EDMUND G. BROWN Jr., Governor
NATURAL RESOURCES AGENCY
DEPARTMENT OF FISH AND WILDLIFE
WILDLIFE CONSERVATION BOARD
Mailing Address: 1416 9th Street, Room 1266
Sacramento, California 95814
www.wcb.ca.gov
(916) 445-8448
Fax (916) 323-0280

WILDLIFE CONSERVATION BOARD

Prop 1 Streamflow Enhancement Program
February 18, 2016, 1:30 p.m.

California State Capitol
Room 126
Sacramento, California 95814

Minutes

The Wildlife Conservation Board met on Thursday, February 18, 2016, in Room 126 of the State Capitol in Sacramento, California. Mr. Chuck Bonham, Director of the California Department of Fish and Wildlife, called the meeting to order at 1:30pm. Mr. John Donnelly, Executive Director of the Wildlife Conservation Board, performed the roll call. Present were; Chair Bonham, Eric Sklar, President of the CA Fish and Game Commission; Eraina Ortega, representing Director of the Department of Finance, Michael Cohen; Israel Landa, representing Assemblymember Das Williams; and Rachelle Caoutte, representing Senator Jean Fuller. Director Donnelly noted that a quorum was established.

1. Roll Call:

WILDLIFE CONSERVATION BOARD MEMBERS

Charlton H. Bonham, Chair
Director, Department of Fish and Wildlife

Karen Finn, Program Budget Manager
Vice, Michael Cohen, Member
Director, Department of Finance

Eric Sklar, President
California Fish and Game Commission

JOINT LEGISLATIVE ADVISORY COMMITTEE

Senator Jean Fuller

Assembly Member Das Williams

EXECUTIVE DIRECTOR

John P. Donnelly

Wildlife Conservation Board Staff Present:

Candice Marg, Senior Land Agent
Celestial Reysner, Staff Services Analyst
Don Crocker, Public Land Management
Colin Mills, Staff Counsel
Elizabeth Hubert, Public Land Management Specialist IV
Heidi West, Public Land Management Specialist IV
Jasen Yee, Senior Land Agent
John Walsh, Supervising Land Agent
Cynthia Alameda, Public Access Manager
Kurt Weber, Senior Land Agent
Joshua Morgan, Staff Services Manager
Scott McFarlin, Public Land Management Specialist IV
Teri Muzik, Senior Land Agent
Liz Yokoyama, Senior Land Agent
Lloyd Warble, Staff Services Analyst
Ron Wooden, Receptionist
Peter Perrine, Assistant Executive Director
Nancy Templeton, Staff Counsel
Mary Delaney, Administrative Assistant
Brian Cary, Public Land Management Specialist IV
Brian Gibson, Senior Land Agent (Specialist)
Laura Featherstone, Administrative Assistant

Others Present:

Doug Johnson, CalIPC
Laurel Marcus, CLSI
Pablo Garcia, TNC
Chris Fritz, RBI
Jeffrey Shue, CDFW
Paul Robins, RCD Monterey County
Paul Mason, Pacific Forest Trust
Chris Unkel, American River
John Cain, American River
Tom Hicks
Regina Hirsch, Thacher School
Tasha Mckee McCorkle, Sanctuary Forest
Caitlin Cornwall, Sonoma Ecology Center
Randall Snodgrass, Pacific Forest Trust

Director Donnelly stated that while a regular Board meeting would be held next week, this meeting was specifically to consider projects to be funded through the WCB's Proposition 1 Streamflow Enhancement Program (Program). Director Donnelly reviewed the history and the scoring process of the Program. He continued, explaining the meeting process he envisioned; WCB staff would present a description of each proposal being recommended for funding, immediately following each individual description, he would solicit comments and/or questions about that particular project. Once staff had presented all recommended projects, he would once again invite comments or questions. Upon ensuring that anyone wishing to speak had been heard, the Director would ask the Board to approve a single motion to approve all the presented projects. He noted that the Agenda includes two projects with written CEQA findings and three acquisition projects that will be conditioned upon staff completing the appraisal process. He once again encouraged anyone wishing to comment at the meeting to complete a speaker card.

Chair Bonham queried whether the room was in agreement with the process, the response was affirmative.

2. **Proposed Stream Flow Enhancement Projects**

There are many challenges facing water management in California. The California Water Action Plan (CWAP), developed as a framework for sustainable water management, shows that decreases in water supplies, reduced water quality, degradation of native fish and wildlife habitat, coupled with population growth and climate change highlight the need for collaborative, complex and resilient management practices to ensure long term sustainability. The Water Quality, Supply, and Infrastructure Improvement Act of 2014 authorized the Legislature to appropriate $200 million to the Wildlife Conservation Board (WCB) to address some of these challenges as they specifically relate to stream flow. A total of $38.4 million was allocated to WCB for expenditure in FY 2015/16 for the California Stream Flow Enhancement Program (CSFEP) through a competitive grant process, in coordination with the California Department of Fish and Wildlife (CDFW), State Water Resources Control Board (SWRCB) and other partners. WCB staff was tasked with developing program guidelines and a solicitation package that required both the California Natural Resource Agency's (CNRA) and WCB's Board (Board) approval.

Guided by the CWAP, funding is to be focused on projects aimed at the direct and measurable enhancement to the amount, timing and/or quality of water, which will be available to improve habitat for anadromous fish; special status, threatened, endangered or at risk species; or to provide resilience to climate change.

Draft guidelines were approved by the CNRA in February 2015 and placed on the WCB web site to begin a two-month public comment period. To solicit additional input, three public meetings were held in northern, central and southern California during the first week of April 2015. On June 30, 2015, the draft guidelines were presented to and approved by the Board.

Following guideline approval, WCB staff drafted a solicitation and released it for public review on June 8, 2015. After receiving input, staff presented the solicitation to the Board on July 23, 2015, where it was approved. On July 27, 2015, the CSFEP Solicitation Package was released and remained open through September 30, 2015. WCB received proposals for 81 projects, totaling $76,126,722.56 in requested funds.

