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
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(916) 445-8448
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Index of Meeting Minutes
Wildlife Conservation Board
Stream Flow Enhancement Program
March 22, 2018

Attachments

Attachment A – Letters of Support

DMUND G. BROWN JR, Governor
NATURAL RESOURCES AGENCY
DEPARTMENT OF FISH AND WILDLIFE
WILDLIFE CONSERVATION BOARD
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WILDLIFE CONSERVATION BOARD

Stream Flow Enhancement Program
March 22, 2018, 1:00 p.m.

Natural Resources Building, First Floor Auditorium
1416 9th Street
Sacramento, California 95814

Minutes

The Wildlife Conservation Board met on Thursday, March 22, 2018, in the Natural Resources Building. John Donnelly, Executive Director of the Wildlife Conservation Board (WCB), performed the roll call.

1. Roll Call

Wildlife Conservation Board Members

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

Diane Colborn, Member

Mary Creasman, Member

Eric Sklar, Member
President Fish and Game Commission

Joint Legislative Advisory Committee

Cartherine Freeman
Vice, Assemblymember Eduardo Garcia

Executive Director
John P. Donnelly

Wildlife Conservation Board Staff Present:

Peter Perrine
Elizabeth Hubert
John Walsh
Ron Wooden
Colin Mills
Brian Cary
Don Crocker
Cara Allen
Heidi West
Chris Garbarini
Jessica Schroeder
Scott McFarlin
Joe Navari
Dawn Drowne
Celestial Reysner
Sadie Smith
Erin Velo
Mary Delaney

Executive Director Donnelly indicated the format of the meeting would be conducted the same as last year's meeting; all projects would be presented, questions would be taken from the Board and the public after each presentation, and then at the end of the presentations there would be one motion. He then indicated that this time there would be a consent calendar for small planning projects, except one which is a low-flow enhancement project.

2. California Stream Flow Enhancement Program (SFEP) FY17/18
Informational

Executive Director Donnelly provided background on this item. The WCB released the SFEP solicitation on July 3, 2017. It remained open until August 31, 2017, and received a total of 53 proposals totaling $78, 231,000. All projects went through an administrative review process, pass or fail procedures outlined in WCB's guidelines. The second review phase was a technical review by a panel of experts from the California Department of Fish and Wildlife, WCB, State Water Board and other Departments. The proposals were all scored and then presented to a management selection panel for review. The result of this final selection panel is presented today. Those projects that received a score of 75 percent or higher are what you see today.

Mr. Donnelly noted Item 24, the San Geronimo Flow Enhancement Project, is withdrawn.

Brian Cary presented this project

The future of California's water supply faces many uncertainties. To address these uncertainties, the California Water Action Plan (CWAP) was developed as a framework for sustainable water management, to enhance the resilience of the water resource system, and restore important species and habitat. The Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1) authorized the Legislature to appropriate funds to address these challenges. $200 million was allocated to the Wildlife Conservation Board (WCB) for projects that enhance stream flow.

A total of $38.4 million, including $5 million designated for scoping and scientific projects, was allocated to WCB for expenditure in FY 2017/18 for the California Stream Flow Enhancement Program (SFEP) 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. An additional $40,538,695 of remaining funds from FY 2016/17 is also available. Guided by the CWAP, funding is focused on projects that will lead to a direct and measurable enhancement to the amount, timing and/or quality of water, for anadromous fish; special status, threatened, endangered or at risk species; or to provide resilience to climate change.

WCB released the 2017 SFEP Solicitation Package (PSN) on July 3, 2017. This PSN closed on August 31, 2017, with a total of 53 proposals received, and $78,231,066 in requested funds. The distribution of projects are identified in Table 1 (following page).

Proposals were reviewed through a multi-tiered process. First, submissions were required to pass an administrative review, where applications were evaluated on adherence to the SFEPs guidelines and completeness. Proposals that passed the administrative phase were then scored by a minimum of four reviewers, consisting of a CDFW regional specialist, SFEP staff, and SWRCB staff and other technical experts. Scores were based on the scoring criteria and standards delineated in the 2017 Stream Flow Enhancement

Program PSN. Projects receiving scores of 75 or higher were presented to a Selection Panel for further assessment and discussion. The Selection Panel was made up of managers and staff from CDFW, WCB, and SWRCB. The Selection Panel met on January 11 and January 18, 2018, and developed a recommended list of projects based on numerous factors, including the following: scoring, feasibility, durability, and how projects supported the specific goals of the SFEP Solicitation Package. Projects recommended for funding by the Selection Panel were reviewed by the WCB Executive Director in preparation for the March 22, 2018 Board meeting.

WCB PROGRAM

The proposed projects will be funded through the California Stream Flow Enhancement Program and these projects meet the goal of providing enhanced stream flow benefiting fish and wildlife.

Projects are consistent with the following goals outlined in the WCB Strategic Plan:

Goal A.1 – Fund projects and landscapes that provide resilience for native wildlife and plant species in the face of climate change.

Goal A.2 – Fund projects and landscape area that conserve, protect, or enhance water resources for fish and wildlife.

Goal A.3 – Fund projects that support the implementation of Natural Community Conservation Plans, Habitat Conservation Plans and recovery of listed species.

