

Addendum to the Biological Resources Assessment

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December 2, 2008

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**RE: Addendum to the Biological Resource Assessment for Deer Creek Flow Enhancement Program**

Dear Kamie,

Subsequent to your review of the recently drafted Biological Resource Assessment for the Deer Creek Flow Enhancement Program (Program), I have produced the addendum to the document below. This addendum addresses the project's effect to Deer Creek and denotes the lack of need for further special-status species analysis. In short, the Program will have a beneficial effect on special-status species associated with Deer Creek and formal consultation with the U.S. Fish and Wildlife Service is not necessary for leaving water in Deer Creek.

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**Addendum to the Biological Resource Assessment for Deer Creek Flow Enhancement Program**

**Deer Creek Flow Enhancement Program**

**Project Location.** The Program focuses on the reach of Deer Creek from the existing Deer Creek Irrigation District Dam at the north end of Reed Orchard Road, northeast of Vina in Tehama County, downstream to the confluence with the Sacramento River.

**Project Components.** The Program is a water exchange project intended to provide salmonid passage flows for adult spawners and out-migrant young. The water exchange project on Deer Creek provides for new wells that enable irrigators to switch from stream flow to groundwater, thus leaving water in the creek during critical spring and fall migration periods and allowing fish to reach areas upstream of the Stanford Vina Diversion Dam in Deer Creek. Central Valley spring-run Chinook salmon are the primary benefactors of this project, with secondary benefits to California Central Valley steelhead and Central Valley fall-run Chinook salmon through improved migration and rearing conditions. The project would improve access by salmonids to and from approximately 25 miles of Deer Creek upstream from the dam.

**Project Impacts.** Project impacts evaluated in the Biological Resource Assessment for the Program included on the ground activities associated with the estimated 1/4-acre project areas that would be disturbed as a result of installing or upgrading agricultural wells. Impacts would be limited to roughly a two-week period to drill individual wells at sites A1 Pitter Property, A2 Edson Property, A3 Edson Property, A4 Fox Property. Less time is expected for retrofitting existing wells at sites RW-1 Edson Well and RW-2 Knox Well.

Potential biological impacts associated with drilling and /or retrofitting wells to provide ground water to utilize for agricultural irrigation in exchange for Deer Creek surface waters are outlined in the aforementioned Biological Resource Assessment.

**Additional Consideration.** The primary focus of the Program is to retain surface water in Deer Creek to the benefit of immigrating native adult salmonids and emigrating native juvenile salmonids. There is considerable scientific uncertainty regarding the amount and duration of instream flow that is required to successfully transport fish, and to what extent the Program will assist in the restoration of anadromous fish populations in Deer Creek (U.S. Dept. of the Interior, 2008).

Though the amount and duration of water necessary to benefit in- and out-migrating salmonids will be established upon post implementation research efforts, the Program's late spring and early fall adult salmon bypass flows will be beneficial to native salmonids occurring within Deer Creek. These benefits will mostly affect Central Valley spring-run Chinook salmon, but will also benefit Central Valley steelhead and Central Valley fall-run Chinook salmon.

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## **Conclusions and Recommendations**

### ***Well Sites***

As currently foreseen from the "best available science," the Program may create temporary impacts to state listed bird species, as well as locally occurring birds that are protected by the Migratory Bird Treaty Act (MBTA). Additionally, elderberry shrubs associated with the A2-Edson Property potential well site may require some level of consultation with the U.S. Fish and Wildlife Service (USFWS) if they cannot be completely avoided by maintaining a 100-foot buffer as required under USFWS guidelines.

The Biological Resource Assessment focuses on these potential impacts and provides recommendations to mitigate and address these issues (Foothill Associates, 2008).

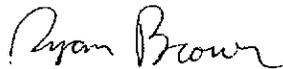
### ***Deer Creek***

As currently foreseen from the "best available science," the Program will have no effect on listed species at all, insignificant effects, or wholly beneficial effects once implemented. By restoring surface water flows in Deer Creek at times beneficial for Central Valley spring-run Chinook salmon, no direct or incidental take of a listed species is anticipated to be associated with the Program's affects to Deer Creek.

As such, no further evaluation or formal USFWS consultation would be required for the project unless new information presents itself to the contrary. Endangered Species Act Section 7 or Section 10 consultation would be required if potential for adverse affects to federally listed species became imminent, or the destruction or adverse modification of critical habitat occurred that would jeopardize the continued existence of a listed species (16 USC 1536).

If you have any questions, please do not hesitate to call me (530-893-6700).

Sincerely,



Ryan Brown  
Regulatory Biologist

References:

Foothill Associates. 2008. Biological Resource Assessment for Deer Creek Flow Enhancement Program – Six Potential Well Sites. Tehama County, CA.

U.S. Department of the Interior. 2008. DRAFT-Biological Assessment on the Continued Long-term Operations of the Central Valley Project and the State Water Project (OCAP-BA). Bureau of Reclamation. Mid Pacific Region. Sacramento, CA.  
August;

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