CENTRAL VALLEY JOINT VENTURE

North American Waterfowl Management Plan

California Waterfowl

California Association of Resource Conservation Districts

Defenders of Wildlife

Ducks Unlimited, Inc.

National Audubon Society

PRBO Conservation Science

River Partners

The Nature Conservancy

The Trust for Public Land

May 13, 2009

Ms. Dolores Brown
Chief, Office of Environmental Compliance
Department of Water Resources
PO Box 942836
Sacramento, CA 94236

Sent via email to BDCPcomments@water.ca.gov

RE: Comments Regarding EIR/EIS for Bay Delta Conservation Plan

Dear Ms. Brown:

On behalf of the Central Valley Joint Venture Management Board, I am writing to provide our input during the scoping period on the proposed joint Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) for the Bay Delta Conservation Plan.

The Central Valley Joint Venture (CVJV) is a partnership of 22 public and private entities comprised of agencies, and conservation and corporate organizations. Our mission is to work collaboratively through diverse partnerships to protect, restore, and enhance wetlands and associated habitats for migratory birds, in accordance with conservation actions identified in the *Central Valley Joint Venture 2006 Implementation Plan* (Plan). Through these biologically-based actions, CVJV partners work to sustain migratory bird populations in perpetuity for the benefit of those species, resident wildlife, and the public.

Background

California has lost more than 95% of its historic wetlands, largely due to urbanization, flood control and agriculture. As a result, many species have declined from historic levels, and are increasingly dependent on fewer wetlands. Despite these tremendous habitat losses, California arguably remains the most important wintering area for waterfowl and other waterbirds in the Pacific Flyway. Avian species from the north, some as far as Alaska and the Canadian Arctic, rely on our wetlands for nutritional and other needs while visiting during the winter. In addition, many resident bird species nest within or near local wetland habitats.

The importance of wetland habitat in California is now recognized and policies have been established to insure conservation of existing wetlands and restoration of additional wetland acres:

1) Through the passage of Senate Concurrent Resolution 28 (January 1, 1983), the Legislature, in recognition of the importance of wetlands, indicated its "intent to preserve, protect, restore and enhance California's wetlands and the multiple resources which depend upon them for the benefit of the people of the State".

2) In 1993, Governor Wilson signed Executive Order W-59-93, to "ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property".

3) The State Fish and Game Commission policy states (Amended 8/18/05): "…it is the policy of the Fish and Game Commission to seek to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California".

4) On April 15, 2008, the State Water Resources Control Board adopted Resolution No. 2008-0026, "Development of a Policy to Protect Wetlands and Riparian Areas in Order to Restore and Maintain the Water Quality and Beneficial Uses of the Water of the State".

The CVJV has strived to support these policies, and gone a step further by identifying specific goals and objectives for wetland and agricultural conservation. The CVJV also has promoted and implemented non-traditional management solutions to fulfill the needs of waterbirds by working extensively with the private wetland managers and agriculture. In addition to conventional restoration and protection, the CVJV has also emphasized active management and enhancement of wetlands and agriculture to maximize the benefits to waterbirds. Managing wetlands involves prescriptive water control and timing of flooding (or irrigation) to improve food production or availability. Enhancing agriculture for waterbirds involves applying water to cropland to provide additional foraging habitat and thus energetic needs not met by the Central Valley's limited natural or managed wetlands. Enhanced agriculture also provides breeding habitat for certain focus species of the CVJV.

The CVJV Plan defines specific habitat goals and objectives for 6 avian groups deemed of ecological or economic value in the Central Valley. The CVJV goals and objectives are outlined in detail in the Plan, and it is available at our website http://www.centralvalleyjointventure.org/materials/CVJV_fnl.pdf. Summarized objectives for the Delta, Yolo, and Suisun basins are provided in a separate attachment. Since 1990, CVJV has protected nearly 57,000 acres of wetland habitat and restored over 65,000 acres of wetland habitat; however, we have not yet met our wetland goals. Agricultural habitat enhancement goals have been exceeded valley-wide, largely due restrictions on burning, yet certain basins are short of enhancement goals.

