

## Directed Actions Awarded in 2003

### Proposal No: 13DA

Applicant Organization: California Department of Fish and Game

Proposal Title: Distribution and Relationship of Resident and Anadromous Central Valley

Rainbow Trout

Funds awarded: **\$158,756.00**

Description: The project will evaluate the distribution and relationship of resident and anadromous rainbow trout in the Central Valley by sampling and assaying their ear bones.

Conditions:

### Proposal No: 22DA

Applicant Organization: California Department of Food and Agriculture

Proposal Title: Expanded Prevention, Detection, and Control of Purple Loosestrife in the California Bay-Delta Authority Watershed

Funds awarded: **\$328,136.00**

Description: The proposal continues a program to survey, control, and monitor purple loosestrife, a weed that is invading the Bay-Delta watershed.

Conditions: None

### Proposal No: 29DA

Applicant Organization: California State Coastal Conservancy

Proposal Title: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

Funds awarded: **\$357,146.00**

Description: The project will produce a plan to restore habitat and improve water quality on Marsh Creek, a tributary to Dutch Slough in eastern Contra Costa County.

Conditions: The Selection Panel recommends providing \$100,000 for restoration planning, in collaboration with the Dutch Slough planning effort; and funding Task 6, public outreach, education, and watershed planning (\$257,146).

### Proposal No: 30DA

Applicant Organization: California State Coastal Conservancy

Proposal Title: Dutch Slough Tidal Marsh Restoration Project

Funds awarded: **\$25,050,000.00**

Description: The project is the purchase of 1,166-acres adjacent to Dutch Slough in Contra Costa County, and planning for its restoration to tidal marsh.

Conditions:

### Proposal No: 31DA

Applicant Organization: California Coastal Conservancy

Proposal Title: Napa-Sonoma Marsh Restoration Project

Funds awarded: **\$4,511,400.00**

Description: The project will manage salinity and begin restoration of 3000 acres of former Napa River salt ponds owned by the Department of Fish and Game.

Conditions: The applicants are expected to cooperate with researchers and others engaged in assessing the effects of wetland restoration on mercury in the estuary. This should include collaboration, to the extent practicable, with efforts to both experimentally assess these impacts and monitor the accumulation of mercury in fish using the restored areas.

### Proposal No: 32DA

Applicant Organization: California State Reclamation Board Proposal Title: Two-Dimensional Detailed Hydraulic Model

Proposal Title: Two-Dimensional Detailed Hydraulic Model for Determining Flood Conveyance Impacts of Ecosystem Restoration Projects in the Yolo Bypass

Funds awarded: **\$500,257.00**

Description: The project will create a hydraulic model that can be used to evaluate the impact of habitat restoration projects and other alterations of the Yolo Bypass.

Conditions: None

**Proposal No: 53DA**

Applicant Organization: Deer Creek Watershed Conservancy

Proposal Title: Lower Deer Creek Restoration and Flood Management: Feasibility Study and Conceptual Design

Funds awarded: **\$1,519,200.00**

Description: The project will evaluate the potential to improve management of lower Deer Creek's floodplain, including potentially setting back its levees, to improve salmon habitat and reduce flood damage.

Conditions: None

**Proposal No: 59DA**

Applicant Organization: Ducks Unlimited

Proposal Title: White Mallard Dam and Associated Diversions - Phase III Construction

Funds awarded: **\$753,415.00**

Description: The project will upgrade Butte Creek's White Mallard Dam with a fish ladder and new water control structures.

Conditions: Funding should only be for those costs associated with constructing the White Mallard Dam upgrade (task 3.1, total cost of \$669,269), including appropriate levels of funding for project management (task 1.0, total cost of \$72,904 for managing 5 construction tasks, only one of which is recommended for funding) and bidders package (task 2.0, total cost of \$11,242 for bidding 5 construction tasks, only one of which is recommended for funding). Total cost is expected to be less than \$753,415.

**Proposal No: 89DA**

Applicant Organization: M&T Chico Ranch

Proposal Title: M&T/Llano Seco Fish Screen Facility - Short-Term/Long-Term Protection Project

Funds awarded: **\$636,650.00**

Description: The project is designed to achieve short-term protection for the M&T/Llano Seco Fish Screen Facility and the City of Chico's Wastewater Treatment Plant outfall from sediment depositions while a long-term solution to sediment deposition problems there is developed. The project would fund dredging to maintain this gravel bar at its 1995 size and planning to develop a long term solution that resolves the diversion's sedimentation problems and maintains the river's meander.

Conditions: Funding should be for one year for those costs associated with forming a Steering Committee and further developing the long-term planning study, with funds set aside to address the short-term fix (likely covered by tasks 1 through 7, totaling \$636,650).