As outlined in the PSN, WCB will allocate SFEP funds to projects that enhance stream flows and are consistent with the objectives and actions outlined in the CWAP, with the primary focus of enhancing flow in streams that support anadromous fish, special status, threatened, endangered or at risk species. Projects recommended for funding will meet these objectives of Goals A.1, A.2, and A.3.

Goal B.1 – Invest in projects and landscape areas that help provide resilience in the face of climate change, enhance water resources for fish and wildlife and enhance habitats on working lands.

Projects will also further the following goals outlined in the WCB Strategic Plan:

Goal B.1 – Invest in projects and landscape areas that help provide resilience in the face of climate change, enhance water resources for fish and wildlife and enhance habitats
on working lands:

In addition, the proposed projects address the following priorities outlined in the WCB Strategic Plan:

- Provides species strongholds or refugia, improves habitat for threatened or endangered species.
- Provide or enhance habitat connectivity and corridors.

3. Table 1

Fund Allocation of Recommended SFEP Projects FY 2017/18

Project Type	Number Proposals Received	Funds Requested (in dollars)	Number Projects Recommended for Funding	Proposed Allocation for Recommended Projects (in dollars)	WCB Prop 1 Funds Available for FY 2016/17 (in dollars)
Scoping and Scientific Studies	11	4,210,039.35	4	1,072,768.19	5,000,000.00
Implementation Category 1 (Planning)	20	11,801,309.10	8	3,965,943.07	33,400,000.00
Implementation Category 2 (Construction)	19	52,338,380.11	9	26,976,062.56	
Acquisition[1]	4	9,881,337.00	2	4,579,377	
FY 16/17 remaining funds					40,538.695.00
Totals	*54*	*$78,231,065.56*	*23*	*$36,594,150.82*	*$78,938,695.00*

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

Board Member Mary Creasman asked to clarify the funds expended:

Staff member Cary responded that for the first three years WCB had allotted $38.4 million going forward. The first year, WCB received 77 proposals and funded 24. However, a couple of those 24 proposals dropped out; projects were funded at a total of about $20 million and $18 million was rolled over into year two. In the second year, WCB added another $38.4 million for a total of $56 million available for projects that year. We received 66 proposals last year, and again we funded 24 projects for approximately $20 million. After executing these projects, by the time we came to the end of the second year, only $38 million had been expended. The reasons why we don't spend it all vary between applications received, selection panel, and technical review scores.

Ms. Creasman asked about the status of the other applications:

Mr. Cary responded that some of those projects that scored, on average, above 75 percent, still were not chosen to be funded, primarily because they did not show a clear enhancement of stream flows.

Chair Bonham clarified that this Program comes out of Proposition 1 and is a component which has not been tried in the State before. This program puts California as one of a few states who is thinking about how to invest in how to enhance stream flow. We are still in the early stage of a new program, and our acquisition numbers remain relatively low. As we progress we hope to see implementation and acquisition start to increase. We need to

improve on informing the right communities that this funding is available like water and agricultural districts.

Executive Director Donnelly clarified that WCB gets some great applications that don't get funded simply because they don't enhance stream flow.

4. Proposed Consent Calendar (Items 5-14)

Chair Bonham asked if anyone on the Board or in the public wanted to specifically pull any of the items off the consent calendar. There were no objections.

Mr. Donnelly also added that the minutes from the last two stream flow enhancement meetings, 2016 and 2017, were part of the consent calendar. He added that future minutes of the stream flow program would be presented for approval at the following WCB Board meeting.

Chair Bonham made a motion to move the consent calendar, and it was seconded; approval was unanimous.

***5. Approval of Minutes**

***6 Marshall Ranch Flow Enhancement Design**
Humboldt County
$257,467

This proposal was to consider the allocation for a grant to the Salmonid Restoration Federation (SRF) for a cooperative project with Stillwater Sciences, Hicks Law, Marshall Ranch, and others for the purpose of designing a large-scale flow enhancement project that would substantially enhance stream flow to benefit salmonids and other wildlife along a 5.5 ± mile segment of Redwood Creek during seasonally low stream flow periods.

LOCATION

The project is located on Marshall Ranch, and is adjacent to Redwood Creek in the Redwood Creek sub-basin within the South Fork Eel River Watershed. The South Fork Eel River Watershed is one of the five priority stream systems identified by the California Department of Fish and Wildlife for stream flow enhancement projects. The project location is approximately 0.25 miles south of the unincorporated town of Briceland and seven miles West of Garberville.

PROJECT DESCRIPTION

Problem:

Typically, instream flows in north coast California streams are low during the dry months of June through October. Changes in climate, vegetation, land use, and associated consumptive water demands from timber harvests and homesteading over the past half-century, and more recently, cannabis cultivation, have diminished stream flow, water quality, and contributed to increased water temperatures. Most water diversions within the South Fork Eel River Watershed occur from cannabis cultivation in the upper reaches of the watershed. These diversions remove cold, clear, high quality water at a critical time of year for salmonids, limiting food production and rearing habitat. Aquatic invertebrates, a primary food source for juvenile salmonids, are affected by low stream flow conditions. Approximately ninety percent of invertebrate production occurs in stream riffles, and when there is low flow during dry months, there are no riffles and thus limited food for these fish species.