Comments regarding proposed BDCP EIR/EIS

The San Francisco Bay-Delta has been described as an ecosystem in a state of collapse. While the ecosystem still contains an abundance of fish and wildlife, invertebrates and plants, many are undesirable species that were not around a few decades. Creating a Delta that is better for desirable fish and wildlife while providing the needs of most Californians is not simple, and previous attempts have not been successful. We are encouraged by the efficient recent efforts stimulated by Delta Vision and BDCP, and urge the planners to insure the effort is comprehensive, based on sound science, and restoration and management remain truly adaptive.

The CVJV was created during a similar crisis situation not long ago. In the 1980's waterfowl populations plummeted to all time lows, also partly due to drought. In response, the United States and Canadian wildlife agencies developed the North American Waterfowl Management Plan (NAWMP). The NAWMP recognized that wide-ranging degradations to wetlands and associated uplands across the continent required a comprehensive response to improve landscapes using public policies, wildlife friendly agriculture, and traditional habitat restoration programs. The purpose of the plan was, and remains, to sustain abundant waterfowl populations (and now other birds) by conserving landscapes, through self-directed partnerships (e.g., CVJV) guided by sound science.

The success of that strategic partnership can be seen throughout the Central Valley, including the Delta region. CVJV partners have invested considerable time and resources in the Delta proper, as well as the Yolo Basin, Suisun Marsh, and Cosumnes River. As a result of CVJV activities, the habitat in the Delta region, while considered degraded for native fish, has actually become considerably more hospitable to avian species. In the Delta region, the CVJV has protected almost 5000 acres and restored almost 9000 acres of wetland habitat. In addition, almost 40,000 acres of agricultural land are flooded annually in the Delta. However, these accomplishments are still far below the CVJV goals for the Delta region. These goals are primarily based on the nutritional needs of migratory birds wintering in the Central Valley, of which the Delta provides an important, but yet to be fully achieved, component (see attachment). In addition to biological goals and habitat objective, the water needed to maintain and manage wetland goals are specifically mentioned in the CVJV Plan.

We strongly support additional wetland restoration in the Delta. However, as a general principal, we caution planners to fully recognize and protect the existing ecological values of the region. We believe that there is a sizable potential to undo much of the good work we have painstakingly and at great public and private expense accomplished to date unless this new work is done in a manner sensitive to needs of the entire ecosystem. The potential for restoring ecological conditions favorable for native fish species is great, but should be additive to, rather than at the expense of, existing avian and other terrestrial values.

With that in mind, it is important that the architects of the BDCP EIR/EIS consider the goals and objectives of the CVJV Plan. The BDCP could impact, either positively or negatively, both past accomplishments and future progress towards CVJV Plan goals. Furthermore, this evaluation should address impacts on <u>all</u> the goals and objectives of the

CVJV, not just those specific to our planning basins in the Delta region. This request is justified, because the BDCP has far-reaching implications for water availability and management, and subsequent land use changes throughout the Sacramento and San Joaquin River watersheds. We also encourage the EIR/EIS to consider areas beyond the Delta and Suisun Marsh for implementing conservation measures and potential mitigation. The present crisis originated outside the Delta, with its origins in water projects that diverted increasing amounts of water from the rivers upstream. To limit the scope of the solution to the Delta region could be overly restrictive, especially given predictions of sea level rise and subsequent potential changes in terrestrial species distributions

At a minimum, the scope of the EIR/EIS should include the following components relative to the protecting existing and future non-aquatic ecological values of the Delta region:

- Analyze the potential change in food availability for wetland-dependent migratory birds resulting from conversion of managed wetlands to tidal wetlands in the project area and Suisun Marsh.

- Analyze the potential change in breeding habitat for wetland-dependent migratory birds resulting from the conversion of managed wetlands to tidal wetlands in the project area.

- Analyze the potential change in food availability and breeding habitat for wetland-dependent birds resulting from temporary loss (or changes in management) of managed wetlands due to either prolonged floodplain inundation or conversion to floodplain habitat, especially in the Yolo Bypass.

- Analyze the potential changes in food availability for wetland-dependent migratory birds resulting from conversion of certain farmlands or change in agricultural crop type.

