

April 23, 2010

Mr. David Schonbrunn
Transportation Solutions Defense
& Education Fund
P.O. Box 151439
San Rafael, California 94915

SUBJECT: Environmental Assessment Methodology Review Concerning the Bay Area to Central Valley High Speed Rail Project Alternatives

Dear Mr. Schonbrunn:

At the request of Transportation Solutions Defense and Education Fund, Olberding Environmental has completed a review of Chapter 15 of the Bay Area to Central Valley High Speed Rail Project Final Environmental Impact Report (FEIR). It has been requested that Olberding Environmental review the biological resources and wetlands section associated with the FEIR to see how the impacts to the Grasslands Ecological Area (GEA) near Los Banos and the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) in Alviso were evaluated at a programmatic level. The following report lists the values and functions of sensitive habitats associated with wetlands, compares the two areas in question, and states the means with which a biological evaluation should be conducted.

WETLAND FUNCTIONS AND VALUES

Wetland systems serve many functions and provide many benefits. Their potential for supporting large plant and animal populations of diverse species is high. Wetlands act as nutrient sinks and thus usually have dense and varied vegetation which provides the base for many aquatic and terrestrial food chains. Wetlands can also improve water quality. This is done through the filtering capacity of dense stands of wetland vegetation, which provide an efficient means of removing suspended solids from polluted waters.

Wetlands provide important resting, breeding, feeding, and rearing habitat for many species of waterfowl, mammals, amphibians, invertebrates, and fish, many of which are special-status species. These areas also contribute to the biodiversity of an area by providing migratory corridors. Primary environmental corridors are areas consisting of a concentration of a variety of natural resource features, such as wetlands, floodplains and woodlands.

Wetlands also serve as effective flood control and erosion buffers. Areas of shallow water and associated vegetation can slow the velocity and desynchronize the peaks of flood water and thus reduce shoreline and river bank erosion. They can also act as groundwater discharge and recharge areas. Recreational values associated with wetlands include observing birds and other wildlife, fishing, hunting, and canoeing. Wetlands are also important for their aesthetic value.

DON EDWARDS SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

As of 2004, the Refuge spans 30,000 acres of open bay, salt pond, salt marsh, mudflat, upland and vernal pool habitats located throughout South San Francisco Bay. Located along the Pacific Flyway, the Refuge hosts over 280 species of birds each year. Millions of shorebirds and waterfowl visit the Refuge during the spring and fall migration. In addition to its seasonal visitors, the Refuge provides critical habitat to resident species like the endangered California clapper rail, salt marsh harvest mouse, and vernal pool tadpole shrimp as well as the threatened California tiger salamander.

The Don Edwards San Francisco Bay National Wildlife Refuge is part of a complex made up of six other wildlife refuges in the San Francisco Bay Area. Founded in 1974 and administered by the U.S. Fish and Wildlife Service (USFWS), it was renamed Don Edwards San Francisco Bay National Wildlife Refuge in 1995 in recognition of Congressman Don Edwards' efforts to protect sensitive wetlands in South San Francisco Bay.

GRASSLANDS ECOLOGICAL AREA

According to the USFWS website, *"The GEA is the largest remaining contiguous block of freshwater wetlands remaining in California. It consists of federal, state, and privately owned seasonal, semi-permanent, and permanent marshes, riparian corridors, vernal pool complexes, and grasslands."*

This wild approximately 180,000 acre parcel of land is mostly privately owned; in fact 110,000 acres are not managed by the government. This very unique area reportedly comprises the "last 5 percent of such areas" left in California. Not only does the GEA provide critical wintering habitat for hundreds of thousands of migrating waterfowl and shorebirds of the Pacific Flyway per year, but it also provides habitat for more than 550 species of plants and animals, including 47 species that are endangered, threatened, or candidate species. Special-status species known to occur in this habitat include the San Joaquin kit fox, Aleutian Canada (cackling) goose, sand hill crane, Swainson's hawk, and tri-colored blackbird.

PRIMARY PROJECT IMPACTS

Primary impacts are usually associated with construction. Since many wetlands are islands of a unique habitat surrounded by upland communities, the loss of this habitat reduces its ability to support wildlife associated with wetlands. Wetland species, therefore, have unique requirements and adaptations that can only be met by the special characteristics of wetlands. Construction can lead to barriers to the movement of amphibians and reptiles to near-shore breeding areas, and the movement of mammals among feeding, breeding, and resting areas. Construction noise has a potential for interrupting courtship, breeding, nesting, and prey/predator location behavior for species that depend upon audio cues for these activities.