Solution:

The proposed project includes 100% design and permitting of a large groundwater recharge/flow enhancement project along mainstem Redwood Creek. The project proposes to design a large-scale flow enhancement project through collaborative process involving the following steps:

- Convening of a Technical Advisory Committee.
- Geotechnical investigations.
- Hydrologic analyses.
- Conceptual design and alternative analyses
- 65% and 100% Design Plans, Basis of Design Reports, and Specifications
- Permitting and appropriative water right.
- Outreach and education.
- Pre-project flow monitoring.

This integrated approach will allow the project team and stakeholders to develop a flow enhancement project that provides flow increases along a 5.5-mile segment of Redwood Creek that is known to be extremely flow-impaired.

PROJECT COST

Funding	
WCB	257,467
Other	36,317
Total	*$291,984*

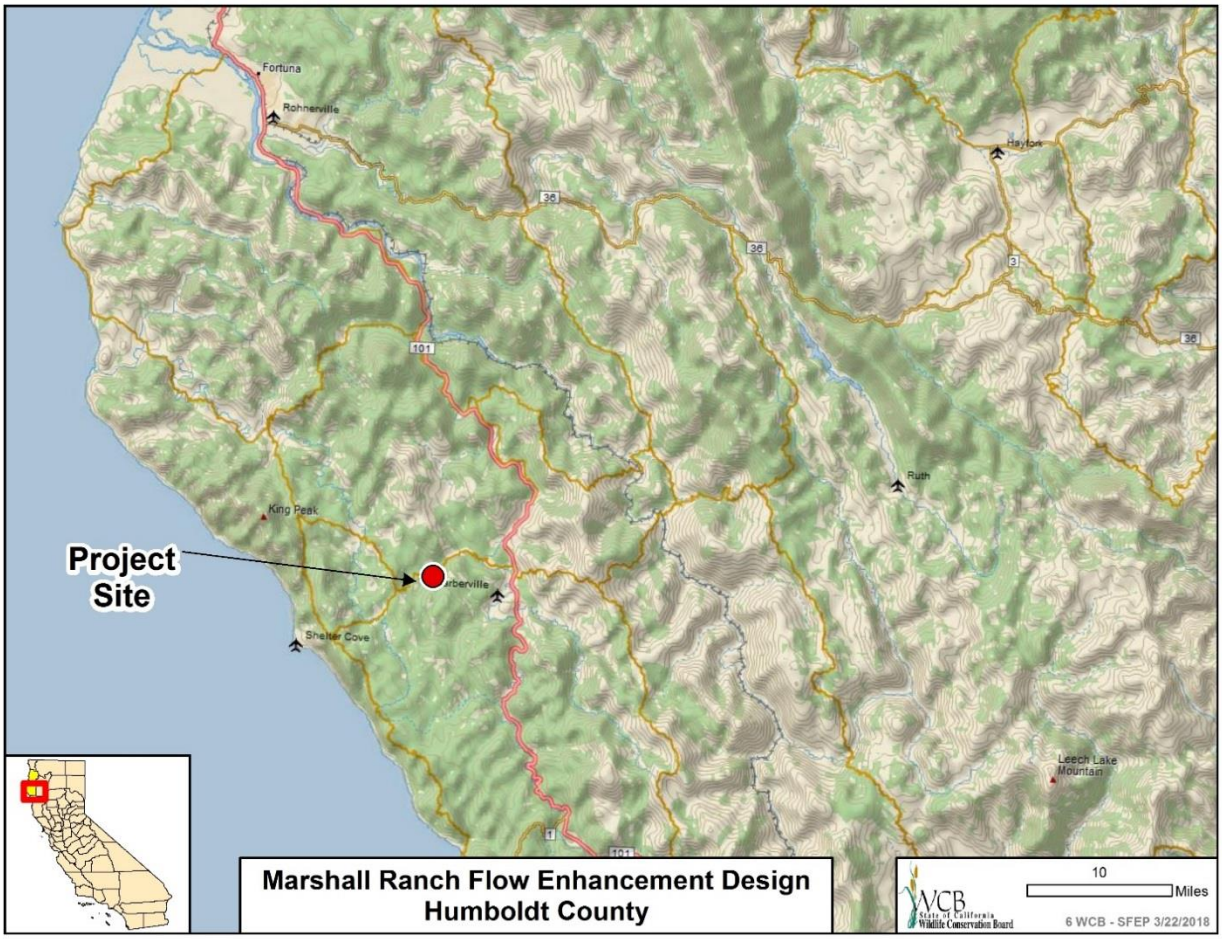
Project costs will be for: project management, technical review and community outreach, surveys, analyses, and monitoring, design plans and specifications, and California Environmental Quality Act (CEQA) documentation, permits, and an appropriative water right as determined by the State Water Resources Control Board. Other funding sources include SRF (applicant), Stillwater Sciences, Hicks Law, and others to be determined.

CEQA

The project is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines California Code of Regulations, Title 14, Chapter 3, Section 15262, as it involves only feasibility and planning studies for possible future actions. Subject to approval of this proposal by the WCB, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Board approve this project as proposed; allocate $257,467 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.


Fortuna
Rohnerville
Hayfork
36
101
Ruth
King Peak
Project Site
Shelter Cove
Leech Lake Mountain
1
Marshall Ranch Flow Enhancement Design
Humboldt County
10
Miles
WCB
State of California
Wildlife Conservation Board
6 WCB - SFEP 3/22/2018

***7 Redwood Creek Enhancement Planning**
Humboldt County
$198,282

This proposal was to consider the allocation for a planning grant to Salmonid Restoration Federation for a cooperative project with Stillwater Sciences and Trout Unlimited to develop a water availability analyses and flow enhancement implementation plan within the South Fork Eel River sub-basin watershed to prioritize future implementation efforts.