**Proposal No: 96DA**

Applicant Organization: Natomas Mutual Water Company

Proposal Title: American Basin Fish Screen and Habitat Improvement Project

Funds awarded: \$12,600,000.00

Description: The project is the construction of a fish screen at a Sacramento River water diversion.

Conditions: (1) Funds for land acquisition shall not be disbursed until the land acquisition is shown to be consistent with CALFED guidelines. (2) Giant garter snake issues need to be resolved during the planning and permitting phase, and prior to the disbursement of funds for construction

**Proposal No: 116DA**

Applicant Organization: Organization: Reclamation District 108  
Proposal Title: Reclamation District No. 108 Consolidated Pumping Facility and Fish Screen  
Funds awarded: **\$630,000.00**  
Description: The project completes the design, environmental documentation and permitting for a fish screen at a Sacramento River water diversion.  
Conditions: None

**Proposal No: 129DA**

Applicant Organization: San Francisco Estuary Institute  
Proposal Title: Mercury and Methylmercury Processes in North San Francisco Bay Tidal Wetland Ecosystems  
Funds awarded: **\$1,656,569.00**  
Description: The study will investigate mercury cycling in tidal wetlands of the Petaluma River, with emphasis on quantifying and understanding processes that influence the abundance of methylmercury, the highly toxic form that readily accumulates in exposed organisms and can biomagnify to high concentrations in organisms atop aquatic food webs.  
Conditions: None

**Proposal No: 150DA**

Applicant Organization: Solano Land Trust (formerly the Solano County Farmlands and Open Space Foundation)  
Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II  
Funds awarded: **\$1,563,506.00**  
Description: The project will acquire conservation easements to secure sensitive areas along the Delta's Barker Slough and will evaluate the feasibility of restoring tidal marsh and improving habitat there at the Department of Fish and Game's Calhoun Cut Ecological Reserve.  
Conditions: None

**Proposal No: 158DA**

Applicant Organization: Stillwater Sciences  
Proposal Title: Merced River Corridor Restoration Plan Phase IV: Dredger Tailings Reach  
Funds awarded: **\$2,192,515.00**  
Description: The project is planning of a channel and floodplain restoration project for the Merced River's Dredger Tailings Reach.  
Conditions: None

**Proposal No: 159DA**

Applicant Organization: Stillwater Sciences  
Proposal Title: Physical modeling experiments to guide river restoration projects  
Funds awarded: \$2,488,003.00  
Description: The project will build physical models of river restoration at the University of California's Richmond Field Station to test restoration designs and evaluate their potential effects.  
Conditions: None

**Proposal No: 166DA**

Applicant Organization: The Nature Conservancy  
Proposal Title: Battle Creek Protection and Stewardship  
Funds awarded: **\$2,206,625.00**  
Description: The project is the purchase of conservation easements on three ranches in the Battle Creek watershed, fence and restore creeksides and other sensitive habitats there, and monitor these actions' effects.  
Conditions: None

**Proposal No: 167DA**

Applicant Organization: The Nature Conservancy

Proposal Title: Implementing a collaborative approach to quantifying ecosystem flow regime needs for the Sacramento River

Funds awarded: **\$1,500,000.00**

Description: The proposal is a study of flows that can restore the Sacramento River's ecosystems.

Conditions: 1. It is recommended that the matching funds be in hand prior to the execution of the contract as promised by the applicants. 2. TNC shall coordinate, cooperate, and regularly report about the this study's progress and results to CALFED's North of Delta storage team and to the Sacramento River Conservation Area Forum, and shall notify CALFED's ecosystem restoration program of if significant disagreements arise between TNC and these agencies about the project's implementation. It shall also coordinate its evaluations of relationships between flows and cottonwood recruitment and growth with John Stella, CALFED Science fellow.

**Proposal No: 170DA**

Applicant Organization: The Nature Conservancy

Proposal Title: Restoration of the Confluence Area of the Sacramento River, Big Chico and Mud Creeks

Funds awarded: **\$2,603,377.00**

Description: The project is the acquisition of 271 acres of flood-damaged orchard and planning to restore them and an adjacent orchard already owned by TNC to channel and floodplain habitat.

Conditions: 1. As part of the outreach effort, the project proponents are directed to continue coordinating with the Sacramento River Conservation Area Forum Board of Directors and its Technical Advisory Committee. 2. Project proponents are directed to continue working with Butte County officials, especially with regard to the management of flood waters and floodplains, and land use issues. 3. Project proponents are directed to work interactively with the ERP and Science Program as Task 2 products are developed. Specifically, the project proponents should seek review and advice on methodology, work plans, draft and completed reports for the baseline assessment and restoration plans. 4. To the extent feasible, land use of the acquired parcels should not be actively changed prior to the completion of the restoration planning process. 5. Issues raised by the Williamson Act contract on one of the parcels to be purchased shall be addressed and resolved in the restoration planning process, including consultation with the Department of Conservation.