Projects were reviewed through a multi-tiered process. First, submissions were required to pass an administrative review, designed to evaluate the eligibility and completeness of the application. Proposals that passed the administrative review were then evaluated by technical and scientific specialists, using established scoring criteria and standards put forth by the CSFEP Solicitation Package. Each project was reviewed by a minimum of 3 professionals, consisting of a CDFW regional specialist, a WCB Streamflow Enhancement Program staff member, and other technical experts and/or SWRCB professionals. Applications receiving scores of 85 or higher were presented to a Selection Panel, made up of managers and staff from CDFW, WCB, and SWRCB, for further assessment and discussion. The Selection Panel met on January 7, 13, and 15, 2016; and developed a recommended list of projects based on numerous factors including, among others, the following: scoring, feasibility, durability and how projects supported the specific goals of the CSFEP Solicitation Package. Projects recommended for funding by the Selection Panel were reviewed by the WCB Executive Director during the week of January 25, 2016, in preparation for the February 18, 2016, Board meeting.

The fund allocation summary of recommended CSFEP projects for FY 2015/16 is presented below (Table 1). Projects recommended for funding are :

Table 1:
Fund allocation summary for Wildlife Conservation Board, California Stream Flow Enhancement Program FY 2015/16 (in dollars)

Project Type	WCB Prop 1 Funds Available for FY 2015/16	Number of Projects Received	Requested Funds	Number of Projects Recommended for Funding	Funds to be Allocated for Recommended Projects
Planning	5,000,000	47	23,040,967.24	14	5,000,000.
Implementation/ Acquisition[1]	33,400,000	24	25,837,207.32	7	8,246,531
		10	27,248,548.00	3	6,909,747
Totals:	*38,400,0000*	*81*	*76,126,722.56*	*24*	*20,156,278*

[1] Apprasials for acquisition projects will be reviewed and approved by the Department of General Services.

Staff recommends that the Wildlife Conservation Board adopt the written findings for the following two projects: the Salinas River Arundo Eradication Project Phase III and Reconnecting Stream Flows in the Lower Eel River Delta, and approve all the individual projects identified by the selection panel as suitable for funding up to the amounts requested for each, as identified in the attached Table 2: *Wildlife Conservation Board Stream Flow Enhancement Program FY 2015/16, Recommended Project Allocation*; allocate a total of $20,156,278.00 from the Water Quality, Supply, and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff and the California Department of Fish and Wildlife to enter into appropriate agreements necessary to accomplish these projects; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Brian Cary presented the proposals below. Chair Bonham invited questions and/or comments as each individual proposal was described.

San Joaquin River - Grayson Property Acquisition Project

River Partners proposes to acquire 285 acres of primary floodplains in Stanislaus County along California's second largest river, the San Joaquin River, between its confluence with its two largest tributaries, the Merced River and the Tuolumne River. The property is immediately adjacent to the community of Grayson which is a census designated Disadvantaged Community. The property shares a border with the San Joaquin River National Wildlife Refuge which, together with adjacent conservation areas at Dos Rios Ranch and Hidden Valley Ranch, comprise over ten miles of conserved riparian and floodplain wildlife areas on both sides of the Mid-San Joaquin River. River Partners holds an executed purchase agreement and completed land appraisal that are current through May 2016. Currently these lands are used for irrigated agriculture, producing alfalfa to supply forage for adjacent dairies. River Partners would immediately reduce agricultural water use and initiate wildlife friendly agricultural practices and develop plans for future riparian restoration and floodplain enhancement to support threatened and endangered riparian-obligate species, permanently retiring agricultural irrigation which will enhance stream flow and water quality in the San Joaquin River.

Mr. Cary informed the room that Maggie Boberg and John Carlon of River Partners were present and available to answer questions.

Chair Bonham asked how the Board can be assured that the changes made will be sustained. Ms. Boberg answered that current use of water will cease and water will be redirected. Director Donnelly reported that the agreed upon changes will be written into the grant agreement ensuring perpetuity. Cam Treddenick, River Partners, introduced himself stating that John Carlon was ill but sends his thanks.

Chair Bonham stated he had no speaker cards but asked if anyone would like to comment. Director Donnelly said there was a request to make general comments and asked if the Chair would like to hear that speaker at this time. Chair Bonham agreed and Konrad Fisher, Klamath River Keeper, explained that he would like to share some principles that Klamath River Keeper embraces and that he would like to see the Program keep in mind when evaluating all projects. Flow –funding principles that he hopes the WCB would adopt include:

- *Don't approve projects that reduce streamflows. This primarily happens when there is conservation without dedication of water.*
- *Approve projects that are permanent, enforceable, and measurable.*
- *Don't fund projects that actually reduce streamflow.*
- *Focus on quantity over quality.*
- *Do not undermine ESA and Public Trust Flows.*
- *Maximize tax-payer dollars.*

Mr. Fisher reported that Klamath River Keepers has developed a metric to measure cost benefits of environmental water transactions, which measures, at the very base level, dollars to CSF.

He added that he supports NFWF coming to the Shasta but stated concerns about the Grenada Irrigation project.

Chair Bonham asked if there were questions for staff or project proponents. There were none. Director Donnelly again queried whether the Board would like to ask for a motion after each project. The Board confirmed they would make one motion for all projects.

Firebaugh Madera Floodplain Restoration Project

The overall goal of this project is to increase flows to the San Joaquin River, restore habitat, and reduce flood risk for an economically disadvantaged community. The San Joaquin River near Firebaugh is extremely degraded as a result of water diversions, local levees that prevent floodplain inundation, conversion of riparian habitat to farmland, and channelization of the river for flood control. Funds from WCB will enable the applicants to acquire fee simple interest in 290 acres on two properties of historical wetland and riparian habitat north of Firebaugh and discontinue irrigation with shallow groundwater. The project will enhance stream flows and water quality by reducing irrigation demand and polluted drainage from the acquired parcels. In addition to these direct stream flow enhancements, fee simple acquisition of the properties will allow the project team to eventually restore floodplain processes that will increase post–flood up baseflows and reduce water

temperatures during the critical spring rearing and outmigration period for Chinook salmon. Future floodplain restoration will increase rearing habitat, cool water hyporheic discharge, channel complexity, and the persistence of cool water refugia.

Chair Bonham noted there were no speaker cards and asked if there were questions or comments. There were none.

