PHONE NO.: 916.435.1202	CONTACT'S E-MAIL: michaels@helixepi.com
MAILING ADDRESS: 1677 Eureka Road, Suite 100	

¹ A USFWS/CDFW-approved biologist (project-specific) is required to conduct the surveys. Please submit biologist(s) approval request to the Conservancy.

II. PROJECT DETAILS

Please complete and/or provide the following attachments:

1) Project Description

Attach as **Attachment A: Project Description**. Provide a detailed written description that concisely and completely describes the project and location. Include the following information:

- All activities proposed for the site or project, including roads utilized, construction staging areas, and the installation of underground facilities, to ensure the entire project is covered by the HCP/NCCP permit
- Proposed construction dates, including details on construction phases, if applicable
- Reference a City/County application number for the project, if applicable
- General Best Management Practices, if applicable
- If the project will have temporary impacts, please provide a restoration plan describing how the site will be restored to pre-project conditions, including revegetation seed mixes or plantings and timing

2) Project Vicinity Map

Provide a project vicinity map. Attach as **Figure 1 in Attachment B: Figures**.

3) Project Site Plans

Provide any project site plans for the project. Attach as **Figure 2 in Attachment B: Figures**.

4) CEQA Document

Indicate the status of CEQA documents prepared for the project. Provide additional comments below table if necessary.

Type of Document	Status	Date Completed
<input type="checkbox"/> Initial Study		
<input type="checkbox"/> Notice of Preparation		
<input type="checkbox"/> Draft EIR		
<input type="checkbox"/> Final EIR		
<input type="checkbox"/> Notice of Categorical Exemption		
<input type="checkbox"/> Notice of Statutory Exemption		
<input type="checkbox"/> Other (describe)	The City of Pittsburg is working with an environmental consultant group to prepare the CEQA document.	Pending

III. EXISTING CONDITIONS AND IMPACTS

Please complete and/or provide the following attachments:

1) Field-Verified Land Cover Map²

Attach a field-verified land cover map in **Attachment B: Figures** and label as **Figure 3**. The map should contain all land cover types present on-site overlaid on aerial/satellite imagery. Map colors for the land cover types should conform to the HCP/NCCP (see *Figure 3-3: Landcover in the Inventory Area* for land cover type legend).

2) Photographs of the Project Site

Attach representative photos of the project site in **Attachment B: Figures** and label as **Figure 4**. Please provide captions for each photo.

² For PSEs and city or county public works projects, please also identify permanent and temporary impact areas by overlaying crosshatching (permanent impacts) and hatching (temporary impacts) on the land cover map.

3) Land Cover Types and Impacts and Supplemental Tables

- For all terrestrial land cover types please provide calculations to the nearest **hundredth of an acre (0.01)**. For aquatic land cover types please provide calculations to the nearest **thousandth of an acre (0.001)**.
- Permanent Impacts** are broadly defined in the ECCC HCP/NCCP to include all areas removed from an undeveloped or habitat-providing state and includes land in the same parcel or project that is not developed, graded, physically altered, or directly affected in any way but is isolated from natural areas by the covered activity. Unless such undeveloped land is dedicated to the Preserve System or is a deed-restricted creek setback, the development mitigation fee will apply (if proposed, would require Conservancy approval).
- Temporary Impacts** are broadly defined in the ECCC HCP/NCCP as any impact on vegetation or habitat that does not result in permanent habitat removal (i.e., vegetation can eventually recover).
- If **wetland (riparian woodland/scrub, wetland, or aquatic)** land cover types are present on the parcel but will not be impacted please discuss in the following section 4) Jurisdictional Wetlands and Waters. Wetland impact fees will only be charged if wetland features are impacted. However, development fees will apply to the entire parcel.
- Stream** land cover type is considered a linear feature where impacts are calculated based on length impacted. The acreage within a stream, below Top of Bank (TOB), must be assigned to the adjacent land cover type(s). Insert area of impact to stream below TOB in parentheses after the Land Cover acreage number (e.g., Riparian Woodland/Scrub: 10 (0.036) – where 10 is the total impacted acreage including 0.036 acre, which is the acreage within stream TOB). Complete following supplemental **Stream Feature Detail** table to provide information for linear feet.
- Total Impacts** acreage should be the total parcel acreage (development project) or project footprint acreage (rural infrastructure or utility project).

Proposed for HCP/NCCP
Dedication on the Parcel
(Requires Conservancy)

Table 1: Land Cover Types and Impacts

Land Cover Type	Permanent Impacts	Temporary Impacts	Stream Setback	Preserve System Dedication
Grassland				
Annual Grassland				
Alkali Grassland				
Ruderal	0.84 acre			
Shrubland				
Chaparral and Scrub				
Woodland				
Oak Savannah				
Oak Woodland				
Riparian				
Riparian Woodland/Scrub				
Wetland				
Permanent Wetland				
Seasonal Wetland				
Alkali Wetland				
Aquatic				
Aquatic (Reservoir/Open Water)				
Slough/Channel				
Pond				
Stream (in linear feet)	-	-	-	-
Irrigated Agriculture				
Pasture				
Cropland				
Orchard				
Vineyard				
Other				
Nonnative woodland				
Wind turbines				
Developed (not counted toward Fees)				
Urban	0.05 acre			
Aqueduct				
Turf				
Landfill				
TOTAL IMPACTS	0.89 acre			

Identify any uncommon vegetation and uncommon landscape features³:

Supplemental to Table 1: Uncommon Vegetation and Landscape Features

	Permanent Impacts	Temporary Impacts
<i>Uncommon Grassland Alliances</i>		
Purple Needlegrass Grassland		
Blue Wildrye Grassland		
Creeping Ryegrass Grassland		
Wildflower Fields		
Squirreltail Grassland		
One-sided Bluegrass Grassland		
Serpentine Bunchgrass Grassland		
Saltgrass Grassland		
Alkali Sacaton Bunchgrass Grassland		
<input type="checkbox"/> Other		
<i>Uncommon Landscape Features</i>		
Rock Outcrops		
Caves		
Springs and seeps		
Scalds		
Sand Deposits		
<input type="checkbox"/> Mines ⁴		
<input type="checkbox"/> Buildings (bat roosts) ³		
<input type="checkbox"/> Potential nest sites (trees or cliffs) ³		

Please provide details of impacts to stream features:

Stream Name: None

Watershed: None

Supplemental to Table 1: Stream Feature Detail⁵

Stream Width	Stream Type ⁶	Permanent Impacts (linear feet) ⁷	Temporary Impacts (linear feet) ⁷
<input type="checkbox"/> ≤ 25 feet wide <input type="checkbox"/> > 25 feet wide	<input type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral, 3rd or higher order <input type="checkbox"/> Ephemeral, 1st or 2nd order		
<input type="checkbox"/> ≤ 25 feet wide <input type="checkbox"/> > 25 feet wide	<input type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral, 3rd or higher order <input type="checkbox"/> Ephemeral, 1st or 2nd order		
<input type="checkbox"/> ≤ 25 feet wide <input type="checkbox"/> > 25 feet wide	<input type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral, 3rd or higher order <input type="checkbox"/> Ephemeral, 1st or 2nd order		

³ These acreages are for Conservancy tracking purposes. Impacts to these uncommon vegetation and landscape features should be accounted for within the land cover types in Table 1 (e.g., x acres of purple needlegrass in this supplemental table should be accounted for within annual grassland in Table 1).

