

Appendix D

Biological Resources

D-1 Agency Special-Status Species Lists

*D-2 Special-Status Wildlife Species
Table – Victoria Island/Byron Tract*

*D-3 Special-Status Wildlife Species
Table – Desalination Alternative
Project Sites*

*D-4 Special-Status Plant Species Table
– Desalination Alternative Project
Sites*

Appendix D-1
Agency Special-Status Species Lists



DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>

Central Valley Bay-Delta Branch
4001 North Wilson Way
Stockton, California 95205-2486
(209) 948-7800



June 21, 2005

Ms. Samantha Salvia
Principal Engineer
Contra Costa Water District
1331 Concord Avenue
Concord, California 94524

Subject: Species List for the CCWD Alternative Intake Project

Dear Ms. Salvia:

The Department of Fish and Game has received your request for a list of State endangered, threatened, or sensitive species that occur in or near your project area. This species list covers the following USGS 7.5 minute quadrangles: Clifton Court Forebay, Holt, Union Island, and Woodward Island. This list is by no means exhaustive, and if additional species distribution information becomes available, we will update this list as necessary.

If you have any questions regarding the enclosed list or need additional information, please contact Ms. Anna Holmes of my staff at 209-948-7163 or email her at aholmes@delta.dfg.ca.gov.

Sincerely,

Dr. Perry L. Herrgesell
Branch Chief

Enclosure

cc: Department of Fish and Game
Stockton, California
Ms. Anna Holmes

PH05F005.doc/ce



**Species List for the Alternative Intake Project
State Endangered, Threatened, and Special Status Species
June 20, 2005**

<u>Species</u>	<u>Status</u>
<u>Fish</u>	
Delta Smelt (<u>Hypomesus transpacificus</u>)	ST
Splittail (<u>Pogonichthys macrolepidotus</u>)	SSC
Fall/Late Fall-Run Chinook Salmon (<u>Onchorynchus tshawytscha</u>)	SSC
Spring-Run Chinook Salmon (<u>Onchorynchus tshawytscha</u>)	ST
Winter-Run Chinook Salmon (<u>Onchorynchus tshawytscha</u>)	SE
 <u>Amphibians</u>	
California Red-Legged Frog (<u>Rana aurora draytonii</u>)	SSC
California Tiger Salamander (<u>Ambystoma californiense</u>)	SSC
 <u>Reptiles</u>	
Western Pond Turtle (<u>Clemmys marmorata</u>)	SSC
 <u>Birds</u>	
Burrowing Owl (<u>Athene cunicularia</u>)	SSC
California Black Rail (<u>Laterallus jamaicensis coturniculus</u>)	ST
California Horned Lark (<u>Eremophila alpestris actia</u>)	SSC
Swainson's Hawk (<u>Buteo swainsoni</u>)	ST
Tricolored Blackbird (<u>Agelaius tricolor</u>)	SSC
White-Tailed Kite (<u>Elanus leucurus</u>)	SFP
 <u>Mammals</u>	
American Badger (<u>Taxidea taxus</u>)	SSC
San Joaquin Kit Fox (<u>Vulpes macrotis mutica</u>)	ST
 <u>Plants</u>	
Alkali Milk-vetch (<u>Astragalus tener</u> var. <u>tener</u>)	1B
Big Tarplant (<u>Blepharizonia plumosa</u>)	1B
Bristly Sedge (<u>Carex comosa</u>)	2
Delta Button-celery (<u>Eryngium racemosum</u>)	SE
Delta Mudwort (<u>Limosella subulata</u>)	2
Delta Tule Pea (<u>Lathyrus jepsonii</u> var. <u>jepsonii</u>)	1B
Diamond-petaled California Poppy (<u>Eschschozia rhombipetala</u>)	1B
Marsh Skullcap (<u>Scutellaria galericulata</u>)	2
Mason's Lilaeopsis (<u>Lilaeopsis masonii</u>)	SR
Recurved Larkspur (<u>Delphinium recurvatum</u>)	1B

Rose Mallow (<u>Hibiscus lasiocarpus</u>)	2
San Joaquin Spearscale (<u>Atriplex joaquiniana</u>)	1B
Suisun Marsh Aster (<u>Aster lentus</u>)	1B

State Designation

SE = State Endangered

ST = State Threatened

SR = State Rare

SSC = Species of Special Concern

SFP = State Fully Protected

California Native Plant Society Designation

List 1B = Plants Rare, Threatened, or Endangered in California and elsewhere

List 2 = Plants Rare, Threatened, or Endangered in California, but more common elsewhere

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825



April 29, 2005

Document Number: 050429124732

Linda Leeman
EDAW, Inc.
2022 J Street
Sacramento, CA 95814

Subject: Species List for CCWD Alternative Intake Project

Dear: Ms. Leeman

We are sending this official species list in response to your April 29, 2005 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested. You have stated that this list is not for consultation with the Fish & Wildlife Service.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed, candidate and special concern species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be July 28, 2005.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at sacramento.fws.gov/es/branches.htm.

