June 11, 2002

NOTICE OF INTENT TO AWARD GRANTS

The Resources Agency intends to award grants to the applicants on the attached list from the Proposition 204 Ecosystem Restoration Account. The purpose of these grant awards is to fund projects that will implement the CALFED Ecosystem Restoration Program. The CALFED Ecosystem Restoration Program staff released the Ecosystem Restoration Program 2002 Proposal Solicitation Package (2002 PSP) in August 2001, inviting applicants to submit proposals for restoration projects to improve the health of the Bay-Delta ecosystem. Following the September 21, 2001, due date for proposals, staff engaged in a complex selection process as described on pages 8-15 of the 2002 PSP. The final technical recommendation has been reviewed by the CALFED Management Group and is now being considered by the Agency for final awards.

If you have any questions about the funding recommendation, contact Dan Castleberry at the CALFED Bay-Delta Program, 1416 Ninth Street, Room 1155, Sacramento, CA 95814, (916) 657-0199.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 1 **Fund (as is)**

Adopt-A-Watershed

Adopt-A-Watershed Leadership Development, Next Phase

Recommended Funding: $1,518,395.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal continues the work of Adopt-A-Watershed to refine and adapt its educational leadership models in schools in the Sacramento, San Joaquin, and Delta regions, where they would reach an additional 75,000 students. This three-year education proposal builds on needs identified in the program's earlier phases, such as increased public awareness of the role of K-12 education in ecosystem restoration and the value of networking between communities involved in watershed approaches to ecosystem restoration. This project calls for developing 25 new Leadership Teams in the regions.

Reference number: 5 **Fund (as is)**

American River Conservancy

Upper Cosumnes River Watershed Conservation Project

Recommended Funding: $2,000,000.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal is to acquire 3,000 acres along the upper Cosumnes River to protect the river's natural hydrological variability and habitats.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 17 **Fund (in part)**

California Department of Fish and Game

Suisun Marsh Land Acquisition and Tidal Marsh Restoration

Recommended Funding: $1,046,400.00

Funding Source: Prop. 204

Conditions: Fund tasks 1-6 only at this time.

Description:

This proposal is a land acquisition and tidal wetland restoration project in Suisun Marsh. Funds for the acquisition are recommended.

Reference number: 18 **Fund (as is)**

California Department of Fish and Game

Transport, Cycling, and Fate of Mercury and Monomethyl Mercury in the San Francisco Delta and Tributaries--An Integrated Mass Balance Assessment Approach

Recommended Funding: $3,881,215.46

Funding Source: Prop. 204

Conditions: None

Description:

This proposal continues scientific research to understand environmental mercury and monomethyl mercury issues that is a part of the CALFED Mercury Research Project. The focus of this proposal is to understand the transport, cycling, and fate of mercury and monomethyal mercury in the San Francisco Delta and tributary watersheds using a biogeochemical mass-balance framework.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 25 **Fund (in part)**

California Department of Water Resources

Restoration of Eastern Delta Floodplain Habitats on Grizzly Slough in the Cosumnes River Watershed

Recommended Funding: $300,000.00

Funding Source: Prop. 204

Conditions: Reflecting concerns that the proposed costs for year one efforts are high, the panel requests that the applicants reconsider their budget and propose a workplan that can be carried out for $300,000. The panel expects that proposed surveys, data collection activities, as well as modelling exercises can be completed at this level of funding.

Description:

This proposal is a multi-phased project to restore 489 acres of floodplain habitat in the Cosumnes River Nature Preserve for at risk species. Funding is recommended for Phase I, which includes data collecting, modeling, environmental planning, preliminary design and engineering, developing an adaptive management strategy, and completing a reconnaissance level study for the potential similar restoration efforts on adjacent parcels.

Reference number: 51 **Fund (as is)**

Cottonwood Creek Watershed Group

Kids for Our Creeks

Recommended Funding: $164,579.00

Funding Source: Prop. 204

Conditions: None

Description:

Cottonwood Creek, an important Sacramento River tributary, harbors anadromous fish and other significant wildlife and is a major source of spawning gravel to the Sacramento's mainstem. This proposal builds on prior environmental education efforts by helping K-8 teachers to develop environmental education curriculum, service learning opportunities, and coordinate classroom and field work

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 54 **Fund (as is)**

Ducks Unlimited, Inc.