⁴ Insert amount/number, not acreage. Provide additional information on these features in Attachment A: Project Description.

⁵ Use more than 1 row as necessary to describe impacts to streams on site.

⁶ See glossary (Appendix A) for definition of stream type and order.

⁷ Stream length is measured along stream centerline, based on length of impact to any part of the stream channel, TOB to TOB.

4) Summary of Land Cover Types

Please provide a written summary of descriptions for land cover types found on site including characteristic vegetation.

A field visit was conducted on May 22, 2024. This is an infill project on an approximately 0.89-acre site. The land cover types are consistent with the East Contra Costa County Habitat Conservancy dataset designation; however, the placement of these habitats varied slightly. The land cover types occurring within the project site consisted of mostly grassland/ruderal habitat, with a small strip of asphalt roadway positioned along the western edge of the site, designated as developed/urban. Figure 3, within Attachment B, includes the updated land cover map. The site was largely dominated by Italian ryegrass (*Festuca perennis*). Other dominant ruderal vegetation occurring onsite consisted of bristly ox-tongue (*Helminthotheca echioides*), prickly lettuce (*Lactuca serriola*), turkey-mullein (*Croton setiger*), sow thistle (*Sonchus asper* ssp. *asper*), field bindweed (*Convolvulus arvensis*), and burclover (*Medicago polymorpha*). Based on historic Google Earth satellite imagery, disturbance to the site was dated back to 2002, consisting of mowing, grading, and other miscellaneous ground-disturbing activities.

5) Jurisdictional Wetlands and Waters

If wetlands and waters are present on the project site, project proponents must conduct a delineation of jurisdictional wetlands and waters. Jurisdictional wetlands and waters are defined on pages 1-18 and 1-19 of the ECCC HCP/NCCP as the following land cover types: permanent wetland, seasonal wetland, alkali wetland, aquatic, pond, slough/channel, and stream. It should be noted that these features differ for federal and state jurisdictions. If you have identified any of these land cover types in Table 1, complete the section below.

a) Attach the wetland delineation report as **Attachment E: Wetland Delineation**. If a wetland delineation has not been completed, please explain below in section 4c.

b) **Please check the following permits the project may require. Please submit copies of these permits to the Conservancy prior to the start of construction:**

- | | |
|--|--|
| <input type="checkbox"/> CWA Section 404 Permit ⁸ | <input type="checkbox"/> CWA Section 401 Water Quality Certification |
| <input type="checkbox"/> Waste Discharge Requirements | <input type="checkbox"/> Lake and Streambed Alteration Agreement |

c) **Provide any additional information on impacts to jurisdictional wetland and waters below, including status of the permit(s):**

No aquatic features occur onsite. The entire site is composed of grassland/ruderal habitat with a small strip of asphalt roadway along the western border of the site.

⁸ The USACE Sacramento District issued a Regional General Permit 1 (RGP) related to ECCC HCP/NCCP covered activities. The RGP is designed to streamline wetland permitting in the entire ECCC HCP/NCCP Plan Area by coordinating the avoidance, minimization, and mitigation measures in the Plan with the Corps' wetland permitting requirement. Applicants seeking authorization under this RGP shall notify the Corps in accordance with RGP general condition number 18 (Notification).

6) Species-Specific Planning Survey Requirements

Based on the land cover types found on-site and identified in Table 1, check the applicable boxes in Table 2a.

Table 2a. Species –Specific Planning Survey Requirements

Land Cover Type in Project Area	Required Survey Species	Habitat Element in Project Area	Planning Survey Requirement ⁹	Info in HCP
<input checked="" type="checkbox"/> Grasslands, oak savannah, agriculture, or ruderal	<input checked="" type="checkbox"/> San Joaquin kit fox	Assumed if within modeled range of species	If within modeled range of species, identify and map potential breeding or denning habitat within the project site and a 250-ft radius around the project footprint.	pp. 6-37 to 6-38
	<input checked="" type="checkbox"/> Western burrowing owl	Assumed	Identify and map potential breeding habitat within the project site and a 500-ft radius around the project footprint. Please note the HCP requires buffers for occupied burrows. Surveys may need to encompass an area larger than the project footprint.	pp. 6-39 to 6-41
<input type="checkbox"/> Aquatic (ponds, wetlands, streams, sloughs, channels, and marshes)	<input type="checkbox"/> Giant garter snake	Aquatic habitat accessible from the San Joaquin River	Identify and map potential habitat.	pp. 6-43 to 6-45
	<input type="checkbox"/> California tiger salamander	Ponds and wetlands Vernal pools Reservoirs Small lakes	Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report.	pp. 6-45
	<input type="checkbox"/> California red-legged frog	Slow-moving streams, ponds and wetlands	Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report.	p. 6-46
	<input type="checkbox"/> Covered shrimp	Seasonal wetlands Vernal pools Sandstone rock outcrops Sandstone depressions	Identify and map potential habitat. Please note the HCP requires a 50 foot non-disturbance buffer from seasonal wetlands that may be occupied by covered shrimp. Surveys may need to encompass an area larger than the project footprint.	pp. 6-46 to 6-48
<input checked="" type="checkbox"/> Any	<input checked="" type="checkbox"/> Townsend's big-eared bat	Rock formations with caves Mines Abandoned buildings outside urban area	Map and document potential breeding or roosting habitat.	pp. 6-36 to 6-37
	<input checked="" type="checkbox"/> Swainson's hawk	Potential nest sites within 1,000 feet of project	Inspect large trees for presence of nest sites. Document and map.	pp. 6-41 to 6-43
	<input checked="" type="checkbox"/> Golden Eagle	Potential nest sites with ½ mile of project	Inspect large trees for presence of nest sites. Document and map.	pp. 6-38 to 6-39

Surveys for all covered species must be conducted by a qualified biologist (USFWS/CDFW project-specific approved). Please submit biologist approval request to the East Contra Costa County Habitat Conservancy.
Surveys for all covered species must be conducted according to the respective USFWS or CDFW survey protocols, as identified in Chapter 6.4.3 in the HCP/NCCP.

7) Planning Survey Species Habitat Maps

Provide Planning Survey Species Habitat Maps as required in Table 2a, attach as **Figure 5 in Attachment B: Figures**.

⁹ The planning survey requirements in this table are not comprehensive. Please refer to Chapter 6.4.3 in the ECCC HCP/NCCP for more detail.

8) Results of Species Specific Surveys

Provide a written summary describing the results of the planning surveys. Please discuss the location, quantity, and quality of suitable habitat for specified covered wildlife species on the project site.