Endangered Species Division



**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 050429125248

Database Last Updated: April 21, 2005

Quad Lists

WOODWARD ISLAND (463A)

Listed Species

Invertebrates

- Branchinecta longiantenna* - longhorn fairy shrimp (E)
- Branchinecta lynchi* - vernal pool fairy shrimp (T)
- Desmocerus californicus dimorphus* - valley elderberry longhorn beetle (T)
- Lepidurus packardi* - vernal pool tadpole shrimp (E)

Fish

- Hypomesus transpacificus* - Critical habitat, delta smelt (X)
- Hypomesus transpacificus* - delta smelt (T)
- Oncorhynchus mykiss* - Central Valley steelhead (T)

Amphibians

- Ambystoma californiense* - California tiger salamander (T)
- Rana aurora draytonii* - California red-legged frog (T)

Reptiles

- Thamnophis gigas* - giant garter snake (T)

Birds

- Haliaeetus leucocephalus* - bald eagle (T)

Mammals

- Vulpes macrotis mutica* - San Joaquin kit fox (E)

Candidate Species

Fish

- Acipenser medirostris* - green sturgeon (C)
- Oncorhynchus tshawytscha* - Central Valley fall/late fall-run chinook salmon (C)

Species of Concern

Invertebrates

- Anthicus antiochensis* - Antioch Dunes anthicid beetle (SC)
- Anthicus sacramento* - Sacramento anthicid beetle (SC)
- Linderiella occidentalis* - California linderiella fairy shrimp (SC)

D1-5

Lytta molesta - molestan blister beetle (SC)

Fish

Lampetra ayresi - river lamprey (SC)

Lampetra tridentata - Pacific lamprey (SC)

Pogonichthys macrolepidotus - Sacramento splittail (SC)

Spirinchus thaleichthys - longfin smelt (SC)

Amphibians

Spea hammondi (was *Scaphiopus h.*) - western spadefoot toad (SC)

Reptiles

Anniella pulchra pulchra - silvery legless lizard (SC)

Clemmys marmorata marmorata - northwestern pond turtle (SC)

Clemmys marmorata pallida - southwestern pond turtle (SC)

Masticophis flagellum ruddocki - San Joaquin coachwhip (=whipsnake) (SC)

Phrynosoma coronatum frontale - California horned lizard (SC)

Birds

Agelaius tricolor - tricolored blackbird (SC)

Athene cunicularia hypugaea - western burrowing owl (SC)

Branta canadensis leucopareia - Aleutian Canada goose (D)

Buteo regalis - ferruginous hawk (SC)

Buteo Swainsoni - Swainson's hawk (CA)

Calypte costae - Costa's hummingbird (SC)

Carduelis lawrencei - Lawrence's goldfinch (SC)

Chaetura vauxi - Vaux's swift (SC)

Charadrius montanus - mountain plover (SC)

Elanus leucurus - white-tailed (=black shouldered) kite (SC)

Empidonax traillii brewsteri - little willow flycatcher (CA)

Falco peregrinus anatum - American peregrine falcon (D)

Grus canadensis tabida - greater sandhill crane (CA)

Lanius ludovicianus - loggerhead shrike (SC)

Limosa fedoa - marbled godwit (SC)

Melanerpes lewis - Lewis' woodpecker (SC)

Numenius americanus - long-billed curlew (SC)

Picoides nuttallii - Nuttall's woodpecker (SLC)

Plegadis chihi - white-faced ibis (SC)

Riparia riparia - bank swallow (CA)

Selasphorus rufus - rufous hummingbird (SC)

Selasphorus sasin - Allen's hummingbird (SC)

Mammals

Corynorhinus (= *Plecotus*) *townsendii townsendii* - Pacific western big-eared bat (SC)

Eumops perotis californicus - greater western mastiff-bat (SC)

Myotis ciliolabrum - small-footed myotis bat (SC)

Myotis volans - long-legged myotis bat (SC)

Myotis yumanensis - Yuma myotis bat (SC)

Neotoma fuscipes annectens - San Francisco dusky-footed woodrat (SC)

D1-6 *Perognathus inornatus* - San Joaquin pocket mouse (SC)

Plants

Aster lentus - Suisun Marsh aster (SC)
Atriplex joaquiniana - San Joaquin spearscale (=saltbush) (SC)
Eryngium racemosum - delta coyote-thistle (=button-celery) (CA)
Lathyrus jepsonii var. *jepsonii* - delta tule-pea (SC)
Lilaeopsis masonii - Mason's lilaeopsis (SC)

CLIFTON COURT FOREBAY (463D)**Listed Species****Invertebrates**

Branchinecta longiantenna - longhorn fairy shrimp (E)
Branchinecta lynchi - Critical habitat, vernal pool fairy shrimp (X)
Branchinecta lynchi - vernal pool fairy shrimp (T)
Desmocerus californicus dimorphus - valley elderberry longhorn beetle (T)
Lepidurus packardii - vernal pool tadpole shrimp (E)

Fish

Hypomesus transpacificus - Critical habitat, delta smelt (X)
Hypomesus transpacificus - delta smelt (T)
Oncorhynchus mykiss - Central Valley steelhead (T)
Oncorhynchus tshawytscha - Central Valley spring-run chinook salmon (T)
Oncorhynchus tshawytscha - winter-run chinook salmon, Sacramento River (E)

Amphibians

Ambystoma californiense - California tiger salamander (T)
Rana aurora draytonii - California red-legged frog (T)

Reptiles

Masticophis lateralis euryxanthus - Alameda whipsnake (T)
Thamnophis gigas - giant garter snake (T)

Birds

Haliaeetus leucocephalus - bald eagle (T)

Mammals

Vulpes macrotis mutica - San Joaquin kit fox (E)

Plants

Lasthenia conjugens - Critical habitat, Contra Costa goldfields (X)

Proposed Species**Amphibians**

Ambystoma californiense - Critical habitat, CA tiger salamander - proposed Central Valley pop. (PX)
Rana aurora draytonii - Critical habitat, California red-legged frog (Proposed) (PX) D1-7