LOCATION

The project is located within the Redwood Creek watershed, a tributary to the South Fork Eel River, and located approximately one mile northwest of the city of Garberville, in Humboldt County.

PROJECT DESCRIPTION

Problem:

Dry season flows (i.e., June–October) in north coastal California watersheds have decreased over the past half century, probably due to a combination of changes in climate and land use with its associated consumptive water demand. These watersheds have been impacted by industrial and non-industrial timber harvest, homesteading, and cannabis cultivation, and have shown diminished stream flow. These impacts are having lethal or sub-lethal effects on juvenile salmon and steelhead and sensitive amphibian species. Water scarcity also affects north coastal California communities that rely on naturally flowing springs, creeks, and rivers for domestic and agricultural water supply and fire suppression. It is expected that changes are forthcoming in State water policy governing diversions and instream flow. Solutions that incorporate reasonably accurate tools for predicting the effects of different land and water management activities on dry season flows are urgently needed now.

Solution:

This project will prioritize potential site-specific and watershed-scale implementation projects that will directly and cumulatively increase dry season flows and improve associated critical habitats for state and federally listed species. Sub-watershed scale implementation activities considered during this project are likely to include a combination of water storage and forbearance, groundwater recharge, and targeted forest management practices such as selective thinning. Outcomes and lessons learned from this project will provide information to be used regionally as a framework for developing watershed-scale flow enhancement projects, adaptively managing existing water infrastructure to achieve instream flow objectives, and refining state water policy.

PROJECT COST

Funding	
WCB	198,282
Salmon Restoration Foundation	22,980
Total	*$221,262*

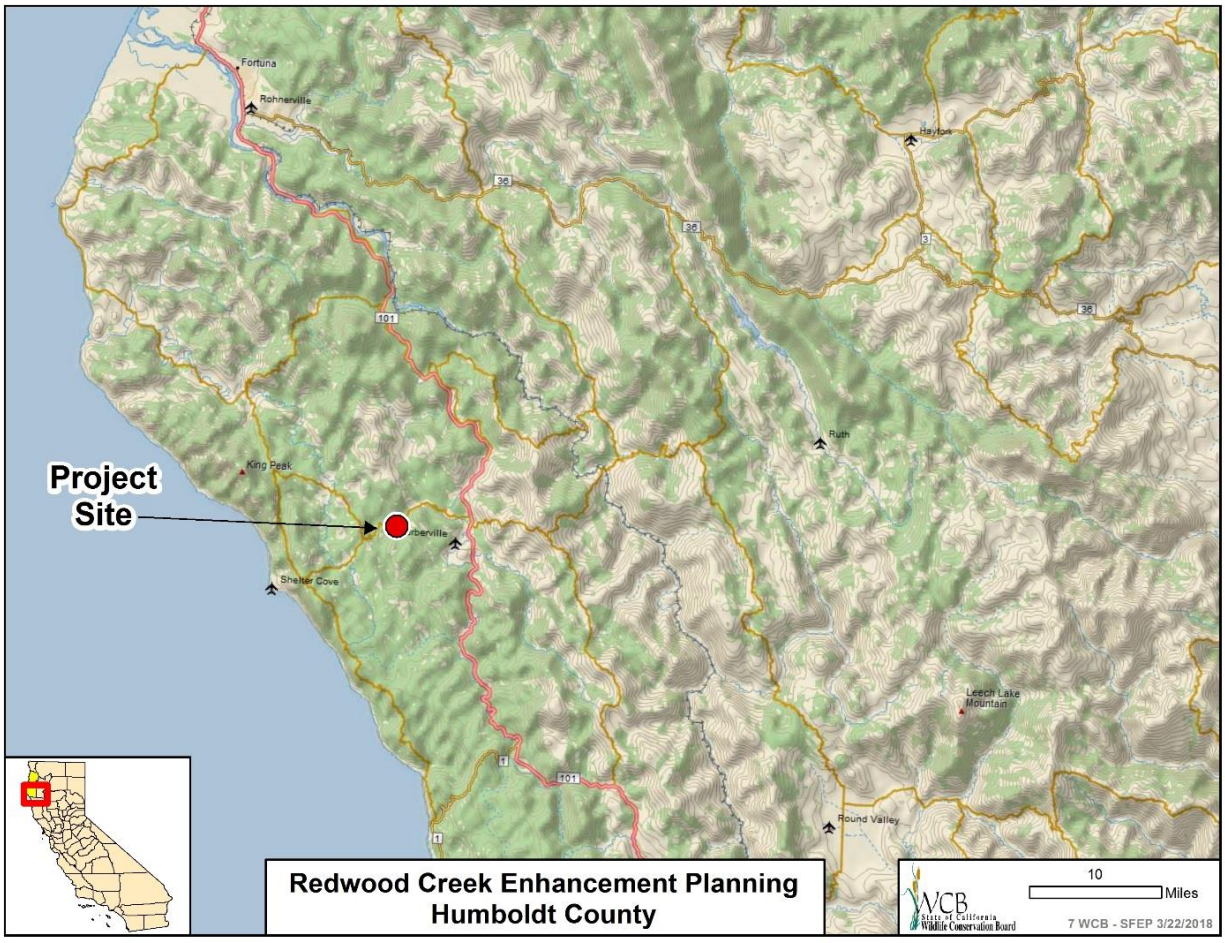
Project costs will be for: project management, contract management, coordination with a technical advisory committee, monitoring, data management, water right legal consultation, and surveys.

