

Appendix B

Endangered Species Act Consultation



United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Region
Bay-Delta Office
801 I Street, Suite 140
Sacramento, CA 95814-2536

IN REPLY REFER TO:

BDO-400
ENV-7.00

OCT 18 2012

Ms. Maria Rea
Supervisor
Central Valley Office
National Marine Fisheries Service
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814

Subject: Delta Cross Channel Temporary Closure Multi-Year Study Informal
Consultation Proposed Project Clarification

Dear Ms. Rea: *Maria*

Thank you for your September 25, 2012, letter (2012/03540) regarding informal consultation for the Delta Cross Channel (DCC) Temporary Closure Multi-Year Study. The purpose of this letter is to clarify that the proposed project the Bureau of Reclamation is consulting on in accordance with Section 7(a)(2) of the Endangered Species Act does not include East Bay Municipal Utility District's (EBMUD) series of pulse flows on the Lower Mokelumne River (LMR) or California Department of Fish and Game's (DFG) Pulse Flow Monitoring Study.

As described in our August 16, 2012, letter requesting informal consultation and its attached August 2012, Draft Environmental Assessment, Reclamation's proposed project is the potential closure of the DCC gates for up to 10 days during the first half of October annually over a 5-year period (2012-2016) to evaluate the effects of short-term modifications to DCC gate operations on reduction of LMR fall-run Chinook salmon (*Oncorhynchus tshawytscha*) straying. The duration of the closure in each year will be determined by evaluating in-season water quality modeling to ensure compliance with State Water Resources Control Board Decision 1641 water quality standards and minimization of potential adverse impacts to water supply. While Reclamation will coordinate implementation of the proposed project with EBMUD's series of pulse flows on the LMR and DFG's Pulse Flow Monitoring Study, these actions are not being implemented by Reclamation and have independent utility from Reclamation's proposed project.

Reclamation appreciates National Marine Fisheries Service's concurrence with Reclamation's determination that the DCC Temporary Closure Multi-Year Study is not likely to adversely affect federally listed species and their critical habitats. If you have

Subject: Delta Cross Channel Temporary Closure Multi-Year Study

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any further questions regarding this informal consultation, please contact Ms. Becky Victorine, Natural Resource Specialist, at 916-414-2429 or rvictorine@usbr.gov.

Sincerely,

A handwritten signature in black ink, reading "Susan M. Fry". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

Susan M. Fry
Area Manager



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

SEP 25 2012

In response refer to:
2012/03540

Susan M. Fry
Area Manager
Bureau of Reclamation
801 I Street, Suite 140
Sacramento, California 95814-2536

Dear Ms. Fry:

This letter is in response to your August 16, 2012, request for initiation of section 7 consultation with NOAA's National Marine Fisheries Service (NMFS) pursuant to the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*), concerning the Delta Cross Channel (DCC) Temporary Closure Multi-Year Study project located in Sacramento and San Joaquin Counties, California. The Bureau of Reclamation (Reclamation) has determined that the proposed project may affect, but is not likely to adversely affect the threatened California Central Valley (CCV) steelhead (*Oncorhynchus mykiss*) distinct population segment (DPS), Sacramento River winter-run Chinook salmon (*O. tshawytscha*), Central Valley (CV) spring-run Chinook salmon (*O. tshawytscha*), North American green sturgeon Southern DPS (*Acipenser medirostris*), and any of their designated critical habitats. In addition, the proposed project may adversely affect the essential fish habitat (EFH) of Pacific salmon, pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSA). This letter also serves as consultation under the authority of, and in accordance with, the provisions of the Fish and Wildlife Coordination Act of 1934 (FWCA), as amended.

Project Location

The DCC is located on the Sacramento River near Walnut Grove, California. The DCC connects to Snodgrass Slough, which in turn connects to the north and south distributary channels of the Mokelumne River.

