



Land Acquisition Programs for Habitat Protection in the Sacramento Valley

September 28, 1999

INTRODUCTION

The intent of this report is to provide a preliminary assessment of existing and proposed habitat acquisition projects in the Sacramento Valley. It is our hope that this effort will provide the basis for additional analysis by CALFED and / or its agencies to comprehensively demonstrate the extent of these activities in the Sacramento Valley. Only by fully understanding the magnitude and the scope of these different land acquisition programs will policy makers and other interested parties be able to make informed decisions about future policies, funding decisions, and implementation in the Sacramento Valley.

This analysis was developed using the best available information from state and federal agencies and non-profit organizations involved with land acquisition for habitat protection. A more detailed analysis would entail developing a parcel-by-parcel map of ownership using information available from each county assessor's office. Appendix A provides a summary of related ongoing agency efforts to further understand the composition of land ownership, not only in the Sacramento Valley, but throughout California.

The geographic extent associated with this assessment corresponds roughly to the valley floor of the Sacramento Valley, although upland areas in the northern fringe of the valley in Tehama and Shasta Counties are also discussed. This area includes all or portions of Shasta, Tehama, Glenn, Butte, Colusa, Sutter, Yuba, Yolo and Placer counties (see map). Approximately 3.6 million acres are contained within this area, of which 1.85 million acres are dedicated to irrigated agriculture (source: DWR Bulletin 160-93, Vol. 2, page 122).

This report focuses primarily on assessing the extent of land dedicated to habitat purposes in the Sacramento Valley, with particular emphasis placed on recent (since 1986) acquisition efforts. In general, habitat acquisition in the Sacramento Valley is directed at protecting either or both of two primary ecosystem types: 1) wetlands (along tributaries and throughout the valley floor), and 2) riparian corridors. In the foothills and along the adjacent margins of the Valley floor, several state and federal wildlife refuges also serve to provide upland habitat. This paper is divided into four sections: 1) A summary of current and anticipated state, federal and private efforts to acquire Sacramento Valley land for environmental purposes (report sections I-III); 2) Detailed descriptions of these and other programs (report sections IV-V), 3) Appendices with additional background data, and 4) A summary of comments received and modifications made to a preliminary draft of this report earlier this year.

I. SUMMARY OF ONGOING EFFORTS TO ACQUIRE LAND FOR HABITAT PROTECTION PURPOSES

The extent of acquisition efforts for habitat purposes is impressive and difficult to summarize and include in a summary table. The following tables and discussion have been prepared to provide a cumulative sense of what has already occurred and what is being proposed.

TABLE 1: SUMMARY OF COMPLETED LAND ACQUISITIONS¹ / COSTS FOR SACRAMENTO VALLEY HABITAT PROTECTION

Program / Notes	Acres Managed	Report Section Showing Supporting Documentation
DFG Wetlands Easements	2,371	Sec. IV A 1 a / Tbl B5
State Wildlife & Ecological Reserves	116,900	Sec. IV A 1b,c / Tbl B1
WCB Inland Wetlands Conservation	3,565	Section IV A 2 b
DWR / Rec Board Mitigation	1,625	Section IV A 4
Department of Parks and Rec	700	Section IV A 3
State Lands Commission (a)	12,000 ²	Section IV A 5
NRCS Wetlands Reserve Program	12,397	Sec. IV B 1 a / Tbl B4
BLM	12,574	Section IV B 2
USFWS Conservation Easements	26,781 ³	Sec. IV B 3 a / Tbl B6
Sacramento NWR Complex	33,593	Sec. IV B 3 b / Tbl B6
The Nature Conservancy	51,290	Section IV C 6
Bay-Delta Ecosystem Funding ⁴	5,090	Sec. IVD3, VA/Tbl B8 –B10
TOTAL	278,886 acres	

Note: (a) These lands include the Sacramento River bed, part of the SB 1086 Inner River zone.

The Central Valley Habitat Joint Venture “Protection” and “Restore and Protection” goals for the Sacramento Valley total 23,874 acres and 22,704 acres, respectively. These goals are satisfied by the California Department of Fish and Game Wetlands Easement Program, the Wildlife Conservation Board Inland Wetlands Conservation Program, and the Natural Resources Conservation Service Wetlands Reserve Program acreages noted above. Similarly, SB 1086 objectives for the Inner River Zone and Conservation Area are also partially satisfied by other

¹ Note – does not include access acquisitions or habitat restoration projects.

² Includes 11,800 acres of bed and bars in Sacramento River and parcels at Battle Creek, Lawrence Island and Mary Lake.

³ 24,316 acres in easements

⁴ Includes Prop. 204, Category III, Federal Bay-Delta Act and CVPIA Restoration funds.

programs. To date, acquisitions totaling 5,000 acres for the Inner River Zone and 19,600 acres for the Conservation Area have been accomplished through programs listed in Table 1.

Of the 278,900 total acres reflected in Table 1, upland areas (including the Tehama, Spenceville, Daugherty Hill, North Table Mountain and Upper Battle Creek Wildlife Areas; Butte Creek Canyon and Little Chico Creek Canyon Ecological Reserves, the Stillwater Plains Conservation Area, Dye Creek Ranch Preserve, and Vina Plains) comprise 106,246 acres. Many of the easement programs listed in Table 1 also ensure that agricultural uses will be maintained, in addition to protecting wetlands habitat. Programs that feature conservation easements that encourage continued agricultural operations include programs administered by DFG and USFWS, WCB's Honcut and Gilsizer projects, the NRCS Wetlands Reserve Program, and U.S. Interior Department programs along the Sacramento River and in the Stillwater Plains. The precise extent of these programs is difficult to ascertain, however, the upper limit estimation of acreage that provides habitat and agricultural benefits approaches 43,000 acres. A substantial portion of lands managed by DFG in flood bypass areas (5,000 acres) are also farmed.

II. SUMMARY OF *PROPOSED* ACQUISITION PROGRAMS

It is not yet clear how the various wetland preservation projects that fall under the Central Valley Habitat Joint Venture and various riparian projects mesh with the objectives of the CALFED Bay-Delta Program and SB 1086. However, based on recent statements included in the CALFED Revised Draft EIS/EIR, it is possible to make some preliminary assessments.

A. Upper Sacramento River (Keswick to Red Bluff) and Northern Tributaries

BLM will continue efforts to acquire an additional **4,000 acres** of riparian frontage on the Sacramento River and lower Battle Creek. BLM seeks to acquire wetland habitat in the Shasta Valley and additional habitat in the Sacramento River area. A priority is to improve lower Clear Creek salmon habitat and the scenic values of Clear Creek Canyon. Lower Paynes Creek, Battle Creek, Deer Creek and Butte Creek canyons (the latter two of which currently contain very little, if any, land under BLM ownership) have been identified to be managed to protect natural values and provide recreational activities. Several thousand acres of public land are proposed for transfer to the Forest Service, and over **10,000 acres** of public land will be made available for transfer to state and local government or qualified organizations. The CVP (b)(1) "other" program administered by Reclamation is pursuing a 13,000 acre conservation easement along Inks Creek in Tehama County and is also participating with the WCB to expand the Stillwater Plains Vernal Pool Conservation Area.

B. Sacramento Inner River Zone (Red Bluff to Colusa)

The SB 1086 program has identified **10,200 acres** of land within the Sacramento River Inner River Zone between Red Bluff and Chico Landing that is currently not in public ownership or protected by conservation easements. In this same area, the USFWS intends to seek **9,100 acres** that would presumably count towards the SB 1086 objective. CALFED has stated that the SB 1086 goals for the Inner River Zone will be pursued in the first years of implementation (starting in FY 2000). The remaining 1,100 acres of additional habitat in the Inner River Zone can be addressed by a variety of programs through the SB 1086 process.

C. Sacramento River Conservation Area

The Sacramento River Conservation Area provides the potential for **168,900 acres** of possible conservation management (not necessarily involving acquisitions). The acreage that is converted will likely be done so through other programs that are already in place. Because the Sacramento River Conservation Area south of Red Bluff lies within the focus area of the Joint Venture and the Inland Wetlands Conservation Program, it is likely that current and proposed lands targeted for wetlands protection and/or enhancement within this area will count towards Joint Venture objectives. At this time, the extent of the “overlap” area that falls within Joint Venture targets and the Conservation Area is not known.

D. Wetlands Areas

Approximately **3,900 acres** of wetlands remain to be protected and **50,500 acres** remain to be protected and restored in order to meet Central Valley Habitat Joint Venture objectives in the Sacramento Valley. These objectives can be met by a variety of programs, including DFG and USFWS programs, WCB Funding for Wetlands, the NRCS Wetlands Reserve Program (15,000 acre objective) and Ducks Unlimited’s CEAL program (15,000-acre objective).