Butte Sink Water Control Structure Modifications - Phase III Construction

Recommended Funding: $5,748,112.00

Funding Source: Prop. 204

Conditions: None

Description:

The Butte Sink Water Control Structures Modification Project is designed to improve fish passage for anadromous fish in Butte Creek (a tributary to the Sacramento River) while maintaining the viability of agriculture and managed wetlands in the Butte Sink and surrounding area. This proposal is to upgrade existing structures with fish ladders and improved water control structures.

Reference number: 58 **Fund (with conditions)**

Ducks Unlimited, Inc.

Staten Island Wildlife-Friendly Farming Demonstration

Recommended Funding: $1,507,459.00

Funding Source: Prop. 204

Conditions: The Selection Panel recommends that project implementation is consistent with the terms and conditions of the previous contracts that funded acquisition of Staten Island by The Nature Conservancy.

Description:

This proposal is to establish a pilot demonstration program to (1) support and improve wildlife-friendly agriculture that fosters at-risk species such as the greater sandhill crane and (2) investigate the effects of different agricultural practices on wildlife populations and water quality. This will be achieved by constructing low interior cross levees and a high volume discharge pump to improve water management on the island. Project monitoring will evaluate the effects of water management practices on habitat use by target species and on water quality, specifically dissolved carbon.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 63 **Fund (in part)**

Environmental Science Associates

DISTRIBUTION AND ECOLOGY OF LEPIDIUM LATIFOLIUM IN BAY-DELTA WETLANDS

Recommended Funding: $223,050.00

Funding Source: Prop. 204

Conditions: Task 1 should be funded.

Description:

The Selection Panel recommends funding Task 1 of this proposal: GIS mapping of Lepidium latifolium in Bay-Delta wetlands. This mapping, combined with additional field information and already available information, will be used to create a spatial model of invaded habitats; this model will be a tool to monitoring invaded areas as well as help identify habitats at risk of invasion.

Reference number: 69 **Fund (as is)**

Estuary Action Challenge Earth Island Institute

Estuary Action Challenge Environmental Education Program

Recommended Funding: $120,000.00

Funding Source: Prop. 204

Conditions: None

Description:

This is a hands-on education program designed for teachers and students from low income, urban schools to study, clean up and restore urban creek and bay habitats, reduce urban runoff pollution, and address issues of water quality and safe bay food consumption. This project focuses on local water resources and environmental justice issues in under-served urban communities.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 71 **Fund (as is)**

FARMS Leadership, Inc.

Cultivating Watershed Stewardship

Recommended Funding: $1,497,500.00

Funding Source: Prop. 204

Conditions: None

Description:

This is a proposal for an environmental education program for high school students in Sacramento and San Joaquin Valleys, Delta, and Bay. Students will participate in real-world habitat restoration and wildlife-friendly agriculture projects, working with local organizational partnerships. Funds are also provided to evaluate the feasibility of establishing a Farm and Nature Center in Winters, near Putah Creek, to provide professional development for local and regional environmental education programs.

Reference number: 80 **Fund (as is)**

H.A.R.T., Inc.

Sustainable Restoration Technologies for Bay/Delta Tidal Marsh and Riparian Habitat

Recommended Funding: $1,800,000.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal is a research and restoration project that builds upon earlier work on the North Fork Mokelumne River and Georgiana Slough. The project includes bank protection work, reconstructing natural berm environments to create new riparian and shaded riverine aquatic habits, developing new freshwater tidal marsh habitat, removing non-native invasive weeds and replanting with native species, and monitoring the effectiveness of the different restoration technologies used for this work.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 85 **Fund (with conditions)**

Hydrologic Research Center

INFORM - Integrated Forecast and Reservoir Management Demonstration for Northern California Water Resources

Recommended Funding: $600,000.00

Funding Source: Prop. 204

Conditions: The proposed cost share is under consideration by the NOAA OPG where an identical proposal was submitted. The scientific review panel and the selection panel felt this proposal should be funded, but that funding should be contingent upon NOAA funding the projected cost share component of this 5-year project.