The Salinas River Arundo Eradication Project Phase III

The proposed project will eradicate 350 acres of the invasive non-native plant Arundo donax (giant reed) on 15 river miles of the Salinas River. Arundo stands have very high biomass and leaf area per acre, which translates into huge water consumption for invaded riparian areas. The project will save ~7,000 acre feet of water per year by eliminating Arundo from the project area. This benefit is sustainable over the long term as the project is part of a top-to-bottom watershed-based eradication program, which is particularly effective with Arundo because it has no viable seed in the Western US and only spreads downstream via rhizome fragments and canes. The Salinas River is the second most invaded watershed in CA with 1,470 gross acres of Arundo. The first two phases of the project are treating the upper 50 miles of river from San Luis Obispo County downstream to Greenfield to. This third phase will treat from Greenfield to past the confluence with the Arroyo Seco River near Soledad, CA. The project and program are also restoring fluvial process and riparian habitat, and reducing flood, erosion, and fire risk, all severely impacted by Arundo invasion. These impacts are well documented in scientific literature and the California Invasive Plant Council (Cal-IPC) Arundo Impact and Distribution Report (2011). Removal of Arundo will enable enhancement of critical habitat for South Central coast steelhead, CA red-legged frog and several other listed species found in the watershed. This project has a comprehensive monitoring program that will quantify project benefits through analysis with a pre-existing 2-dimensional hydraulic model developed with project partners and informed by detailed treatment area surveys, and shallow groundwater level tracking with two arrays of monitoring wells set in strategic locations in the work area. The Salinas River Watershed Arundo eradication program of which this proposal is the next stage is fully permitted and already actively carrying out control work. The project is also linked with the Salinas River Stream Maintenance Program under which landowners and local agencies are carrying out complimentary conveyance and vegetation management work and monitoring. Funding of this Prop 1 WCP CSFEP proposal is a critical step in achieving the goal of Arundo eradication and riparian restoration on the Salinas River

Chair Bonham noted this is one of two projects on the day's agenda that require CEQA Findings. He also reported a speaker card from Mr. Paul Robbins, Executive Director Resource Conservation District of Monterey County. Mr. Robbins reported that his community is very supportive of the project and thanked the Board for their consideration.

Board member Sklar stated he had a personal experience with arrundo eradication and found benefits to be impressive.

Chair Bonham asked if there were other questions or comments. There were none.

Reconnecting Stream Flows in the Lower Eel River Delta

Francis Creek and Williams Creek are the largest tributaries to the Salt River, yet fish passage and flow connectivity is nonexistent as flows are diverted to low lying areas across the landscape due to severe sediment aggradation in the system. This project proposes to reconnect the two tributary watersheds back to the Salt River by removing 97,200 CY of sediment from the Salt River channel and floodplains, enhancing 2.5 miles of in-channel complexity, and restoring 47.3 acres of the riparian and wetland corridor.

Chair Bonham noted there were no speaker cards an asked if there were questions or comments. There were none. The Chair noted that this project was the second of two projects on the agenda that had CEQA Findings.

Dos Rios Section 1707 Project

River Partners, Tuolumne River Trust and other partners (together "Tuolumne Trust") are undertaking a project to enhance instream flow at Dos Rios Ranch at the confluence of the San Joaquin and Tuolumne Rivers. Tuolumne Trust will petition the State Water Resources Control Board to dedicate between 2,000 and 5,400 acre feet of its riparian water rights to instream fish and wildlife beneficial uses pursuant to Water Code Section 1707 and as a voluntary Delta outflow toward the Golden Gate. The project will contribute to the recovery and restoration of the San Joaquin and Tuolumne Rivers by improving water quality and quantity, and by increasing habitat important to healthy fish populations, including Central Valley steelhead and Chinook salmon.

Chair Bonham commented that he likes that this project encourages the community to engage in the Water Board's legal process to legally protect instream flow. He reported a speaker card from Mr. Tom Hicks. Mr. Hicks thanked the WCB for leadership and hard work to move voluntary water transactions forward, noting that Water Code Section 1707 has been on the books since 1991, but that implementation has been sparse. He spoke of the need to balance the needs of ranchers and farmers that make a living on the diversion of water with the inherent public trust obligations of the state. He pointed to the Mono Lake case and the public trust doctrine as an example. He noted the progress represented by this project and the significance of accounting for, monitoring, and substantiating non-diverted water, and that these tools will be tested and refined resulting in accountability for how public money is spent.

Chair Bonham asked if there were other questions or comments. There were none.

Green Valley Creek Rural Water Conservation Project

Green Valley Creek, a major tributary to the lower Russian River, provides critical habitat for remnant native populations of endangered coho salmon and steelhead trout, particularly in its upper portions, yet its summer flows are significantly affected by water use from the extensive agricultural and rural residential development throughout the watershed. The watershed has been a major focus of the Russian River Coho Water Resources Partnership ("Coho Partnership"), a multi-stakeholder effort that utilizes limited National Fish and Wildlife Foundation (NFWF) funding to prioritize, design, and implement streamflow enhancement projects throughout crucial coho rearing reaches. In many of these reaches even relatively small reductions in stream withdrawals help to maintain summer pool depths and connectivity, dramatically boosting the likelihood of juvenile coho

survival. Existing flow monitoring efforts have shown that streamflow augmentation of as little as 0.1 cfs during critical periods can sufficiently maintain pool habitat. Since 2010, the Coho Partnership has performed extensive outreach and planning efforts through its priority reaches, and is developing project designs to enhance summer stream flows. The proposed project will implement four of these designs, consisting of agricultural and rural residential rainwater catchment and off-channel water storage systems, along a critical 2,000-foot reach of upper Green Valley Creek, each designed to eliminate or drastically reduce May-October alluvial well withdrawals by providing a total of over 250,000 gallons of storage. The systems are currently under design through the Coho Partnership's NFWF funding; one design is complete. The RCD and its project partners will also work with 3-5 landowners within the Upper Green Valley watershed (including the Purrington Creek subwatershed) to develop and implement comprehensive water conservation plans, for an estimated water savings of an additional 250,000 gallons. Plans will include a suite of components: rainwater catchment to both replace stream withdrawals and enhance water supply reliability, offchannel water storage development, use of soil and plant monitoring devices to decrease irrigation demand, greywater systems, irrigation efficiency upgrades, and stormwater management/groundwater recharge. Streamflow data for the reach will be collected and analyzed from existing gauges through continuing Coho Partnership efforts, while RCD staff will perform visual surveys of pool connectivity and collect pool water quality data. While summer streamflow from year to year is highly dependent on weather conditions, the goal of the program is to maintain coho rearing pool connectivity and quality throughout the 2,000-ft implementation reach of Upper Green Valley Creek.

