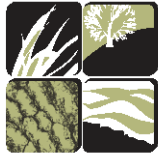


## Consultation Letters





## **MOSAIC ASSOCIATES<sub>LLC</sub>**

647 TENNENT AVENUE, SUITE 102, PINOLE, CA 94564 PH: (510)964-0394 FAX: (510)964-0396

20 February 2009

Ms. Maria Rea  
National Marine Fisheries Service  
650 Capitol Mall, Suite 8-300  
Sacramento, CA 95814-4708  
Ph: (916)930-3600  
Fax: (916)930-3629

**Re: Request for a list of potentially occurring species and critical habitat, 2-Gates Project located in Contra Costa and San Joaquin Counties, California**

Ms. Rea,

This letter is to request a list of potentially occurring species and critical habitat within the action area of the proposed 2-Gate Project located on Old River and Connection Slough in Contra Costa and San Joaquin Counties, California.

**Project Location**

The 2-Gate project would be located in the central Delta on two sites in and adjacent to the Old River and Connection Slough. The Old River and Connection Slough sites are located approximately 13 and 16 miles northwest of Stockton, and 4.8 and 6.8 miles north and northwest of Discovery Bay, respectively. The nearest developed areas are located in the City of Oakley, about 2.4 miles west of the Old River site. The regional location is shown in Figure 2-1, and a more detailed view of the area surrounding the Project sites is shown in Figure 2-2. As shown on Figure 2-2, the Old River site is located on Old River between Holland Tract and Bacon Island, about 3 miles south of Franks Tract and about 1 mile north of the confluence of Old River and Rock Slough. The Connection Slough site is located about 3.5 miles southeast of Franks Tract between Mandeville Island and Bacon Island and between Middle River and Little Mandeville Island.

**Action Area**

The Action Area for aquatic resources includes the San Joaquin River from the Antioch Bridge to Turner Cut, and all interconnected channels of the Delta located to the south and west of the main San Joaquin River between the Antioch Bridge and Turner Cut to

the intake facilities of the Central Valley Project. The Action Area does not include Middle River upstream of the Victoria Canal, the San Joaquin River upstream of Turner Cut, Old River upstream of the CVP intake facilities or the Grant Line Canal.

**Project Purpose**

The 2-Gate Project is a proposed pilot project that is intended to quickly provide a cost-effective, immediate protection to delta smelt and other sensitive aquatic species from entrainment in State Water Project (SWP) and Central Valley Project (CVP) pumps and reduce constraints on water supply. Operations and monitoring components are designed to provide information on when to operate the gates and evaluate the physical and biological responses to the operations.

The purpose of the 2-Gate Project is to:

- Provide better protection to delta smelt and other sensitive aquatic species in the Delta.
- Maintain and improve water quality in the central and south Delta
- Reduce constraints on SWP and CVP water supply availability by minimizing and avoiding impacts from these operations on sensitive aquatic species.

Please call with any questions.