CEQA

The Project is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, Section 15262, Planning and Feasibility Studies. Subject to approval of this proposal by the Wildlife Conservation Board, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $198,282 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.



***8. Lower Bear Creek Slough Enhancement**
Humboldt Creek
$249,588

This proposal was to consider the allocation for a grant to the Mattole Salmon Group for a cooperative project with the U.S. Bureau of Land Management to provide the final analysis, preferred alternatives, final designs, and permitting to reconnect Lower Bear Creek and the south sloughs of the Mattole River estuary to restore off-channel stream flow.

LOCATION

The project is located in the Mattole River Watershed. The streams this project will directly enhance include Lower Bear Creek and the south slough complex to the Mattole River Estuary. Lower Bear Creek is a tributary to the Mattole River, the confluence being located near the junction of Lighthouse Road and Bear Creek Road. The Mattole River then flows west for approximately 1.5 miles before reaching the Pacific Ocean. The project is located approximately 3 miles southwest of the town of Petrolia and 35 miles south of Eureka.

PROJECT DESCRIPTION

Problem:

Lower Bear Creek was diverted from its natural channel in the 1960's onto dry gravel terraces to percolate its way to the Mattole River. The lack of direct stream flow into the river has completely eliminated coho and Chinook salmon habitat year-round in Lower Bear Creek and associated sloughs. Steelhead trout habitat is negligible and limited to late winter and early spring, with observed fish stranding when the diverted stream dries. A lack of complex, low-velocity habitat offering high flow refuge for juvenile rearing is a critical limiting factor for coho, Chinook, and steelhead in the Mattole River watershed. Additionally, widespread timber harvest and removal of large wood from streams and riparian areas has eliminated refuge from stormflows, further restricting fishery health at all life stages.

Solution: The project will provide site characterization assessments, development of restoration alternatives, hydrologic and hydraulic analyses, and channel restoration design. By re-routing the stream back to its original location, enhanced stream flows to Lower Bear Creek will directly benefit endangered salmon and steelhead both in the stream itself, as well as in the downstream off-channel slough system. The project includes plans for channel re-routing, two improved stream crossings, connectivity to recently restored off channel slough habitats, and restoration of riparian and instream habitat. An additional element of this project is an assessment of upslope road conditions that will lead to the reduction of sediments into restored habitats, creeks, and sloughs.