Chair Bonham noted the State Water Board and CDFW consider this tributary to be one of the most "at risk" relative to coho recovery and restoration.

Chair Bonham noted there were no speaker cards and asked if there were questions or comments. There were none.

Mattole Headwaters Streamflow Enhancement Implementation Project

This implementation project is focused on improving summer streamflows needed for juvenile salmonid rearing in the Mattole River headwaters. Key project activities include upper watershed restoration and forest thinning for the purposes of restoring natural ground and surface water hydrology to enhance summer streamflows. The project includes ~ 3 acres of wetland restoration on an upslope terrace along Baker Creek as well as forest thinning on ~ 23 acres along two reaches of the Mattole headwaters mainstem and Mill Creek. The project objectives for Baker Creek include improved groundwater storage and summer streamflow along with increased wetland vegetation and associated fish and wildlife benefits. This project will enhance flow and improve habitat conditions complementing an important and very successful coho habitat restoration project located on BLM land. The proposed upland wetland restoration aims to increase groundwater storage by approximately 10 million gallons and result in streamflow benefits sufficient to maintain pool habitat even in the most severe drought years. The forest thinning component is needed to address the impacts of overly dense forests in the Mattole headwaters. Objectives include improved forest health, reduced fire hazard and reduced evapotranspiration. To the extent feasible, lop and scatter and/or chipping of slash will be used to help build up the mulch layer and to promote rainwater infiltration. The combined benefits of increased rainwater infiltration along with reduced evapotranspiration will enable reshaping of the stream hydrograph and increased summer flows.

Mr. Cary stated that Tasha McKee McGorkle of Sanctuary Forest Inc. was present and Chair Bonham reported a speaker card for her. Ms. McKee said she was happy to be there and noted previous conversations with Chair Bonham regarding how to do things that are not in the Fisheries Manual. She stated that Sanctuary Forest is excited at the prospect of restoring a natural hydrograph in the Mattole. She explained that Baker Creek has no human use but that beaver are present. She reported that Sanctuary Forest has made some initial efforts to enhance streamflow by building small step pools and that, eight years after they were last found in Baker Creek, some coho have returned.

Chair Bonham asked if there were questions or comments. There were none.

Porter Creek Streamflow Enhancement Project

This implementation project will construct a, permanent water release system from a reservoir to provide up to 150 acre feet of water to Porter Creek benfiting coho salmon. This project will provide a direct and measurable enhancement to flow in Porter Creek – a tributary to the Russian River, and a stream that is critical to the survival of the endangered Central California Coast coho salmon. The goals of the project are to sustain in-stream pool habitat during the dry season and provide higher flow releases to allow coho smolt out-migration in the spring. Streamflow, water quality, and fish monitoring will be conducted for three years to further understand how the water releases affect the fish and inform recommendations for the long-term operation and management of the water release system. This project will serve as an example to other grapegrowers and raise awareness of the greater community regarding the importance of balancing the water needs of fish and people.

Chair Bonham reported he had no speaker cards and asked if there were questions or comments. There were none.

The Thacher School Instream Flow Resiliency and Dormitory Conservation Project

This Project will improve instream flow to southern steelhead habitat on Thacher Creek, a tributary to the Ventura River, while removing barriers to water conservation in Ventura Watershed. The Thacher High School, sits on 425 acres in the upper agricultural Ojai Valley, will voluntarily forbear their water right, and not divert surface water up to 0.92 cfs during March through April. This is made possible through development of an alternative onsite water supply of captured stormwater, which will be used for school orchard and landscape irrigation, as well as 100% of all dormitory toilet flushing. Identified within the Ventura Watershed Plan, this project will capture 920,000 gallons of rainwater, enhanci water supply, reduce the erosive effects of storm events in the upper Ojai Basin, and reduce discharge of nutrient rich stormwater pulses to the San Antonio watershed. Additionally, to increase potential for supplementing summer base flows and increasing groundwater recharge, the storage tank overflows will be infiltrated into upland habitat restoration Low Impact Development (LID) based bioswales and vegetated infiltration basins.

To better inform a scalable and testable model, The Thacher School will use the project as part of an educational installation that demonstrates the connection between water conservation, management, and land use to remove critical barriers to support resilient instream flow and riparian habitat. Three types of outreach will focus on instream flow enhancements. First, Thacher School will cohost with Central Coast Salmon Enhancement and other partnering groups four outreach events for regional professionals and local stakeholders. A notable target of outreach includes the formation of “Thacher Creek

Community Stream Flow Enhancement Group" to leverage cumulative neighborly projects and share techniques to enhance stream flow to the San Antonio watershed. Secondly, informational signage will be installed for the Thacher student body and public tours that describe the innovative technology being implemented to enable the voluntary water transactions and demonstrating alternative strategies for conserving water. Lastly, data gaps, successes, and lessons learned from this project will be shared at the Salmonid Restoration Federation Annual Conference, as well as the SRF Steelhead Summit hosted onsite once during the project timeframe. Overall, this project will create a lasting model at Thacher School, influencing our own student body to regional fisheries professionals, on how best to remove barriers and enhance Central Coast record low stream flows through uncertain climates and watershed management of the future.

Mr. Cary stated that Regina Hirsch, the Thacher School, was present

Chair Bonham reported no speaker cards and asked if there were questions or comments. There were none.

