

Appendix D

**List of Plant Species
Observed in the Study Area**

List of Plant Species Observed in the Study Area

Scientific Name	Common Name
<i>Amsinckia menziesii</i>	common fiddleneck
<i>Asclepias fascicularis</i>	narrow-leaved milkweed
<i>Avena barbata</i> *	wild oat
<i>Baccharis pilularis</i>	coyote brush
<i>Brassica nigra</i> *	black mustard
<i>Bromus diandrus</i> *	ripgut brome
<i>Bromus hordeaceus</i> *	soft chess
<i>Carduus pycnocephalus</i> *	Italian thistle
<i>Centaurea solstitialis</i> *	yellow star-thistle
<i>Centromadia pungens</i>	common tarweed
<i>Conium maculatum</i> *	poison hemlock
<i>Conyza canadensis</i>	horseweed
<i>Crypsis schoenoides</i> *	swamp grass
<i>Cynodon dactylon</i> *	Bermudagrass
<i>Cyperus eragrostis</i>	tall flatsedge
<i>Datura wrightii</i>	Jimson weed
<i>Distichlis spicata</i>	saltgrass
<i>Dittrichia graveolens</i> *	stinkweed
<i>Eremocarpus setigerus</i>	turkey mullein
<i>Eucalyptus</i> sp.*	eucalyptus
<i>Frankenia grandiflora</i>	alkali heath
<i>Grindelia camporum</i>	gumplant
<i>Hirschfeldia incana</i> *	Mediterranean mustard
<i>Hordeum marinum</i> ssp. <i>gussoneanum</i> *	Mediterranean barley
<i>Hordeum murinum</i> ssp. <i>leporinum</i> *	hare barley
<i>Juncus balticus</i>	Baltic rush
<i>Lactuca serriola</i> *	prickly lettuce
<i>Lepidium latifolium</i> *	perennial pepperweed
<i>Leymus triticoides</i>	creeping wildrye
<i>Lolium multiflorum</i> *	Italian ryegrass
<i>Lupinus</i> sp.	lupine
<i>Malva</i> sp.	cheeseweed

Scientific Name	Common Name
<i>Marrubium vulgare</i> *	horehound
<i>Medicago sativa</i> *	alfalfa
<i>Phoenix canariensis</i> *	Canary Island date palm
<i>Picris echioides</i> *	bristly oxtongue
<i>Pinus</i> sp.*	pine (ornamental)
<i>Plantago lanceolata</i> *	English plantain
<i>Polygonum amphibium</i>	water smartweed
<i>Polygonum hydropiperoides</i>	swamp smartweed
<i>Polypogon monspeliensis</i> *	rabbitsfoot grass
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood
<i>Rumex crispus</i> *	curly dock
<i>Salix gooddingii</i>	black willow
<i>Salix laevigata</i>	red willow
<i>Salsola tragus</i> *	Russian thistle
<i>Silybum marianum</i> *	milk thistle
<i>Typha latifolia</i>	broadleaf cattail
<i>Vulpia myuros</i> var. <i>myuros</i> *	rattail fescue
<i>Xanthium strumarium</i>	rough cocklebur
*nonnative species	

Appendix E

**California Department of Fish and Game
Natural Diversity Database Search
for the Delta-Mendota Canal/
California Aqueduct Intertie Project**

California Department of Fish and Game

Natural Diversity Database

Special-status plants

Clifton Court Forebay, Midway, Brentwood, Woodward Island, Holt, Byron Hot Springs, Union Island, Altamont, Tracy, Mendenhall Springs, Cedar Mountain, and Lone Tree Creek quadrangles