Description:

This research proposal seeks to improve management of the network of reservoirs in the CALFED area by better integrating climate forecasts into models used to manage the system. The project's first years will be devoted to improving management models for individual reservoirs, while a later phase will be devoted to the interacting four-reservoir system of Folsom, Oroville, Shasta, and Trinity reservoirs. CALFED funding is conditioned upon the proponents securing matching funds from NOAA..

Reference number: 90 **Fund (as is)**

Marin Audubon Society

Bahia Acquisition and Tidal Wetland Restoration

Recommended Funding: $3,345,000.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal is to acquire and permanently protect the 654-acre Bahia property on the lower Petaluma River, including restoration of 333 acres of diked baylands to tidal marsh.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 92 **Fund (as is)**

Meridian Farms Water Company

Meridian Farms Water Company - Positive Barrier Fish Screen Project

Recommended Funding: $750,000.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal is to prepare a feasibility study to evaluate consolidation of three pumping facilities on the Sacramento River into one screened diversion. Collectively, these diversions have the potential to divert a significant portion of the Sacramento River flow.

Reference number: 109 **Fund (as is)**

Patterson Irrigation District

Patterson Irrigation District Fish Screen Design and Environmental Review

Recommended Funding: $611,000.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal is to complete the final engineering design, final environmental assessments, and environmental permits for a fish screen project on the San Joaquin River. The diversion that would be screened has the potential to divert a significant portion of the San Joaquin River flow.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 112 **Fund (as is)**

Point Reyes Bird Observatory

Songbird population responses to riparian management and restoration at multiple scales: comparative analysis, predictive modeling, and the evaluation of monitoring programs.

Recommended Funding: $356,876.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal will use existing data to evaluate how best to promote self-sustaining bird communities through riparian restoration and management. The goals of the proposal are to (1) identify the major factors that influence the success of hydrological, vegetation management, and restoration activities that provide habitat for self-sustaining bird populations, (2) recommend how activities can best benefit breeding songbirds, and (3) evaluate the songbird monitoring strategy.

Reference number: 113 **Fund (as is)**

Portland State University

LIFE HISTORY OF EGERIA DENSA IN THE DELTA: FACTORS CONTROLLING PRODUCTION & FRAGMENT VIABILITY

Recommended Funding: $327,937.00

Funding Source: Prop. 204

Conditions: None

Description:

This is a research proposal to study the life history of Egeria, a nonnative invasive aquatic plant in the Delta, to investigate control measures that can be more readily designed, and to better understand the implications of existing management actions on both Egeria and others aquatic species

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 138 **Fund (as is)**

San Francisco State University, Romberg Tiburon Center

Determining the mechanisms relating freshwater flow and abundance of estuarine biota (the "Fish-X2" relationships): Phase I

Recommended Funding: $509,222.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal responds to the need to more fully understand the mechanisms at work in the fish-X2 relationship in order to improve its effectiveness as an ecosystem management tool. This proposal includes (1) designing and planning a coordinated interdisciplinary research project of fish-X2 relationships and (2) conducting modeling studies to guide future field research. This research project could provide information for more scientifically-based restoration or water management.

Reference number: 142 **Fund (as is)**

San Joaquin County Resource Conservation District

Restoration and Monitoring of Riparian Habitat Corridors Along The Lower Mokelumne River

Recommended Funding: $859,405.00

Funding Source: Prop. 204

Conditions: None

Description:

This project proposes to restore approximately 45 acres of riparian habitat along two miles the Lower Mokelumne River to increase the diversity and richness of riparian birds. Monitoring will provide information about which plants benefit avian communities, reduce stream bank erosion, or enhance river functions for anadromous fish. Collected data also will be used in other CALFED adaptive management processes.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 150 **Fund (in part)**

Solano County Farmlands and Open Space Foundation

Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

Recommended Funding: $246,370.00

Funding Source: Prop. 204

Conditions: None

Description:

The portion of this project recommended for funding is the restoration of vernal pools on 1700 acres east of the Jepson Prairie in Solano County. This includes research on different grazing and burning practices to manage these habitats. Funds are also recommended for an outreach program to strengthen existing management partnerships in the Jepson Prairie-Prospect Island corridor, including work with agricultural interests

Reference number: 154 **Fund (as is)**

Stanford University

Shallow open water habitats: Hydrodynamics and benthic grazing

Recommended Funding: $471,661.00

Funding Source: Prop. 204

Conditions: None

Description:

This research proposal will develop, via field observation and modeling, a detailed view of how tides and wind-generated waves determine the physical structure and hydrodynamics of shallow estuarine waters, and how these physical processes can act to constrain net primary production through their effects on grazing and light. Field experiments in the shallows of Grizzly Bay and in Franks Tract will be conducted. The investigations will provide important information that can improve modeling of the Delta and planning of estuarine restoration projects.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 161 **Fund (as is)**

Suisun Resource Conservation District

Update Individual Ownership Adaptive Management Habitat Plans

Recommended Funding: $214,943.33

Funding Source: Prop. 204

Conditions: None

Description:

In 1981 and 1982, the Suisun Resource Conservation District helped to develop 158 Individual Ownership Management Plans for privately owned lands in Suisun Marsh. These plans included a resource inventory, including information about soils, intake/drainage structures, and ditches, maps, and recommended management plans for water and vegetation. This proposal is to update these individual management plans so landowners will be able to manage their lands more effectively, using a new wetland management template that the SRCD wrote in 1998 to consider current information and changes in laws and regulations over the past 20 years.

Reference number: 162 **Fund (in part)**

Sutter Mutual Water Company

Sutter Mutual Water Company-Tisdale Positive Barrier Fish Screen and Pumping Plant

Recommended Funding: $1,270,000.00

Funding Source: Prop. 204

Conditions: Provide funding for project feasibility and final design only, so that they can proceed while remaining questions about the project are resolved.

Description:

Screening Sutter Mutual Water Company's diversions from the Sacramento River is a priority project for CALFED. This proposal focuses on SMWC's Tisdale diversion, which was identified as a threat to entrain winter, spring, and fall-run chinook salmon, steelhead, and other high-risk species. The Selection Panel recommends funding the project from the feasibility study through final design.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 168 **Fund (with conditions)**

The Nature Conservancy

McCormack-Williamson Tract Restoration: Wildlife-Friendly Levee Management

Recommended Funding: $2,476,835.00

Funding Source: Prop. 204

Conditions: The Selection Panel recommends that project implementation is consistent with the terms and conditions of the previous contracts that funded acquisition of the McCormack-Williamson Tract by The Nature Conservancy.

Description:

The McCormack-Williamson Tract provides opportunity to restore tidal freshwater wetlands, enhance riparian habitat, and potentially reduce flood damage to neighboring private land. The project proposes levee resloping and planting native vegetation to protect levees from interior wave erosion and create riparian habitat. This project is part of the larger CALFED goal of restoring ecosystem processes and habitat corridors, specifically shallow water tidal marsh, in the Delta.

Reference number: 169 **Fund (as is)**

The Nature Conservancy

Mill and Deer Creeks Protection and Stewardship

Recommended Funding: $4,700,000.00

Funding Source: Prop. 204

Conditions: None

Description:

Mill and Deer Creeks are among the Sacramento Valley's critical salmon and steelhead watersheds. Under this proposal, The Nature Conservancy will acquire conservation easements from willing sellers and protect habitats on these conserved lands by fencing streamside areas to control livestock access, controlling invasive weeds, restoring natural plant communities, pursuing other conservation measures, and monitoring their activities' environmental benefits. The proposal continues existing Nature Conservancy actions in the area.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 172 **Fund (as is)**

The Nature Conservancy

Sub-Reach Planning for the Sacramento River: River Mile 144-164

Recommended Funding: $1,488,009.00

Funding Source: Prop. 204

Conditions: None

Description:

Protecting the Sacramento River meanderbelt is a CALFED Record of Decision Stage 1 action. This proposal represents an important planning phase in implementing riparian corridor protection and restoration, in the context of floodplain management, for a 20 mile sub-reach of the river between Colusa and Princeton. The proposal offers a strategic approach to conservation and restoration planning, using the best available science and ensuring stakeholder involvement

Reference number: 175 **Fund (as is)**

Tri-Dam Project

Stanislaus - Lower San Joaquin River Water Temperature Modeling and Analysis

Recommended Funding: $661,902.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal is to improve temperature models for the Stanislaus- and lower San Joaquin Riverts to help guide dam operations to benefit for salmon, steelhead, and other fish. This proposal extends the existing water temperature model to the entire river system, from New Melones to the Bay-Delta, including that portion of the San Joaquin River between the confluence and Mossdale Bridge. New information gathered will assist in refining and developing water temperature improvements in the Stanislaus and Lower San Joaquin River.