**Proposal No: 171DA**

Applicant Organization: The Nature Conservancy

Proposal Title: Sacramento River Restoration: Chico Landing Sub-Reach (RM 178-206).

Funds awarded: **\$693,657.00**

Description: The project is the completion of environmental documents and detailed plans for the restoration of riparian habitat along the Sacramento River in the river's in the Chico Landing subreach near Hamilton City

Conditions: 1. RX Ranch. Funds for restoration of RX Ranch should be eliminated. 2. Planning. In Task 1, add an additional deliverable: a report on background information on restoration of this type, evaluation of effectiveness of past restoration projects of this type by TNC, and baseline environmental assessment, to be reviewed and approved by the CBDA's ecosystem restoration program prior to developing restoration plans. 3. Environmental compliance. TNC will need to work closely with CBDA for appropriate notification for Williamson Act issues

**Proposal No: 174DA**

Applicant Organization: The Water Forum

Proposal Title: Lower American River Temperature Reduction Modeling Project (formerly the Lake Natoma Temperature Curtains Pilot Project)

Funds awarded: **\$466,082.00**

Description: The project will develop models to evaluate potential structural improvements to reduce late-summer and fall water temperatures to benefit the lower American River's fall-run Chinook salmon.

Conditions: None

### **Proposal No: 181DA**

Applicant Organization: Turlock Irrigation District

Proposal Title: Tuolumne River Mining Reach Restoration Project: Warner-Deardorff Segment No. 3 –Construction

Funds awarded: **\$10,839,000.00**

Description: The overall Mining Reach Project is restoration on a 6.1-mile reach of the Tuolumne River below La Grange Dam. The Warner-Deardorff Segment represents the third element being reconstructed in the Mining Reach, restoring 73 acres of riparian floodplain habitat and 1.3 miles of in-channel riverine habitat for fall run Chinook salmon, including completion of the easement acquisition, permitting for construction, construction, riparian revegetation, and post project monitoring.

Conditions: 1. The applicant will meet with the ERP staff to discuss in more detail the issues to be addressed in a revised proposal. 2. Based on this feedback, the applicant will prepare a newly revised proposal. 3. This proposal will be reviewed by the Adaptive Management Forum for Large-Scale Channel Restoration (AMF). 4. The AMF will provide feedback to the ERP staff on whether the revised proposal has sufficiently addressed the experimental design and adaptive management issues.

### **Proposal No: 185DA**

Applicant Organization: University of California Sea Grant Extension Program

Proposal Title: West Coast Ballast Outreach Project

Funds awarded: **\$478,395.00**

Description: The project will continue to train for mariners to manage ballast to reduce discharges of invasive aquatic organisms

Conditions: None

### **Proposal No: 193DA**

Applicant Organization: University of California, Davis

Proposal Title: Biological Assessment of Green Sturgeon in the Sacramento San Joaquin Watershed

Funds awarded: **\$998,222.00**

Description: The project continues research about green sturgeon

Conditions: None

### **Proposal No: 205DA**

Applicant Organization: University of California, Davis

Proposal Title: Invasion dynamics of perennial pepperweed, *Lepidium latifolium*, and their consequences for protection of natural and restored wetlands in the San Francisco Estuary

Funds awarded: **\$178,701.00**

Description: The project is research to improve eradication and control programs for pepperweed, a weed invading marshes and streamsides.

Conditions: The project's field sampling effort should be broadened to ensure that it accurately documents the impacts of the various environmental factors on perennial pepperweed.

### **Proposal No: 222DA**

Applicant Organization: University of California, Davis

Proposal Title: Cosumnes River Preserve Perennial Pepperweed Control Project

Funds awarded: **\$418,995.00**

Description: The proposal is a project to control pepperweed, an invasive plant that is infesting riparian areas and wetlands in the Cosumnes River Preserve. The project will survey pepperweed

infestations, test different pepperweed control practices, including use of different weed killers in combination with mowing and other mechanical control practices.

Conditions: 1. Targeted Lepidium control research. Objective 2 should include these additional features in the experimental design: a. The herbicide Tryclopyr, which should be registered for use by April 2004, should be evaluated along with Chlorsulfuron and Glyphosate. b. The tarping trials should also include treatments of mowing and discing without tarping. Vegetation response should include both passive and active revegetation approaches. c. The monitoring of soil chemistry should include N, P and K levels and related to the process of revegetation. 2. Adaptive management framework. The project's adaptive management framework should be revised to develop and test models related to spatial processes. They should include the effect of various factors (hydrology, soil, vegetation) on spread rate dynamics, and age/stage structure and demography as applied to internal patch structure and geometry. A stronger linkage between experimental treatments with a more comprehensive demographics analysis is warranted.