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 Allium sharsmithiae Sharsmith's onion	PMLIL02310			G2	S2.3	1B.3
2 Amsinckia grandiflora large-flowered fiddleneck	PDBOR01050	Endangered	Endangered	G1	S1.1	1B.1
3 Amsinckia lunaris bent-flowered fiddleneck	PDBOR01070			G2	S2.2	1B.2
4 Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1			G1T1	S1.1	1B.2
5 Atriplex cordulata heartscale	PDCHE040B0			G2?	S2.2?	1B.2
6 Atriplex depressa brittlescale	PDCHE042L0			G2Q	S2.2	1B.2
7 Atriplex joaquiniana San Joaquin spearscale	PDCHE041F3			G2	S2	1B.2
8 Balsamorhiza macrolepis var. macrolepis big-scale balsamroot	PDAST11061			G3G4T2	S2.2	1B.2
9 Blepharizonia plumosa big tarplant	PDAST1C011			G1	S1.1	1B.1
10 California macrophylla round-leaved filaree	PDGER01070			G3	S3.1	1B.1
11 Campanula exigua chaparral harebell	PDCAM020A0			G2	S2.2	1B.2
12 Carex comosa bristly sedge	PMCYP032Y0			G5	S2?	2.1
13 Carex vulpinoidea brown fox sedge	PMCYP03EN0			G5	S2.2	2.2
14 Caulanthus coulteri var. lemmonii Lemmon's jewelflower	PDBRA0M0E0			G4T2	S2.2	1B.2
15 Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1			G4T3	S3.2	1B.2
16 Cirsium fontinale var. campylon Mt. Hamilton fountain thistle	PDAST2E163			G2T2	S2.2	1B.2
17 Clarkia concinna ssp. automixa Santa Clara red ribbons	PDONA050A1			G5?T3	S3.3	4.3
18 Cordylanthus mollis ssp. hispidus hispid bird's-beak	PDSCR0J0D1			G2T2	S2.1	1B.1
19 Cordylanthus palmatus palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1.1	1B.1
20 Coreopsis hamiltonii Mt. Hamilton coreopsis	PDAST2L0C0			G2	S2.2	1B.2
21 Deinandra bacigalupii Livermore tarplant	PDAST4R0V0			G1	S1.2	1B.2
22 Delphinium californicum ssp. interius Hospital Canyon larkspur	PDRAN0B0A2			G3T2?	S2?	1B.2
23 Delphinium recurvatum recurved larkspur	PDRAN0B1J0			G2	S2.2	1B.2

California Department of Fish and Game

Natural Diversity Database

Special-status plants

Clifton Court Forebay, Midway, Brentwood, Woodward Island, Holt, Byron Hot Springs, Union Island, Altamont, Tracy, Mendenhall Springs, Cedar Mountain, and Lone Tree Creek quadrangles

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 Eryngium racemosum Delta button-celery	PDAPI0Z0S0		Endangered	G2Q	S2.1	1B.1
25 Eschscholzia rhombipetala diamond-petaled California poppy	PDPAP0A0D0			G1	S1.1	1B.1
26 Fritillaria agrestis stinkbells	PMLIL0V010			G3	S3.2	4.2
27 Fritillaria falcata talus fritillary	PMLIL0V070			G2	S2.2	1B.2
28 Helianthella castanea Diablo helianthella	PDAST4M020			G3	S3.2	1B.2
29 Hesperolinon sp. nov. "serpentinum" Napa western flax	PDLIN010D0			G2	S2.1	1B.1
30 Hibiscus lasiocarpus woolly rose-mallow	PDMAL0H0Q0			G4	S2.2	2.2
31 Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2			G5T2	S2.2	1B.2
32 Legenere limosa legenere	PDCAM0C010			G2	S2.2	1B.1
33 Lilaepsis masonii Mason's lilaepsis	PDAPI19030		Rare	G3	S3.1	1B.1
34 Limosella subulata Delta mudwort	PDSCR10050			G4?Q	S2.1	2.1
35 Madia radiata showy golden madia	PDAST650E0			G2	S2.1	1B.1
36 Malacothamnus hallii Hall's bush-mallow	PDMAL0Q0F0			G1Q	S1.2	1B.2
37 Phacelia phacelioides Mt. Diablo phacelia	PDHYD0C3Q0			G1	S1.2	1B.2
38 Plagiobothrys glaber hairless popcorn-flower	PDBOR0V0B0			GH	SH	1A
39 Scutellaria galericulata marsh skullcap	PDLAM1U0J0			G5	S2.2?	2.2
40 Senecio aphanactis chaparral ragwort	PDAST8H060			G3?	S1.2	2.2
41 Symphyotrichum lentum Suisun Marsh aster	PDASTE8470			G2	S2	1B.2
42 Trifolium depauperatum var. hydrophilum saline clover	PDFAB400R5			G5T2?	S2.2?	1B.2
43 Tropidocarpum capparideum caper-fruited tropidocarpum	PDBRA2R010			G1	S1.1	1B.1

California Department of Fish and Game

Natural Diversity Database

Delta Mendota Canal/California Aqueduct Intertie Project - Animals

Topos searched: Tracy, Midway, Clifton Court Forebay, Union Island, Byron Hot Springs, and Altamont