Sincerely,

Amy Richey  
Mosaic Associates

Attachments: Location Maps  
USFWS Official Species List and Letter



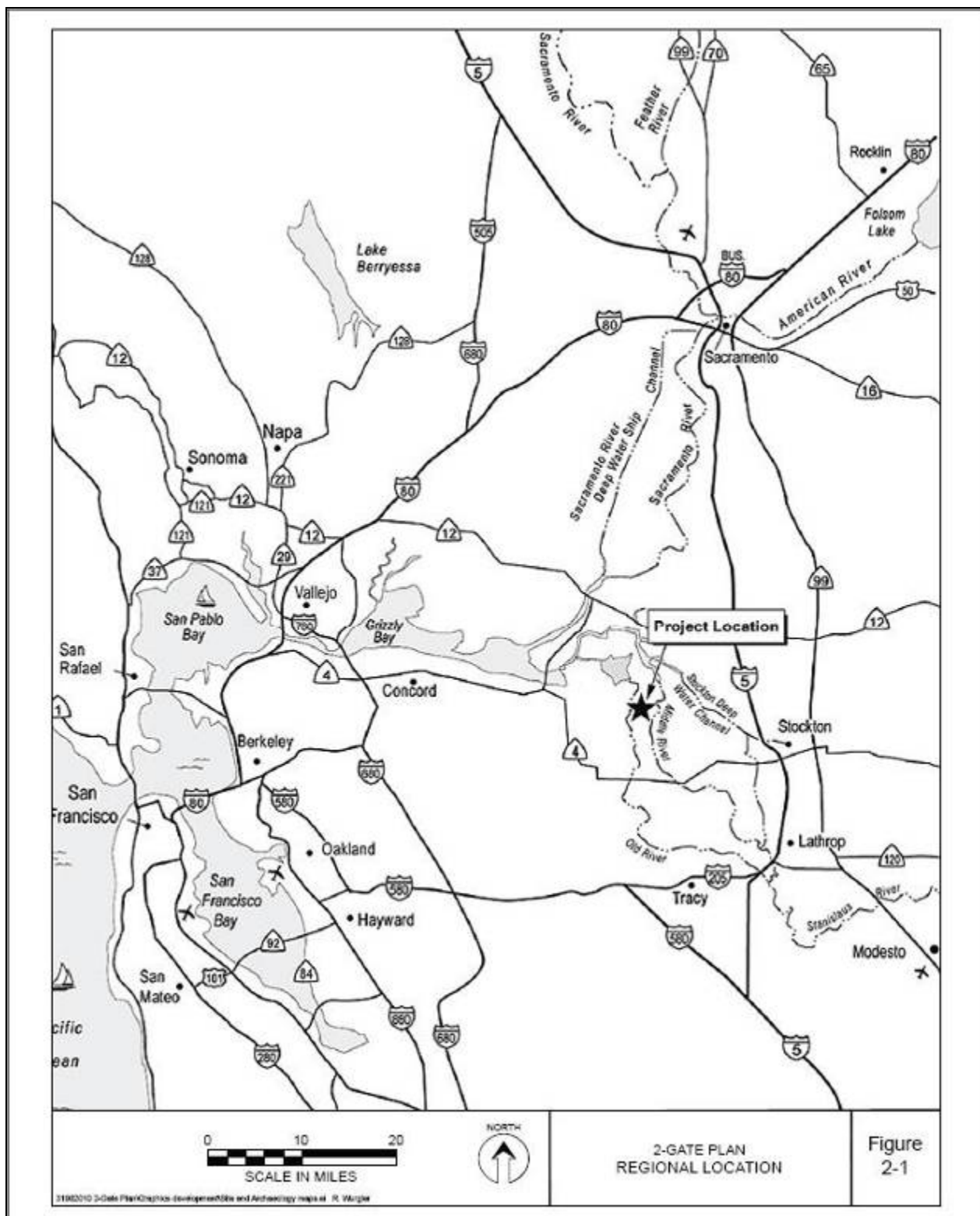


Figure 2-1: 2-Gate Plan, Regional Location

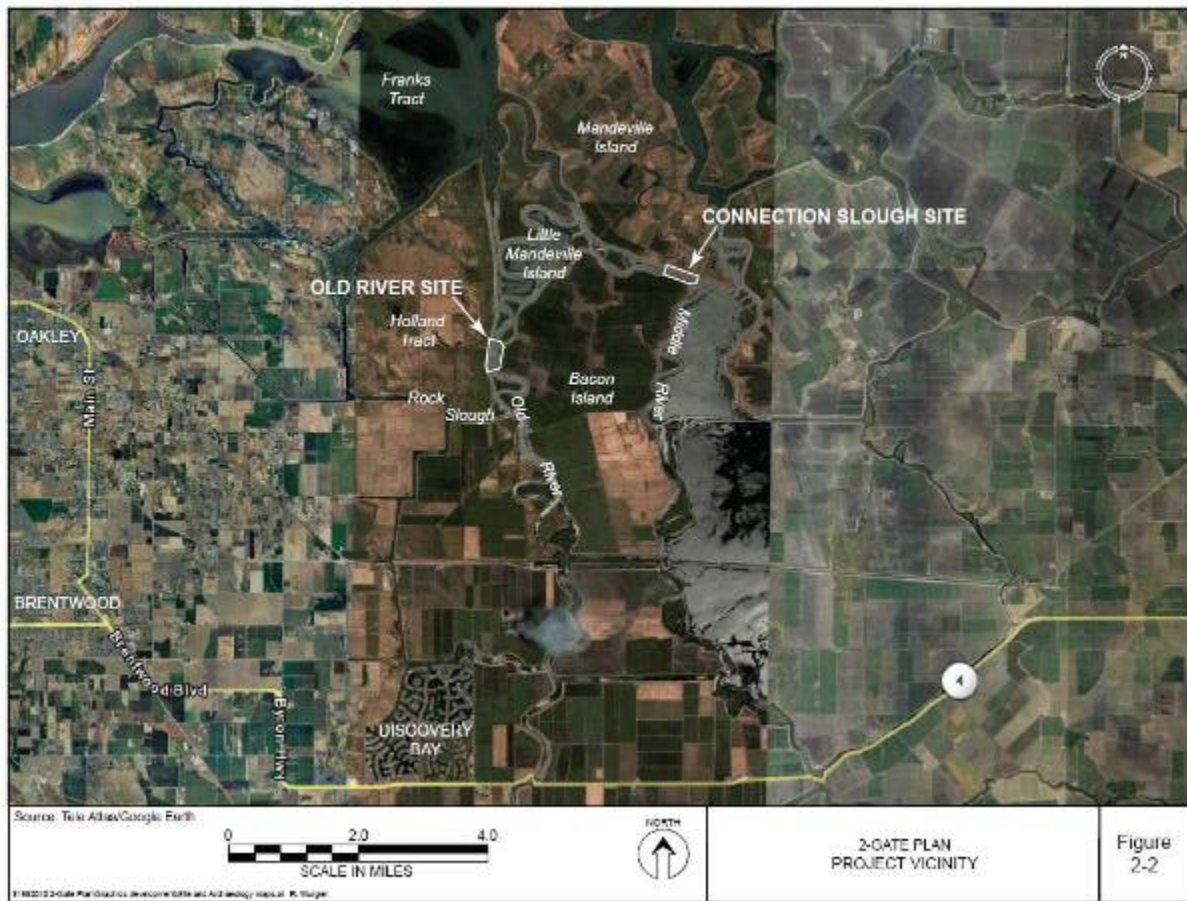


Figure 2-2: 2-Gate Plan, Project Vicinity





**United States Department of the Interior**  
**FISH AND WILDLIFE SERVICE**

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



February 12, 2009

Document Number: 090212062024

Amy Richey  
Mosaic Associates  
647 Tennent Ave. Suite 102  
Pinole, CA 94564

Subject: Species List for 2-Gates Project

Dear: Ms.

We are sending this official species list in response to your February 12, 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.

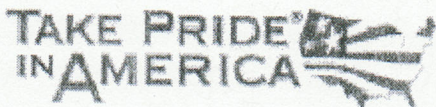
Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad 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 May 13, 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](http://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: 090212062024

Database Last Updated: January 29, 2009

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**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)
- Elaphrus viridis*  
delta green ground 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)  
Critical Habitat, Central Valley spring-run chinook (X) (NMFS)  
Critical habitat, winter-run chinook salmon (X) (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)
- Thamnophis gigas*



giant garter snake (T)

## Birds

*Rallus longirostris obsoletus*

California clapper rail (E)

## Mammals

*Vulpes macrotis mutica*

San Joaquin kit fox (E)