E. CALFED’s ERP

CALFED intends to acquire between **25,000 – 30,000 acres** for riparian habitat and stream meander projects along the Sacramento, Feather, Yuba and Bear Rivers. If approximately 10,000 acres were credited towards SB 1086 objectives (see Section IVB, above), it would appear that other CALFED agencies would have a target of between 15,000 – 20,000 additional acres.

TABLE 2: PROPOSED SACRAMENTO VALLEY ACQUISITION PROGRAMS

Program	Acres	Notes	Supporting Documentation
Central Valley Habitat Joint Venture Wetlands	54,400	(1) (2)	Sec. IV D 1 / Tble 1
Upper Sacramento River Acquisitions - BLM	4,000	(2)	Section IV B 2
BLM "Exchange Lands"	10,000	(2)	Section IV B 2
Sacramento River Inner Zone	10,200	(2)	Sec. IV D 2 / Tbl B7
CALFED ERP Riparian Acquisitions	15-20,000		Section V A
Inks Creek Conservation Easement	13,000		Section IV B 3 c
Stillwater Plains Conservation Area	2,667		Section IV B 3 c
TOTAL	104,300-114,300		
	acres		

Notes: (1) Entities within the Joint Venture would implement these programs. See discussion in Section IV d, previous. (2) These figures are goals and do not represent identified or known acreage proposed for acquisition. For example, while the Joint Venture does have a mathematical objective of how many acres it feels are needed to support migratory waterfowl, the specific parcels have not been identified.

III. CONCLUSIONS

According to this analysis, approximately **279,000 acres** are dedicated to environmental protection in the Sacramento Valley. We estimated that **over \$226 million** have been spent towards this end. It appears that approximately **104,000-114,000 acres** (estimated cost: \$117-\$129 million) of additional acquisitions are planned for this area (see Tables B14-B16 for cost assumptions). This, of course, does not reflect the additional program-specific acquisitions that may be proposed through other state and federal agencies involved with habitat acquisition (see Sections III B – D). This also does not include mitigation actions for CALFED non-ecosystem activities.

It must be restated that this is a preliminary assessment of an issue that is very difficult to assess. A more detailed analysis would entail developing a parcel-by-parcel map of ownership using information available from each county assessor's office. Section IV provides detailed descriptions of the programs described above; additional backup data is provided in Appendix B. Appendix A provides a summary of ongoing efforts to further understand the composition of land ownership in the Sacramento Valley.

IV. CURRENT CONSERVATION AND HABITAT MANAGEMENT PROGRAMS IN THE SACRAMENTO VALLEY

Lands in the Sacramento Valley dedicated to environmental protection can be separated into two primary groups – wetlands and riparian corridors. Several refuges also provide upland habitat away from wetter areas. The following section provides a summary of programs and agencies involved with acquiring land for protection, enhancement, restoration and management.

A. STATE PROGRAMS

For the most part, the California Resources Agency manages those state programs that acquire land for environmental enhancement and protection purposes. Within the Resources Agency, the Department of Fish and Game (DFG) acquired the most land with funding provided by the Wildlife Conservation Board (WCB). Key funding programs used by these agencies are summarized in Table B12. Several other Resources agencies, including The Reclamation Board, Department of Parks and Recreation, and the State Lands Commission, also own or manage land throughout the valley.

1. Department of Fish and Game (DFG)

The Department of Fish and Game (DFG) is the principle California agency responsible for the protection, management, and enhancement of fish and wildlife and the habitats upon which they depend. DFG promotes habitat acquisition and restoration activities through several programs.

a. Wetland Conservation Easement Program – Conservation easements are legal agreements that allow landowners to sell some “rights” on portions of their land to the state. In exchange for cash, the owner agrees to restrict farming and development and assures the easement land remains a wetland in perpetuity. Wetlands totaling **2,371 acres** in the Sacramento Valley have been protected under this program at a cost of **3.1 million**.⁵ The Department of Fish and Game, with funding assistance from the WCB, uses this program as a vehicle to meet Central Valley Habitat Joint Venture objectives (see discussion in Section D1).

b. Department of Fish and Game Wildlife Areas

c. DFG Ecological Reserves – The purpose of ecological reserves is to protect threatened or endangered native plants, wildlife or aquatic organisms or specialized habitat types, both terrestrial and aquatic, for the future use of mankind through the establishment of ecological reserves.

⁵ See Table B5.

Total state land dedicated to riparian, conservation and wildlife areas and ecological reserves in the Sacramento Valley is **116,877 acres** (see Table B1).

2. Wildlife Conservation Board (WCB)

The Wildlife Conservation Board (WCB) was established within the Department of Fish and Game in 1947 to administer a capital outlay program for wildlife conservation and related public recreation. Primary responsibilities of the Board are to select, authorize, and allocate funds for the purchase of land and waters suitable for recreation purposes and the preservation, protection, and restoration of wildlife habitat.

The programs administered by WCB include land acquisition, public access and habitat enhancement and/or restoration. The acquisition program is carried out in conjunction with DFG with priorities for proposed acquisitions being set by DFG. Public access projects are generally carried out with local government with all projects having the purposes of providing “wildlife-oriented” public recreation. Typically the local government sponsor assumes the operation and maintenance for the project improvements which may be located on DFG-owned or other lands.

Two newer programs, the Inland Wetlands Conservation Program and the California Riparian Habitat Conservation Program were created within the Board. Funding for Board projects comes partially from the Wildlife Restoration Fund, which has had a continuous annual appropriation of \$750,000 from pari-mutuel revenues since 1955. Starting in 1964, various State Bond Acts have provided additional funding to the program. The California Wildlife Protection Act of 1990 provides a mechanism for funding up to \$21 million a year to the Board until the year 2020. When available, the Federal Land and Water Conservation Fund has provided 50 percent reimbursement of costs incurred for eligible and approved WCB projects.

Over the past fifty years, the WCB has completed or authorized over 1,120 projects throughout California. Statewide, as of May 1999, WCB has spent over \$564 million on statewide habitat acquisition, development and improvement projects in the past 50 years⁶. Nearly \$400 million of this amount has funded acquisitions of wildlife areas and ecosystem reserves. Nearly \$10 million has been spent on wetlands and riparian habitat conservation efforts. Approximately \$160 million has been provided for wildlife habitat development and other habitat grants⁷. In the Sacramento Valley, over \$46 million has been spent on land acquisition alone by the Wildlife Conservation Board⁸. In addition to acquiring and improving substantial areas of critical wildlife habitat, the program provides an estimated 20 million visitor

⁶ This total includes allocations in the sum of \$230,500,000 for grants to acquire the Headwaters and Grizzly Creek Forests and the acquisition of Owl Creek Forest.

⁷ Source: “WCB Program Statement”, May 20, 1999.

⁸ See Table B2

days of recreation annually through the public access projects as well as DFG's Wildlife Areas and Ecological Preserves.

Table B2 summarizes key WCB acquisitions completed in the Sacramento Valley. Please note – the total acreage values of Table B2 are incorporated into the values shown previously in Table B1. Table B2 is intended rather to demonstrate WCB's role in habitat protection in recent years. Thus, the Table B2 values are not considered in summary presentation provided by Table 1, since Table B2 reflects the sum of the individual Table B1 entries.

a. California Riparian Habitat Conservation Program (CRHCP) – This program was created by the Legislature in 1992 in response to the continuing loss of riparian habitats in the state. Its mission is to protect, preserve and restore riparian habitats and to coordinate its activities with DFG and other interests whose activities affect riparian habitats. The CRHCP is a member of the Riparian Habitat Joint Venture (RHJV), a 20+ member working group of nonprofit conservation organizations and state and federal agencies (based on the Central Valley Habitat Joint Venture) who are working to develop biologically-based objectives for restoring riparian habitats across California.

On a statewide basis, under the authority provided by the CRHCP's founding legislation, WCB has funded 46 restoration projects, and acquired land to protect more than 22,000 acres of riparian habitat at a total cost of \$36 million. In the Sacramento Valley, the WCB has acquired 17 properties to protect over 2000 acres of riparian habitat, for a total cost of over \$3.5 million. These acquisitions include fee title and acquisition easements, and are distributed throughout the valley. Riparian conservation easements typically protect the existing riparian vegetation, while allowing other compatible land uses to continue. The program has authorized over \$1.4 million for 11 cooperative restoration projects in the Sacramento Valley. These projects (6 on public land and 5 on private land) are aimed at restoring over 550 acres of riparian habitat along the Sacramento River and its tributaries. These projects include levee alterations to reduce erosive high-energy flows across floodplain lands, cultivation of new riparian forests where historic forests once existed, installation of riparian corridor fencing to allow natural recovery of riparian habitats while providing improved grazing management, development of off stream livestock water sources, and monitoring to determine the success of these projects and the responses of fish and wildlife to the improved habitats.