Candidate Species*Fish**Acipenser medirostris* - green sturgeon (C)*Oncorhynchus tshawytscha* - Central Valley fall/late fall-run chinook salmon (C)**Species of Concern***Invertebrates**Hygrotus curvipes* - curved-foot hygrotus diving beetle (SC)*Lindieriella occidentalis* - California linderiella fairy shrimp (SC)*Lytta molesta* - molestan blister beetle (SC)*Fish**Lampetra ayresi* - river lamprey (SC)*Lampetra tridentata* - Pacific lamprey (SC)*Pogonichthys macrolepidotus* - Sacramento splittail (SC)*Spirinchus thaleichthys* - longfin smelt (SC)*Amphibians**Rana boylei* - foothill yellow-legged frog (SC)*Reptiles**Anniella pulchra pulchra* - silvery legless lizard (SC)*Clemmys marmorata marmorata* - northwestern pond turtle (SC)*Clemmys marmorata pallida* - southwestern pond turtle (SC)*Masticophis flagellum ruddocki* - San Joaquin coachwhip (=whipsnake) (SC)*Phrynosoma coronatum frontale* - California horned lizard (SC)*Birds**Agelaius tricolor* - tricolored blackbird (SC)*Amphispiza belli belli* - Bell's sage sparrow (SC)*Athene cunicularia hypugaea* - western burrowing owl (SC)*Branta canadensis leucopareia* - Aleutian Canada goose (D)*Buteo regalis* - ferruginous hawk (SC)*Buteo Swainsoni* - Swainson's hawk (CA)*Calypte costae* - Costa's hummingbird (SC)*Carduelis lawrencei* - Lawrence's goldfinch (SC)*Chaetura vauxi* - Vaux's swift (SC)*Charadrius montanus* - mountain plover (SC)*Elanus leucurus* - white-tailed (=black shouldered) kite (SC)*Empidonax traillii brewsteri* - little willow flycatcher (CA)*Falco peregrinus anatum* - American peregrine falcon (D)*Grus canadensis tabida* - greater sandhill crane (CA)*Lanius ludovicianus* - loggerhead shrike (SC)*Limosa fedoa* - marbled godwit (SC)*Melanerpes lewis* - Lewis' woodpecker (SC)*Numenius americanus* - long-billed curlew (SC)D1-8 *Picoides nuttallii* - Nuttall's woodpecker (SLC)*Plegadis chihi* - white-faced ibis (SC)

Selasphorus rufus - rufous hummingbird (SC)
Selasphorus sasin - Allen's hummingbird (SC)
Toxostoma redivivum - California thrasher (SC)

Mammals

Corynorhinus (=Plecotus) townsendii townsendii - Pacific western big-eared bat (SC)
Eumops perotis californicus - greater western mastiff-bat (SC)
Myotis ciliolabrum - small-footed myotis bat (SC)
Myotis evotis - long-eared myotis bat (SC)
Myotis thysanodes - fringed myotis bat (SC)
Myotis volans - long-legged myotis bat (SC)
Myotis yumanensis - Yuma myotis bat (SC)
Neotoma fuscipes annectens - San Francisco dusky-footed woodrat (SC)
Perognathus inornatus - San Joaquin pocket mouse (SC)

Plants

Atriplex cordulata - heartscale (SC)
Atriplex joaquiniana - San Joaquin spearscale (=saltbush) (SC)
Delphinium recurvatum - recurved larkspur (SC)
Lilaeopsis masonii - Mason's lilaeopsis (SC)
Myosurus minimus ssp. apus - little mousetail (SC)

HONKER BAY (481C)**Listed Species****Invertebrates**

Branchinecta lynchi - vernal pool fairy shrimp (T)
Desmocerus californicus dimorphus - valley elderberry longhorn beetle (T)
Elaphrus viridis - delta green ground beetle (T)

Fish

Hypomesus transpacificus - Critical habitat, delta smelt (X)
Hypomesus transpacificus - delta smelt (T)
Oncorhynchus mykiss - Central Valley steelhead (T)
Oncorhynchus tshawytscha - Central Valley spring-run chinook salmon (T)
Oncorhynchus tshawytscha - Critical habitat, winter-run chinook salmon (X)
Oncorhynchus tshawytscha - winter-run chinook salmon, Sacramento River (E)

Amphibians

Ambystoma californiense - California tiger salamander (T)
Rana aurora draytonii - California red-legged frog (T)

Reptiles

Masticophis lateralis euryxanthus - Alameda whipsnake (T)
Thamnophis gigas - giant garter snake (T)

Birds

Haliaeetus leucocephalus - bald eagle (T)

Rallus longirostris obsoletus - California clapper rail (E)
Sterna antillarum (=albifrons) browni - California least tern (E)

Mammals

Reithrodontomys raviventris - salt marsh harvest mouse (E)

Plants

Cordylanthus mollis ssp. mollis - soft bird's-beak (E)
Oenothera deltooides ssp. howellii - Antioch Dunes evening-primrose (E)

Proposed Species**Fish**

Oncorhynchus tshawytscha - Critical Habitat, Central Valley spring-run chinook (PX)

Amphibians

Ambystoma californiense - Critical habitat, CA tiger salamander - proposed Central Valley pop. (PX)

Candidate Species**Fish**

Acipenser medirostris - green sturgeon (C)
Oncorhynchus tshawytscha - Central Valley fall/late fall-run chinook salmon (C)
Oncorhynchus tshawytscha - Critical habitat, Central Valley fall/late fall-run chinook (C)

Species of Concern**Invertebrates**

Anthicus antiochensis - Antioch Dunes anthicid beetle (SC)
Anthicus sacramento - Sacramento anthicid beetle (SC)
Branchinecta mesovallensis - Midvalley fairy shrimp (SC)
Coelus gracilis - San Joaquin dune beetle (SC)
Hydrochara rickseckeri - Ricksecker's water scavenger beetle (SC)
Hygrotus curvipes - curved-foot hygrotus diving beetle (SC)
Linderiella occidentalis - California linderiella fairy shrimp (SC)