- Analyze how improved water conveyance may simplify and perhaps increase transfers of water south of the Delta, potentially reducing the amount of rice farmed in the Sacramento Valley. More specifically, analyze:

    - The impacts of potentially reduced rice acreage on foraging habitat for wintering and breeding migratory birds (and other wildlife, e.g., giant garter snake).
    - The impact of potentially reduced winter flooding of harvested ricefields on energy supply for waterfowl and other wildlife in the Sacramento Valley.
    - The impact of reduced spring/summer flooded rice habitat, and potentially increased fallow cropland, on breeding habitat for waterfowl and other birds.

- The potential to establish cover crops to reduce erosion and provide habitat (e.g., nesting cover) for breeding migratory birds if cropland becomes idle/fallow as a result of BDCP actions,

- Analyze whether and to what extent the project alternatives are consistent with the existing legal requirements regarding refuge water supply requirements of the CVPIA.
- Analyze how water supply and reliability to wetlands and agricultural habitats for migratory birds will change within the BDCP planning region, and in other potentially impacted regions of the Central Valley, given the different project alternatives.
- Analyze the costs and benefits of various project alternatives associated with the socio-economic values of seasonal wetland-related recreational opportunities, like hunting, fishing, and birding.

Thank you for the opportunity to comment on this important effort.

Sincerely,

Kim Delfino
Management Board Chair

cc: CVJV Management Board

Summarized Central Valley Joint Venture habitat objectives for migratory birds in the region of the Delta, including the Delta, Yolo, and Suisun basins

The Central Valley Joint Venture (CVJV) set habitat objectives, for a 5-year time horizon, for six bird groups, including the following: breeding and non-breeding waterfowl, breeding and non-breeding shorebirds, waterbirds, and riparian dependent songbirds. CVJV approaches to establishing conservation objectives for the different bird groups are described in Appendix A.

For background in understanding summarized objectives below, note that for breeding and wintering waterfowl and riparian dependent songbirds, the JV used drainage basins at the planning unit for which to establish conservation objectives. These include: (1) Butte; (2) Sutter; (3) Colusa; (4) American; (5) Suisun; (6) Yolo; (7) Delta; (8) San Joaquin; and (9) Tulare basins. And for breeding and non-breeding shorebirds and waterbirds, the JV used four planning regions to establish conservation objectives: (1) Sacramento Valley, consisting of Colusa, Butte, American, and Sutter Basins; (2) Delta, consisting of Yolo and Delta Basins for shorebirds, and of Yolo, Delta, and Suisun basins for waterbirds; (3) San Joaquin Basin; and (4) Tulare Basin. For shorebirds, Suisun Marsh was not included, as counts were not available at the time of the CVJV Implementation Plan development.

The Suisun, Yolo, and Delta basins are dealt with in detail below (language excerpted or summarized from the 2006 Central Valley Joint Venture Implementation Plan).

<u>Description of basins and summarized CVJV objectives for each</u>

Suisun Basin

The Suisun Basin includes 170 square miles in southern Solano County and is bordered on the east by the Sacramento-San Joaquin Delta and on the west by the Carquinez Strait. Suisun Marsh dominates the basin, and is the largest brackish (diked, managed) wetland remaining in California. In 1963 landowners created the 116,000-acre Suisun Resource Conservation District, which includes a complex of managed and unmanaged wetlands as well as upland habitat. There are 158 privately owned wetlands in the Suisun Basin. There are also 15,000 acres owned by the California Department of Fish and Game in the Grizzly Island Wildlife Area complex. Landowners must meet standards for wetland habitat and water quality set by the Suisun Marsh Preservation Act of 1977, enacted by the State of California.

Historically, the Suisun Marsh was a tidally influenced basin that totaled 74,000 acres. Large portions of the marsh were submerged daily until levee construction in the 1850s restricted tidal flows. Tide gates and levees currently protect most of Suisun Marsh from flooding, however salinities have gradually increased because of freshwater diversions from the San Joaquin and Sacramento rivers. Vegetation communities in the marsh reflect this increase in salinity, as many common plant species are salt tolerant.

Summary of migratory bird conservation objectives for Suisun Basin:

- The entire 58,000 acre marsh was assumed to be protected by the Suisun Marsh Protection Act of 1977, so wetland protection objectives were determined to be necessary.
- Wintering waterfowl:
    - Annual enhancement objective for existing wetlands = 2686 acres/year
    - 153,102 acre-feet of water required for wetland management
- Breeding waterfowl: increase semi-permanent wetlands
- Breeding and non-breeding shorebirds: Suisun Marsh was not included, as counts were not available at the time of the CVJV Implementation Plan development. However, it is known that 10s of 1000s, and perhaps as many as 100,000 non-breeding shorebirds use the seasonal wetlands in the basin.