Projects conducted on private lands are always done with cooperating landowners who are interested in improving their riparian lands, and who have integrated habitat restoration and wildlife-friendly grazing and agricultural practices into their own land management activities. The CRHCP also coordinates closely with the many other agencies and organizations whose activities affect riparian habitat.

b. Inland Wetlands Conservation Program – The Inland Wetlands Conservation Program (IWCP) was created in 1991 to support and complement the efforts of the Central Valley Habitat Joint Venture (a component of the North American Waterfowl Management Plan). The ultimate goal of the IWCP is to protect, restore and enhance wetland habitat to increase waterfowl populations in the Central Valley. Inherent within this effort is the understanding that wildlife friendly agricultural operations are critical to the survival of millions of migratory waterfowl and other wetland dependent species.

Within the nine counties emphasized in this report, the IWCP has purchased in fee **3,565 acres** for a cost of **\$3.1 million**. Further, \$496,000 has been authorized to restore 1,106 acres of wetlands. In addition, to protect and ensure the long-term viability of wildlife friendly agricultural crops, the program has purchased **933 acres of agricultural easements** in the Honcut Creek area. Integrating the needs of agriculture and waterfowl, the program has expended \$1.0 million on various projects designed to promote sustainable agricultural operations that are complimentary to the needs of waterfowl. Working in partnership with Ducks Unlimited and local Resource Conservation districts, \$94,000 was authorized to build rice rollers designed to provide an alternative to burning rice stubble. Another innovative project involved a parcel on Gilsizer Slough. The WCB purchased **267 acres**, restored approximately 145 acres to wetlands, and remaining acres were designated as agricultural land. The entire property was then sold back to the private sector with wetland and agricultural easements designed to protect the restored wetlands and agricultural ground.

3. California Department of Parks and Recreation (DPR)

DPR owns and manages five parcels of habitat along the Sacramento River, totaling approximately **700 acres**.

4. Reclamation Board

The Reclamation Board (Board) is the state agency that cooperates with the U.S. Army Corps of Engineers in controlling flooding along the Sacramento River. In addition to flood control management, the Board also owns and manages **439 acres** of scattered riparian habitat along the Sacramento River which serves a flood control purpose (often known as “MBK sites” after the firm Murray, Burns and Kienlan which identified them). It has also purchased environmental easements totaling **1,186 acres** to mitigate for the First and Second Phases of the Sacramento River Bank Protection Project. This land is leased to DFG for wildlife management.

5. State Lands Commission

The State Lands Commission (Commission) owns a few parcels along the Sacramento River, the largest of which are a **50-acre** site at Battle Creek (managed by BLM), a **40-acre** site at Lawrence Island and a **127-acre** site at Mary Lake. The State Lands Commission also owns and has jurisdiction over the bed and bars of navigable rivers in California. Along the Sacramento River between Red Bluff and Verona, approximately **11,800 acres** – primarily lands submerged by the river - are owned by the Commission.

B. *FEDERAL PROGRAMS*

Federal programs directed at habitat acquisition reside primarily in the U.S. Department of the Interior and the U.S. Department of Agriculture.

1. U.S. Department of Agriculture – Natural Resource Conservation Service (NRCS)

NRCS administers the conservation provisions of the 1985, 1990 and 1996 Farm Bills and makes highly erodible land and wetland determinations as they relate to growers participation in USDA subsidy programs. NRCS also administers the Wetland Reserve Program (WRP), Wildlife Habitat Incentive Program (WHIP) and provides technical assistance for the Conservation Reserve Program (see Table B13 for summaries of these latter two programs).

a. Wetlands Reserve Program – This program seeks to restore the functions and values of wetlands for migratory birds and other wildlife habitat; improve water quality; aid in floodwater retention and groundwater recharge; and increase open space. Permanent easements have been purchased for approximately 48,371 acres in California. NRCS would like to double this amount in the next few years. Funding ranges from \$5 million to \$12 million annually in California.

In the Sacramento Valley, NRCS has secured easements for **12,397 acres** under the Wetlands Reserve Program (see Table B5). At least half this amount is credited towards Central Valley Habitat Joint Venture objectives. NRCS also has restoration agreements with four property owners in Butte, Sutter, Glenn and Yuba Counties on **600 acres** of land. Pending easement projects in the Sacramento Valley total **880 acres** and pending restoration projects cover nearly 500 acres.

2. Bureau of Land Management (BLM)

BLM is consolidating public land parcels through land exchanges and Land and Water Conservation Fund purchases in order to improve management of riparian areas along rivers.

BLM is also involved in Challenge Cost Share programs with environmental groups, private organizations and other government agencies.

The Redding Resource Management Plan (RMP) identifies the direction for the management of public lands administered by the BLM within the Redding Resource Area. Full implementation of the proposed action would result in public stewardship of 132.5 miles of salmon habitat in key areas.

BLM owns and manages the Sacramento River Area in Tehama County. This land was acquired to protect riparian and wetland resources in the northern Sacramento Valley, to enhance anadromous fisheries and to provide recreational opportunities. BLM also owns other scattered parcels along the river, including Todd and Foster Islands in Tehama County.

BLM is working to acquire a total of 19,000 acres of undeveloped lands north of Red Bluff with monies from the Land and Water Conservation Fund. Since 1993, BLM has acquired approximately 15 miles of generally contiguous lands along the Sacramento River in the vicinity of Jelly's Ferry and Iron Canyon. These lands cover a total area of approximately 15,000 acres and include 100 acres of wetlands and 600 acres of nesting habitat for waterfowl⁹. Newly acquired lands total **12,574 acres** and were purchased for **\$15,970,000**.

3. U.S. Fish and Wildlife Service (USFWS)

The USFWS is the principle agency of the Federal Government charged with the responsibility for conserving, developing, utilizing and protecting national fish and wildlife resources. This mission is accomplished through a multitude of programs, some of which require the acquisition and administration of land. Funding and authorization for these activities are summarized in Table B13.

Lands acquired by the USFWS are removed from the tax rolls; however, under the provisions of the Revenue Sharing Act, local governments are eligible to receive an annual revenue sharing payment intended to compensate for the amount that would have been collected from taxes if in private ownership.

a. The National Wildlife Refuge Acquisition Program– administered by the USFWS, which is the primary coordinator for the Central Valley Habitat Joint Venture (see below). The USFWS manages a Conservation Easement Program intended to satisfy the wetland protection and restoration goal of the CVHJV. Thus far, **23,000 acres** in Butte, Colusa, Glenn, Sutter and Yolo Counties are enrolled in this program and are associated with four Wildlife Management

⁹ Source: Howard Mattson, BLM Redding, July 1999. Personal Communication.

Areas (WMAs): Butte Sink WMA, Willow Creek WMA, Lureline WMA, and North Central Valley WMA¹⁰.

The USFWS, in coordination with the U.S. Bureau of Reclamation, also participates in land acquisitions under the authority of the Central Valley Project Improvement Act (see below). Further, the USFWS owns and manages several wildlife units in the Sacramento Valley that make up the Sacramento National Wildlife Refuge Complex (Complex).

b. Sacramento National Wildlife Refuge Complex – Presently, the USFWS manages over **33,000 acres** of riparian, wetland and upland habitat in the Complex. The Sacramento NWR was created in 1937 and six additional refuges were added to the Complex in the next 50 years. Five refuges were created to provide wintering habitat and reduce crop damage. These refuges – Sacramento, Delevan, Colusa, Sutter and Butte Sink – consist of wetlands, grasslands and riparian habitat.

The sixth refuge, Sacramento River NWR, is composed of 15 separate units along an 80-mile stretch of the Sacramento River between Red Bluff and Butte City. This latter refuge administers 1,285 acres of riparian conservation easements and 8,631 acres of fee title, which brings the total riparian acreage under the Sacramento River NWR to **9,916** acres. The USFWS was authorized by Congress to pursue 18,000 acres of land for acquisition of the Sacramento River NWR between Colusa and Red Bluff, and this acquisition process is ongoing.

c. CVPIA (b)(1) “other” Program – Subsection 3406 (b)(1) of the Central Valley Project Improvement Act (CVPIA) allows for establishment of the (b)(1) “other” Program, and its purpose, to protect, restore, and mitigate for past fish and wildlife impacts of the Central Valley Project not already addressed by the CVPIA. The USFWS is the lead administrator of this program, and the U.S. Bureau of Reclamation (Reclamation) is the co-lead agency. Among other actions, this program seeks to implement habitat restoration, maintenance, and protection in partnership with willing landowners of agricultural and municipal lands¹¹.