Reference number: 182 **Fund (as is)**

Turlock Irrigation District

Tuolumne River Sediment Acquisition and Spawning Gravel Transfusion Project

Recommended Funding: $4,350,000.00

Funding Source: Prop. 204

Conditions: None

Description:

This project includes river restoration through gravel transfusion and adjacent upland restoration. Gravel will be purchased from tailing piles at the Joe Domecq County Park and nearby private property. This project is upstream of an ongoing wetland and upland habitat restoration on the Tuolumne and is part of a long-term plan for Tuolumne river and floodplain restoration. This project also calls for restoration of recreational uses to the county park, including trails, campgrounds, and wildlife viewing.

Reference number: 183 **Fund (as is)**

University of Arkansas

HYDROCLIMATIC RECONSTRUCTION AND ANCIENT BLUE OAK MAPPING OVER THE DRAINAGE BASIN OF SAN FRANCISCO BAY

Recommended Funding: $747,741.00

Funding Source: Prop. 204

Conditions: None

Description:

This research project will develop 500 year hydroclimatic models based upon ancient blue oak tree-ring chronologies and the blue oak's present distribution. Understanding the effects of these past climate changes can help improve understanding of future changes, improving abilities to develop restoration and water management measures that are sustainable as climate changes.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 194 **Fund (in part)**

University of California, Davis

Delta Smelt Culture and Research Program

Recommended Funding: $400,000.00

Funding Source: Prop. 204

Conditions: The Panel recommends partial funding (2 years) of the currently proposed project to continue culture development and expect that the expanded production (30,000 per year) and the nutritional studies should be included at the $200,000 per year level.

Description:

This proposal continues the on-going Delta Smelt Culture Project. This program provides smelt for studies of fish screens and other projects that affect the species, and researches basic smelt biology and life history. Information gathered in this project improves predictability of smelt performance in culture and may aid in predicting smelt performance in the field and in restoration projects.

Reference number: 199 **Fund (as is)**

University of California, Davis

Distribution, and abundance of shrimp, plankton and benthos in Suisun Marsh: Tidal marsh as a refuge for native species

Recommended Funding: $271,804.00

Funding Source: Prop. 204

Conditions: None

Description:

How non-native species are affecting San Francisco Bay is unclear. This two year research project will test the hypotheses that some native species find refuge in shallow water tidal marshes such as those found in Suisun Marsh. This proposal will investigate the current distribution of native and non-native shrimp, plankton, and benthos within Suisun Marsh's tidal marsh habitats.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 207 **Fund (as is)**

University of California, Davis

Primary Production in the Delta: Monitoring Design, Data Analysis and Forecasting

Recommended Funding: $359,201.00

Funding Source: Prop. 204

Conditions: None

Description:

Because phytoplankton primary production plays a fundamental role in the ecosystem process, understanding this production is important to meeting ERP goals. This proposal builds upon existing data and research to improve monitoring of phytoplankton production and related water quality variables in the Delta and Suisun Bay.

Reference number: 208 **Fund (as is)**

University of California, Davis

Restoration of Sacramento Perch to San Francisco Estuary

Recommended Funding: $572,732.00

Funding Source: Prop. 204

Conditions: None

Description:

The Sacramento perch -- California's only native sunfish -- is no longer found in the San Francisco Estuary, but persists in small numbers in certain waters both in and outside its native range. It is a CALFED at-risk species and listed as a species of special concern by the Department of Fish and Game. Little is known about the early life history, environmental tolerance, and genetics of the Sacramento perch -- information that is crucial to any restoration plan. This project focuses on gaining the basic biological information needed for Sacramento perch restoration.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 209 **Fund (as is)**

University of California, Davis

Selenium Effects on Health and Reproduction of White Sturgeon, Acipenser transmontanus, in the Sacramento-San Joaquin Estuary

Recommended Funding: $199,732.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal is to research the key areas of scientific uncertainty about the toxic effects of selenium accumulation in white sturgeon, a valuable species in the Bay-Delta ecosystem. These studies will investigate how elevated selenium concentrations in white sturgeons may affect the species' health and reproduction. The results of the studies will provide information to decision makers about the ecological risk of Bay-Delta selenium contamination.