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 American badger <i>Taxidea taxus</i>	AMAJF04010			G5	S4	SC
2 California horned lark <i>Eremophila alpestris actia</i>	ABPAT02011			G5T3Q	S3	
3 California red-legged frog <i>Rana draytonii</i>	AAABH01022	Threatened		G4T2T3	S2S3	SC
4 California tiger salamander <i>Ambystoma californiense</i>	AAAAA01180	Threatened	unknown code...	G2G3	S2S3	SC
5 San Joaquin kit fox <i>Vulpes macrotis mutica</i>	AMAJA03041	Endangered	Threatened	G4T2T3	S2S3	
6 San Joaquin pocket mouse <i>Perognathus inornatus inornatus</i>	AMAFD01061			G4T2T3	S2S3	
7 San Joaquin whipsnake <i>Masticophis flagellum ruddocki</i>	ARADB21021			G5T2T3	S2?	SC
8 Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070		Threatened	G5	S2	
9 burrowing owl <i>Athene cunicularia</i>	ABNSB10010			G4	S2	SC
10 coast (California) horned lizard <i>Phrynosoma coronatum (frontale population)</i>	ARACF12022			G4G5	S3S4	SC
11 curved-foot hygrotus diving beetle <i>Hygrotus curvipes</i>	IICOL38030			G1	S1	
12 ferruginous hawk <i>Buteo regalis</i>	ABNKC19120			G4	S3S4	
13 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
14 golden eagle <i>Aquila chrysaetos</i>	ABNKC22010			G5	S3	
15 hoary bat <i>Lasiurus cinereus</i>	AMACC05030			G5	S4?	
16 loggerhead shrike <i>Lanius ludovicianus</i>	ABPBR01030			G4	S4	SC
17 longhorn fairy shrimp <i>Branchinecta longiantenna</i>	ICBRA03020	Endangered		G1	S1	
18 midvalley fairy shrimp <i>Branchinecta mesoallensis</i>	ICBRA03150			G2	S2	
19 northern harrier <i>Circus cyaneus</i>	ABNKC11010			G5	S3	SC
20 pallid bat <i>Antrozous pallidus</i>	AMACC10010			G5	S3	SC
21 prairie falcon <i>Falco mexicanus</i>	ABNKD06090			G5	S3	
22 silvery legless lizard <i>Anniella pulchra pulchra</i>	ARACC01012			G3G4T3T4 Q	S3	SC
23 tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020			G2G3	S2	SC

California Department of Fish and Game

Natural Diversity Database

Delta Mendota Canal/California Aqueduct Intertie Project - Animals

Topos searched: Tracy, Midway, Clifton Court Forebay, Union Island, Byron Hot Springs, and Altamont

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	IICOL48011	Threatened		G3T2	S2	
25 vernal pool fairy shrimp <i>Branchinecta lynchi</i>	ICBRA03030	Threatened		G3	S2S3	
26 western mastiff bat <i>Eumops perotis californicus</i>	AMACD02011			G5T4	S3?	SC
27 western pond turtle <i>Actinemys marmorata</i>	ARAAD02030			G3G4	S3	SC
28 western spadefoot <i>Spea hammondi</i>	AAABF02020			G3	S3	SC
29 white-tailed kite <i>Elanus leucurus</i>	ABNKC06010			G5	S3	

Appendix F

**U.S. Fish and Wildlife Service
Species List for the
Delta-Mendota Canal/
California Aqueduct Intertie Project**



United States Department of the Interior
FISH AND WILDLIFE SERVICE

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



September 23, 2009

Document Number: 090923024450

Jennifer Haire
ICF Jones & Stokes
630 K Street, Suite 400
Sacramento, CA 95814

Subject: Species List for Delta-Mendota Canal/California Aqueduct Intertie Project

Dear: Ms. Haire

We are sending this official species list in response to your September 23, 2009 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.

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 and candidate 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 December 22, 2009.

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 www.fws.gov/sacramento/es/branches.htm.

Endangered Species Division



U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

**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: 090923024450

Database Last Updated: January 29, 2009

Quad Lists

Listed Species

Invertebrates

Branchinecta conservatio

Conservancy fairy shrimp (E)

Branchinecta longiantenna

longhorn fairy shrimp (E)

Branchinecta lynchi

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus

valley elderberry longhorn beetle (T)

Lepidurus packardii

vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris

green sturgeon (T) (NMFS)

Hypomesus transpacificus

Critical habitat, delta smelt (X)

delta smelt (T)

Oncorhynchus mykiss

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense

California tiger salamander, central population (T)

Rana aurora draytonii

California red-legged frog (T)

Reptiles

Masticophis lateralis euryxanthus

Alameda whipsnake [=striped racer] (T)

Critical habitat, Alameda whipsnake (X)

Thamnophis gigas

giant garter snake (T)

Mammals

Vulpes macrotis mutica

San Joaquin kit fox (E)

Plants

Amsinckia grandiflora

Critical habitat, large-flowered fiddleneck (X)

large-flowered fiddleneck (E)

Lasthenia conjugens

Critical habitat, Contra Costa goldfields (X)

Proposed Species

Amphibians

Rana aurora draytonii

Critical habitat, California red-legged frog (PX)

Quads Containing Listed, Proposed or Candidate Species:

TRACY (444B)

MIDWAY (445A)

CLIFTON COURT FOREBAY (463D)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed 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 Oceanic & Atmospheric Administration 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.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

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 area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the 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 and/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. See our [Protocol](#) and [Recovery Permits](#) pages.

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.

Your Responsibilities Under the Endangered Species Act

All 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 [Map Room](#) page.

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

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

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 and candidate 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 December 22, 2009.