Mattole Headwaters Streamflow Enhancement Planning Project

This planning project will address the impacts of climate change and drought in the Mattole River at a scale needed to restore summertime streamflows throughout the headwaters. Since 1999 a pattern of low summertime flows in the Mattole River headwaters has caused the river to dry up in some reaches, leaving disconnected pools and poor water quality in the remaining reaches. This prolonged-dry season/low-flow pattern has had devastating impacts on the already threatened native salmon populations in the Mattole, for which the headwaters are the most critical spawning and rearing grounds. While measurable streamflow improvements have been made through the successful storage and forbearance program, restoration of ground and surface water hydrology is also needed to achieve drought resilience. This planning project will make possible the development and permitting of 6 streamflow enhancement projects located on 5 tributaries and the headwaters mainstem. The project types include wetland restoration, off channel recharge ponds, restoration of entrenched streams and instream habitat. The planning for these projects will be conducted at a level sufficient to qualify for implementation funding. The project will also obtain streamflow data on 8 downriver tributaries that have been prioritized for coho habitat recovery. This streamflow data is needed for development of streamflow and coho habitat enhancement projects.

Mr. Cary reiterated that Tasha McKee McGorkle of Sanctuary Forest Inc. was present.

Chair Bonham noted he had no speaker cards and asked if there were questions or comments.

Tasha McKee-McGorkle commented on the importance of planning grants. She said when Sanctuary Forest consider implementation projects and the need for permits and CEQA, and started looking at big scale projects that would make a big difference, they realized they needed to be able to get the funding to go through the whole permitting pathway. She recommended that going forward, more money be made available for planning. She also commented on cost-share, saying she appreciated the way the WCB allowed cost-share that was directly related to the project because Sanctuary Forest obtained foundation funding that is hard to get and used it to develop the monitoring two-years prior to the project to see if it was feasible. She said that it was important to be able to include it as

cost-share because it is real cost. Especially for small organizations doing innovative projects. She feels it helps realize the goals of the California Water Action Plan.

Navarro River Watershed – Plan for Streamflow Optimization and Enhancement

The Mendocino County Resource Conservation District (MCRCD), The Nature Conservancy (TNC), and Trout Unlimited (TU) have joined forces in the Navarro River watershed to conduct a collaborative planning and implementation prioritization process that will identify and complete preliminary designs for projects to enhance and optimize streamflows. In the planning process applicant will: Review existing restoration plans for the watershed and compile a comprehensive list of streamflow restoration recommendations. Convene and engage a Technical Advisory Group (TAG) of private and public stakeholders to update restoration recommendations by incorporating climate change and drought resilience considerations; new approaches for bolstering base flows through groundwater infiltration; and completed restoration projects. Conduct feasibility analyses, scientific studies, and water diversion evaluations in order to create a reach-specific prioritized implementation plan and timeline. Develop the conceptual model for a voluntary coordinated water diversion management pilot. Create pre-project implementation and permitting plans for five to eight high-priority shovel-ready projects to enhance streamflows and improve habitat. Demonstrate the cooperative planning process to others in California as a replicable example of flow enhancement and optimization. This planning and assessment grant proposal will produce plans and preliminary designs for projects that will either enhance streamflows or (in the case of large woody debris projects) allow fish to optimize scant flows in streams of the Navarro watershed known to support anadromous fish. Projects will be prioritized based on their ability to increase drought and climate change resilience in the target subwatersheds.

Mr. Cary stated that Nancy Smith, TNC of Mendocino County, was present .

Chair Bonham reported he had no speaker cards and asked if there were questions or comments. There were none.

Soquel Creek Stream Flow Stewardship Project (SCSSP)

Historically, Soquel Creek was one of the most important steelhead spawning and rearing streams in Santa Cruz County: in 1959 the abundance of steelhead in the creek was estimated at a robust 17,500 fish. Soquel Creek is also the southernmost creek known to still support the state and federally listed Central California Coast coho salmon. Both the Soquel Creek steelhead and coho runs declined significantly during the 1970's, coincident with increased diversions and drought that reduced stream flow. While progress has been made in the watershed to address other limiting factors, stream flow has not increased. The Soquel Creek Watershed Enhancement Plan, Soquel Creek Salmonid Assessment and Enhancement Plan, and the Coho Recovery Plan all point to low summer and early fall stream flow as a key limiting factor in the effectiveness of recovery efforts. Each of these plans calls for working with stream water diverters in the watershed to convert their water rights to instream use or change the timing of their diversions away from the critical low-flow late summer and fall time period. The coho recovery plan identifies providing incentives to water rights holders to convert rights to instream use and the need to promote off channel storage as top priorities. This project proposes a partnership between the Resource Conservation District of Santa Cruz County (RCDSCC), Trout Unlimited (TU) and

private landowners and water users in the Soquel Creek Watershed to develop high-priority and technically and socially-feasible projects that yield benefits for fisheries and human populations.

Flow enhancements objectives could be obtained through the development of tanks, ponds and alternatives to streamside wells, and could be accompanied by improvements in water use efficiency and rotations of diversions. Ideally, the project will determine a pumping regimen that is coordinated with other water users to ensure maximum benefit of projects. This work will build off of the success of the Integrated Watershed Restoration Program (IWRP), which has effectively brought together landowners and regulators to address a number of limiting factors in the watershed. Moving forward with this approach will require obtaining information about existing water need and demand, fisheries resources, stream flow, and water rights in order to understand whether the approach would both beneficial (i.e., water can be taken in the winter without impacts to fish or injury to other water users and that the projects will result in summer flow benefits) and feasible (i.e., from landowner, permitting, and engineering perspectives). This work will set the stage for future rounds of instream flow funding, and working with riparian diverters will also complement efforts by water districts who are actively working to recover the groundwater basin, which should over time also improve stream baseflow.

Mr. Cary stated that Chris Coburn Executive Director of RCD of Santa Cruz County was present .

Chair Bonham noted he had no speaker cards and asked if there were questions or comments. Chris Coburn thanked the Board.

Sonoma Creek Streamflow Stewardship Program, Phase 1

This project takes essential first steps toward increasing dry-season streamflows to support steelhead and other aquatic species along upper Sonoma Creek. A 2008 survey found that the Sonoma Creek watershed probably supported the second largest steelhead run among Bay Area streams historically. Sonoma Creek has been identified as an “anchor” steelhead stream of the San Francisco Estuary, and one of nine streams considered essential steelhead resources of that region. The reach of Sonoma Creek proposed for this project is from Sonoma Developmental Center upstream to Sonoma Creek's intersection with Highway 12 above Kenwood. This reach has been a focus for several years and both the Center for Ecosystem Management and Restoration (CEMAR) and CDFW identify this reach as where steelhead restoration efforts should be focused. The project will follow the model of the Coastal Streamflow Stewardship Project, a collaborative effort led by Trout Unlimited and CEMAR, to implement a plan for streamflow restoration and stewardship through changes in water use and management that benefit both anadromous fish and the Sonoma Valley community. The project will install and monitor five streamflow gages to establish the location, quantity, and timing of streamflow to benefit salmonid species, and will engage landowners in planning for specific future streamflow enhancements.