Reference number: 213 **Fund (in part)**

University of California, Davis, Agronomy Department

The ecological and economic costs and benefits of alternative agricultural practices: Sediment, nutrient, and pesticides in runoff from conservation tillage and cover cropped systems

Recommended Funding: $1,892,916.00

Funding Source: Prop. 204

Conditions: Cut expenses ten percent from amount budgeted by increasing economy of effort rather than eliminating tasks

Description:

Conservation tillage and cover cropping have both reduced polluted runoff and provided other important ecological benefits in many other regions, yet little is known about the benefits these practices would have in California. This research and demonstration project will study the effects of conservation tillage and cover cropping on export of sediment, nutrients, and pesticides in runoff from conventional and organic farms. The research will also evaluate and quantify the feasibility and ecological and economic costs and benefits of these practices.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 215 **Fund (as is)**

University of California, Davis, Department of Environmental Science & Policy

Reducing the Introduction and Damage of Aquatic Nonindigenous Species through Outreach and Education, Phase 2

Recommended Funding: $179,783.00

Funding Source: Prop. 204

Conditions: None

Description:

The project will: a) use workshops, industry magazine ads and articles, best management practices manuals, and enhancement of an existing website to educate industries, such as landscapers or hobby aquarium suppliers, that sell or distribute exotic species about the potential impacts of those species' introduction and spread in the environment, and b) educate the general public about same through a video for use on commercial airplane flights, especially those arriving from overseas. These tasks will occur over a two year period.

Reference number: 218 **Fund (as is)**

University of California, San Diego, Scripps Institute of Oceanography

Effects of Climate Variability and Change on the Vegetation and Hydrology of the Bay-Delta Watershed

Recommended Funding: $645,656.00

Funding Source: Prop. 204

Conditions: None

Description:

This study will use satellite data to characterize recent historical vegetation variability, develop a combined model of the watershed's hydrology and vegetation, and apply these tools to assess how vegetation shapes a watershed's hydrological response to climate variability and global climate change.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 231 **Fund (as is)**

US Fish and Wildlife Service

Riparian Restoration Planning and Feasibility Study for the Riparian Sanctuary, Llano Seco Unit

Recommended Funding: $289,784.00

Funding Source: Prop. 204

Conditions: None

Description:

This proposal is to investigate restoration opportunities on 500 acres of the Riparian Sanctuary at the Sacramento River National Wildlife Refuge. Current conditions there contribute little to endangered species recovery, migratory bird habitat and overall riparian health. In addition, the local irrigation district's fish screen and pumping plant are at-risk as rock revetments in the area degrade . This project features an inclusive, science-based planning process to develop a detailed site assessment and restoration plan based on a comprehensive hydraulic assessment. The proposed restoration plan will examine important relationships between vegetation and natural processes that will contribute information to floodplain management decisions.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 237 **Fund (as is)**

US Geological Survey

EVALUATION OF MERCURY TRANSFORMATIONS AND TROPHIC TRANSFER IN THE SAN FRANCISCO BAY/DELTA: IDENTIFYING CRITICAL PROCESSES FOR THE ECOSYSTEM RESTORATION PROGRAM

Recommended Funding: $2,262,567.00

Funding Source: Prop. 204

Conditions: None

Description:

This project will examine processes that affect the biogeochemical transformations and transfers of mercury among physical (sediment and water) and biotic (food web) compartments at Franks Tract (a 3,188-acre lake in the central Delta) and the Cosumnes River. The processes to be studied include methylmercury production and degradation, transfer of methylmercury between sediment and water, the entry of methylmercury into the food web, and and its transfer and biomagnification in the food-web.

Reference number: 239 **Fund (in part)**

US Geological Survey

Investigating in situ Low Intensity Chemical Dosing to decrease Delta waters DOC concentrations and DBP Precursors while accelerating wetland peat accretion rates and reducing flood risks

Recommended Funding: $767,134.50

Funding Source: Prop. 204

Conditions: Provide half the project funds.