Project Background

The DCC gates are generally open from June through October to convey water to the Central Valley Project (CVP) and State Water Project (SWP) pumps through the central Delta while simultaneously meeting the water quality standards contained in the State Water Resources Control Board (SWRCB) Decision 1641 (D-1641). When the DCC is in open position, water from the Sacramento River flows into the South and North distributaries of the Mokelumne River towards the SWP and CVP export pumps. These distributaries of the Mokelumne River are key upstream migratory pathways for fall-run Chinook salmon and CCV steelhead returning to the Lower Mokelumne River (LMR) to spawn. Based on the volume of water transferred



through the DCC and Mokelumne River distributaries, the olfactory cue from the Mokelumne River can easily be lost in the DCC due to higher Sacramento River flows.

As part of Action IV.1.2 included in the NMFS Biological Opinion Reasonable and Prudent Alternatives (RPAs) on the Coordinated Long-Term Operations of the Central Valley Project and State Water Project (NMFS BO), closures of the DCC from October 1 through November 30 are required when fish monitoring indicates that juvenile salmonids are entering the Delta in excess of certain trigger criteria and D-1641 water quality criteria are met. Water quality level targets have been developed to avoid changing the water quality during the fall due to the DCC closure, therefore it is unlikely that the proposed project will be implemented if there is a potential to further impact water quality. In addition, closures as part of the proposed project are not anticipated to impact gate closures per the NMFS BO RPAs.

Proposed Project

Reclamation proposes to close the DCC gates for up to ten days during the first half of October over a five-year period (2012-2016) to evaluate the LMR fall-run Chinook salmon straying. Reclamation will coordinate the DCC gate closures with East Bay Municipal Utility District's (EBMUD) series of pulse flows on the LMR. The duration of the closure will be determined by evaluating water quality modeling to ensure compliance with the SWRCB D-1641 water quality standards and minimization of potential adverse impacts to water supply. Pulse flows are anticipated to be 800 to 1,800 cubic feet per second (cfs), however the actual volume of water potentially available over the next five years for pulse flows will be dependent on water year type and fall precipitation. During the series of pulse flows California Department of Fish and Game (CDFG) and EBMUD will be implementing the adult salmon tagging study to evaluate the reduction of LMR fall-run Chinook salmon straying. CDFG will tag up to 30 adult fall-run Chinook salmon of hatchery origin (adipose fin clipped) with Vemco V13 acoustic transmitters and Floy-anchor tags in the distributaries of the Mokelumne River downstream of the DCC facility. Fall-run Chinook salmon will be captured using a drifted commercial gill net or a trammel net. Once captured, Chinook salmon will be removed from the net, brought aboard a boat and placed in an aerated 150 gallon holding tank filled with ambient river water. The fish will then be tagged and released at Jersey Point or Santa Clara Shoals on the San Joaquin River. Fish will be tagged and released prior to, during, and after the coordinated pulse flows and DCC gate closures. Movement of tagged Chinook salmon and their time in the system will be monitored through stationary Vemco VR2-W receivers located upstream and downstream of the DCC gates as well as in the Mokelumne River. Straying rates will be determined by the recovery of CWTs in the Central Valley river carcass surveys and hatchery returns. This data will be used to identify the straying rate analysis of LMR fall-run Chinook salmon in comparison to other Central Valley rivers and hatcheries. In addition, the acoustic information will help Reclamation identify if salmon used the DCC gates before, during, or after the pulse flows.