Fish

Lampetra ayresi - river lamprey (SC)
Lampetra tridentata - Pacific lamprey (SC)
Pogonichthys macrolepidotus - Sacramento splittail (SC)
Spirinchus thaleichthys - longfin smelt (SC)

Amphibians

Spea hammondi (was *Scaphiopus h.*) - western spadefoot toad (SC)

Reptiles

D1-10

Anniella pulchra pulchra - silvery legless lizard (SC)
Clemmys marmorata marmorata - northwestern pond turtle (SC)

Clemmys marmorata pallida - southwestern pond turtle (SC)
Masticophis flagellum ruddocki - San Joaquin coachwhip (=whipsnake) (SC)
Phrynosoma coronatum frontale - California horned lizard (SC)

Birds

Agelaius tricolor - tricolored blackbird (SC)
Athene cunicularia hypugaea - western burrowing owl (SC)
Baeolophus inornatus - oak titmouse (SLC)
Branta canadensis leucopareia - Aleutian Canada goose (D)
Buteo regalis - ferruginous hawk (SC)
Calypte costae - Costa's hummingbird (SC)
Carduelis lawrencei - Lawrence's goldfinch (SC)
Chaetura vauxi - Vaux's swift (SC)
Charadrius montanus - mountain plover (SC)
Cypseloides niger - black swift (SC)
Elanus leucurus - white-tailed (=black shouldered) kite (SC)
Empidonax traillii brewsteri - little willow flycatcher (CA)
Falco peregrinus anatum - American peregrine falcon (D)
Grus canadensis tabida - greater sandhill crane (CA)
Lanius ludovicianus - loggerhead shrike (SC)
Laterallus jamaicensis coturniculus - black rail (CA)
Limosa fedoa - marbled godwit (SC)
Melanerpes lewis - Lewis' woodpecker (SC)
Melospiza melodia maxillaris - Suisun song sparrow (SC)
Numenius americanus - long-billed curlew (SC)
Picoides nuttallii - Nuttall's woodpecker (SLC)
Riparia riparia - bank swallow (CA)
Selasphorus rufus - rufous hummingbird (SC)
Selasphorus sasin - Allen's hummingbird (SC)

Mammals

Corynorhinus (=Plecotus) townsendii townsendii - Pacific western big-eared bat (SC)
Eumops perotis californicus - greater western mastiff-bat (SC)
Myotis ciliolabrum - small-footed myotis bat (SC)
Myotis evotis - long-eared myotis bat (SC)
Myotis thysanodes - fringed myotis bat (SC)
Myotis volans - long-legged myotis bat (SC)
Myotis yumanensis - Yuma myotis bat (SC)
Neotoma fuscipes annectens - San Francisco dusky-footed woodrat (SC)
Perognathus inornatus - San Joaquin pocket mouse (SC)
Sorex ornatus sinuosus - Suisun ornate shrew (SC)

Plants

Aster lentus - Suisun Marsh aster (SC)
Atriplex cordulata - heartscale (SC)
Lathyrus jepsonii var. jepsonii - delta tule-pea (SC)
Lilaeopsis masonii - Mason's lilaeopsis (SC)

VINE HILL (482D)

Invertebrates

Branchinecta lynchi - vernal pool fairy shrimp (T)
Desmocerus californicus dimorphus - valley elderberry longhorn beetle (T)
Elaphrus viridis - delta green ground beetle (T)
Speyeria callippe callippe - callippe silverspot butterfly (E)
Syncaris pacifica - California freshwater shrimp (E)

Fish

Hypomesus transpacificus - Critical habitat, delta smelt (X)
Hypomesus transpacificus - delta smelt (T)
Oncorhynchus mykiss - Central Valley steelhead (T)
Oncorhynchus tshawytscha - Central Valley spring-run chinook salmon (T)
Oncorhynchus tshawytscha - Critical habitat, winter-run chinook salmon (X)
Oncorhynchus tshawytscha - winter-run chinook salmon, Sacramento River (E)

Amphibians

Rana aurora draytonii - California red-legged frog (T)

Reptiles

Masticophis lateralis euryxanthus - Alameda whipsnake (T)
Thamnophis gigas - giant garter snake (T)

Birds

Haliaeetus leucocephalus - bald eagle (T)
Rallus longirostris obsoletus - California clapper rail (E)
Sterna antillarum (=albifrons) *browni* - California least tern (E)

Mammals

Reithrodontomys raviventris - salt marsh harvest mouse (E)

Plants

Cordylanthus mollis ssp. mollis - soft bird's-beak (E)

Proposed Species

Fish

Oncorhynchus tshawytscha - Critical Habitat, Central Valley spring-run chinook (PX)

Amphibians

Rana aurora draytonii - Critical habitat, California red-legged frog (Proposed) (PX)

Candidate Species

Fish

D1-12 *Acipenser medirostris* - green sturgeon (C)
Oncorhynchus tshawytscha - Central Valley fall/late fall-run chinook salmon (C)
Oncorhynchus tshawytscha - Critical habitat, Central Valley fall/late fall-run chinook (C)

Species of Concern*Invertebrates*

Anthicus antiochensis - Antioch Dunes anthicid beetle (SC)
Anthicus sacramento - Sacramento anthicid beetle (SC)
Branchinecta mesovallensis - Midvalley fairy shrimp (SC)
Hydrochara rickseckeri - Ricksecker's water scavenger beetle (SC)
Hygrotus curvipes - curved-foot hygrotus diving beetle (SC)
Linderiella occidentalis - California linderiella fairy shrimp (SC)

Fish

Lampetra ayresi - river lamprey (SC)
Lampetra tridentata - Pacific lamprey (SC)
Pogonichthys macrolepidotus - Sacramento splittail (SC)
Spirinchus thaleichthys - longfin smelt (SC)