This program has not pursued land acquisitions in the Sacramento Valley to date. However, Reclamation recently prepared an Environmental Assessment (EA) to evaluate the effects of partially funding the **\$1.4 million** acquisition of an **13,000-acre** easement¹² on the Inks Creek Ranch, near Red Bluff, by a grant to The Nature Conservancy. Reclamation has also prepared an EA to evaluate the effects of purchasing key parcels of vernal pool habitat covering 60 acres within the Stillwater Plains Conservation Area, east of Redding¹³. Currently, **1,499**

¹⁰ Source: Larry Rauhen, Sacramento NWR, July 1999. Personal Communication.

¹¹ USFWS / U.S. Bureau of Reclamation, 1997. *CVPIA Draft Project Plan (b)(1) “other” Program*

¹² Not a traditional conservation, this easement would restrict rock collection and aggregate production activities.

¹³ The proposed action is for Reclamation to contribute \$310,000 to WCB towards the 60-acre acquisition.

acres are protected through public ownership or conservation easements leaving approximately 2,667 acres unprotected. The WCB plans on eventually protecting the entire acreage through purchase, conservation easement or mitigation banking.¹⁴

In summary, USFWS currently owns 34,733 acres of land in the Sacramento Valley and holds easements, agreements or leases on an additional 25,601 acres for a total of **60,334 acres**.

4. U.S. Bureau of Reclamation (Reclamation)

a. Wetland Development Program – This program primarily focuses on wetland, riparian and upland habitat protection, enhancement and restoration on Bureau lands affecting or that are affected by Bureau operations. Assistance with easements and acquisitions is sometimes provided.¹⁵

b. USBR Conservation Program – The Central Valley Conservation Program is a joint project of the Bureau of Reclamation and U.S. Fish and Wildlife Service to meet the biological needs of special status species in areas affected by the Central Valley Project. This program seeks to address the biological needs of threatened and endangered species in an ecosystem manner, improve conditions for these species, and assist in the conservation of biological diversity. Examples of projects funded to date include surveys for endangered species, acquisition of habitat for red-legged frogs, purchase of easements for vernal pool habitat, and habitat management for giant garter snake.

5. U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (Corps) performs ecosystem restoration activities in partnership with other entities, including Ducks Unlimited, under authority provided by Section 1135 of the Water Resources Development Act (WRDA) of 1986 (P.L. 99-662) and Section 206 of WRDA 1996 (P.L. 104-303). The Corps has not acquired land under these programs in the Sacramento Valley, but has instead focused efforts on restoration projects in the Yolo Basin near Davis and the South Fork of Putah Creek.

C. *OTHER PROGRAMS*

Several non-profit conservation groups and other private interests have invested heavily in Sacramento Valley acquisition and restoration efforts. The American Land Conservancy, the Trust for Public Lands, and Sierra Pacific Industries have played a major role in land

¹⁴ Source – USDOJ Bureau of Reclamation, 1999. *Draft Environmental Assessment for the Proposed Purchase of Land Parcels in the Stillwater Plains Vernal Pool Conservation Area, Shasta County, California.*

¹⁵ Source – Bob Shaffer, USFWS, Personal Communication, 9/1/99.

acquisitions, particularly in conjunction with the Bureau of Land Management. North American Wetlands Conservation Fund and the Audubon Society have also participated in wetland conservation projects. However, The Nature Conservancy (TNC), National Fish and Wildlife Foundation (NFWF), California Waterfowl Association and Ducks Unlimited have been particularly active in this area, as further discussed below.

1. California Waterfowl Association (CWA)

CWA is actively involved in several partnerships to implement the North American Waterfowl Management Plan in the Central Valley. CWA, while not directly administering land acquisition programs, is a key partner and works closely with the USFWS Central Valley Habitat Joint Venture and the DFG California Waterfowl Habitat Program. Key CWA programs include the California Wood Duck Program, California Mallard Program, Canada Goose Program and Pintail Program.

2. Ducks Unlimited

Among many other activities, Ducks Unlimited administers a program called CEAL – Conservation Easements for Agricultural Lands - designed to satisfy the agricultural enhancement goals of the Central Valley Habitat Joint Venture. CEAL's objective is to initially acquire 2,000 acres of conservation easements in Sutter County, and gradually purchase development rights on agricultural land throughout the Sacramento Valley totaling 5,000 acres in three years, and **15,000 acres** in 5 years¹⁶. Ducks Unlimited also administers the Valley CARE and MARSH programs which focus solely on restoration activities.

3. National Fish and Wildlife Foundation (NFWF)

The National Fish and Wildlife Foundation (NFWF) is a private, non-profit organization, established by Congress in 1984 and dedicated to the conservation of fish, wildlife, plants, and the habitat upon which they depend. NFWF supports projects that conserve wetland resources, in particular habitat for fish and wildlife. NFWF generally funds three program types: acquisition of wetland resources through fee-title and conservation easements; wetland restoration and enhancement projects (particularly on private lands); and applied research.

NFWF has recently focused efforts on partnerships with other organizations or agencies to restore riparian and wetland habitat throughout the Central Valley. In the Sacramento Valley, NFWF has partnered with California Waterfowl Association and Ducks Unlimited to restore wetlands and manage flooded habitat. NFWF assisted the National Audubon Society to acquire

¹⁶ Olen Zirkle, Ducks Unlimited, July 1999. Personal Communication.

and restore **500 wetland acres** as the core to Audubon's Wattis Waterfowl Sanctuary in Colusa County.

4. The North American Wetlands Conservation Act (NAWCA) – Enacted in 1989, the North American Wetlands Conservation Act's purpose is to encourage the formation of public-private partnerships "to conserve wetland ecosystems and waterfowl and the other migratory birds and fish and wildlife that depend upon such habitats". The North American Wetlands Conservation Council meets three times a year to review and rank proposals to secure grants intended to fulfill this purpose. The Central Valley Habitat Joint Venture is primary implementers of the NAWCA in California through acquisitions and restoration actions.

5. Partners for Fish and Wildlife – This program improves and protects fish and wildlife on private lands through alliances between the U.S. Fish and Wildlife Service, other organizations and individuals, while leaving the land in private ownership.

6. The Nature Conservancy (TNC)

The Nature Conservancy (TNC) is a national, non-profit organization dedicated to preserving natural landscapes to ensure both the ecological and economic viability for future generations. TNC's Sacramento River Project works along the main stem of the Sacramento River between Red Bluff and Colusa with a number of different partners – including USFWS, Point Reyes Bird Observatory, local farmers and other stakeholders involved in the SB 1086 Program – to protect and restore the river's natural habitats. Typically, TNC buys a flood-prone riverside farm or orchard whose production is declining. A site assessment determines the restoration potential and the agricultural portion of the land is leased to a local farmer. TNC applies income from the leases to restoration activities.

Properties managed by TNC include: Kopta Slough (**700 acres** owned by State Controller's Trust), a conservation easement at Llano Seco (**2,900 acres**), and 14 properties within the USFWS Sacramento River National Wildlife Refuge (Refuge). TNC has been working with the USFWS since 1991 to acquire and restore lands to be included in the Refuge. TNC manages agricultural properties and restoration projects under a Cooperative Land Management Agreement, where lands are either leased out to local farmers for agricultural purposes or restored by local farmers under restoration contracts with TNC. Under these management programs, and a Phase I Mitigation project, TNC's Sacramento River Project has managed riparian restoration projects on **2,200 acres** over the past 10 years¹⁷.

TNC also manages foothill projects in the Sacramento Valley for blue oak woodlands, vernal pools, grasslands and tributary corridors. These sites in Tehama County, include Vina

¹⁷ Source – Marlyce Myers, TNC, 1999. Personal Communication.

Plains (**4,600 acres**), the Gray Davis Dye Creek Preserve (**37,540 acres**) and properties on Mill and Deer Creeks (**3,350 acres**)¹⁸. Both Vina and Dye Creek are grazed by cattle, in a program that is combined with ecological burning to enhance rangelands and promote native species. The TNC lands discussed in this section total **51,290 acres**.