SECONDARY PROJECT IMPACTS

These impacts are generally associated with the operation and maintenance of the facility or are those that occur over time as a result of initial construction. Railroad noise could eliminate use of wetland habitat adjacent to the railroad for breeding purposes by some species. Road kills will occur, particularly during dispersal periods when wildlife are actively moving in response to seasonal water level changes or other breeding and feeding requirements.

EVALUATION OF BIOLOGICAL VALUE

The significance of impacts should be viewed in terms of the functions of a particular wetland and how these might be affected. Just because a certain area may contain far more species diversity than another does not necessarily make it more valuable from a function standpoint. Many factors need to be considered, namely the types and amount of aquatic wildlife, waterfowl, the extent of habitat lost, and most importantly, the types and biodiversity of special-status species, namely those that are threatened or endangered. Other factors included in this evaluation involve discussions of flood storage and water quality functions, such as sediment and nutrient trapping, as well as wildlife habitat, food chain support, and those other values mentioned above. Fringe encroachments on wetlands tend to be less significant. However, the fringe of a wetland can provide critical resources, such as food, shelter, or nesting. Size and location of wetlands are also important considerations. Most of these factors appear to have been ignored in evaluating the relative impacts of the various alignments.

In most cases, impact significance can be estimated based on a thorough knowledge of the local ecology or land use of the project area. Coordination with the USFWS and local government agencies is a way to gain information about the uses and importance of the wetland. Once this has been done, an evaluation can be made stating whether the changes proposed will be significant. This type of analysis should be made for all alternatives with differences in each being highlighted. For example, all project alternatives might involve wetland loss, but the site for one alternative might be located away from a wildlife nesting area or food source.

In our review of Chapter 15 of the FEIR it is evident that a thorough and extensive review of back ground data has occurred. Numerous reference materials have been cited suggesting that multiple factors have been considered in the evaluation of habitat and biological values associated with each alternative alignment. However, there is no mention of any type of habitat assessment methodology that has been adopted to standardize the evaluation process. While there are many variations of habitat assessment methodology being implemented today, there is no discussion of a standardized approach used in the FEIR to evaluate habitats within the proposed alternative alignments. Both the USFWS and California Department of Fish and Game utilize specific habitat assessment methodologies when evaluating biological resources. These agencies should be consulted in order to provide a standardized approach to the assessment of biological values associated with the proposed alternatives. Species numbers and an assessment of acreage impacts to specific habitat types alone would not be adequate in providing an evaluation of true biological value. As a result, the analysis of biological resources and wetlands is inadequate, even at the programmatic level. There is not enough information to make a scientifically sound determination of the biological and ecological values and the potential

impacts that the project would have on those values. The FEIR did not determine the significance of the impacts on those values. Thus, it is impossible to determine whether the impacts can be mitigated.

As discussed above, many factors would need to be considered in order to implement an evaluation process to adequately assess the value of biological resources. With so much emphasis being placed on providing an extensive list of reference materials which have apparently been used in the evaluation process it is disheartening to see a simplified summary section, whose conclusions as to biological values are not supported by the evidence presented. I strongly believe that a standardized habitat assessment approach is essential in the evaluation of biological value for each of the alternative alignments and that this information should have been made available for review.

All of the proposed alternative alignments will incur biological impacts to some degree. An attempt should be made to properly evaluate the sensitivity of habitats being impacted on a local and regional basis using a standardized process. This information should be used in the selection of alternative alignments which first avoids those areas deemed most biologically sensitive then focusing on alignments which reduces impacts to biological resources. Once this process is completed, mitigation measures could be designed into the project to further compensate impacts. Both the Refuge and GEA are considered to be highly sensitive biological areas. Any potential transportation use that could affect them must have a careful and comprehensive scientific analysis. The analysis in the Programmatic FEIR did not meet that standard.

If you have any questions, please feel free to contact me at (916) 985-1188.

Sincerely,

A handwritten signature in cursive script that reads "Jeff Olberding". The signature is written in black ink and is positioned below the word "Sincerely,".

Jeff Olberding
Wetland Regulatory Scientist