Amphibians

Rana boylei - foothill yellow-legged frog (SC)
Spea hammondi (was *Scaphiopus h.*) - western spadefoot toad (SC)

Reptiles

Anniella pulchra pulchra - silvery legless lizard (SC)
Clemmys marmorata marmorata - northwestern pond turtle (SC)
Clemmys marmorata pallida - southwestern pond turtle (SC)
Phrynosoma coronatum frontale - California horned lizard (SC)

Birds

Agelaius tricolor - tricolored blackbird (SC)
Athene cunicularia hypugaea - western burrowing owl (SC)
Baeolophus inornatus - oak titmouse (SLC)
Branta canadensis leucopareia - Aleutian Canada goose (D)
Buteo regalis - ferruginous hawk (SC)
Calidris canutus - red knot (SC)
Calypte costae - Costa's hummingbird (SC)
Carduelis lawrencei - Lawrence's goldfinch (SC)
Chaetura vauxi - Vaux's swift (SC)
Charadrius montanus - mountain plover (SC)
Cypseloides niger - black swift (SC)
Elanus leucurus - white-tailed (=black shouldered) kite (SC)
Empidonax traillii brewsteri - little willow flycatcher (CA)
Falco peregrinus anatum - American peregrine falcon (D)
Geothlypis trichas sinuosa - saltmarsh common yellowthroat (SC)
Grus canadensis tabida - greater sandhill crane (CA)
Lanius ludovicianus - loggerhead shrike (SC)
Laterallus jamaicensis coturniculus - black rail (CA)
Limosa fedoa - marbled godwit (SC)
Melanerpes lewis - Lewis' woodpecker (SC)
Melospiza melodia maxillaris - Suisun song sparrow (SC)
Numenius americanus - long-billed curlew (SC)
Riparia riparia - bank swallow (CA)
Rynchops niger - black skimmer (SC)

Selasphorus rufus - rufous hummingbird (SC)

Selasphorus sasin - Allen's hummingbird (SC)

Mammals

Corynorhinus (=Plecotus) townsendii townsendii - Pacific western big-eared bat (SC)

Eumops perotis californicus - greater western mastiff-bat (SC)

Myotis ciliolabrum - small-footed myotis bat (SC)

Myotis evotis - long-eared myotis bat (SC)

Myotis thysanodes - fringed myotis bat (SC)

Myotis volans - long-legged myotis bat (SC)

Myotis yumanensis - Yuma myotis bat (SC)

Neotoma fuscipes annectens - San Francisco dusky-footed woodrat (SC)

Perognathus inornatus - San Joaquin pocket mouse (SC)

Sorex ornatus sinuosus - Suisun ornate shrew (SC)

Plants

Aster lentus - Suisun Marsh aster (SC)

Lathyrus jepsonii var. *jepsonii* - delta tule-pea (SC)

Lilaeopsis masonii - Mason's lilaeopsis (SC)

Monardella villosa ssp *globosa* - robust monardella (=robust coyote mint) (SLC)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed (in the Federal Register) as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed (in the Federal Register) for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the [National Marine Fisheries Service](#). Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(CA) Listed by the State of California but not by the Fish & Wildlife Service.

(D) *Delisted* - Species will be monitored for 5 years.

(SC) *Species of Concern*/(SLC) Species of Local Concern - Other species of concern to the Sacramento Fish & Wildlife Office.

(X) *Critical Habitat* designated for this species

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, or may be affected by projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the quad or quads covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the nine surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

State-Listed Species

If a species has been listed as threatened or endangered by the State of California, but not by us nor by the National Marine Fisheries Service, it will appear on your list as a Species of Concern. However you should contact the California Department of Fish and Game Wildlife and Habitat Data Analysis Branch for official information about these species.

Your Responsibilities Under the Endangered Species Act

All plants and animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [critical habitat page](#) for maps.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

Your list may contain a section called Species of Concern. This is an informal term that refers to those species that the Sacramento Fish and Wildlife Office believes might be in need of concentrated conservation actions. Such conservation actions vary depending on the health of the populations and degree and types of threats. At one extreme, there may only need to be periodic monitoring of populations and threats to the species and its habitat. At the other extreme, a species may need to be listed as a Federal threatened or endangered species. Species of concern receive no legal protection and the use of the term does not necessarily mean that the species will eventually be proposed for listing as a threatened or endangered species.

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed, candidate and special concern species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be July 28, 2005.

Appendix D-2
Special-Status Wildlife Species Table –
Victoria Island/Byron Tract

**Table D2
Special-Status Wildlife Species with Potential to Occur at the
Victoria Island/Byron Tract Project Site**

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	USFWS	DFG		
Reptiles				
Giant garter snake <i>Thamnophis gigas</i>	T	T	Streams and sloughs	Unlikely to occur; no known established populations in vicinity
Western pond turtle <i>Actinemys marmorata</i>	FSC	CSC	Ponds, marshes, rivers, streams, sloughs	Likely to occur
Birds				
White-tailed kite <i>Elanus leucurus</i>	FSC	FP	Forage in grasslands and agricultural fields; nest in isolated trees or small woodland patches	Likely to occur
Northern harrier <i>Circus cyaneus</i>	--	CSC	Grasslands, agricultural fields, and freshwater marsh	Likely to occur
Swainson's hawk <i>Buteo swainsoni</i>	FSC	T	Woodlands for nesting, grasslands for foraging	Likely to occur
Greater Sandhill Crane <i>Grus canadensis tabida</i>	--	T, FP	Agricultural fields and pastures	Could occur
Burrowing owl <i>Athene cunicularia</i>	FSC	CSC	Grasslands and agricultural fields	Known to occur
Loggerhead shrike <i>Lanus ludovicianus</i>	FSC	CSC	Woodland shrubs for nesting, grasslands and agricultural fields for foraging	Likely to occur
California Horned Lark <i>Eremophila alpestris actia</i>	--	CSC	Sparse or short grasslands or barren areas	Likely to occur
Tricolored blackbird <i>Agelaius tricolor</i>	FSC	CSC	Freshwater marsh with dense cattails and tules, riparian scrub, and other dense shrubs and herbs for nesting, grasslands and agricultural fields for foraging	Could occur