San Joaquin kit fox (*Vulpes macrotis mutica*) – The project site, including a 250-foot survey buffer (Study Area; Figure 5 in Attachment B), was surveyed for San Joaquin kit fox (SJKF). The Study Area lacks habitat and burrows suitable to support this species. One small mammal burrow was observed on the site but was too small to support this species. Historical Google Earth satellite imagery revealed that the site historically has been routinely disturbed through various levels of ground-disturbing activities. California Natural Diversity Data Base (CNDDDB) listed a total of four occurrences of this species within five miles of the site, all occurring in the mid to late 1990's. All four occurrences occurred south of Highway 4, which occurred less than 100 feet to the south of the project site. Suitable habitat for this species occurs less than 1.5 miles to the south; however, Highway 4 occurs less than 100 feet to the south, which acts as a substantial barrier to wildlife movement. Additionally, the project site is surrounded by dense urban development on all four sides consisting of major roadways, commercial development, and residential development, greatly reducing the potential for this species to occur within the project site. Habitat suitable to support this species is not present within the Study Area. No SJKF burrows or scat of this species were observed.

Western burrowing owl (*Athene cunicularia*) – The project site, including a 500-foot survey buffer (Study Area; Figure 5 in Attachment B), was surveyed for Western burrowing owl. No suitable habitat (small mammal burrows) for this species occurred within the Study Area. Additionally, the site is completely surrounded by dense urban development, greatly reducing the potential for this species to occur onsite. One burrow was observed within the project site but was too small to support this species. This species was not observed during the survey, and no sign (i.e., white-wash, pellets, and feathers) of this species was observed.

Townsend's big-eared bat (*Corynorhinus townsendii*) – The project site lacks habitat suitable to support this species as the project site does not contain any potential roosting areas, and also lacks suitable foraging areas adjacent to the project site. The project site does contain a billboard-like structure but is too exposed to support roosting of this species. This species is sensitive to human disturbance and this site is surrounded by dense urban development, greatly reducing the potential for this species to occur onsite. This species was not observed during the survey and no sign (guano) of this species was observed during the survey.

Swainson's hawk (*Buteo swainsoni*) – The project site, including a 1000-foot survey buffer (Study Area; Figure 5 in Attachment B), was surveyed for potential nest sites. The Study Area does contain some trees that have a low potential to support nesting of this species, but due to the relatively small nature of the trees and occurring within densely developed areas and heavily travelled roads, the Study Area does not provide habitat suitable to support the nesting of this species. Additionally, the Study Area lacks foraging habitat suitable to support this species. The California Department of Fish and Wildlife survey protocol for this species was not completely followed, due to the lack of suitable nesting and foraging habitat within the Study Area, as this species shows a strong preference for nesting trees adjacent to agricultural areas. Swainson's hawk was not observed during the survey and no raptor nests of any species were observed. This species can occur within the Study Area in a flyover capacity only.

Golden eagle (*Aquila chrysaetos*) – The project site, including a 0.5-mile survey buffer surrounding the site (Study Area; Figure 5 in Attachment B), was surveyed for potential nest sites. The Study Area did not contain suitable nesting habitat, lacking large trees suitable for nesting. Additionally, there is no suitable foraging habitat within 0.5 mile of the project site; therefore, the Study Area does not contain habitat suitable to support the nesting of this species. This species can occur within the Study Area in a flyover capacity only.

9) Covered and No-Take Plants

Please check the applicable boxes in Table 2b based on the land cover types found in the project area. If suitable land cover types are present on site, surveys must be conducted using approved CDFW/USFWS methods during the appropriate season for identification of covered and no-take species (see page 6-9 of the ECCC HCP/NCCP). Reference populations of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted. In order to complete all the necessary covered and no-take plant surveys, spring, summer, and fall surveys may be required.

Table 2b. Covered and No-Take Plant Species

Plant Species	Covered (C) or No-Take (N)	Associated Land Cover Type	Typical Habitat or Physical Conditions, if Known	Typical Blooming Period	Suitable Land Cover Type Present
Adobe navarretia (<i>Navarretia nigelliformis</i> ssp. <i>radicans</i>) ^a	C	Annual Grassland	Generally found on clay barrens in Annual Grassland ^b	Apr–Jun	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Alkali milkvetch (<i>Astragalus tener</i> ssp. <i>tener</i>)	N	Alkali grassland Alkali wetland Annual grassland Seasonal wetland	Generally found in vernal moist habitat in soils with a slight to strongly elevated pH	Mar–Jun	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Big tarplant (<i>Blepharizonia plumosa</i>)	C	Annual grassland	Elevation below 1500 feet ^d most often on Altamont Series or Complex soils	Jul–Oct	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Brewer’s dwarf flax (<i>Hesperolinon breweri</i>)	C	Annual grassland Chaparral and scrub Oak savanna Oak woodland	Generally, restricted to grassland areas within a 500+ buffer from oak woodland and/or chaparral/scrub ^d	May–Jul	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Brittlescale (<i>Atriplex depressa</i>)	C	Alkali grassland Alkali wetland	Restricted to soils of the Pescadero or Solano soil series; generally found in southeastern region of plan area ^d	May–Oct	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Caper-fruited tropidocarpum (<i>Tropidocarpum capparideum</i>)	N	Alkali grassland		Mar–Apr	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Contra Costa goldfields (<i>Lasthenia conjugens</i>)	N	Alkali grassland Alkali wetland Annual grassland Seasonal wetland	Generally found in vernal pools	Mar–Jun	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Diablo Helianthella (<i>Helianthella castanea</i>)	C	Chaparral and scrub Oak savanna Oak woodland	Elevations generally above 650 feet ^d	Mar–Jun	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Diamond-petaled poppy (<i>Eschscholzia rhombipetala</i>)	N	Annual grassland		Mar–Apr	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Large-flowered fiddleneck (<i>Amsinckia grandiflora</i>)	N	Annual grassland	Generally on clay soil	Apr–May	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Mount Diablo buckwheat (<i>Eriogonum truncatum</i>)	N	Annual grassland Chaparral and scrub	Ecotone of grassland and chaparral/scrub	Apr–Sep	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Mount Diablo fairy-lantern (<i>Calochortus pulchellus</i>)	C	Annual grassland Chaparral and scrub Oak savanna Oak woodland	Elevations generally between 650 and 2,600 ^d	Apr–Jun	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Mount Diablo Manzanita (<i>Arctostaphylos auriculata</i>)	C	Chaparral and scrub	Elevations generally between 700 and 1,860 feet; restricted to the eastern and northern flanks of Mt. Diablo ^d and the vicinity of Black Diamond Mines	Jan–Mar	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Recurved larkspur (<i>Delphinium recurvatum</i>)	C	Alkali grassland Alkali wetland		Mar–Jun	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Round-leaved filaree (<i>California macrophylla</i>) ^c	C	Annual grassland		Mar–May	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
San Joaquin spearscale (<i>Extriplex joaquinana</i>) ^e	C	Alkali grassland Alkali wetland		Apr–Oct	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Showy madia (<i>Madia radiata</i>)	C	Annual grassland Oak savanna Oak woodland	Primarily occupies open grassland or grassland on edge of oak woodland	Mar–May	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

^a The species *Navarretia nigelliformis* subsp. *nigelliformis* is no longer considered to occur within Contra Costa County based on specimen annotations at the UC and Jepson Herbaria at the University of California Berkeley as well as the opinions of experts in the genus. This taxon is now recognized as *Navarretia nigelliformis* subsp. *radicans*. Any subspecies of *Navarretia nigelliformis* encountered as a part of botanical surveys in support of a PSR should be considered as covered under this HCP/NCCP.