During the adult salmon tagging study, it is not anticipated that CCV steelhead will be captured in the gill nets or trammel nets. The large mesh openings of the nets (six inches) will allow juvenile steelhead to pass through the net. In addition, the tagging study will be conducted outside of the juvenile steelhead outmigration period. Adult steelhead may begin their upstream migration as early as September however their peak upstream migration to the Mokelumne River

begins in November and December. CDFG conducted a similar tagging study in the same project area in October 2011 and did not capture any CCV steelhead. The proposed action will be implemented outside of the adult CV spring-run Chinook, winter-run Chinook, and green sturgeon migration periods. While juvenile spring-run and winter-run Chinook salmon may be outmigrating during this time, the proposed action will be beneficial by reducing outmigrating juvenile exposure to alternate routes into the south Delta. Juvenile green sturgeon may occupy the Delta year round, however historically juvenile green sturgeon have not been observed near the DCC. In addition, closure of the manmade DCC gates would emulate historical natural conditions. Camanche Reservoir releases in the Mokelumne River will not be modified to accommodate the proposed action beyond their usual October pulse flow releases. If water quality has the potential to exceed concerning levels prior or during the DCC gate closures, the proposed action will not be implemented. Therefore, listed anadromous fish will not be negatively impacted by water quality concerns due to the proposed project.

ESA Section 7 Consultation

NMFS has received all the information necessary to initiate consultation on federally listed species. Based on our review of the material provided and the best scientific and commercial information currently available, NMFS has determined that the Delta Cross Channel Temporary Closure Multi-Year Study project is not likely to adversely affect federally listed species and their critical habitats. NMFS reached this determination based on the incorporation of the following measures:

- (1) If Reclamation finds that the water quality has the potential to exceed SWRCB compliance levels prior or during the closures of the DCC gates, the proposed project will not be implemented. In addition, DCC closures as a result of the proposed project are not anticipated to impact gate closures per the NMFS BO RPAs. Therefore, water quality impacts to federally listed fish or their habitats are expected to be discountable.
- (2) During the adult salmon tagging study, it is not anticipated that CCV steelhead will be captured in the nets. The large mesh openings of the nets (six inches) will allow juvenile steelhead to pass through the net. In addition, the tagging study will be conducted outside of the juvenile steelhead migration period. Adult steelhead may begin their upstream migration as early as September however their peak upstream migration to the Mokelumne River begins in November and December. CDFG conducted a similar tagging study in the same project area in October 2011 and did not capture any CCV steelhead. The proposed action will be implemented outside of the adult CV spring-run Chinook, winter-run Chinook, and green sturgeon migration periods. While juvenile spring-run and winter-run Chinook salmon may be outmigrating during this time, the proposed action will be beneficial by reducing outmigrating juvenile exposure to alternate routes into the south Delta. Juvenile green sturgeon may occupy the Delta year round, however historically juvenile green sturgeon have not been observed near the DCC. In addition, closure of the manmade DCC gates would emulate historical natural conditions. Therefore, the effects of the proposed project on federally listed fish are expected to be insignificant or discountable and potentially beneficial.

- (3) Lastly, Camanche Reservoir releases in the Mokelumne River will not be modified to accommodate the proposed action beyond their usual October pulse flow releases. Therefore, impacts to federally listed fish from the pulse flow releases are expected to be insignificant or discountable.

This concludes informal ESA consultation for the Delta Cross Channel Temporary Closure Multi-Year Study project. This letter does not provide incidental take authorization pursuant to section 7(b)(4) and section 7(o)(2) of the ESA. Re-initiation of the consultation is required where discretionary Federal agency involvement or control over the proposed project has been retained (or is authorized by law), and if: (1) new information reveals effects of the proposed project that may affect listed species or critical habitat in a manner or to an extent not considered, such as incidental capture of listed species in the nets; (2) the identified action is subsequently modified in a manner that causes an effect to a listed species or critical habitat not previously considered; or (3) a new species is listed or critical habitat designated that may be affected by the proposed project.