¹ Listing status:

U.S. Fish and Wildlife Service (USFWS) Federal Listing Categories

- E Endangered (legally protected)
- FSC Federal Species of Concern (no formal protection)
- T Threatened (legally protected)

California Department of Fish and Game (DFG) State Listing Categories

- E Endangered (legally protected)
- FP Fully protected (legally protected, no take allowed)
- T Threatened (legally protected)
- CSC California Species of Concern (no formal protection)

²Potential occurrence definitions:

Unlikely to occur: Only a minor amount of suitable habitat is available in the project area, and established populations are sufficiently distant that it is unlikely that the species would occur in the project area.

Could occur: Suitable habitat is available in the project area; however, there are few or no other indicators that the species might be present.

Likely to occur: Habitat conditions, species behavior, known occurrences in the project vicinity, or other factors indicate a relatively high likelihood that the species would occur in the project area.

Known to occur: The species, or evidence of its presence, was observed in the project area during reconnaissance surveys, or was reported by others.

***Appendix D-3
Special-Status Wildlife Species Table –
Desalination Alternative Project Sites***

**Table D3
Special-Status Wildlife Species With Potential to Occur
at the Desalination Alternative Project Sites**

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	USFWS	DFG		
Reptiles				
Western pond turtle <i>Actinemys marmorata</i>	FSC	CSC	Ponds, marshes, rivers, streams, sloughs	Could occur
Birds				
White-tailed kite <i>Elanus leucurus</i>	FSC	FP	Forage in grasslands and agricultural fields; nest in isolated trees or small woodland patches	Likely to occur
Northern harrier <i>Circus cyaneus</i>	--	CSC	Grasslands, agricultural fields, and freshwater marsh	Likely to occur
California black rail <i>Laterallus jamaicensis coturniculus</i>	--	T, FP	Saline, brackish, and freshwater emergent wetlands	Could occur
California clapper rail <i>Rallus longirostris obsoletus</i>	E	FP	Saline emergent wetlands	Could occur
Burrowing owl <i>Athene cunicularia</i>	FSC	CSC	Grasslands and agricultural fields	Could occur
Loggerhead shrike <i>Lanus ludovicianus</i>	FSC	CSC	Forage in grasslands and agricultural fields; nest in woodland shrubs	Likely to occur
Saltmarsh common yellowthroat <i>Geothlypis trichas sinuosa</i>	FSC	CSC	Fresh or brackish emergent wetlands and riparian scrub	Could occur
Suisun song sparrow <i>Melospiza melodia maxillaris</i>	FSC	CSC	Endemic to Suisun Bay. Intermixed stands of bulrush, cattail, and other emergent vegetation	Could occur

**Table D3
Special-Status Wildlife Species With Potential to Occur
at the Desalination Alternative Project Sites**

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	USFWS	DFG		
Salt marsh harvest mouse <i>Reithrodontomys raviventris</i>	E	E, FP	Coastal salt marsh, with dense pickleweed stands in San Francisco Bay and its tributaries	Could occur

¹Listing status:

U.S. Fish and Wildlife Service (USFWS) Federal Listing Categories

- E Endangered (legally protected)
- T Threatened (legally protected)
- FSC Federal Species of Concern (no formal protection)

California Department of Fish and Game (DFG) State Listing Categories

- E Endangered (legally protected)
- FP Fully protected (legally protected, no take allowed)
- T Threatened (legally protected)
- CSC California Species of Concern (no formal protection)

²Potential occurrence definitions:

Could occur: Suitable habitat is available in the project area; however, there are few or no other indicators that the species might be present.

Likely to occur: Habitat conditions, species behavior, known occurrences in the project vicinity, or other factors indicate a relatively high likelihood that the species would occur in the project area.

***Appendix D-4
Special-Status Plant Species Table –
Desalination Alternative Project Sites***

Table D4 Special-Status Plant Species With Potential to Occur at the Desalination Alternative Project Sites						
Species	Listing Status ¹			Habitat ²	Blooming Period ³	Potential to Occur ^{4,5}
	USFWS	DFG	CNPS			
Large-flowered fiddleneck <i>Amsinckia grandiflora</i>	FE	SE	CNPS 1B	Cismontane woodland, valley and foothill grasslands, 275-300 meters in elevation.	Apr. - May	May occur. Suitable habitat present, but known elevational range of species is above that of project area.
Bent-flowered fiddleneck <i>Amsinckia lunaris</i>	--	--	CNPS 1B	Coastal bluff scrub, cismontane woodland, valley and foothill grasslands, 3-500 meters.	Mar. - Jun	May occur. Occurrences in Walnut Creek, Briones Valley, and other quads in CNPS database.
Suisun Marsh aster <i>Aster lentus</i>	FSC		CNPS 1B	Endemic to San Joaquin Delta, generally occurs in marshes and swamps, often along sloughs, from 0-3 meters in elevation.	May - Nov.	May occur. Occurrences in multiple locations throughout Suisun Bay from CNDDDB database.
Alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	--	--	CNPS 1B	Playas, valley and foothill grassland, vernal pools, from 1-60 meters.	Mar. - Jun	May occur. Suitable habitat present.
Heartscale <i>Atriplex cordulata</i>	FSC		CNPS 1B	Chenopod scrub, meadows and seeps, valley and foothill grassland, from 1-375 meters in elevation.	Apr. - Oct.	May occur. Occurrences in Honker Bay and other quads in CNPS database.
Brittlescale <i>Atriplex depressa</i>	--	--	CNPS 1B	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools from 1-320 meters in elevation.	May - Oct.	May occur. Occurrences in Antioch South, Denverton, Antioch North and other quads in CNPS database.