D. COORDINATED EFFORTS

1. Central Valley Habitat Joint Venture

The Central Valley Habitat Joint Venture (Joint Venture) is a cooperative effort of state and federal agencies and private parties to implement the *North American Waterfowl Management Plan*¹⁹. Joint Venture organizations include agencies within the U.S. Interior Department and State Resources Agency, as well as the Natural Resources Conservation Service, U.S. EPA, U.S. Army Corps of Engineers, the U.S. Bureau of Reclamation, U.S. Bureau of Land Management, the National Audubon Society, Trust for Public Land, Ducks Unlimited, California Waterfowl Association, The Nature Conservancy and American Farmland Trust. Key actions include protection, restoration, and enhancement of wetland and associated upland habitats. Protection strategies include habitat acquisition, conservation easements, leases, and management agreements with private landowners. Collectively, the Joint Venture has affected over 500,000 acres of wetlands, uplands, and croplands in the Central Valley through their management activities. Many of the individual state and federal wetlands programs described previously satisfy the objectives of the Joint Venture.

Notable Sacramento Valley projects include Llano Seco Rancho, Upper Butte Basin Wildlife Area, Butte Sink Easements, Yolo Bypass Wildlife Area, Wattis Sanctuary and Willow Creek – Lurine Easements. The Joint Venture is making steady progress towards meeting the following four program objectives:

a. Protect 80,000 acres of existing wetlands: Protection involves either fee acquisition or a perpetual conservation easement placed on the land by a Joint Venture partner. As of 1996, over \$93 million has been spent to protect wetlands through fee acquisition or conservation easements²⁰. The 1990 Joint Venture Implementation Plan projected that the objective 80,000 acres could be acquired through easements and fee title for \$83.8 million. In the Sacramento Valley the Llano Seco Ranch in Butte County is perhaps the most notable Joint Venture wetlands protection project. This project includes 14,000 acres of wetlands, uplands, croplands and

¹⁸ Source – Peggy McNutt, TNC, 1999. Personal Communication.

¹⁹ Central Valley Habitat Joint Venture, 1990, Central Valley Habitat Joint Venture Implementation Plan, A Component of the North American Waterfowl Management Plan: Sacramento, CA.

²⁰ “Wings Over the Valley”, Central Valley Habitat Joint Venture, 1996.

riparian forests and, when fully restored, will add 4,000 new acres of wetlands to the Sacramento Valley.

b. Restore and Protect 120,000 Acres of Former Wetlands: To count towards this objective, wetlands must be restored and protected in perpetuity with a fee acquisition or conservation easement. Restoration as of 1996 has cost approximately \$66 million.

Progress made towards satisfying the two objectives discussed above is summarized in the following table.

TABLE 3: SUMMARY OF LAND ACQUISITION ACTIONS TO IMPLEMENT THE CENTRAL VALLEY HABITAT JOINT VENTURE IN THE SACRAMENTO VALLEY (in acres)

Objective	Butte Basin	Sutter Basin	American Basin	Colusa Basin	Yolo Basin	Total
Protection Goal	10,000 (16,079)	500 (169)	2,000 (338)	2,000 (4,190)	5,000 (3,098)	19,500 (23,874)
Protection & Restoration Goal	29,100 (14,331)	11,000 (719)	10,000 (390)	13,100 (3,213)	10,000 (4,051)	73,200 (22,704)

SUBTOTAL: **39,100** **11,500** **12,000** **15,100** **15,000** **92,700**
 (30,410) **(888)** **(728)** **(7,403)** **(7,149)** **(46,578)**

TOTAL: **92,700 acres**
 (46,578 acres)

Values in parentheses () indicates acreage obtained, per USFWS data²¹. Currently, approximately half of the total Joint Venture objectives for protection and restoration / protection have been achieved for the Sacramento Valley.

Other significant Joint Venture objectives being pursued in the Sacramento Valley include:

c. Enhance Existing Public and Private Wetlands: Wetland enhancement involves the alteration of existing habitat to increase benefits for fish and wildlife. Between 1986 and 1996, between 25,000 and 64,000 acres of wetlands have been “enhanced” per year. In that time, the Joint Venture has spent \$15.4 million on wetland enhancement efforts. An important Sacramento Valley project helping to meet this objective is the Yolo Bypass Wildlife Area, a 3,700-acre

²¹ Source: Ruth Ostroff, CVHJV , 7/99.

wetland restoration project in the Yolo Bypass. This project is the largest wetland project of its type in the Western United States.

d. Enhance 443,000 Acres of Private Agriculture Land: Many species of waterfowl are dependent upon private cropland for part of their annual life cycle. The Joint Venture works with farmers and ranchers to promote wildlife friendly agriculture on private land. As of 1996, the Joint Venture partners have spent over \$3.7 million on agricultural enhancement. In the Sacramento Valley, the Joint Venture worked with rice growers to field test rice rollers to flatten rice stubble into shallow water, where it is broken down by decomposition and the feeding activity of waterfowl. In 1995-96, over 152,000 acres of Central Valley riceland were rolled and flooded.

Many of the individual state and federal wetlands programs described previously fully, or in part, satisfy the objectives of the Joint Venture.

2. SB 1086 – Upper Sacramento River Fisheries and Riparian Management Plan

Passed by the State Legislature in 1986, Senate Bill 1086 called for a management plan for the Sacramento River and its tributaries that would protect, restore, and enhance both fisheries and riparian habitat. The law established an Advisory Council, comprised of representatives of state and federal agencies, county supervisors, and representatives of landowner, water contractor, commercial and sports fisheries, and general wildlife and conservation interests.

The Riparian Habitat Committee (Committee) of the Advisory Council is currently working to implement the riparian plan, with the goals of preserving remaining riparian habitat, and reestablishing a continuous riparian ecosystem along the Sacramento River. The Committee have defined a **Conservation Area** for the Sacramento River, approximately **213,000 acres** of potential riparian habitat or valley oak woodland. This area denotes the locations where landowners would be eligible to participate in other, existing conservation programs. Ownership of property within the Conservation Area will not result in any regulation or taxation to the landowner – instead, it makes landowners eligible to participate in voluntary programs.

Much of the Committee's work has centered on the concept of a limited, or managed, meander. A limited meander provides room for the channel movement necessary to attain the goal of the program, but also provides a greater degree of certainty for landowners along the river. The actual area, an **inner river zone**, will be determined on a case-by-case basis using voluntary participation, erosion projections, and flood frequency as criteria. If all landowners within the potential inner river zone chose to participate, the area could include **33,000 acres**

between Red Bluff and Colusa. This would mean an approximate **15,000-acre** increase in riparian habitat on both private- and publicly owned lands.

Table B7 summarizes property ownership in the current SB 1086 study area. This table suggests that at least 10,200 acres remain to be protected for riparian habitat purposes through acquisitions or conservation easements. At least 168,900 acres of private land are also eligible for participation in “conservation programs”. At a recent SB 1086 meeting in Maxwell, DWR staff acknowledged the importance of showing how individual agency plans to acquire land along the Sacramento River will be accounted for through the SB 1086 process.

3. Bay-Delta Restoration Coordination Program

The Restoration Coordination Program, an initial stage of the CALFED Bay-Delta Ecosystem Restoration Program (ERP), was established as a three year program to initiate important ecosystem restoration activities that would be included in any future CALFED restoration effort. These activities would include actions that have broad support and are generally agreed to be important steps towards achieving ecosystem restoration goals. Implementation of the Restoration Coordination program has allowed progress to be made towards ecosystem goals while the preferred CALFED alternative is selected and the long-range ERP is developed. Tables B8 to B10 summarize CALFED funding for acquisition programs in the Sacramento Valley.

To date, **\$15.9 million** has been granted through Proposition 204, the federal Bay-Delta Act and Category III funding sources to acquire **5,400 acres** of land in the Sacramento Valley.

Many of the programs previously described will continue to work towards habitat acquisition and restoration objectives in the Sacramento Valley. In the immediate future, several other efforts are also proposed for implementation, particularly through the CALFED Bay-Delta Program. The State Budget and bond legislation also contains significant land acquisition funding elements.