Mr. Cary stated that Caitlin Cornwall Research Program Manager from Sonoma Ecology Center was present .

Chair Bonham noted he had no speaker cards and asked if there were questions or comments. There were none.

Central Valley Arundo Mapping and Impact Assessment Project

This planning project will map infestations, analyze impacts, prioritize sites and build partnerships to eradicate Arundo donax (giant reed) in Central Valley watersheds, an area in excess of 14 million acres in size. Arundo severely impacts water use through high levels of transpiration. An acre of Arundo uses 24 ac-ft/yr/ac compared to native vegetation that uses an average of 4 ac-ft/yr/ac. A net water gain of 20 ac-ft/yr/ac is realized for every acre of Arundo that is permanently removed from a watershed. To have this long-term benefit, projects must start at the top of a watershed and proceed downstream (Arundo has no viable seed and only spreads from plant fragments). To implement top-down control, a comprehensive map of the invaded areas must occur. Then groups may systematically implement control programs, as has already occurred in numerous coastal watersheds in California. This type of planning project— mapping, impact analysis, prioritization and program preparation—has already been accomplished for coastal watersheds from Monterey to Mexico by Cal-IPC. This demonstrates that the project is feasible as it has already been completed for an area of comparable size in California . The mapping data and impacts study has assisted numerous coastal watershed programs in obtaining permits, securing grants, and initiating significant levels of Arundo control work, as well as improving monitoring and benefits assessment (including the Salinas, Santa Clara, San Luis Rey, Carlsbad, San Dieguito, and San Diego watersheds). Systematic eradication of Arundo also restores fluvial processes and riparian habitat, reduces flooding and erosion, and lowers fire risk. These Arundo impacts are well documented in scientific literature and are described and calculated for coastal watersheds from Monterey to Mexico in the 2011 Cal-IPC Arundo Distribution and Impact Report. This planning project will generate the same detailed analysis for the Central Valley, including major sub-watersheds and streams/creeks. The mapping data provides the basis for analyzing a multitude of impacts, planning systematic control, securing permitting, and preparing strong proposals for funding. Programs cannot form and secure funding for implementation if they cannot demonstrate that projects are sustainable and comprehensive, and if they do not have detailed budgets and permission from landowners. All of these require mapping data to complete. Mapping will allow for the prioritization of watersheds to assist programs in initiating work where there will be the most benefit. There are many separate watersheds that feed into the Central Valley watersheds. It is the ultimate goal to eradicate all Arundo in both valleys, as this will protect the Delta Region, which is already initiating its own mapping, prioritization and control program.

Mr. Cary stated that Doug Johnson from Cal-IPC was present .

Chair Bonham noted he had no speaker cards and asked if there were questions or comments. There were none.

Oroville Wildlife Area Floodplain Reconnection and Habitat

The initial phase of this multi-benefit project will design and permit civil improvements for floodplain reconnection on the "D" Unit of the Oroville Wildlife Area enabling future implementation work to allow for the reconnection of over 160 acres of floodplain at 2 year flood events to be accessible to spring-run Chinook salmon, steelhead and other anadromous fish. The 'D' Unit is located in Butte County on the east bank of the Feather River, approximately 10 river miles downstream of Oroville Dam and immediately across the river from the Thermalito Afterbay outlet. The Oroville Wildlife Area is owned by the California Department of Water Resources and managed by the California Department of Fish and Wildlife. The project will not only improve the connectivity of the Feather River to its historic floodplain, but reduce flood stages within the main channel, provide more frequently inundated floodplain rearing habitat for juvenile salmonids, reduce the extent of invasive species, and plan for future habitat restoration on the Wildlife Area. This grant request is for a portion of the preliminary project: a bathymetry survey and the design of interior channel improvement and a new berm. The overall project will enhance stream flow primarily by improving water timing (hydrograph), purity and temperature in the adjacent Feather River and increasing the active floodplain of the river which will add significant acreage of terrestrial and aquatic habitat (particularly for the benefit of listed (spring-run Chinook salmon and steelhead) and non-listed (fall-run salmon) salmonids. The most significant agent of water quality improvement is the enhancement of subsurface flow. These flows, also described as “hyporheic flows,” are recognized to be important for surface water/groundwater interactions, as well as fish spawning and rearing, among other processes.

Mr. Cary stated that Chris Unkel from American Rivers was present.

Chair Bonham noted he had no speaker cards and asked if there were questions or comments. There were none.

Dominie Creek and Rowdy Creek Fish Passage Improvement Project

The Rowdy Creek Hatchery (hatchery) operates two freshwater diversions on Dominie Creek and Rowdy Creek. Both statements (water right) allow for diversions of up to 1000 gpm (or 2.228 cfs) for a combined diversion of 2000gpm. Dominie Creek base flows range from 0.25 to 6 cfs (RCH 2011). Removal of the water diversion on Dominie Creek will return up to 2.2 cfs to Dominie Creek, substantially increasing base flows. It is understood that the hatchery can operate relying solely on the Rowdy Creek Diversion and so this project proposes to remove the water diversion infrastructure and other outdated hatchery infrastructure on Dominie Creek. Removing the water diversion on Dominie Creek will measurably enhance creek flows in Dominie Creek to better enable salmonid migration past the hatchery. This planning project will address water efficiencies and alternatives for hatchery operation with a focus towards increasing the water available in Dominie Creek at crucial life stages of salmonids. The proposed project will also develop design and construction documents to improve fish passage at the confluence of Dominie Creek and Rowdy Creek past hatchery infrastructure. There are 1.6 miles of habitat upstream of the hatchery on Dominie Creek and 11.5 miles of habitat upstream of Rowdy Creek. Hatchery infrastructure currently inhibits fish passage for native anadromous species including coho salmon, Chinook salmon, steelhead trout, rainbow trout, coastal cutthroat trout, and pacific lamprey in addition to many other aquatic species.