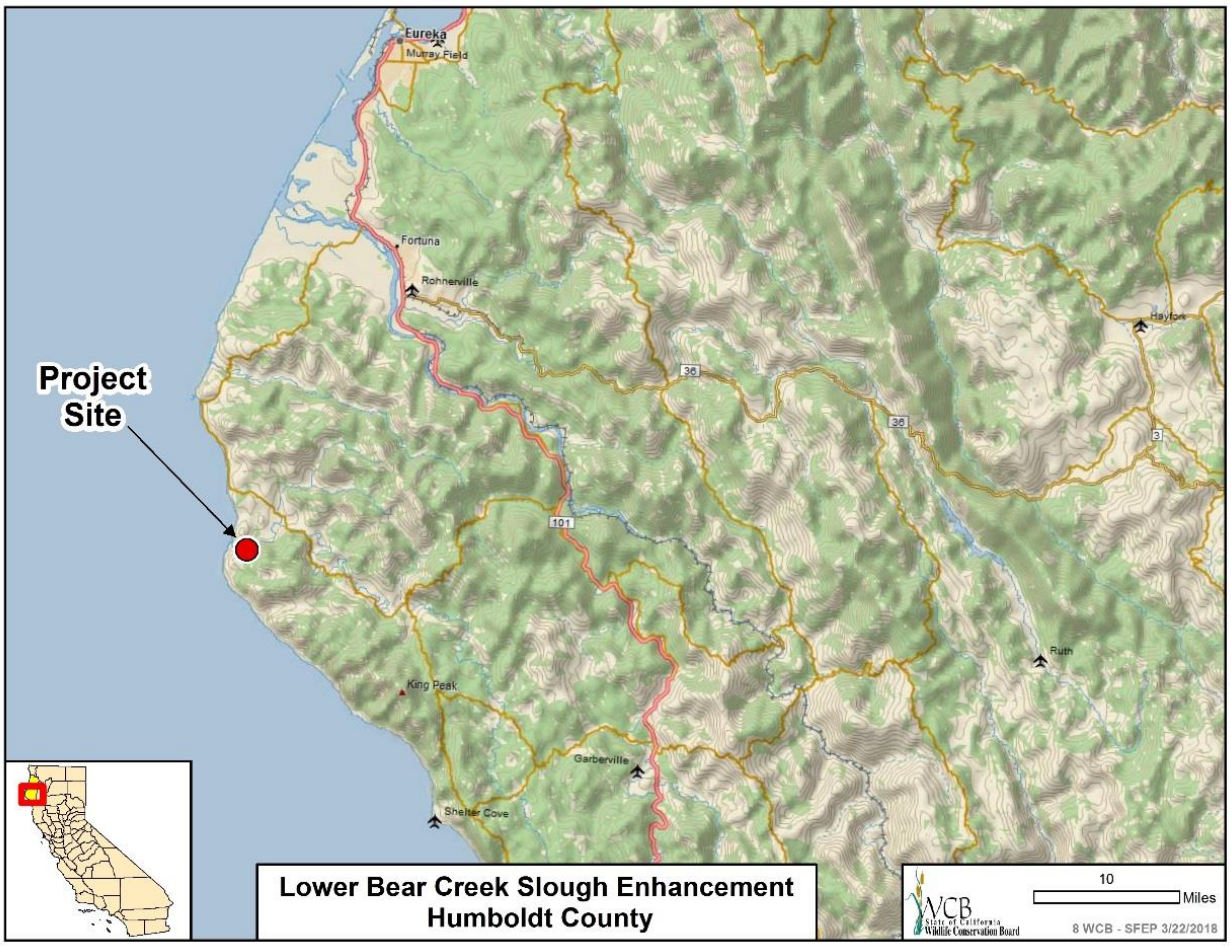
PROJECT COST

Funding	
WCB	249,588
Other (Secured)	73,356
Unsecured funding	200,000
Total	*$522,944*

Project costs will be for: project management and planning, equipment, overhead and permitting costs. Other funding sources include Mattole Salmon Group and the Bureau of Land Management. Other funding partners are to be determined.

CEQA
The project is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines California Code of Regulations, Title 14, Chapter 3, Section 15262, as it involves only feasibility and planning studies for possible future actions. Subject to approval of this proposal by the Wildlife Conservation Board, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION
Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $249,588 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.



***9. Lower Battle Creek Scoping Study**
Shasta and Tehama Counties
$113,654

This proposal was to consider the allocation for a grant to River Partners for a cooperative project with the California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS) and the United States Bureau of Land Management (BLM) to complete a scoping study for Lower Battle Creek, located along the border of Shasta and Tehama Counties.

LOCATION

This project is located along 7.5 miles of lower Battle Creek, which forms the border between Shasta and Tehama Counties in northern California. The project reach extends from the Orwick Ditch point of diversion downstream to the confluence with the Sacramento River. Many lands along this reach of Battle Creek are owned by state and federal agencies, including the CDFW, BLM, and USFWS. The Coleman National Fish Hatchery (CNFH), operated by the USFWS is also located within this project reach. This project is approximately 15 miles northeast of Red Bluff.

PROJECT DESCRIPTION

Problem:

Battle Creek lies at the recovery epicenter of Central Valley Chinook salmon and steelhead populations. The consistent flows of cold, clean water originating from underground springs are vital to salmonid survival and reproduction, especially during periods of prolonged drought. Shasta Dam prevents native salmon and steelhead from accessing nearly 50% of their historic spawning habitat. Sacramento River winter-run Chinook have been hardest hit because most of their entire historic spawning habitat and cold-water refuge is now inaccessible behind the dam. Due to decades of agricultural land use and modifications made to the streambank, natural river processes have greatly diminished in the lower reach of Battle Creek. In its current condition, the project reach of Battle Creek provides insufficient fisheries and ecosystem benefits, and creates a gap in existing riparian corridors.

Solution:

Work conducted during this study will evaluate the current and forecasted hydrology of Battle Creek, assess the habitat conditions presently available to anadromous fish, and evaluate the 25 active water rights currently diverting water from this reach of Battle Creek to identify any water use efficiencies, which once implemented, would reduce the quantity of water diverted. Based on the results of the evaluations and assessments, the scoping study will recommend and prioritize a suite of projects for future implementation. These projects may include acquisitions of land & water and/or habitat restoration and enhancement projects (ex. removal of riprap, levees, and invasive vegetation, construction of instream and off-channel refugia, revegetation, and removal of fish passage barriers).

Outreach will be conducted and relationships will be developed with the various landowners and water right holders, which, it is hoped, will lead to future stream flow enhancement projects; including purchase agreements, acquisitions, easements, 1707 dedications, and/or forbearance agreements. As a result of this project, water rights that are dedicated to stream flow enhancement will benefit the ecosystems downstream of the project area.

