

November 17, 1995

Mr. Pete Chadwick
15000 Juniper Avenue
Lockeford, CA 95237

Dear Mr. Chadwick:

Thank you for your E-mail note of October 19, regarding Habitat Restoration and Fishery Resources. We are advancing the hypothesis that habitat restoration is an important element in any version of a Bay-Delta ecosystem restoration plan. Though most of the habitats lost in the Delta and upstream of the Delta occurred some time ago, I have to believe that restoration of at least some key elements or areas of the habitats will allow our fisheries populations to cope with the relatively new impacts of the State and Federal diversions, increased harvest and introduced species.

Unfortunately, there is no readily available information on habitat restoration benefit. The CUWA/Ag representatives have agreed to do a literature search trying to document habitat restoration projects in California. The EDF and Bay Institute have offered to look for examples on a national and international scale. If necessary, I am prepared to host a workshop of salmon experts to discuss the efficacy of rearing habitats for young salmon in the Delta.

There is no question in my mind about the need to restore rearing habitat for salmon above the Delta. I am not certain about the Delta itself, however, I am concerned that the Department of Fish and Game strategy for dealing with conflicts between water diversions and salmon is to flush the juvenile fish out to the Bay or ocean as quickly as possible and as early as possible. With the absence of a suitable habitat, that may be the best strategy. In wet years we have seen a tremendous apparent increase in the survival rates of salmon. Besides reducing the effects of entrainment, higher flows also provide bank side and flood plane habitat. Fry washed downstream by flood flows in February would be unlikely to contribute to the adult population unless they had some chance to rear and mature before they had to smolt and migrate to the ocean.

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For your review, I have enclosed a Fish and Wildlife Service paper titled "A Community-Based Habitat Suitability Index Model for Shaded Riverine Aquatic Cover, Selected Reaches of the Sacramento River System." I would appreciate your comments.

Again, thank you for your ideas and interest in the subject. I look forward to hearing from you in the future.

Sincerely,

original signed by

Dick Daniel
Asst. Director - Habitat

Enclosure