^b Habitat for the *Navarretia nigelliformis* subspecies that occurs within the inventory are is inaccurately described in the HCP/NCCP as vernal pools. The entity within the Inventory generally occupies clay barrens within Annual Grassland habitat, which is an upland habitat type.

^c From California Native Plant Society. 2007. *Inventory of Rare and Endangered Plants* (online edition, v7-07d). Sacramento, CA. Species may be identifiable outside of the typical blooming period; a professional botanist shall determine if a covered or no take plant occurs on the project site. Reference population of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant is visible and detectable at the time surveys are conducted.

^d See Species Profiles in Appendix D of the Final HCP/NCCP. Reference populations of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted.

^e In the recent update to the Jepson eFlora (JFP 2013) *Atriplex joaquinana* has been circumscribed and segregated into a new genus called *Extriplex* based on the work of Elizabeth Zacharias and Bruce Baldwin (2010). The etymology of the genus *Extriplex* means, “beyond or outside *Atriplex*”.

10) Results of Covered and No-Take Plant Species

Provide a written summary describing the results of the planning surveys conducted as required in Table 2b. Describe the methods used to survey the site for all covered and no-take plants, including the dates and times of all surveys conducted (see Tables 3-8 and 6-5 of the ECCC HCP/NCCP for covered and no-take plants), including reference populations visited prior to conducting surveys.

If any covered or no-take plant species were found, include the following information in the results summary:

- Description and number of occurrences and their rough population size.
- Description of the “health” of each occurrence, as defined on pages 5-49 and 5-50 of the HCP/NCCP.
- A map of all the occurrences.
- Justification of surveying time window, if outside of the plant’s blooming period.
- The CNDDDB form(s) submitted to CDFW (if this is a new occurrence).
- A description of the anticipated impacts that the covered activity will have on the occurrence and how the project will avoid impacts to all covered and no-take plant species. If impacts to covered plant species cannot be avoided and plants will be removed by covered activity, the Conservancy must be notified and has the option to salvage the covered plants. All projects must demonstrate avoidance of all six no-take plants (see table 6-5 of the HCP/NCCP).

Survey Results

A site survey was conducted on May 22, 2024 for Adobe navarretia (*Navarretia nigelliformis* ssp. *radians*), diamond-petaled poppy (*Eschscholzia rhombipetala*), large-flowered fiddleneck (*Amsinckia grandiflora*), and round-leaved filaree (*California macrophylla*). The habitat present within the project site (Figure 5) was composed of ruderal grassland habitat that has had a long history of routine ground disturbance in the form of mowing, grading, and other miscellaneous ground-disturbing activities. This was verified using Google Earth satellite imagery dating back to 2002. During the site survey, a large deposit of gravel was observed spread out within the eastern portion of the site which further limits the potential of these listed plant species from occurring onsite. Some portions of the site were more disturbed than others and the areas that were less disturbed were dominated by ruderal grassland species such as Italian ryegrass, bristly oxtongue, and prickly lettuce. The ruderal grassland habitat is not suitable to support the Covered and No-Take Plant Species due to the high level of routine ground disturbance the site, in addition to being an infill project surrounded by development. No species within any of the four genera were observed within the project site during the survey.

Methods

A survey was conducted on May 22, 2024, commencing at approximately 0900. The plant species included in the survey are Adobe navarretia, Diamond-petaled poppy, large-flowered fiddleneck, and round-leaved filaree. Transects were walked over the entirety of the site spaced roughly 25 feet apart, searching for plants that resemble the genus of the four above species that were determined to have potential to occur on the site based on suitable habitat, soils, and elevation. If the vegetation was too tall or visibility was limited, transect spacing was reduced to ensure full coverage. All four plant species were surveyed within their identified blooming period with the exception of the diamond-petaled poppy. Even though this survey was conducted outside of the blooming period for this species, identification can be made to at least genus, based on leaf morphology and plant structure. In those cases, similar to the approach to diamond-petaled poppy, leaf morphology and plant structure were also used to identify to genus for the remaining species if blooms are not present. If a plant was observed within any of the four genera, it was analyzed, and a determination was made whether it had the potential to be one of the Covered and No Take Plant Species. If the genus of any of the four plants listed above is observed and not able to be ruled out as one of the listed Covered and No Take Plant Species, follow-up surveys will be conducted, and reference populations will be visited. CNDDDB, US Fish and Wildlife Service species lists, and California Native Plant Society were searched for information regarding the project area and its vicinity.

IV. SPECIES-SPECIFIC AVOIDANCE AND MINIMIZATION REQUIREMENTS

Please complete and/or provide the following attachments:

1) Species-Specific Avoidance and Minimization for Selected Covered Wildlife

Complete the following table and check the applicable box for covered species determined by the planning surveys.

Table 3. Summary of Applicable Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring Requirements¹⁰