V. FUTURE HABITAT-RELATED LAND ACQUISITION ACTIVITIES IN THE SACRAMENTO VALLEY

A. CALFED Bay-Delta Program Ecosystem Restoration Program

CALFED’s Ecosystem Restoration Program recommends between **25,000 and 34,000 acres** of acquisition, primarily for riparian habitat purposes (6,500 – 7,000 acres) and the development of stream meander corridors (19,000-27,000 acres) along the Sacramento, Feather,

Bear and Yuba Rivers²². According to CALFED, any acquisitions in the areas targeted by CALFED that are accomplished by individual agency actions will satisfy CALFED objectives. CALFED does not propose any additional wetland acquisitions beyond those proposed by the Central Valley Habitat Joint Venture. Initial CALFED priorities in Fiscal Years (FY) 2000 and 2001, include spending \$8 million each year to support the Sacramento River meander corridor. In FY 2000, CALFED proposes fund American River corridor projects totaling \$250,000. CALFED will also pursue restoration activities along Butte Creek and Deer Creek to the tune of \$5 million annually for each creek in FY 2000 and FY 2001. These actions are in addition to those already funded by ongoing Bay-Delta programs (see Tables B8 to B10).

B. California State Budget

As shown in Table B11, the Fiscal Year 1999-2000 California State Budget includes over **\$158 million** for land acquisitions to preserve open spaces, improve and protect natural habitats, and enhance public access to natural resource areas. While much of these funds will support projects in coastal and southern California, **\$44,445,000** will support Wildlife Conservation Board, Department of Parks and Recreation and Resources Agency programs. While these funds are available for activities throughout the state, including Northern California, in some cases they may only be available for certain areas or specific purposes outside the Sacramento Valley.

C. “Resources 2000”

California Congressman George Miller has introduced legislation that would provide the greatest financial commitment in history to the permanent protection and restoration of natural lands. The “Resources 2000” Act, H.R. 798, would guarantee approximately \$2.3 billion every year for the acquisition of public lands by federal and state governments, restoration of national and urban parks, preservation of farmland and open space and restoration of fish and wildlife resources. H.R. 798 further guarantees that expenditure of Land and Water Conservation Fund (LWCF) funds would no longer be subject to approval by the House and Senate Appropriations Committees. Instead, full funding of LWCF’s **\$900 million** in revenues would be mandatory every year²³.

D. Proposed State Legislation

The state Legislature has passed a **\$2 billion** parks bond on to Governor Davis, who signed this bill yesterday for inclusion on the March 2000 ballot. This bond package would finance acquisition, development, improvement and enhancement of parks, fish and wildlife resources, and riparian areas. On September 10, the California Assembly passed AB 1584

²² Source: Table 4-4, CALFED Draft Programmatic EIS/EIR.

²³ Source: *Yolano Flame*, July 1999 Newsletter, Mother Lode Chapter, Sierra Club.

(Machado-Costa) – The Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection Act of 1999. Governor Gray Davis is expected to sign the bill in the coming weeks, which will place the nearly \$2 billion bond measure before the voters next year. Over **\$250 million** from this bond proposal would finance land acquisitions along rivers and streams and in the Delta.

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Section 1135 of the Water Resources Development Act of 1986, P.L. 99-662, as amended.

Section 206 of the Water Resources Development Act of 1996, P.L. 104-303.

APPENDIX A – SUMMARY OF ONGOING LAND ACQUISITION DATA MANAGEMENT EFFORTS

U.S. Army Corps of Engineers Sacramento Valley Comprehensive Study

The Corps is currently preparing a parcel-by-parcel analysis of land ownership along the Sacramento River and key tributaries.

California Wetlands Information System

This service, one of many provided by the California Department of Fish and Game, is designed to provide comprehensive wetlands information to the general public, the educational community and government agencies. It is a compilation of public and private sector information, including maps, documents, agency roles in wetlands management, restoration and mitigation activities, regulatory permitting and wetland policies. In addition to DFG's role in meeting Joint Venture objectives, this effort provides a sense of DFG's wetland responsibilities throughout the state.

Significant Natural Areas (DFG)

The Significant Natural Areas Program (SNAP) is mandated to: a) Develop and maintain a data management system; b) identify the most significant natural areas in California, c) Ensure the recognition of these areas, d) Seek the long-term perpetuation of these areas, and e) Provide coordinating services for parties interested in protecting natural areas.

DFG Lands and Natural Areas Program

This program coordinates DFG's involvement in evaluating sites for potential acquisition by the WCB, and in administering and compiling information and data related to existing wildlife areas and reserves. DFG has a long-standing "Lands Committee" which brings forward, evaluates, and recommends funding for WCB acquisition.

Riparian Habitat Inventory and Assessment Project

The Wildlife Conservation Board has funded a project to assess the current amount and status of the state's remaining riparian resources through a comprehensive effort to gather and analyze riparian related data into a centralized location. The University of California at Davis is implementing the project under an Interagency Agreement. Between 1993 and 1996, the Board allocated \$700,000 for this purpose. Project to have been completed by June 30, 1998. DFG is developing the methodology for distributing project data.

California State Budget

The State Budget (Item 0540-001-0928) also provides \$250,000 to be used by the Secretary of Resources for the development and publishing of a statewide Conservation and habitat blueprint. This blueprint will assess the current condition of the state's natural resources and habitat and establish a long-term set of funding and policy priorities and targets for future investment in resource protection and habitat acquisition or preservation. On or before January 10, 2000, the Secretary of Resources must report to the chairs of the fiscal and policy committees of the Legislature on the development of the blueprint and when it anticipates the blueprint will be published.

APPENDIX B – SUPPORTING DATA

TABLE B1: STATE LAND DEDICATED TO RIPARIAN AND WILDLIFE AREAS AND ECOLOGICAL RESERVES IN THE SACRAMENTO VALLEY

Name	Acreage
Abbott Lake Unit of Feather R. WA	674
Battle Creek W.A.	466
Bend Ferry Road W.A.	48
Tehama W.A.	44,601
Butler Slough	54
Butte Slough	178
Butte Creek	285
Butte Creek Canyon E.R.	93 ²⁴
Cache Creek (P.A.?)	49
Clover Creek	45
Colusa Bypass	1,248
Daugherty Hill W.A.	2,520
Feather River W.A.	2,522
Fremont Weir	212
Gray Lodge W.A.	9,090
Honcut Creek Wildlife Cons. Area	1,012
Little Butte Creek	231
Little Chico Creek Cyn	176
Llano Seco Rancho W.A.	1,521 ²⁵
Merrill's Landing	296
North Table Mountain W.A.	3,723
Oroville W.A.	11,869
Putah Creek	673
Sacramento Bypass	360
Sacramento River / Upper	3,737 ²⁶
Sacramento River W.A.	
Spenceville Wildlife & Rec Area	11,183
Stillwater Plains Cons. Area	1,499 ²⁷
Sutter Bypass	3,204
Upper Battle Creek W.A.	221

²⁴ Acquisition currently underway

²⁵ Acquisition is part of an overall project that includes 14,000 acres and involves TNC, USFWS and CDFG.

²⁶ (per Regional Office)

²⁷ Source – Draft EA for Proposed Purchase of Land Parcels in the SPVPCA – U.S. Bureau of Reclamation, 1999.

Upper Butte Basin W.A.	9,375
Upper Sac. River Riparian Habitat	1,442
Yolo Bypass W.A.	3,700
TOTAL	116,877

Source: DFG Regional Offices 1 & 2, WCB “Summary of Projects”, Sharon Taylor, DFG.

TABLE B2: SACRAMENTO VALLEY HABITAT PROTECTION PROJECTS FUNDED BY THE WILDLIFE CONSERVATION BOARD

Project	County	Acreage	Cost	Date
Abbot Lake W.A.	Sutter	674 (f)	\$ 987,269	1985-87
Battle Creek W.A.	Tehama	256 (f)	\$1,298,415	1982-96
Bend Ferry Road W.A.	Tehama	48 (f)	\$ 67,911	1984
Butte Creek W.A.	Butte	285 (f)	\$ 295,974	1987
Butte Creek Canyon Ecological Reserve	Butte	93 (f)	\$ 475,000	1999
Clear Creek W.A.	Shasta	74 (f)	\$ 230,000	1991
Collins Lake W.A.	Yuba	2,477 (f)	\$2,340,527	1990-93
Daugherty Hill Exp. #3 W.A.	Yuba	43 (f)	\$ 50,000	1998
Dredger Riffles, Sac. R.	Shasta	43 (f)	\$ 2,141	1974
Feather River Riparian Habitat, Garden Highway Crossing	Sutter	701(f)	\$ 702,976	1989
Feather River W.A. (Morse Road Unit)	Sutter	65 (f)	\$ 91,685	1992
Feather River W.A. (O’Connor Lakes Exp. #3 / Lake of the Woods Exp. #1)	Sutter, Yuba	143 (f)	\$ 397,000	1998
Gilsizer Slough Wetlands	Sutter	267 (f) ²⁸	\$ 640,000	1993
Gray Lodge W.A.	Butte	6,584 (f)	\$4,110,799	1964, ‘70,’73,’96
Llano Seco Ranch W.A.	Butte	1,521 ²⁹ (f)	\$2,117,234	1992
North Table Mtn W.A.	Butte	3,723 (f)	\$1,058,814	1995
North Table Mt. Exp.#1	Butte	42 (f)	\$ 135,000	1997
Oroville W.A.	Butte	380 (f)	\$ 521,615	1987,’92
Sacramento R., Jacinto	Glenn	201 (f)	\$ 118,000	1974
“ “, Pine Cr. Mouth	Butte	112 (f)	\$ 78,000	1978
“ “, Shannon Slough	Glenn	150 (f)	\$ 101,500	1978
“ “, Site 21	Glenn	50 (f)	\$ 1,250	1965
“ “, Merrills Landing	Tehama	312 (f)	\$ 112,944	1981
“ “, Wilson Landing	Glenn	260 (f)	\$ 252,890	1987
“ “, Lake Red Bluff	Tehama	13 (f)	\$ 50,000	1996

²⁸ Wetland and agricultural easements protect the entire parcel – now in private ownership - from future development.