Chair Bonham noted he had no speaker cards and asked if there were questions or comments. There were none.

Suisun Creek Watershed Instream Flow Enhancement Project

This project will complete the scientific studies and analyses necessary to re-operate Lake Curry for the benefit of threatened steelhead trout in Suisun Creek. Lake Curry, a 10,700 acre-foot capacity municipal reservoir, is owned by the City of Vallejo. The City no longer needs this reservoir for water supply so a unique opportunity is available to re-operate Lake Curry for downstream salmonids and the creek ecosystem. This project will monitor water temperatures, dissolved oxygen and stream flow in Suisun Creek with different reservoir operation scenarios to determine the optimal releases for salmonids under various climatic conditions. Analyses of several alternatives for the lake will be completed including cost evaluation of the reservoir and the water right as it stands currently; with a relocated point of diversion and winter time diversion into the Putah South Canal; and as a salmonid mitigation bank and source of freshwater to Suisun Marsh. Costs for new infrastructure for each alternative and for operation and maintenance will be provided. A committee of resource agencies, local residents, fish enthusiasts, City of Vallejo and elected officials will review results of the studies and provide feedback. Implementation of the project will result in releases from the reservoir of up to 6-8 cfs in the dry season.

Mr. Cary stated that Laurel Marcus from the Ca. Land Stewardship Institute was present.

Chair Bonham noted he had no speaker cards and asked if there were questions or comments. There were none.

Dry Meadow Restoration Project

The project site is a degraded montane meadow habitat located in the southern Sierra Nevada, Sequoia National Forest. This phase of the project will fund the permitting and environmental compliance associated with the future implementation of the meadow. Past meadow restoration projects have demonstrated that a restored meadow can result in a 30% increase in water storage capacity. Through restoration, this meadow will be reconnected to groundwater, which usually results in reduced water temperatures in summer . In addition, decreased temperature and increased hyporheic exchange with the floodplain should result in higher dissolved oxygen levels. Reconnecting the meadow with the floodplain will reduce erosion and sediment delivery. Restoration of this meadow will improve aquatic and terrestrial habitat for native species including endangered and threatened species that depend on meadow habitat such as Mountain yellow-legged frog. Additionally, the project site is within range of Kern River rainbow trout; and project implementation will improve water quality, late-season water quantity, and available aquatic habitat. South west Willow flycatchers have been observed in this project site, and require dense willow thickets for nesting and roosting which is expected to increase as a result of project implementation.

Mr. Cary stated that Jessica Strickland from TU was present.

Chair Bonham noted he had no speaker cards and asked if there were questions or comments. There were none.

Baseflow Monitoring for Stream Flow Enhancement Project Planning and Evaluation in San Luis Obispo County

(1) The Central Coast Water Conservancy (CCWC) has recently been initiated to galvanize, prioritize and coordinate county-wide efforts to enhance stream flows in Central Coast streams in a robust, sustainable, and measurable manner.. Under this umbrella Central Coast Salmon Enhancement (CCSE) is seeking funds to develop a county-wide base-flow monitoring program. The goal of the program is to measure spring and summer baseflows in reaches identified with a high potential for steelhead rearing by NOAA and determine which streams are meeting environmental water demand (EWD) and which are not. County-wide EWD was determined in a preliminary flow study conducted by the Coastal San Luis Resource Conservation District and the Upper Salinas-Las Tablas Resource Conservation District (funded by Integrated Regional Water Management Program, 2014). Knowing which streams are meeting EWD and which are not will allow partner agencies to effectively prioritize streamflow enhancement projects across San Luis Obispo County. For example, the SLO Coastal Resource Conservation District (RCD) and the Salinas-Las Tablas RCD will utilize the data to prioritize proposed streamflow augmentation projects including but not limited to irrigation audits, application of pump scheduling tools to reduce the impact of riparian wells on baseflow, and percolation ponds. In the next year, the RCD's are jointly seeking funds from the State Coastal Conservancy to fund this type of work.

(2) additionally, the applicant is proposing to conduct effectiveness monitoring on a completed streamflow enhancement demonstration project on Pennington Creek and to collect the pre-implementation data needed for evaluation on San Luis Obispo Creek. On Pennington Creek four 74,000-gallon rainwater harvesting tanks collect rainwater runoff from the buildings and structures at the Cal Poly Beef Center. The stored water is used to maintain cattle troughs during the creeks critical low flow period and Cal Poly refrains from using their two riparian wells. On San Luis Obispo Creek, the City of San Luis Obispo is planning on repurposing an existing 2,000,0000 gallon rainwater cistern for streamflow enhancement.

Chair Bonham noted he had no speaker cards and asked if there were questions or comments.

Tom Hicks commented on the relationship between water quantity and water quality and the impact of water quality on fish. He noted the importance of planning projects and voiced support for this project.

Domestic and Agricultural Water Efficiency Design Program

The San Mateo County Resource Conservation District (RCD) and its partners Trout Unlimited (TU), American Rivers (AR) and the USDA Natural Resources Conservation Service (NRCS) are working to enhance and protect stream flows though planning, designing, permitting and implementing water conservation projects on domestic, recreational and agricultural water systems. These projects improve efficiencies of water irrigation and supply infrastructure, effectively reducing overall water use and increasing storage of winter flows to maximize the reduction in surface water withdrawals during the late summer and early fall when streamflow is lowest. Projects for this application are for domestic water systems within the Pescadero- Butano watershed located in the rural San Mateo County Coast. The goal of this project is to plan, design, and permit projects that would result in increased instream flow and enhance wildlife habitat. This project will

develop designs that when implemented will produce measurable habitat improvements for Steelhead trout and Coho salmon, as well as other long term ecosystem benefits within the Pescadero-Butano watershed. Water audits will be conducted for each project site to determine current water demands and system efficiency levels, which will identify solutions to improve water use efficiency. Project designs will be developed based on the water audits which will focus on replacing identified high priority sections of water lines and fixtures. Opportunities for water storage are already being explored at the Memorial Park and Loma Mar sites. Designs for water storage opportunities will be explored at the Butano State Park site as part of this grant. Project designs for each site will identify estimated water savings and benefits to streamflow. The RCD and its partners will seek implementation funding for completed designs that will directly address needed streamflow benefits. Implementation funding for domestic water supply and conservation projects will likely be acquired through Prop 1 funding.