Species	Preconstruction Survey Requirements	Avoidance and Minimization Requirements	Construction Monitoring Required	Info in HCP
<input type="checkbox"/> San Joaquin kit fox	<ul style="list-style-type: none"> On project footprint and 250-ft radius, map all dens (>5 in. diameter) and determine status Provide written survey results to USFWS within 5 working days after surveying 	<ul style="list-style-type: none"> Monitor dens Destroy unoccupied dens Discourage use of occupied (non-natal) dens 	<ul style="list-style-type: none"> Establish exclusion zones (>50 ft for potential dens, and >100 ft for known dens) Notify USFWS of occupied natal dens 	pp. 6-37 to 6-38
<input type="checkbox"/> Western burrowing owl	<ul style="list-style-type: none"> On project footprint and 500-ft radius, identify and map all owls and burrows, and determine status Document use of habitat (e.g., breeding, foraging) 	<ul style="list-style-type: none"> Avoid occupied nests during breeding season (Feb-Sep) Avoid occupied burrows during nonbreeding season (Sep – Feb) Install one-way doors in occupied burrow (if avoidance not possible) Monitor burrows with doors installed 	<ul style="list-style-type: none"> Establish buffer zones (250 ft around nests) Establish buffer zones (160 ft around burrows) 	pp. 6-39 to 6-41
<input type="checkbox"/> Giant garter snake	<ul style="list-style-type: none"> Delineate aquatic habitat up to 200 ft from water's edge on each side Document any occurrences 	<ul style="list-style-type: none"> Limit construction to Oct-May Dewater habitat April 15 – Sep 30 prior to construction Minimize clearing for construction 	<ul style="list-style-type: none"> Delineate 200 ft buffer around potential habitat near construction Provide field report on monitoring efforts Stop construction activities if snake is encountered; allow snake to passively relocate Remove temporary fill or debris from construction site Mandatory training for construction personnel 	pp. 6-43 to 6-45
<input type="checkbox"/> California tiger salamander	<ul style="list-style-type: none"> Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site 	<ul style="list-style-type: none"> Allow agency staff to translocate species, if requested 	<ul style="list-style-type: none"> None 	p. 6-45
<input type="checkbox"/> California red-legged frog	<ul style="list-style-type: none"> Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site 	<ul style="list-style-type: none"> Allow agency staff to translocate species, if requested 	<ul style="list-style-type: none"> None 	p. 6-46
<input type="checkbox"/> Covered shrimp	<ul style="list-style-type: none"> Establish presence/absence Document and evaluate use of all habitat features (e.g., vernal pools, rock outcrops) 	<ul style="list-style-type: none"> Establish buffer near construction activities Prohibit incompatible activities 	<ul style="list-style-type: none"> Establish buffer around outer edge of all hydric vegetation associated with habitat (50 ft or immediate watershed, whichever is larger) Mandatory training for construction personnel 	pp. 6-46 to 6-48
<input type="checkbox"/> Townsend's big-eared bat	<ul style="list-style-type: none"> Establish presence/absence Determine if potential sites were recently occupied (guano) 	<ul style="list-style-type: none"> Seal hibernacula before Nov Seal nursery sites before April Delay construction near occupied sites until hibernation or nursery seasons are over 	<ul style="list-style-type: none"> None 	pp. 6-36 to 6-37
<input type="checkbox"/> Swainson's hawk	<ul style="list-style-type: none"> Determine whether potential nests are occupied 	<ul style="list-style-type: none"> No construction within 1,000 ft of occupied nests within breeding season (March 15 - Sep 15) If necessary, remove active nest tree after nesting season to prevent occupancy in second year. 	<ul style="list-style-type: none"> Establish 1,000 ft buffer around active nest and monitor compliance (no activity within established buffer) 	pp. 6-41 to 6-43
<input type="checkbox"/> Golden Eagle	<ul style="list-style-type: none"> Establish presence/absence of nesting eagles 	<ul style="list-style-type: none"> No construction within ½ mile near active nests (most activity late Jan – Aug) 	<ul style="list-style-type: none"> Establish ½ mile buffer around active nest and monitor compliance with buffer 	pp. 6-38 to 6-39

¹⁰ The requirements in this table are not comprehensive; they are detailed in the next section on the following page.

2) Required Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring

All preconstruction surveys shall be conducted in accordance with the requirements set forth in Section 6.4.3, Species-Level Measures, and Table 6-1 of the ECCC HCP/NCCP. Detailed descriptions of preconstruction surveys, avoidance and minimization, and construction monitoring applicable to each of the wildlife species in Table 3 are located below. Please remove the species-specific measures that do not apply to your project (highlight entire section and delete).

No suitable habitat occurs for any of the Covered and No-Take Plant Species and Covered Wildlife Species. The project site is highly disturbed and is surrounded by dense urban development and major roadways, including Highway 4 to the south.

3) Construction Monitoring Plan

Before implementing a covered activity, the applicant will develop and submit a construction monitoring plan to the planning department of the local land use jurisdiction and the East Contra Costa County Habitat Conservancy for review and approval. Elements of a brief construction monitoring plan will include the following:

- Results of planning and preconstruction surveys.¹¹
- Description of avoidance and minimization measures to be implemented, including a description of project-specific refinements to the measures or additional measures not included in the HCP/NCCP.
- Description of monitoring activities, including monitoring frequency and duration, and specific activities to be monitored.
- Description of the onsite authority of the construction monitor to modify implementation of the activity.

Check box to acknowledge this requirement.

No suitable habitat occurs for any of the Covered and No-Take Plant Species and Covered Wildlife Species, therefore it is anticipated that construction monitoring will not be needed.

¹¹ If the preconstruction surveys do not trigger construction monitoring, results of preconstruction surveys should still be submitted to the local jurisdiction and the East Contra Costa County Habitat Conservancy.

V. SPECIFIC CONDITIONS ON COVERED ACTIVITIES

1) Check off the HCP conservation measures that apply to the project.

APPLIES TO ALL PROJECTS

Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Migratory Birds. This conservation measure applies to all projects. All projects will avoid all impacts on extremely rare plants and fully protected species listed in Table 6-5 of the ECCC HCP/NCCP. See HCP pp. 6-23 to 6-25, and Table 6-5.

APPLIES TO PROJECTS THAT IMPACT COVERED PLANT SPECIES

Conservation Measure 3.10. Plant Salvage when Impacts are Unavoidable. This condition applies to projects that cannot avoid impacts on covered plants and help protect covered plants by prescribing salvage whenever avoidance of impacts is not feasible. Project proponents wishing to remove populations of covered plants must notify the Conservancy of their construction schedule to allow the Conservancy the option of salvaging the populations. See HCP pp. 6-48 to 6-50.

APPLIES TO PROJECTS THAT INCLUDE ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS

Conservation Measure 2.12. Wetland, Pond, and Stream Avoidance and Minimization. All projects will implement measures described in the HCP to avoid and minimize impacts on wetlands, ponds, streams, and riparian woodland/scrub. See HCP pp. 6-33 to 6-35.

APPLIES TO NEW DEVELOPMENT PROJECTS

Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion. All new development must avoid or minimize direct and indirect impacts on local hydrological conditions and erosion by incorporating the applicable Provision C.3 Amendments of the Contra Costa County Clean Water Program's (CCCCWP's) amended NPDES Permit (order no. R2-2003-0022; permit no. CAS002912). The overall goal of this measure is to ensure that new development covered under the HCP has no or minimal adverse effects on downstream fisheries to avoid take of fish listed under ESA or CESA. See HCP pp. 6-21 to 6-22.

APPLIES TO NEW DEVELOPMENT PROJECTS THAT INCLUDE OR ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS

Conservation Measure 1.7. Establish Stream Setbacks. A stream setback will be applied to all development projects covered by the HCP according to the stream types listed in Table 6-2 of the HCP. See HCP pp. 6-15 to 6-18 and Table 6-2.

APPLIES TO NEW DEVELOPMENT PROJECTS ADJACENT TO EXISTING PUBLIC OPEN SPACE, HCP PRESERVES, OR LIKELY HCP ACQUISITION SITES

Conservation Measure 1.6. Minimize Development Footprint Adjacent to Open Space. Project applicants are encouraged to minimize their development footprint and set aside portions of their land to contribute to the HCP Preserve System. Land set aside that contributes to the HCP biological goals and objectives may be credited against development fees. See HCP pages 6-14 to 6-15.