²⁹ Acquisition is part of an overall project that includes 14,000 acres and involves TNC, USFWS, and CDFG.

Spenceville Wildlife and Recreation Area	Yuba	1,783 ³⁰ (f)	\$ 116,202	1966-67,'82
Tehama W.A.	Tehama	1,636 (f)	\$ 208,390	1965,'84-'85
Upper Battle Cr. W.A.	Shasta, Tehama	2,947.58 (e) ³¹ 221 (f)	\$ 222,696 \$ 623,850	1991
Upper Butte Basin W.A.	Butte, Glenn	7,790 (f)	\$16,696,525	1989-94
<u>Upper Sacramento River Riparian Habitat</u>				
Cottonwood Creek Unit Expansion	Shasta	55 (f)	\$ 111,481	1983
Hamilton Bend	Colusa	76 (e)	\$ 42,547	1988
Jacinto Expansion	Glenn	100 (f)	\$ 174,954	1990
Pine Cr. Expansion #1	Butte, Glenn	240 (f)	\$ 248,059	1986
Pine Cr. Expansion #2	Butte, Glenn	175 (f)	\$ 122,000	1988
Pine Cr. Expansion #3	Glenn	345 (f)	\$ 804,204	1992
River Mile 159.5R	Colusa	125 (f)	\$ 114,739	1990
River Mile 166.5R	Glenn	47 (f)	\$ 142,028	1991
River Mile 171R	Glenn	113 (f)	\$ 111,037	1991
River Mile 215L	Butte	166 (f)	\$ 112,192	1991
<u>Upper Sacramento River Wildlife Area</u>				
Cottonwood Creek Expansion #1	Shasta	60 (f)	\$ 128,594	1992
“ “ Expansion #2	Shasta, Tehama	183 (f)	\$ 466,023	1993
“ “ Expansion #3	Shasta	12 (f)	\$ 40,932	1993
River Mile 145.3L	Colusa	46 (f)	\$ 75,152	1994
River Mile 147R	Colusa	23 (e) 124 (f) 81 (e)	\$ 181,927	1995
River Mile 155 & 160	Colusa	197 (f)	\$ 206,375	1991
River Mile 157L	Colusa	106 (f)	\$ 196,987	1992
River Mile 162R	Colusa	228 (f)	\$ 252,116	1993
River Mile 164.2	Glenn	103 (f)	\$ 68,147	1992
River Mile 169.5	Glenn	128 (f)	\$ 166,444	1992
River Mile 171.8	Glenn	113 (f)	\$ 2,139 ³²	1993
River Mile 175L	Glenn	94 (f)	\$ 115,410	1992
River Mile 183R	Glenn	112 (f)	\$ 96,606	1992
River Mile 195L	Butte, Glenn	219 (f)	\$ 385,660	1992
River Mile 209L	Butte	20 (f)	\$ 20,485	1990
“ “ Expansion #1	Butte	32 (f)	\$ 34,901	1992
“ “ Expansion #2	Butte	110 (f)	\$ 242,121	1993
River Mile 283L	Shasta	46 (f)	\$ 297,551	1993
Yolo Bypass W.A.	Yolo	3,100 (f)	\$4,589,848	1993
“ “ Expansion #1	Yolo	390 (f)	\$ 474 ³³	1994

³⁰ This area is a parcel for the 9,400 acres previously acquired by DFG.

³¹ This area is part of the larger 43,000 acre Tehama W.A.

³² Donated land

³³ Land donated by CALTRANS

“ “ Expansion #2	Yolo	195 (f)	\$ 556,221	1995
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Note: (f) – fee title acquisition – **36,931 acres total**
 (e) – easement acquisition - **3,128 acres total**

Further note: these values are previously accounted for in summary fashion in Table B1.

Also: Projects involving acquisition for habitat purposes only are shown; WCB has also funded numerous projects that allow public access to rivers and streams.

TABLE B3: WCB BUDGET ACT SPECIAL PROJECT ALLOCATIONS

Agency	Program	Authorization	Date
DWR	Sacramento River Plan	\$740,000	FY 1994/95
DWR	Sacramento / San Joaquin River Acquisition	\$194,000	FY 1994/95
DWR	Upper Sacramento River Restoration Plan	\$300,000	FY 1995/96
DWR	Upper Sacramento River Habitat Plan	\$300,000	FY 1996/97

**TABLE B4: SACRAMENTO VALLEY EASEMENTS
 ACQUIRED FOR WETLAND RESERVE PROGRAM**

Year	Easement Type	County	Property	Acres
1992	Permanent	Butte	Rancho Esquan	700
1992	Permanent	Colusa	Sikes	42
1992	Permanent	Colusa	Kalfsbeek	959
1992	Permanent	Colusa	Bulrush Farms	237
1992	Permanent	Colusa	N. Audobon	179
1992	Permanent	Colusa	White Road Ranch	378
1992	Permanent	Yolo	Laurel G. Ranch	366
1994	Permanent	Glenn	Schwab	61
1995	Permanent	Colusa	Butte Lodge Outing	265
1995	Permanent	Sutter	Taylor, W.	55
1995	Permanent	Tehama	Myers, Leroy	871
1996	Permanent	Butte	Andreini (TNC)	519
1996	Permanent	Butte	L. Honcut Cr. (WCB)	179
1996	Permanent	Colusa	Behring	642
1996	Permanent	Tehama	Foor Orchards	2,076
1997	Permanent	Butte	Mathews, E.	352
1997	Permanent	Yuba	Flying M Ranch	188
1997	Permanent	Yuba	Red River Ranch	45
1997	Permanent	Colusa	Gunnersfield Ent.	45
1997	Permanent	Sutter	Live Oak Rice Farm	188
1997	30-Year	Colusa	Wilmarth Ranch	395
1997	30-Year	Yolo	Capitol Oil	1,243
1998	Permanent	Yolo	Liberty Farms	563
1998	Permanent	Colusa	La Grande #1	160
1998	Permanent	Colusa	La Grande #2	160
1998	Permanent	Butte	American Basin Farms	1,447

1998	Permanent	Sutter	Viducich, Mark	50
1998	30-Year	Yolo	Double JJ	32
TOTAL				12,397

Source: Alan Forkey, State Wetlands Biologist, NRCS.

TABLE B5: WETLAND CONSERVATION EASEMENT PROGRAM (DFG)

County	Project	Authorization	Acres	Date
Glenn	Joe Lares	\$147,600	123	1992
Yolo	Senator Outing Duck Club	\$320,000	478	1993
Yolo	Yolo Basin Farms, Inc.	\$114,000	158	1993
Butte	Victor Ranch (Honcut Creek)	\$162,900	106	5/1994
Butte	Rancho Rio Chico	\$252,000	230	8/1994
Yuba	Holmestead 2	\$171,000	124	11/1994
Yuba	Rancho Rio Oso	\$269,800	133	5/1995
Yolo	Skyraker Duck Club	\$247,200	335	8/1995
Butte	Mom's Farm	\$521,200	228	8/1995
Yuba	Rancho Rio Oso Exp. #1	\$217,200	83	8/1997
Yuba	Holmestead Farms #3	\$ 47,000	40	11/1998
Butte	McCorkle Ranch	\$543,670	296	11/1998
Butte	Shively Ranch	\$ 61,000	37	5/1999
TOTAL		\$3,074,658	2,371	

TABLE B6: SUMMARY OF SACRAMENTO VALLEY LANDS UNDER CONTROL OF THE U.S. FISH AND WILDLIFE SERVICE

Source: 1997 Annual Report of Lands Under Control of the U.S. Fish and Wildlife Service.