Yolo Basin

The Yolo Basin lies west of the Sacramento River between Cache Creek to the north and the Montezuma Hills and the Delta Basin to the south, and totals about 800 square miles. The basin historically received overflow waters from the Sacramento River as well as Cache, Putah, and Ulatis creeks. Low lying areas near the Delta were tidally influenced and supported permanent marshes, while flooding at higher elevations produced seasonal wetland habitat. Like much of the Central Valley, the hydrology of the Yolo Basin has been modified by levees and flood control structures. The Yolo Bypass was developed along the east side of the basin, and provides flood protection for adjacent lands when flows in the Sacramento River are high.

Summary of migratory bird conservation objectives for Yolo Basin:

- Wetland protection objective = 5000 acres (8700 acres unprotected)
- As of 2003, 2935 acres protected
- Wintering waterfowl:
    - Wetland restoration objective = 3000 acres
    - Annual enhancement objective = 713 acres/year (increases to 963 acres/year when wetland restoration objectives met)
    - 57,790 acre-feet of water will be required once wetland restoration objectives are met
    - Agricultural enhancement objective = 11,000 acres (8000 acres assumed to be corn, 3000 acres assumed to be rice that must be flooded)
- Breeding waterfowl: increase semi-permanent wetlands and restore upland habitat
- Breeding riparian songbirds: 675 acres
- Wintering shorebirds: see Delta (below)

Delta Basin

The Delta Basin totals 2,100 square miles and extends from the American River in the north, to the Stanislaus River in the south. Other borders are the Sierra Nevada foothills to the east, the Sacramento River to the northwest, and the Coastal Range to the southwest. Prior to the mid-1800s, the Delta was tidally influenced and part of a larger estuary that included Suisun Marsh and the San Francisco Bay. Development of the basin began in the 1850s when the Swamp Land Act transferred ownership of all “swamp and

overflow land" from the federal government to the State. By the early 1900s, nearly all the Delta's wetlands had been converted to agriculture.

The basin is formed by the convergence of the Sacramento, San Joaquin, Cosumnes, Mokelumne, and Calaveras Rivers. This confluence is subject to tidal movement and water diversions as it flows into the San Francisco Bay. A 1,000-mile network of levees has reclaimed sixty former wetland islands in the Delta. These islands are intensively farmed and some are managed as duck hunting clubs after crop harvest.

Summary of migratory bird conservation objectives for Delta Basin:

- Wetland protection objective = 3000 acres (4300 acres unprotected)
- As of 2003, 1704 acres protected
- Wintering waterfowl:
    - Wetland restoration objective = 19,000 acres
    - Annual enhancement objective for existing wetlands = 529 acres/year (increases to 2112 acres/year when wetland restoration objectives met)
    - 120,408 acre-feet of water will be required once wetland restoration objectives are met
    - Agricultural enhancement objective = 23,000 acres
- Breeding waterfowl: increase semi-permanent wetlands
- Wintering shorebirds (Delta + Yolo basins):
    - Seasonal wetland objective = 7334 acres of (6994 conventionally managed and 340 with early flood-up; 50% of seasonal wetlands must provide foraging depths <10cm during some portion of wintering period)
    - Semi-permanent wetland objective = 170 acres
    - Winter flooded rice objective = 5142 acres (64% of winter flooded rice must provide suitable foraging depths during some portion of winter)
- Breeding shorebirds:
    - Semi-permanent wetlands objective in Delta = 875 acres (breeding shorebird numbers are low in the Delta relative to other areas of the Central Valley) + 875 acres of semi-permanent wetlands combined for the American, Butte, Colusa, Sutter, and Yolo basins.
- Waterbirds (Yolo, Delta, and Suisun combined):
    - Semi-permanent wetlands objective = 1000 acres
    - Riparian objective = 1000 acres
- Breeding riparian songbirds:
    - Riparian restoration objective = 1500 acres (900 acres along Mokulmne River and 600 acres along the Cosumnes River)

Appendix A. CVJV approaches to setting conservation objectives

Non-breeding waterfowl:

Conservation objectives for wintering waterfowl were established at the basin scale. An energetic approach was used, assuming that food energy supplies are the limiting factor for support of target populations. First, the relationship between population energy demand and existing food supplies was evaluated for ducks, dark geese, and white geese using a modeling approach. Second, the relative contribution that agriculture and managed seasonal wetlands make to waterfowl food supplies in the basin was estimated. Finally, changes in waterfowl carrying capacity that would result from the loss of agriculture were evaluated, as was the ability of public lands to meet duck energy needs.