Conservation Measure 1.8. Establish Fuel Management Buffer to Protect Preserves and Property. Buffer zones will provide a buffer between development and wildlands that allows adequate fuel management to minimize the risk of wildlife damage to property or to the preserve. The minimum buffer zone for new development is 100 feet. See HCP pages 6-18 to 6-19.

Conservation Measure 1.9. Incorporate Urban-Wildlife Interface Design Elements. These projects will incorporate design elements at the urban-wildlife interface to minimize the indirect impacts of development on the adjacent preserve. See HCP pp. 6-20 to 6-21.

APPLIES TO ROAD MAINTENANCE PROJECTS OUTSIDE THE UDA

Conservation Measure 1.12. Implement Best Management Practices for Rural Road Maintenance. Road maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream waterways, spreading invasive weeds, and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-25 to 6-26.

APPLIES TO NEW ROADS OR ROAD IMPROVEMENTS OUTSIDE THE UDA

Conservation Measure 1.14. Design Requirements for Covered Roads Outside the Urban Development Area (UDA). New roads or road improvements outside the UDA have impacts on many covered species far beyond the direct impacts of their project footprints. To minimize the impacts of new, expanded, and improved roads in agricultural and natural areas of the inventory area, road and bridge construction projects will adopt siting, design, and construction requirements described in the HCP and listed in Table 6-6. See HCP pp. 6-27 to 6-33 and Table 6-6.

APPLIES TO FLOOD CONTROL MAINTENANCE ACTIVITIES

Conservation Measure 1.13. Implement Best Management Practices for Flood Control Facility Maintenance. Flood control maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream

waterways and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-26 to 6-27.

- 2) **For all checked conservation measures, describe how the project will comply with each measure. Attach as Attachment C: Project Compliance to HCP Conditions.**

Included as Attachment C

VI. MITIGATION MEASURES

- 1) **Mitigation Fee Calculator(s)**

Complete and attach the fee calculator (use permanent and/or temporary impact fee calculator as appropriate), and attach as **Attachment D: Fee Calculator(s)**.

The Fee Calculator is attached as Attachment D.

- 2) **Briefly describe the amount of fees to be paid and when applicant plans to submit payment.**

The project site occurs within Fee Zone 1 and has a fee of \$20,329.20 per acre for permanent impacts. The land cover types occurring within the project site consisted of mostly grassland/ruderal habitat, with a small strip of asphalt roadway positioned along the western edge of the site, designated as developed/urban. The project site is composed of 0.89 acre with the entire project site being permanently impacted. The development fee for this project is \$18,092.99. This fee will be paid before the proposed June 27, 2025 construction commencement date.

Attachment A

Project Description

HELIX Environmental Planning, Inc.
1677 Eureka Road, Suite 100
Roseville, CA 95661
916.435.1202 tel
619.462.0552 fax
www.helixepi.com



June 6, 2024

03844.00008.001

Ariana Ruiz
City of Pittsburg, Assistant Planner
65 Civic Avenue
Pittsburg, CA 94565

Subject: Project Description for the 24-155 Pittsburg Project, Pittsburg, Contra Costa County, California

Dear: Ms. Ruiz

On behalf of Quick Quack Carwash (Client), HELIX prepared this letter to be included as Attachment A of the Application Form and Planning Survey Report for the 24-155 Pittsburg Project (Project) to comply with and receive permit coverage under the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan. This letter includes a project description, general best management practices, and proposed construction dates and phases. This Project is located in the City of Pittsburg, Contra Costa County, California (Attachment B, Figure 1). The reference application number for this Project is AP-24-0004.

PROPOSED DESCRIPTION

The proposed Project will develop vacant land and construct a 3,588-square-foot express car wash facility with associated drive-thru queuing lanes, vacuum parking stalls, parking lot improvements, and utility service connections to serve the car wash facility. The Project staging area is anticipated to be within the limits of work. The Project is estimated to disturb approximately 0.89 acre of vacant land. Access to the Project site will be via North Park Blvd. Groundbreaking for this Project is scheduled to commence June 27, 2025, with an early 2026 opening. The Project is on a 161-day construction schedule. The overall duration of the site work is roughly 92 days, and vertical construction will commence concurrently after about 4 to 6 weeks of site work.

A variety of erosion and sediment control BMPs will be implemented onsite, including but not limited to stabilized construction entrance, inlet protection, perimeter controls, street sweeping, and good housekeeping. Post-construction BMPs will include bioretention water quality treatment control measures and source control measures. It is anticipated that the entire Project site will be permanently disturbed, with no temporary impacts requiring restoration.