EFH Consultation

With regards to EFH consultation, the action area has been identified as EFH for Pacific salmon in Amendment 14 of the Pacific Salmon Fishery Management Plan pursuant to the MSA. Federal action agencies are mandated by the MSA (section 305(b)(2)) to consult with NMFS on all actions that may adversely affect EFH, and NMFS must provide EFH conservation recommendations to those agencies (section 305(b)(4)(A)). Based on the effects analysis and the avoidance and minimization measures given above, and our review of the material provided and the best scientific and commercial information currently available, NMFS has determined that the proposed action would adversely affect EFH for Pacific salmon. However, the proposed action includes adequate measures (described in the ESA section 7 Consultation above) to avoid, minimize, or otherwise offset the adverse effects to EFH. Therefore, additional EFH Conservation Recommendations are not being provided at this time and written response as required under section 305(b)(4)(B) of the MSA and Federal regulations (50 C.F.R. § 600.920(k)) will not be required. However, if there are substantial revisions to the project description that may result in adverse effects to EFH, the lead Federal agency will need to re-initiate EFH consultation.

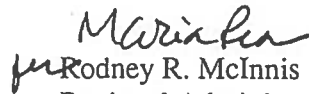
FWCA

The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and is coordinated with other aspects of water resources development (16 U.S.C. 661). The FWCA establishes a consultation requirement for Federal departments and agencies that undertake any action that proposes to modify any stream or other body of water for any purpose, including navigation and drainage (16 U.S.C. 662(a)). Consistent with this consultation requirement, NMFS provides recommendations and comments to Federal action agencies for the purpose of conserving fish and wildlife resources. The FWCA provides the opportunity to offer recommendations for the conservation of species and habitats beyond those currently managed under the ESA and MSA. Because of the measures incorporated into the proposed project to

avoid or minimize environmental impacts to aquatic habitat within the action area, NMFS has no additional FWCA comments to provide.

Please contact Monica Gutierrez at (916) 930-3657, or via e-mail at Monica.Gutierrez@noaa.gov if you have any questions or require additional information concerning this project.

Sincerely,


Rodney R. McInnis
Regional Administrator

cc: Copy to File: ARN 151422SWR2012SA00288
NMFS-PRD, Long Beach, CA



United States Department of the Interior

FISH AND WILDLIFE SERVICE
San Francisco Bay-Delta Fish and Wildlife Office
650 Capitol Mall, Suite 8-300
Sacramento, California 95814



In reply refer to:
08FBDT00-2012-I-0039

SEP 24 2012

Susan M. Fry
Bureau of Reclamation
Mid-Pacific Region
Bay-Delta Office
801 I Street, Suite 140
Sacramento, CA 95814-2539

Subject: Delta Cross Channel Temporary Closure Multi-Year Study (Reclamation File: BDO-400, ENV-7.00)

Dear Ms. Fry:

This letter is in response to the Bureau of Reclamation's (Reclamation) August 16, 2012, request that the U.S. Fish and Wildlife Service (Service) concur with your determination that the Delta Cross Channel Temporary Closure Multi-Year Study (Study), located in the Sacramento River near Walnut Grove, Sacramento County, California, may affect but is not likely to adversely affect the threatened delta smelt (*Hypomesus transpacificus*) or its critical habitat. Your consultation letter was received by our San Francisco Bay-Delta Fish and Wildlife Office (BDFWO) on August 20, 2012. This response is in accordance with Section 7 of the Endangered Species act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

In reviewing this proposed Study, the Service has relied upon: (1) the August 16, 2012, consultation initiation letter; (2) Reclamation's August 2012 *Draft Environmental Assessment: Delta Cross Channel Temporary Closure Multi-Year Study*; (3) the Service's July 12, 2012, letter to Reclamation regarding the review of the Administrative Draft Environmental Assessment (EA) for the Delta Cross Channel Temporary Closure Multi-Year Study; and (4) other information available to the Service.