PROJECT COST

Funding	
WCB	113,654
Other	15,000
Total	*$128,654*

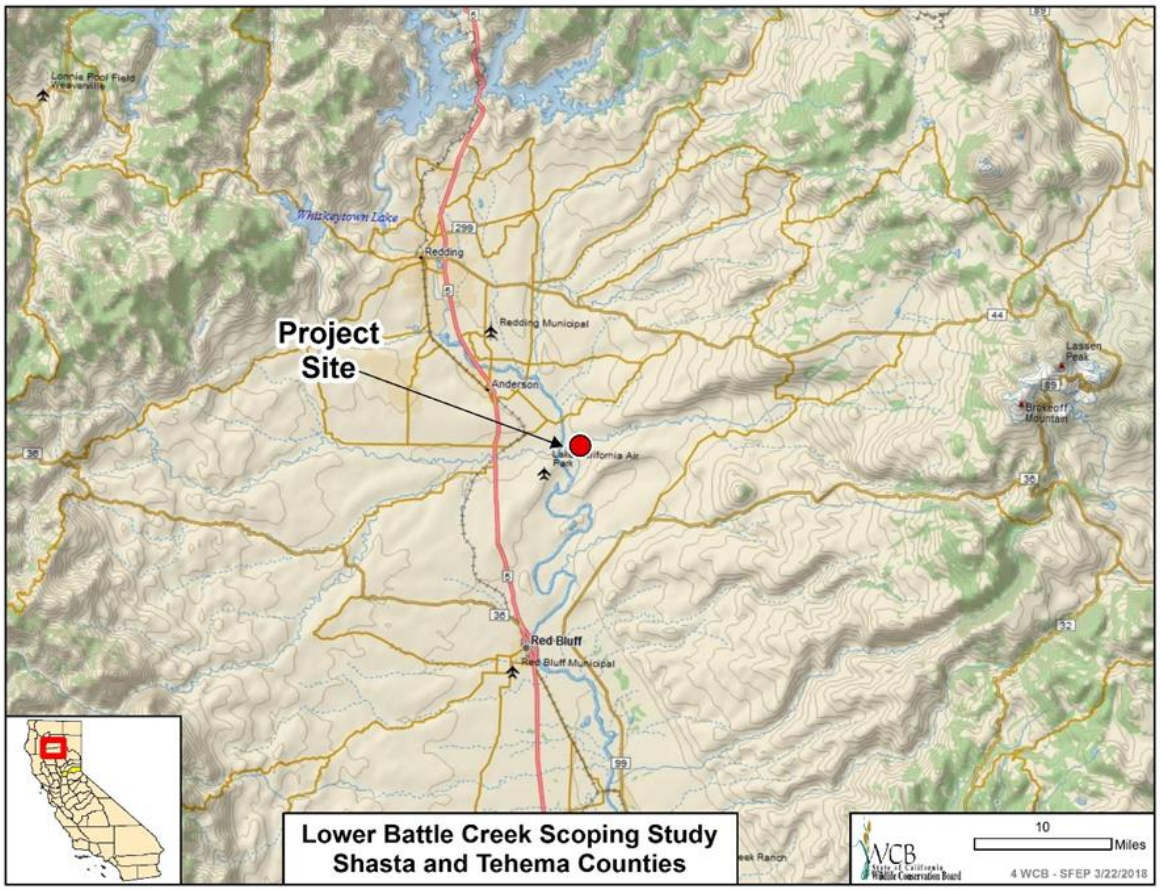
Project costs are for: project management, data collection, outreach, analysis, and development of scoping report. Other funding sources include CDFW, USFWS, and BLM.

CEQA

The project is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15262), as it involves only feasibility and planning studies for possible future actions which have not been approved.

STAFF RECOMMENDATION

Staff recommended that the Board approve this project as proposed; allocate $113,654 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.



***10 Navarro River Large Wood Augmentation**
Mendocino County
$221,539.56

This proposal was to consider the allocation for a grant to Mendocino County Resource Conservation District for a cooperative project with The Nature Conservancy to develop five large wood accumulation projects to 100% design and to implement construction of three large wood augmentation projects.

LOCATION

The Navarro River watershed is the largest coastal basin in Mendocino County, three miles south of the town of Albion encompassing approximately 315 square miles. The Navarro River flows through the coastal range, the Anderson Valley, and out to the Pacific Ocean.

PROJECT DESCRIPTION

Problem:

Overall, the Navarro and its tributaries lack adequate stream shelter and pool habitat, largely from the lack of large woody debris. Base flows in many sub-watersheds are depressed by water diversions for agricultural and residential uses, compromising the availability of summer habitat for salmonids, and in some cases impairing water temperatures.

Solution:

Downed wood plays an essential role in stream morphology and productivity, particularly in salmon-bearing streams of northern California. Downed wood scours pools, increasing hyporheic or underflow exchange, providing greater habitat volume and better water quality, particularly under low flow conditions. Wood influences instream erosion and deposition processes by locally altering water velocities and shear stress, increasing scour and creating slow-water habitats like pools, backwaters, and side channels, providing both over-summer and overwinter habitat for salmonids. Wood-formed pools are the preferred summer habitat of juvenile coho salmon, providing slow moving water where food can be captured with a minimal expenditure of energy. Wood also traps nutrients, increasing food availability, and provides cover from predators for both adult fish in the winter and young fish throughout the year.

The Wildlife Conservation Board (WCB)-funded the planning phase of this project in FY 2015/16 and through that process identified potential target areas for large woody accumulation. This project will develop five large wood accumulation projects to 100% design and complete construction of three of them. These large woody accumulation projects will optimize low stream flow by creating and enhancing salmonid habitat in low flow conditions (such as deeper pools that remain wet and connected longer into the dry season); additionally, these restoration treatments will enhance the ability of winter rain to infiltrate and recharge groundwater so that summer base flows are better sustained.