Ms. Ariana Ruiz
June 6, 2024

Page 2 of 2

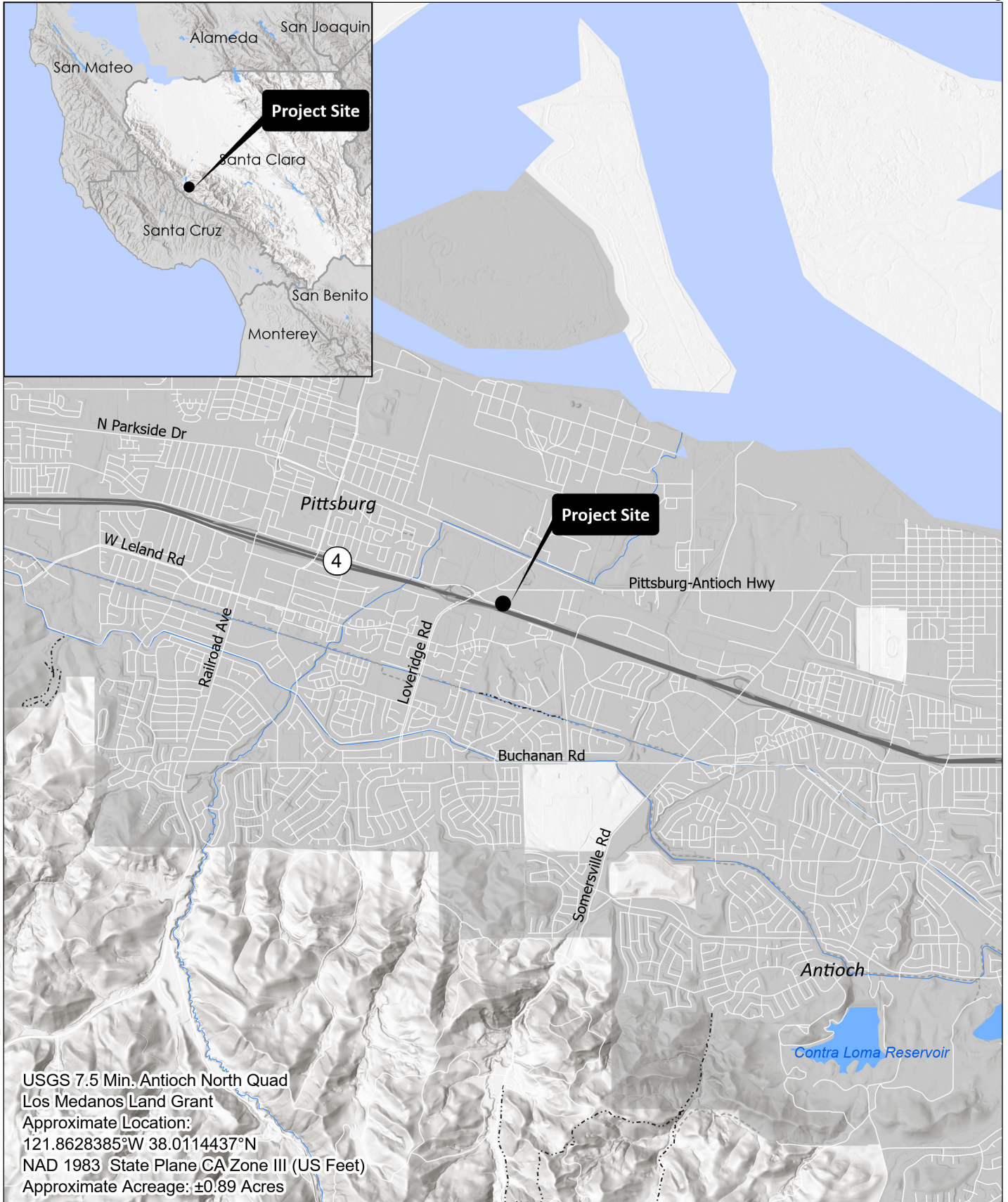
Sincerely,

A handwritten signature in blue ink, appearing to read "Josh Goodwin".

Josh Goodwin
Biology Project Manager

Attachment B

Figures



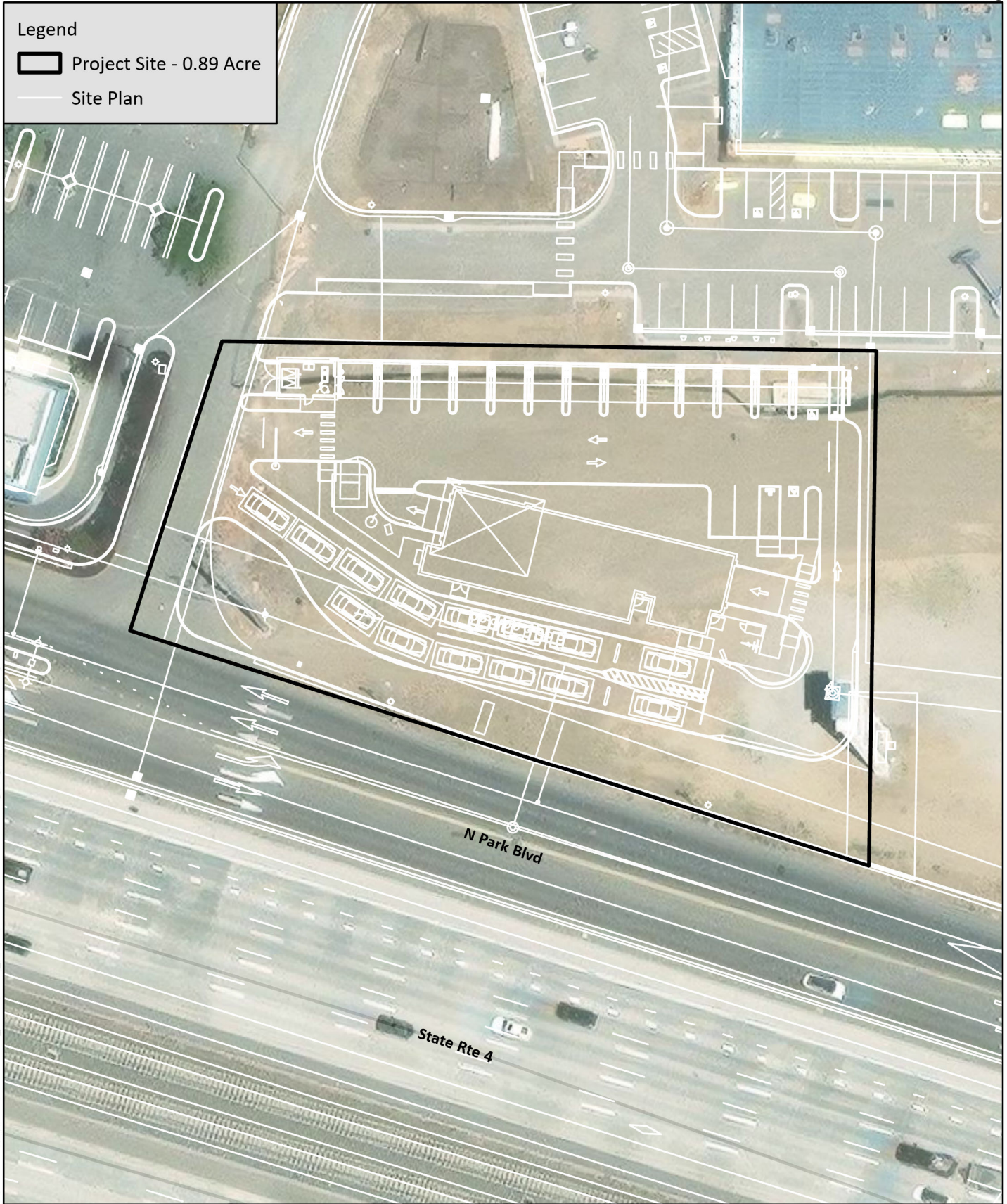
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Source: Base Map Layers (Esri, USGS, NGA, NASA)

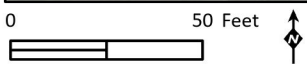
Legend

-  Project Site - 0.89 Acre
-  Site Plan






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Source: Aerial (DigitalGlobe, 7/23/2022)



Legend

-  Project Site - 0.89 Acre
-  Developed - Urban - 0.05 Acre
-  Grassland - Ruderal - 0.84 Acre



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Source: Aerial (DigitalGlobe, 7/23/2022)

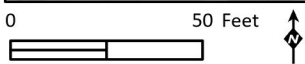




Photo 1. This photo was taken midway along the northern border of the site facing south, showing the ruderal grassland habitat.

Date. May 22, 2024 Photographer. Michael Scaffidi



Photo 2. This photo was taken from the same location as the previous photo but facing in the east direction.

Date. May 22, 2024 Photographer. Michael Scaffidi

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Photo 3. This photo was taken just outside of the Project Site to the east, facing west, showing the gravel entrance. This area is highly disturbed.

Date. May 22, 2024 Photographer. Michael Scaffidi



Photo 4. This photo was taken within the southeast portion of the site, facing east.