## Plants

*Oenothera deltoidea ssp. howellii*

Antioch Dunes evening-primrose (E)

## Proposed Species

## Amphibians

*Rana aurora draytonii*

Critical habitat, California red-legged frog (PX)

## Quads Containing Listed, Proposed or Candidate Species:

WOODWARD ISLAND (463A)

BRENTWOOD (463B)

JERSEY ISLAND (480C)

BOULDIN ISLAND (480D)

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## County Lists

### Listed Species

#### Invertebrates

*Apodemia mormo langei*

Lange's metalmark butterfly (E)

*Branchinecta conservatio*

Conservancy fairy shrimp (E)

*Branchinecta longiantenna*

Critical habitat, longhorn fairy shrimp (X)

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)

*Speyeria callippe callippe*

callippe silverspot butterfly (E)

#### Fish



*Acipenser medirostris*  
green sturgeon (T) (NMFS)

*Eucyclogobius newberryi*  
tidewater goby (E)

*Hypomesus transpacificus*  
Critical habitat, delta smelt (X)  
delta smelt (T)

*Oncorhynchus kisutch*  
coho salmon - central CA coast (E) (NMFS)

*Oncorhynchus mykiss*  
Central California Coastal steelhead (T) (NMFS)  
Central Valley steelhead (T) (NMFS)  
Critical habitat, Central California coastal steelhead (X) (NMFS)  
Critical habitat, Central Valley steelhead (X) (NMFS)

*Oncorhynchus tshawytscha*  
Central Valley spring-run chinook salmon (T) (NMFS)  
Critical Habitat, Central Valley spring-run chinook (X) (NMFS)  
Critical habitat, winter-run chinook salmon (X) (NMFS)  
winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Ambystoma californiense*  
California tiger salamander, central population (T)  
Critical habitat, CA tiger salamander, central population (X)