Reclamation proposes to close the Delta Cross Channel (DCC) gates annually for up to 10 days during the first half of October over a five-year period (2012-2016). The purpose of the Study is to evaluate the effects of short-term modifications to DCC gate operations for straying reduction on lower Mokelumne River fall-run Chinook salmon (*Oncorhynchus tshawytscha*). Reclamation will coordinate with the East Bay Municipal Utility District's anticipated series of pulse flows on the lower Mokelumne River in October and the California Department of Fish and Game's pulse flow monitoring study. The duration of the DCC closure will be determined by evaluating in-season water quality modeling to ensure compliance with State Water Resources Control Board Decision 1641 (D-1641) water quality standards and minimization of potential adverse impacts to water supply. Delta smelt monitoring data will be reviewed annually to ensure entrainment of delta smelt into the lower San Joaquin River due to the Study is avoided.

Reclamation will annually evaluate in-season modeling results using the Delta Simulation Model II (DSM2) water quality module to determine the duration of the closure while ensuring compliance with D-1641 water quality standards and minimization of potential impacts to water supply. The real time DSM2 modeling will occur within 7 days of the Study. Based on real time data and modeling results, and in accordance with the Reclamation-proposed water quality concern level targets (EA, table 2), the proposed duration of the DCC closure will be between 0 and 10 days during the first half of October in each of the 5 years. Data and modeling results will be reviewed by the CALFED Operations Team and National Marine Fisheries Operation Biological Opinion Delta Operations for Salmon and Sturgeon Group. Proposed DCC closure actions for the Study will be coordinated through the Water Operations Management Team (WOMT). These teams will also review delta smelt distribution data to determine if there are delta smelt present in the area of the DCC gates

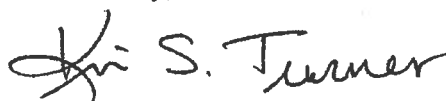
As a result of the Study, the modification of DCC operations has the potential to change water quality and flow. Reclamation has made a commitment to monitor water quality standards and will change operations to ensure they are being met. The modification to flow could potentially entrain delta smelt into the lower San Joaquin River if they are present in the area at the time of the Study. Reclamation has made a commitment to monitor delta smelt distribution data to ensure that the species is not present in the area at the time of the Study. Based on historical monitoring data, delta smelt presence is expected to be low in the area of the DCC gates during the time of the proposed change in operations. Monitoring data from the Fall of 2012 suggest that delta smelt presence is most likely to be in the Sacramento Deep Water Ship Channel and Cache Slough area at the time of the Study.

After reviewing the current status of the delta smelt and its critical habitat, and the effects of the proposed Study, the Service concurs with your determination that the Study, as proposed, may affect, but will not likely adversely affect delta smelt and/or adversely modify its critical habitat. We base this determination on the discountable and insignificant nature of the effects as described above, and the temporary duration of the Study to occur in early October, which is within the established work-window for delta smelt.

Unless new information reveals effects of the proposed Study may affect listed species to an extent not considered or a new species or critical habitat is designated that may be affected by the Study, no further action pursuant to the Act is necessary. Any actions or proposed actions that are modified in a manner that causes an effect to listed species or critical habitat that was not considered in this consultation will require re-initiation.

This concludes informal consultation for the Delta Cross Channel Temporary Closure Multi-Year Study. Please address any questions or concerns regarding this response to Erin Gleason, Fish and Wildlife Biologist, at Erin_Gleason@fws.gov or (916) 930-5616, or Kim Turner, Assistant Field Supervisor, at Kim_S_Turner@fws.gov or (916) 930-5604.

Sincerely,

A handwritten signature in black ink that reads "Kim S. Turner". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

Kim S. Turner
Assistant Field Supervisor

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: 120712041210
Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

- Branchinecta conservatio*
Conservancy fairy shrimp (E)
- Branchinecta lynchi*
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 draytonii*
California red-legged frog (T)

Reptiles

- Thamnophis gilas*
giant garter snake (T)

Birds

Rallus longirostris obsoletus

California clapper rail (E)

Quads Containing Listed, Proposed or Candidate Species:

ISLETON (480A)

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) 414-6520.

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 October 10, 2012.