Unit Name	Fee Title (acres)	Agreement, Easement, or Lease (acres)
WILDLIFE MANAGEMENT AREAS		
Butte Sink WMA	733	10,311
Willow Creek – Lureline WMA	0	5,468
North Central Valley WMA	1,732	8,537
Subtotal	2,465	24,316
NATIONAL WILDLIFE REFUGES		
Colusa NWR	4,507	1
Delevan NWR	5,797	0
Sacramento NWR	10,783	0
Sacramento River NWR ³⁴	8,631	1,285
Sutter NWR	2,590	0
Subtotal	32,308	1,286
TOTAL	34,773	25,602

³⁴ Source: Ramon Vega, Sacramento NWR, 1999.

**TABLE B7: SUMMARY OF OWNERSHIP ACREAGE TABULATIONS
 SACRAMENTO RIVER – KESWICK TO VERONA
 (SB 1086 STUDY AREA)**

Ownership Category	Inner River Zone Acres	Conservation Area Acres
Private (unprotected)	10,200	168,900
Private Conservation	300	600
Private with Easements	100	3,900
Federal	2,700	8,200
State	1,900	6,900
Local	100	1,900
Not Determined	600	12,000
Total	15,800	201,600

Source: Sacramento River Conservation Area Handbook, May 1998.

Note: Inner River Zone values only apply to Red Bluff-Chico Landing reach. Values for other reaches have not yet been determined. Area of channel surface not included in tabulation.

**BAY-DELTA RESTORATION COORDINATION PROGRAM
 PROJECTS APPROVED FOR FUNDING IN THE SACRAMENTO VALLEY**

TABLE B8: CALFED BAY-DELTA PROGRAM (PROP 204 FUNDS)

Project Description	Applicant	CALFED	CVPIA	Other	Acres
Sacramento River Floodplain Acquisition and Riparian Restoration	TNC, WCB, USFWS	\$9,879,800			1,500
Sacramento River Acquisition and Riparian Forest Restoration	TNC, USFWS	\$ 780,000			200
Sacramento River Floodplain Acquisition and Riparian Restoration	WCB	\$ 512,500			100
Battle Creek Riparian Corridor Acquisition and Restoration	BLM	\$2,175,000			
Butte Creek Acquisition / Restoration	CSU Chico	\$ 187,128		\$ 135,000	90

TABLE B9: CALIFORNIA URBAN WATER AGENCIES / METROPOLITAN WATER DISTRICT (STAKEHOLDER – CATEGORY III – FUNDS)

Project Description	Applicant	CALFED	CVPIA	Other	Acres
Clear Creek – Property Acquisition	Western Shasta RCD	\$ 211,000	\$ 211,000		120

TABLE B10: U.S. FISH AND WILDLIFE SERVICE

Project Description	Applicant	CALFED	CVPIA	Other	Acres
Butte Creek Acquisition and Riparian Restoration	CSU Chico	\$ 125,000			80
Floodplain Acquisition, Management, and Monitoring on the Sacramento River	TNC, WCB, and others.	\$1,000,000			500
Deer & Mill Creeks Acquisition	TNC	\$1,000,000			2,500
TABLES B8-B10 TOTAL		\$15,870,428	\$211,000	\$135,000	5,090

**TABLE B11: LAND CONSERVATION FUNDING BY STATE DEPARTMENT
 FY 1999/2000**

Department	Program	Funding
Wildlife Conservation Board	Governors Budget	\$56,195,000
	Unscheduled	\$19,445,000
	Inland Wetlands	\$18,500,000
		\$ 1,000,000
Coastal Conservancy		\$74,186,000
		9,500,000
Parks and Recreation	Governors Budget	\$ 3,000,000
		\$ 3,200,000
Resources Agency		\$ 2,500,000
	River Parkway (Unscheduled)	\$ 2,500,000
Santa Monica Mountains Conservancy		\$15,000,000
TOTAL		\$158,081,000

Source: California Department of Finance

Notes:

1. The amounts labeled “Governor’s Budget” are what Governor Davis proposed and are for use consistent with the respective department’s mission (i.e. the budget does not specify what project will be funded / acquired).
2. “Unscheduled” amounts also are not project – specific.
3. Other amounts are legislative augmentations.

TABLE B12 – STATE FUNDING SOURCES FOR LAND ACQUISITION	
California Habitat Conservation Fund California Riparian Habitat Conservation Program California Wildlife, Coastal, Parkland Conservation Fund California Inland Wetlands Conservation Program California Environmental License Plate Fund Cigarette & Tobacco Products Surtax Fund	California Duck Stamp Program California Waterfowl Habitat Program Calif. Wetlands Conservation Easement Program Federal Land & Water Conservation Fund Land Exchanges Through Pooling Agreements Wildlife & Natural Areas Conservation Fund

TABLE B13: FEDERAL FUNDING SOURCES AND AUTHORIZATION FOR LAND ACQUISITION
<p><u>Central Valley Project Improvement Act</u> <u>Endangered Species Act</u> <u>Emergency Wetlands Resources Actg</u> <u>Federal Land and Water Conservation Fund</u> <u>Fish and Wildlife Act</u> <u>Migratory Bird Conservation Fund</u> <u>Refuge Recreation Act</u> <u>Section 1135 of WRDA 1986</u> <u>Section 206 of WRDA 1996</u> <u>Land Exchanges Through Pooling Agreements</u></p> <p>ADDITIONAL NOTES:</p> <p>The Wildlife Habitat Incentives Program (NRCS) - WHIP is a component of the 1996 USDA Farm Bill and is a voluntary program for people who want to develop and improve wildlife habitat on private lands. It provides both technical assistance and cost sharing to help establish and improve habitat.</p> <p>Conservation Reserve Program (NRCS) -The Federal Government's single largest environmental improvement program is not really a land acquisition program, Instead, using the discontinued Water Bank Program as framework, this program seeks to convert ponds to brood habitat and provide flooding for resident waterfowl.</p>

COST ESTIMATES

Existing Programs

TABLE B14: Summary of Programs with Known Costs

Program	Acres Managed	Cost
DFG Wetlands Easements	2,371	\$3,100,000
State Wildlife & Ecological Reserves	116,900	\$46,400,000
WCB Inland Wetlands Conservation	3,565	\$3,100,000
BLM	12,574	\$15,970,000
Bay-Delta Ecosystem Funding	5,090	\$15,870,428
TOTAL	140,500	>\$84,440,428

TABLE B15: Cost Per Acre for Representative Programs

Program	Acres	Cost	Cost Per Acre
DFG Wetlands Easements	2,371	\$3,100,000	\$1,310
WCB Inland Wetlands Conservation	3,565	\$3,100,000	\$870
BLM	12,574	\$15,970,000	\$1,270
TOTAL	18,510	\$22,170,000	\$1,200

Note: Estimated capital costs associated with acquisitions, as outlined in the Central Valley Habitat Joint Venture Implementation Plan, Table 5:

62,060 acres easement for \$38.8 million = \$625 / acre
17,940 acres fee for \$45.0 million = \$2508 / acre
80,000 acres for \$83.8 million = \$1,050 / acre

Estimated cost per acre = (Table B15 value + CVHJV Value) / 2 = (\$1,200 + \$1,050) / 2 = \$1,125 per acre = ASSUMED PURCHASE PRICE FOR THE PURPOSE OF THIS REPORT

TABLE B16: Cost Estimates for Various Program Acquisitions

Program / Notes	Acres	Estimated Cost / Acre	Estimated Cost
NRCS Wetlands Reserve Program	12,397	\$1,125	\$13,946,625
USFWS Conservation Easements	26,781	\$1,125	\$30,128,625
Sacramento NWR Complex	33,593	\$1,125	\$37,792,125
The Nature Conservancy	51,290	\$1,125	\$57,701,250
DWR / Rec Board Mitigation	1,625	\$1,125	\$1,828,125
Department of Parks and Rec	700	\$1,125	\$787,500
TOTAL	126,386		\$142,184,250

Note: costs not determined for State Lands Commission acreage (12,000 acres)

Total acreage = 140,500 + 126,386 + 12,000 = 278,886 acres

Total estimated cost = \$84,440,428 + \$142,184,250 = \$226.6 million

Proposed Actions

Estimated Acquisition Target Range: 104,300 – 114,300 acres

Cost Per Acre: \$1,125 (per above)

Estimated Cost: \$117.3 million - \$128.6 million