*Rana aurora draytonii*  
California red-legged frog (T)  
Critical habitat, California red-legged frog (X)

## Reptiles

*Masticophis lateralis euryxanthus*  
Alameda whipsnake [=striped racer] (T)  
Critical habitat, Alameda whipsnake (X)

*Thamnophis gigas*  
giant garter snake (T)

## Birds

*Charadrius alexandrinus nivosus*  
western snowy plover (T)

*Pelecanus occidentalis californicus*  
California brown pelican (E)

*Rallus longirostris obsoletus*



California clapper rail (E)

*Sternula antillarum* (=Sterna, =albifrons) browni  
California least tern (E)

## Mammals

*Neotoma fuscipes riparia*  
riparian (San Joaquin Valley) woodrat (E)

*Reithrodontomys raviventris*  
salt marsh harvest mouse (E)

*Sylvilagus bachmani riparius*  
riparian brush rabbit (E)

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

## Plants

*Amsinckia grandiflora*  
Critical habitat, large-flowered fiddleneck (X)  
large-flowered fiddleneck (E)

*Arctostaphylos pallida*  
pallid manzanita (=Alameda or Oakland Hills manzanita) (T)

*Castilleja campestris ssp. succulenta*  
Critical habitat, succulent (=fleshy) owl's-clover (X)  
succulent (=fleshy) owl's-clover (T)

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

*Erysimum capitatum ssp. angustatum*  
Contra Costa wallflower (E)  
Critical Habitat, Contra Costa wallflower (X)

*Holocarpha macradenia*  
Critical habitat, Santa Cruz tarplant (X)  
Santa Cruz tarplant (T)

*Lasthenia conjugens*  
Contra Costa goldfields (E)  
Critical habitat, Contra Costa goldfields (X)

*Oenothera deltoides ssp. howellii*  
Antioch Dunes evening-primrose (E)  
Critical habitat, Antioch Dunes evening-primrose (X)



## Proposed Species

### Amphibians

*Rana aurora draytonii*

Critical habitat, California red-legged frog (PX)

### Plants

*Cordylanthus mollis ssp. mollis*

Critical habitat, soft bird's-beak (PX)

## 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 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 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 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 their 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 May 2009.





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Sacramento Area Office  
650 Capitol Mall, Suite 8-300  
Sacramento, California 95814-4706

APR 15 2009

Amy Richey  
Mosaic Associates  
647 Tennent Avenue, Suite 102  
Pinole, California 94564

Dear Ms. Richey:

This responds to your February 20, 2009, letter requesting a list of the Federally threatened or endangered species that could potentially occur or be impacted by the proposed 2-Gates Project located on Old River and Connection Slough in San Joaquin and Contra Costa Counties, California.

The proposed action area is occupied and utilized by the following species under NMFS' jurisdiction:

- **Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*)-endangered**
- **Central Valley spring-run Chinook salmon (*O. tshawytscha*)- threatened**
- **Central Valley steelhead (*O. mykiss*) - threatened**
- **Southern distinct population segment (DPS) of North American green sturgeon (*Acipenser medirostris*) – threatened**

Any or all of these species may occur in the action area. Listed salmonids are most likely to occur during the late fall to early summer period (October through June). Green sturgeon are likely to be present throughout the year. Additionally, the action area has also been designated as critical habitat for Central Valley steelhead and proposed as critical habitat for Southern DPS green sturgeon.

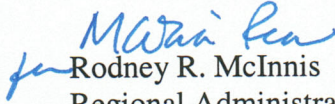
The Sacramento San Joaquin Delta also contains Essential Fish Habitat (EFH) for Pacific salmon. Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, Federal agencies are required to consult with NOAA Fisheries on projects that may affect the EFH of Pacific salmon. The EFH of Central Valley salmon has been identified and is described in Amendment 14 of the Pacific Salmon Fishery Management Plan. Any biological assessment prepared for this project should also include an EFH assessment. Complete information on EFH can be found on our website at <http://swr.nmfs.noaa.gov/efh.htm>. Appropriate conservation measures should be incorporated into the project to conserve and enhance EFH.





Please contact Jeffrey Stuart at (916) 930-3607, or via e-mail at [J.Stuart@noaa.gov](mailto:J.Stuart@noaa.gov), if you have any questions concerning this project or require additional information.

Sincerely,

  
Rodney R. McInnis  
Regional Administrator

Cc: Copy to File – ARN 151422SWR2009SA00101