Date. May 22, 2024 Photographer. Michael Scaffidi

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Photo 5. Trash and debris were observed onsite located within the southwest portion of the site, with North Park Boulevard seen on the lefthand side of the photo. Facing in the west direction.

Date. May 22, 2024 Photographer. Michael Scaffidi



Photo 6. More Trash and debris were observed onsite located near the southwest corner of the site. This photo was taken facing in the north direction.

Date. May 22, 2024 Photographer. Michael Scaffidi

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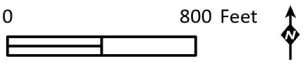
Photo 5. Showing the one small mammal burrow occurring within the project site.
Date. May 22, 2024 Photographer. Michael Scaffidi

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Legend

-  Project Site - 0.89 Acre
-  250 ft Buffer (San Joaquin Kit Fox Study Area)
-  500 ft Buffer (Western Burrowing Owl Study Area)
-  1000 ft Buffer (Swainson's Hawk Study Area)
-  1/2 Mile Buffer (Golden Eagle Study Area)

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Source: Aerial (DigitalGlobe, 7/23/2022)

Attachment C

Conservation Measures

HELIX Environmental Planning, Inc.
1677 Eureka Road, Suite 100
Roseville, CA 95661
916.435.1202 tel
619.462.0552 fax
www.helixepi.com



June 6, 2024

03844.00008.001

Ariana Ruiz
City of Pittsburg, Assistant Planner
65 Civic Avenue
Pittsburg, CA 94565

Subject: Conservation Measures for the 24-155 Pittsburg Project, Pittsburg, Contra Costa County, California

Dear: Ms. Ruiz

On behalf of Quick Quack Carwash (Client), HELIX prepared this letter to be included as Attachment C of the Application Form and Planning Survey Report for the 24-155 Pittsburg Project (Project) to comply with and receive permit coverage under the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan. This letter describes how the project will comply with each conservation measure where the check box was checked. This Project is located in the City of Pittsburg, Contra Costa County, California (Attachment B, Figure 1). The reference application number for this Project is AP-24-0004.

Conservation Measures

Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Migratory Birds.

The planning level survey conducted on May 22, 2024, resulted in a determination that there is no suitable habitat within the Study Area to support Covered Wildlife Species or Covered and No-Take Plant Species. However, there is a potential for nesting birds to occur within the project site and surrounding areas. The project is scheduled to commence June 27, 2025, which is occurring during the recognized nesting bird season (February 1 – September 1). A pre-construction nesting bird survey will be conducted prior to the commencement of construction.

Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion.

No aquatic features occur on or immediately adjacent to the project site. To prevent potential runoff from the project site from impacting adjacent parcels or stormwater drainage systems, a variety of erosion and sediment control BMPs will be implemented onsite. These BMPs include, but are not limited to, stabilized construction entrance, inlet protection, perimeter controls, street sweeping, and

Ms. Ariana Ruiz
June 6, 2024

Page 2 of 2

good housekeeping. Post construction BMPs will include bioretention water quality treatment control measures and source control measures.

Sincerely,

A handwritten signature in black ink, appearing to read "JSG", with a long horizontal flourish extending to the right.

Josh Goodwin
Biology Project Manager

Attachment D

Fee Calculator

ECCC HCP/NCCP 2024 Fee Calculator Worksheet

Permanent Impacts

PROJECT APPLICANT: Vance Shannon

PROJECT NAME: 24-155 Pittsburg Project

APN(s): 088-151-045

JURISDICTION: Pittsburg

DATE PREPARED: June 6, 2024

		PERMANENT IMPACTS (AC)		2024 FEE / ACRE ¹	TOTAL
DEVELOPMENT FEE	Fee Zone 1	0.89	x	\$20,329.20	= \$18,092.99
See appropriate city/county ordinance or HCP/NCCP Figure 9-1 to determine Fee Zone.	Fee Zone 2		x	\$40,658.39	= \$0.00
	Fee Zone 3		x	\$10,164.60	= \$0.00
	Fee Zone 4 ²		x	\$30,493.80	= \$0.00
	Development Fee Total				= \$18,092.99

WETLAND MITIGATION FEE	Riparian woodland/scrub		x	\$113,975.20	= \$0.00
These impacts are charged both a wetland mitigation fee and a development fee. ³	Perennial Wetland		x	\$175,393.58	= \$0.00
	Seasonal Wetland		x	\$412,016.09	= \$0.00
	Alkali Wetland		x	\$416,523.83	= \$0.00
	Ponds		x	\$227,232.49	= \$0.00
	Aquatic/Open Water		x	\$113,616.78	= \$0.00
	Slough/Channel		x	\$160,930.74	= \$0.00
	Streams ≤ 25 ft (in linear ft)		x	\$595.22	= \$0.00
	Streams > 25 ft (in linear ft)		x	\$892.29	= \$0.00
	Wetland Mitigation Fee Total				= \$0.00

STREAM SETBACK ENCROACHMENT	Encroachment		x	\$56,987.60	= \$0.00
See HCP/NCCP Chapter 6 (p. 6-15 to 6-18) for more info.	Stream Setback Encroachment Fee Total				= \$0.00

FEE REDUCTION	Development Fee reduction for land in lieu of fee	=	
Fee reductions must be approved by the Habitat Conservancy. See HCP/NCCP Chapter 9 for more info.	Development Fee reduction for permanent assessments	=	
	Wetland Mitigation Fee reduction for restoration/creation	=	
	Reduction Total		= \$0.00

FINAL FEE CALCULATION	Development Fee Total	\$18,092.99
	Wetland Mitigation Fee Total	+ \$0.00
	Encroachment in Stream Setback Fee Total	+ \$0.00
	Mitigation Fee Total	= \$18,092.99
	Contribution to Recovery ⁴	+ <input type="text"/>
	TOTAL AMOUNT DUE	= \$18,092.99

¹ The Fee Schedule is adjusted annually (no later than March 15 of each year). Development Fees are adjusted according to a formula that includes both a Home Price Index (HPI) and a Consumer Price Index (CPI). The Wetland Mitigation Fees are adjusted according to a CPI. Every five years, a fee audit is conducted which also adjusts the fees.

² Fee Zone 4 is not shown on Figure 9-1 of the HCP/NCCP but refers to the fee applicable to those few covered activities located in northeastern Antioch (p. 9-21).

³ For every acre of impact on wetlands, streams, ponds, and riparian woodland/scrub, applicants will pay the appropriate development fee (according to fee zone) towards land acquisition and the conservation program as a whole, as well as a wetland mitigation fee to cover the costs of successful restoration or creation (ECCC HCP/NCCP Chapter 9.3.1).

⁴ Participating Special Entities (PSEs) are required to pay fees over and above permanent and temporary impact mitigation fees to cover indirect costs of extending permit coverage, including a portion of the costs of the initial preparation of the Plan, and a portion of the costs of conservation actions designed to contribute to species recovery. This amount will be determined by the Conservancy in accordance with the Contribution to Recovery Implementation Policy adopted by the Conservancy Governing Board on December 8, 2014.

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