<p align="center">Table D4 Special-Status Plant Species With Potential to Occur at the Desalination Alternative Project Sites</p>						
Species	Listing Status ¹			Habitat ²	Blooming Period ³	Potential to Occur ^{4,5}
	USFWS	DFG	CNPS			
San Joaquin spearscale <i>Atriplex joaquiniana</i>	FSC		CNPS 1B	Alkali meadow, chenopod scrub, valley and foothill grassland, often in seasonal alkali wetlands or alkali sink scrub, from 1-835 meters in elevation.	Apr. - Oct.	May occur. Occurrences in Antioch South, and Denverton, Antioch North, and other quads in CNPS database.
Big-scale balsamroot <i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	--	--	CNPS 1B	Chaparral, cismontane woodland, valley and foothill grassland, from 90-1,400 meters.	Apr. - Oct.	May occur. Suitable habitat present, but known elevational range of species is above that of project area.
Big tarplant <i>Blepharizonia plumose</i>	--	--	CNPS 1B	Valley and foothill grassland, from 30-505 meters.	July - Oct.	May occur. Suitable habitat present, but known elevational range of species is above that of project area.
Mt. Diablo fairy-lantern <i>Calochortus pulchellus</i>	--	--	CNPS 1B	Chaparral, cismontane woodland, valley and foothill grassland, riparian woodland, from 30-840 meters.	Apr. - Jun	May occur. Suitable habitat present, but known elevational range of species is above that of project area.
Bristly sedge <i>Carex comosa</i>	--	--	CNPS 2	Coastal prairie, marshes and swamps, valley and foothill grassland, on lake margins and wet places, from 0-625 meters in elevation.	May - Sept.	May occur. Suitable habitat present, but species is not known from immediate vicinity.

Table D4 Special-Status Plant Species With Potential to Occur at the Desalination Alternative Project Sites						
Species	Listing Status ¹			Habitat ²	Blooming Period ³	Potential to Occur ^{4,5}
	USFWS	DFG	CNPS			
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	--	--	CNPS 1B	Valley and foothill grassland (alkaline), from 1-230 meters.	Feb. - Jun	May occur. Extirpated or uncertain records in Benicia quad in CNPS database.
Pappose tarplant <i>Centromadia parryi</i> ssp. <i>paryii</i>	--	--	CNPS 1B	Coastal prairie, meadows and seeps, marshes and swamps, valley and foothill grassland, from 2-240 meters.	May - Nov.	May occur. Occurrences in Denverton, Fairfield South, Cordelia, and other quads in CNPS database.
Suisun thistle <i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>	FE	--	CNPS 1B	Saltwater or brackish marshes and swamps from 0-1 meter.	July - Sep.	May occur. Known from only two occurrences on Grizzly Island, north of Mallard Slough in CNPS database.
Hispid bird's-beak <i>Cordylanthus mollis</i> ssp. <i>hispidus</i>	--	--	CNPS 1B	Meadows and seeps, playas, valley and foothill grassland (alkaline), from 1-155 meters.	Jun - Sep.	May occur. Occurrence in Denverton and other quads in CNPS database.
Soft bird's-beak <i>Cordylanthus mollis</i> ssp. <i>mollis</i>	FE	SR	CNPS 1B	Coastal salt marsh, from 0-3 meters in elevation.	July - Nov.	May occur. Known from fewer than 15 occurrences in Honker Bay, Vine Hill Denverton, Antioch North, Fairfield South, Benicia and other quads in CNPS database.

Table D4 Special-Status Plant Species With Potential to Occur at the Desalination Alternative Project Sites						
Species	Listing Status ¹			Habitat ²	Blooming Period ³	Potential to Occur ^{4,5}
	USFWS	DFG	CNPS			
Hoover's cyrtanthe <i>Cryptantha hooveri</i>	--	--	CNPS 1B	Valley and foothill grassland (sandy), from 3-150 meters.	Apr. - May	May occur. Extirpated or uncertain records in Antioch South, and Antioch North quads in CNPS database.
Recurved larkspur <i>Delphinium recurvatum</i>	--	--	CNPS 1B	Chenopod scrub, cismontane woodland, valley and foothill grassland, alkaline substrates.	Mar. - May	May occur. Suitable habitat present, but species is not known from immediate vicinity.
Dwarf downingia <i>Downingia pusilla</i>	--	--	CNPS 2	Valley and foothill grassland, vernal pools, from 1-445 meters.	Mar. - May	May occur. Occurrences in Denverton, Antioch North, and other quads in CNPS database.
Round-leaved filaree <i>Erodium macrophyllum</i>	--	--	CNPS 2	Cismontane woodland, valley and foothill grassland, from 15-200 meters.	Mar. - May	May occur. Occurrences in Antioch South, Clayton, Antioch North, and other quads in CNPS database.
Diamond-petaled California poppy <i>Eschscholzia rhombipetala</i>	--	--	CNPS 1B	Valley and foothill grassland, from 0-975 meters.	Mar. - Apr.	May occur. Extirpated or uncertain records in Antioch South, Antioch North quads in CNPS database.
Fragrant fritillary <i>Fritillaria liliacea</i>	--	--	CNPS 1B	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland, from 3-410 meters.	Feb. - Apr.	May occur. Occurrences in Antioch North and other quads in CNPS database.