Chair Bonham noted he had no speaker cards and asked if there were questions or comments. There were none.

National Fish and Wildlife Foundation

A diverse coalition of groups have joined together to develop and submit a unified proposal for funding to WCB through the National Fish and Wildlife Foundation (NFWF) for a suite of projects that include a flow enhancement acquisition, and four planning projects in the Scott and Shasta watersheds of the Klamath Basin. We are recommending approval of the acquisition project and two of the four planning projects. I will address each of these projects now.

Chair Bonham said he is pleased at the collaboration represented in this proposal.

Director Donnelly explained that the Program guidelines allow for an entity to submit a proposal for more than one project. In that event, the suite of projects is scored together resulting in identical scores for each project.

Grenada Irrigation District Planning for Piping of an Open Ditch (GID)

This is a planning proposal which aims to complete the design and engineering of a pipeline to replace a leaky 5.2 mile long canal as well as obtain permits and approvals for a future water conservation plan. Since GID diverts only after all other water rights are met, any water conserved is water that will not be legally diverted by any other water right holder and will thus remain instream throughout the 31 mile reach of the Shasta River to the Klamath. In summary, it is expected that this investigation will develop a project design, permitting, operations plan and Water Board approval to implement a project that will permanently conserve up to 1,400 acre feet of water during an average water year and protect the dedicated instream water under a section 1707 or equivalent program.

Mr. Cary stated that Claire Thorp- NFWF and Rod Dowse from Grenada Irrigation District were present.

Chair Bonham noted he had no speaker cards and asked if there were questions or comments.

Konrad Fisher asked if there could be further dialogue about points he raised earlier in the meeting. Chair Bonham assured him there would be opportunity to weigh in as processes were refined prior to the next solicitation. Chair Bonham asked if there were further comments or questions. There were none.

Prioritizing and Developing Flow Enhancement Projects on French Creek (Siskiyou RCD)

The RCD has coordinated with three French Creek water-users interested in improving water conveyance and on-farm efficiencies to identify potential water conservation projects. This program includes the assessment of water efficiency improvements from the point of diversion to the point of use, the development of design alternatives and the evaluation of the effect of potential flow enhancements on water quality and quantity. The completion of these necessary assessments and subsequent implementation of water conservation efforts will reduce transmission losses and inefficiencies. The resulting net savings will be dedicated in-stream, thus enhancing flows in French Creek. Furthermore, as part of this planning effort the RCD will organize and develop discussions with other potentially interested water users within the French Creek subwatershed.

Mr. Cary stated that Claire Thorp- NFWF and Preston Harris from the Siskiyou RCD were present.

Chair Bonham noted he had no speaker cards and asked if there were questions or comments. There were none.

Spencer Ranch Permanent Instream Water Dedication and Conservation Easement

This project requests funding to complete the purchase of a 0.76 cubic feet per second permanent instream water dedication on French Creek and a 250 acre conservation easement on the Spencer Ranch. The combined water dedication and easement will directly improve a total zone of influence of 1.1 river miles which includes 0.6 miles of French Creek and 0.5 miles of the Scott River. The entire zone of influence consists of critical coho spawning and rearing and habitat.

Mr. Cary stated that Claire Thorp- NFWF and Drew Braugh from California Trout, Inc were present.

Chair Bonham noted he had a speaker card for Ms. Claire Thorp. Ms. Thorp thanked the Board and NFWF's partners, and noted the importance of the region relevant to salmonoids. Rod Dowse from Grenada Irrigation District noted that the point of their project was to return water instream.

Chair Bonham asked if there were last questions or comments. There were none.

The Chair informed the gathering that Director Donnelly would ask for a single motion for all projects presented at once. Approval of the motion would indicate Board acceptance of CEQA Findings on two projects, and confirm the understanding that each of the three acquisition projects will require DGS appraisals.

Director Donnelly read the following motion:

Staff recommends that the Wildlife Conservation Board adopt the written findings for the following two projects: the Salinas River Arundo Eradication Project Phase III and Reconnecting Stream Flows in the Lower Eel River Delta, and approve all the individual projects identified by the selection panel as suitable for funding up to the amounts requested for each, as identified in the attached Table 2: Wildlife Conservation Board Stream Flow Enhancement Program FY 2015/16, Recommended Project Allocation; allocate a total of $20,156,278.00 from the Water Quality, Supply, and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff and the California Department of Fish and Wildlife to enter into appropriate agreements necessary to accomplish these projects; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Approval was unanimous.

Chair Bonham congratulated WCB staff on their hard work.

Director Donnelly stated the WCB staff would be working with potential grantees, offering input on crafting successful applications.

Peter Perrine reiterated that WCB staff would be available to applicants and would offer a workshop open to anyone interested in participating in the next solicitation.

Director Donnelly said he would appreciate hearing feedback from the Board and participants in the Program.

Chair Bonham adjourned the meeting.

It was moved by Board Member Eraina Ortega that the Wildlife Conservation Board adopt the written findings for the following two projects: the Salinas River Arundo Eradication Project Phase III and Reconnecting Stream Flows in the Lower Eel River Delta, and approve all the individual projects identified by the selection panel as suitable for funding up to the amounts requested for each, as identified in the attached Table 2: Wildlife Conservation Board Stream Flow Enhancement Program FY 2015/16, Recommended Project Allocation; allocate a total of $20,156,278.00 from the Water Quality, Supply, and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff and the California Department of Fish and Wildlife to enter into appropriate agreements necessary to accomplish these projects; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Passed Unanimously

Ortega- yes

Sklar- yes

Bonham- yes

I, John P. Donnelly, Executive Director of the Wildlife Conservation Board, hereby certify that the foregoing is a true and correct copy of action taken by the Wildlife Conservation Board in a meeting assembled in Sacramento on February 18, 2016.

John P. Donnelly
Executive Director