Description:

This proposal is for the first phase of a project to assess using low intensity chemical dosing of coagulants to remove DOC and disinfection byproduct precursors from Delta island drainage water. This phase includes both laboratory and field studies.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 242 **Fund (in part)**

US Geological Survey

Pyrethroid Insecticides: Analysis, Occurrence, and Fate in the Sacramento and San Joaquin Rivers and Delta

Recommended Funding: $800,000.00

Funding Source: Prop. 204

Conditions: Fund only: (1) the study's methods development component and (2) the analysis of limited numbers of environmental samples (water, colloids, sediment, and aquatic biota) from the Sacramento and San Joaquin rivers and in the Delta, as needed and sufficient to test the analytical methodology.

Description:

Pyrethroid insecticides are extremely toxic to fish and invertebrates. Use of these insecticides is increasing in the Sacramento and San Joaquin River watersheds and the Delta. This proposal is to develop analytical methods to measure pyrethroid insecticides occurrence and fate in water, colloids, sediments, and biota and to analyze samples from the Sacramento and San Joaquin rivers and Delta. Funding is recommended for (1) the study's methods development component and (2) the analysis of limited numbers of environmental samples (water, colloids, sediment, and aquatic biota) from the Sacramento and San Joaquin rivers and in the Delta, as needed to test the analytical methodology.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 248 **Fund (in part)**

Water Education Foundation

Tiered Public Outreach Program

Recommended Funding: $360,000.00

Funding Source: Prop. 204

Conditions: Do not fund $36,640 of proposal for Science and Water Policy report.

Description:

This proposal is for a multi-faceted education program about the CALFED ecosystem restoration efforts. The proposal includes updating the PBS special "To Quench A Thirst;" updating the Delta Water Map; journalists' tours of the Bay Delta, and continued provision of a water related curriculum used to train teachers. A fifth component -- a Science and Water Policy report – is not recommended.

Reference number: 249 **Fund (in part)**

WaterTech Partners

Full-Scale Demonstration of Agricultural Drainage-Water Recycling Process Using Membrane Technology

Recommended Funding: $316,090.00

Funding Source: Prop. 204

Conditions: Fund Tasks 1.1 through 1.4 only

Description:

This demonstration project is to test whether sustained, full-scale operation of an on-farm, tile-water recycling process can eliminate off-farm drainage disposal. This recycling process is the most technically, economically, and environmentally viable process to achieve the selenium water quality objectives for the San Joaquin River watershed. If the prototype full-scale demonstration project is successful, there are plans to build more, possibly cutting selenium discharge in to the San Joaquin River by 80 percent.

Reference number: 253 **Fund (as is)**

William Lettis & Associates, Inc.

Geomorphic and Geologic Mapping for Restoration Planning, Sacramento-San Joaquin Delta Region

Recommended Funding: $120,000.00

Funding Source: Prop. 204

Conditions: None

Description:

This is a geologic and geomorphic mapping project that will produce GIS maps of the eastern Delta and lower Sacramento and San Joaquin Rivers. These maps will integrate interpretation of early historical records with established geomorphic and geologic mapping techniques to reconstruct pre-existing river system components, including former floodplains that hosted much of the formerly extensive riparian habitat along the river. The maps will aid restoration and management in these areas.

Reference number: 257 **Fund (in part)**

Yolo County Parks

AT-RISK PLANT SPECIES, HABITAT RESTORATION AND RECOVERY, AND NON-NATIVE INVASIVE SPECIES MANAGEMENT

Recommended Funding: $400,000.00

Funding Source: Prop. 204

Conditions: Fund up to $400,000, with a revised budget justification, subject to approval by CALFED, for work to be completed for this amount.

Description:

This research project will investigate methods to eradicate pepperweed and other non-native plants that have invaded vernal pools in a Yolo County park. The project will use controlled experiments to identify non-native plant eradication practices that will not harm the sensitive native species, and then use the experiments' results to develop and implement management and monitoring plans for the site.

2002 PSP Final Selection Panel Recommendations

-Projects recommended for funding

Reference number: 258 **Fund (as is)**

Yuba County Water Agency

Narrows 2 Powerplant Flow Bypass System

Recommended Funding: $4,280,600.00

Funding Source: Prop. 204

Conditions: None

Description:

The proposal provides a structural remedy to eliminate flow and temperature fluctuations from emergency and maintenance shutdowns at the Narrows 2 Hydropower Plant on the Yuba River. The project will benefit multiple species in the Yuba River, including chinook salmon and steelhead.