Non-breeding shorebirds:

A similar modeling approach for wintering waterfowl was used to determine habitat objectives for non-breeding shorebirds. The CVJV 2006 plan assumes that food is the primary need for shorebirds during migration and winter, and providing adequate foraging habitat at appropriate water depths will enhance survival outside the breeding season. The food energy modeling approach calculates population energy demand and population energy supplies for specific time periods and was used to estimate shorebird habitat needs and to develop conservation objectives. The objectives were distributed across planning regions based on known shorebird distribution.

Breeding shorebirds:

Four factors were considered when establishing conservation objectives for breeding shorebirds in the Central Valley: (1) historic patterns of habitat loss; (2) current distribution of breeding shorebirds among planning regions; (3) an estimate of the habitat resources currently available to breeding shorebirds in each planning region; and (4) annual rates of wetland restoration in the Central Valley. Annual wetland restoration rates provide a basis for identifying how much conservation work might be accomplished on behalf of breeding shorebirds in the next five years, while factors one through three provide the basis for distributing this objective in a biologically meaningful way.

Waterbirds:

Short term conservation objectives for waterbirds include a combination of quantitative habitat objectives and qualitative habitat conservation recommendations to benefit a range of waterbird species that breed and/or winter within the Central Valley. For waterbirds the CVJV: (1) identifies focal species that serve as an “umbrella” for similar species; (2) identifies factors believed to be limiting their populations; and (3) develops conservation strategies to counter these limiting factors.

Focal species that best serve as “umbrella” species for the family or group of waterbirds that they represent, and that would most likely benefit from JV conservation actions,

were selected for each family, if they met the following criteria: (1) listed as Highly Imperiled or of High Concern in the NAWCP; *or* (2) listed as of Moderate Concern in the NAWCP *and* California Bird Species of Special Concern; *and/or* listed as a USFWS Bird of Conservation Concern. Using this process, the JV identified seven focal species representing six families spanning a range of wetland or riparian conditions: Western grebe (*Aechmophorus occidentalis*); snowy egret (*Egretta thula*); least bittern (*Ixobrychus exilis*); white-faced ibis (*Plegadis chihi*); black tern (*Chlidonias niger*); black rail (*Laterallus jamaicensis*); and Sandhill crane (*Grus Canadensis*).

Without population goals on which to base habitat objectives, the JV's approach was to identify factors believed to be limiting populations, and to target conservation strategies that counter these limiting factors. The JV used a two-step process to develop conservation objectives. First, biologists developed quantitative (i.e., acre) habitat objectives for each of five principal waterbird habitats (seasonal wetlands, semi-permanent/permanent wetlands, rice, irrigated crop and pasture, and riparian) and distributed them among each waterbird planning region. Secondly, they provided qualitative focal species conservation recommendations.

Riparian dependent songbirds:

Population objectives are calculated for a suite of focal bird species that primarily breed in riparian habitat. The species were chosen whose requirements define different spatial attributes, habitat characteristics and management regimes believed to be representative of a healthy riparian system. Seven focal species were chosen: Song Sparrow, Yellow-breasted Chat, Black-headed Grosbeak, Common Yellowthroat, Yellow Warbler, western Yellow-billed Cuckoo, and Spotted Towhee. For six of the species (not including Yellow-billed Cuckoo) population objectives were developed based on monitoring data. Current population estimates were derived by estimates of birds per acre multiplied by the area of current habitat available and targets were derived by multiplying an appropriate target density by the area of potentially restorable habitat. The process to develop population objectives for Yellow-billed Cuckoo differed from other species due to its exceptionally low current population size and difficult sampling methodology. Instead, a minimum management goal for populations in each basin was established.