Table D4 Special-Status Plant Species With Potential to Occur at the Desalination Alternative Project Sites					
Species	Listing Status ¹		Habitat ²	Blooming Period ³	Potential to Occur ^{4 5}
	USFWS	DFG			
Brewer's western flax <i>Hesperolinon breweri</i>	--	--	CNPS 1B	May - July	May occur. Suitable habitat present, but known elevational range of species is above that of project area.
Rose-mallow <i>Hibiscus lasiocarpus</i>	--	--	CNPS 2	Jun - Sept.	May occur. Suitable habitat present, but species is not known from immediate vicinity.
Santa Cruz tarplant <i>Holocarpha macradenia</i>	FT	SE	CNPS 1B	Jun. - Oct.	May occur. Suitable habitat present.
Carquinez goldenbush <i>Isocoma arguta</i>	--	--	CNPS 1B	Aug. - Dec.	May occur. Occurrences in Denverton, Antioch North, and other quads in CNPS database.
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE	--	CNPS 1B	Mar. - Jun	May occur. Occurrences in Fairfield South, Benicia, Denverton, Antioch North, and other quads in CNPS database.

Table D4 Special-Status Plant Species With Potential to Occur at the Desalination Alternative Project Sites						
Species	Listing Status ¹			Habitat ²	Blooming Period ³	Potential to Occur ^{4,5}
	USFWS	DFG	CNPS			
Delta tulle pea <i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	FSC		CNPS 1B	Freshwater and brackish marshes, generally restricted to the Sacramento–San Joaquin Delta.	May - Sept.	May occur. Occurrences in several locations throughout Suisun Bay from CNDDDB database.
Mason’s lilaepsis <i>Lilaeopsis masonii</i>	FSC	SR	CNPS 1B	Freshwater and brackish marshes, riparian scrub, generally found in tidal zones, on depositional soils, from 0-10 meters in elevation.	Apr. - Nov.	May occur. Occurrences in several locations throughout Suisun Bay from CNDDDB database.
Delta mudwort <i>Limosella subulata</i>	--	--	CNPS 2	Riparian scrub, freshwater marsh, brackish marsh, generally on mud banks of the delta in marshy or scrubby riparian associations, from 0-3 meters in elevation.	May - Aug.	May occur. Occurrences in Honker Bay, Antioch North, and other quads in CNPS database.
Showy madia <i>Madia radiata</i>	--	--	CNPS 1B	Cismontane woodland, valley and foothill grassland, from 25-900 meters.	Mar. - May	May occur. Extirpated or uncertain records in Antioch South, Antioch North quads in CNPS database.
Bearded popcorn-flower <i>Plagiobothrys hystriculus</i>	--	--	CNPS 1A	Valley and foothill grassland, and vernal pools from 10-50 meters.	Apr. - May	May occur. Presumed extinct in California; however, historical record from Antioch North quad in CNPS database.

Table D4 Special-Status Plant Species With Potential to Occur at the Desalination Alternative Project Sites						
Species	Listing Status ¹			Habitat ²	Blooming Period ³	Potential to Occur ^{4,5}
	USFWS	DFG	CNPS			
Eel-grass pondweed <i>Potamogeton zosteriformis</i>	--	--	CNPS 2	Marshes and swamps, from 0-1,860 meters in elevation.	Jun – July	May occur. Suitable habitat present, but species is not known from immediate vicinity.
Marsh skullcap <i>Scutellaria galericulata</i>	--	--	CNPS 2	Lower montane coniferous forest, meadows and seeps, marshes and swamps, wet places, from 0-2,100 meters in elevation.	Jun - Sept.	May occur. Suitable habitat present, but species is not known from immediate vicinity.
Blue skullcap <i>Scutellaria lateriflora</i>	--	--	CNPS 2	Marshes and swamps, meadows and seeps, from 3-500 meters in elevation.	July - Sept.	May occur. Suitable habitat present, but species is not known from immediate vicinity.
Saline clover <i>Trifolium depauperatum</i> var. <i>hydrophilum</i>	--	--	CNPS 1B	Marshes and swamps, valley and foothill grassland, vernal pools, from 0-300 meters.	Apr. - Jun	May occur. Occurrences in Denverton and other quads in CNPS database, although many sites likely extirpated.
Caper-fruited tropidocarpum <i>Tropidocarpum capparideum</i>	--	--	CNPS 1A	Valley and foothill grassland from 1-455 meters.	Mar. - Apr.	May occur. Historical occurrences in Clayton quads in CNPS database; now known from only two locations.

**Table D4
Special-Status Plant Species With Potential to Occur
at the Desalination Alternative Project Sites**

Species	Listing Status ¹		Habitat ²	Blooming Period ³	Potential to Occur ^{4,5}
	USFWS	CNPS			
¹ Listing Status Definitions: <u>U.S. Fish and Wildlife Service (USFWS) Federal Listing Categories</u> FE Endangered (legally protected) FT Threatened (legally protected) FSC Federal Species of Concern (no formal protection) <u>California Department of Fish and Game (DFG) State Listing Categories</u> SR Rare SE Endangered ST Threatened <u>California Native Plant Society (CNPS) Categories</u> 1A Plants species presumed extinct in California 1B Plant species considered rare or endangered in California and elsewhere 2 Plants rare, threatened, or endangered in California but more common elsewhere ² Habitat descriptions are based on CNPS 2005, CNDDDB 2005, and Hickman 1993. ³ Blooming periods are based on CNPS 2005. ⁴ Potential for occurrence based on CNDDDB 2005, CNPS 2005, DWR 2005a. ⁵ Desalination project sites include: Mallard Slough Intake and Pump Station, raw water conveyance pipeline corridor, Bollman Water Treatment Plant, and concentrate disposal pipeline corridor.					