### **Proposal No: 228DA**

Applicant Organization: US Fish and Wildlife Service

Proposal Title: Mercury in San Francisco Bay-Delta Birds: Trophic Pathways, Bioaccumulation and Ecotoxicological Risk to Avian Reproduction

Funds awarded: **\$5,337,012.00**

Description: This project will investigate the bioaccumulation of methylmercury in birds and its effects on their reproduction.

Conditions: None

### **Proposal No: 230DA**

Applicant Organization: US Fish and Wildlife Service

Proposal Title: Recovery Implementation for Riparian Brush Rabbit and Riparian Woodrat on the Lower Stanislaus River

Funds awarded: **\$6,427,131.00**

Description: The project will restore riparian habitats along the lower Stanislaus and the San Joaquin Rivers, adjacent to Caswell State Park and the San Joaquin River National Wildlife Refuge, to support endangered brush rabbits. The Department of Parks and Recreation will join the Fish and Wildlife Service in carrying out the project.

Conditions: None

### **Proposal No: 256DA**

Applicant Organization: Yolo Basin Foundation

Proposal Title: Pacific Flyway Center Initial Planning

Funds awarded: **\$334,021.00**

Description: The project is planning for a Yolo basin interpretive and environmental education center.

Conditions: This project must be closely coordinated with the California Department of Fish and Game and the Wildlife Conservation Board. The applicant must provide evidence that this proposal is integrated with the proposal submitted to the Wildlife Conservation Board for funding construction of the Pacific Flyway Center. The final decision to fund this proposal will be dependent on and linked to the decision made by the Wildlife Conservation Board.

### **Proposal No: 261DA**

Applicant Organization: California State Reclamation Board

Proposal Title: Hamilton City Ecosystem Restoration and Flood Damage Reduction

Funds awarded: **\$495,000.00**

Description: The project will study the feasibility setting back existing levees in the Sacramento Valley's Hamilton City area to restore riverside ecosystems and reduce flood damage. It will complete the Hamilton City feasibility study initiated by the Sacramento and San Joaquin River Basin Comprehensive Study.

Conditions: The project will study the feasibility setting back existing levees in the Sacramento Valley's Hamilton City area to restore riverside ecosystems and reduce flood damage. It will complete the Hamilton City feasibility study initiated by the Sacramento and San Joaquin River Basin Comprehensive Study.

**Proposal No: 262DA**

Applicant Organization: San Joaquin Valley Drainage Authority

Proposal Title: Monitoring and Investigations of the San Joaquin River and Tributaries Related to Dissolved Oxygen

Funds awarded: **\$6,807,428.00**

Description: This project will investigate the sources and fate of oxygen-consuming materials in the San Joaquin River above the Deep Water Ship Channel.

Conditions: 1. Quality Assurance Project Plan (Task 3): For each project task the Quality Assurance Project Plan (QAPP) should describe sample collection and handling methods and specific data integration and analysis tasks. The specific steps for coordinating data collection tasks for Tasks 4 and 7 should be described in the QAPP. The QAPP should also describe the sampling strategies needed to account for hydrologic variability. ERP staff will review and approve the QAPP. 2. Monitoring Program (Task 4): Add bi-weekly sampling during the winter months at the 21 year-round sampling stations as described in Task 4.2. In addition, the applicant should add one additional sampling location between Mossdale and Channel Point. The Selection Panel understands the precise location of this sampling station cannot be immediately determined and will depend on flow conditions, navigation requirements, location of nearby outfalls, and right-of-way issues. ERP staff will approve the location of the new sampling station. 3. Independent Measurement of Constants Used in Algal Growth Models of Importance to the Load Allocation Process (Task 5). Eliminate this task from this scope of work, but consider submitting a new proposal after significant progress on Task 4 and further study of zooplankton and benthic grazing. 4. River Modeling (Task 6): The Selection Panel is aware that subtasks within Task 6 overlap somewhat with modeling tasks identified in the Scope of Work for San Joaquin River Dissolved Oxygen Depletion Modeling (HydroQual, Inc.). ERP staff will work with the applicant and HydroQual, Inc. to identify potential overlap and as appropriate, eliminate subtasks and reduce the budget for Task 6. 5. Linking the San Joaquin River to the Deep Water Shipping Channel (Task 8): ERP staff will work with the applicant to add an assessment of zooplankton and benthic grazing between Vernalis and Channel Point within the scope of Task 8. This study will help determine if grazing is responsible for a significant loss of algae in this area.