PROJECT COST

Funding	
WCB	221,539.56
Other	50,000
Total	*$271,539.56*

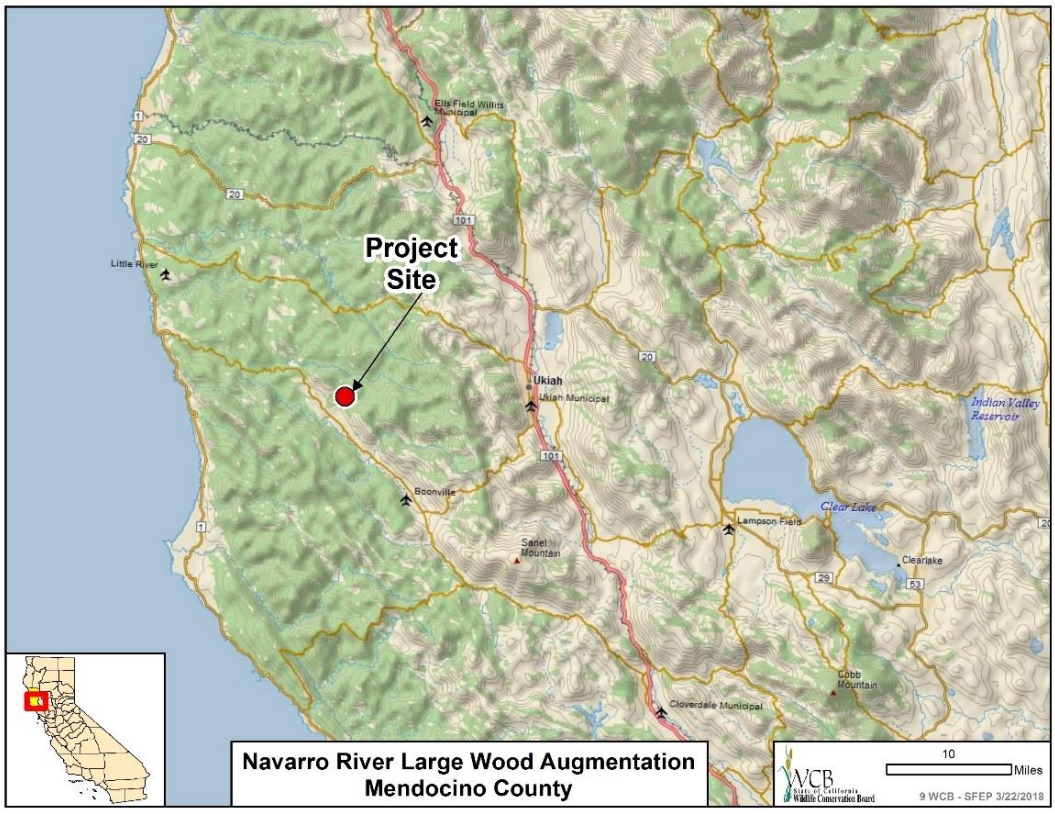
Project costs will be for: personnel services and operating expenses including subcontractor and equipment services. Funding sources include Trout Unlimited Inc., National Fish and Wildlife Foundation, and The Nature Conservancy.

CEQA

The Mendocino County Resource Conservation District as lead agency, prepared a Mitigated Negative Declaration (MND) for the project pursuant to the provisions of the California Environmental Quality Act (CEQA). Staff considered the MND and has prepared proposed, written findings documenting WCB's compliance with CEQA. Subject to approval of this proposal by the WCB, the appropriate Notice of Determination will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board adopt the written findings and approve this project as proposed; allocate $221,539.56 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.



***11. Squaw Creek Monitoring**
Placer County
$150,862

This proposal was to consider the allocation for a grant to Trout Unlimited Inc. (TU) to monitor stream flow in Squaw Creek before, during, and after a restoration project at Squaw Meadow. The project will characterize and quantify flow from the restored meadow, and allow for comparison to unrestored meadow conditions.

LOCATION

The project is located on Squaw Creek in the town of Olympic Valley, within the Squaw Creek Watershed. Olympic Valley is located approximately 4.5 miles west of Tahoe City and 9 miles south of Truckee. Squaw Creek is a tributary of the Truckee River, which flows approximately 30 miles before crossing into Nevada.

PROJECT DESCRIPTION

Problem:

Squaw Creek supports a trout-dominated cold-water fish assemblage, though productivity and diversity of the fishery is limited by habitat degradation associated with excessive sedimentation and reduced surface flows. Historical disturbances have reduced stability along the Squaw Creek channel. Channelization of the stream has eliminated alluvial fan and sediment depositional processes and caused extensive sedimentation of the lower fan and meadow areas. Limited documentation is available quantifying the amount of groundwater that can be retained in restored meadows, and the variability between systems and restoration approaches, making inter-year and inter-meadow comparisons difficult.

Solution:

The Squaw Meadow restoration project will increase groundwater storage and extend the low-flow period, since increased groundwater storage typically causes an increase in low-flow duration. To the extent that water quantity can affect water quality, increased surface flows will increase the availability and the quality of accessible fish habitat, especially important for Lahontan cutthroat trout. The restoration project will also stabilize channel banks, thereby reducing the volume of fine sediment that is generated from streambanks and deposited in the channel and/or transported to the Truckee River.

Within the Olympic Valley, groundwater users are engaged in a cooperative groundwater management effort detailed within the Olympic Valley Groundwater Management Plan. This project's monitoring activities will extend a 10-year pre-project stream flow record. This information can then be used to promote a viable and healthy riparian and aquatic habitat by minimizing or avoiding negative impacts resulting from surface or groundwater diversion. The comparison of pre-project stream flow records to existing groundwater monitoring data will: 1) provide the necessary post-project stream flow data to quantify stream flow response to restoration, 2) quantify peak flow events that cause geomorphic and physical habitat changes, and 3) document changes in surface-groundwater interaction and groundwater storage associated with restoration actions.

PROJECT COST

Funding	
WCB	150,862
Other	1,614,092
Total	*$1,764,954*

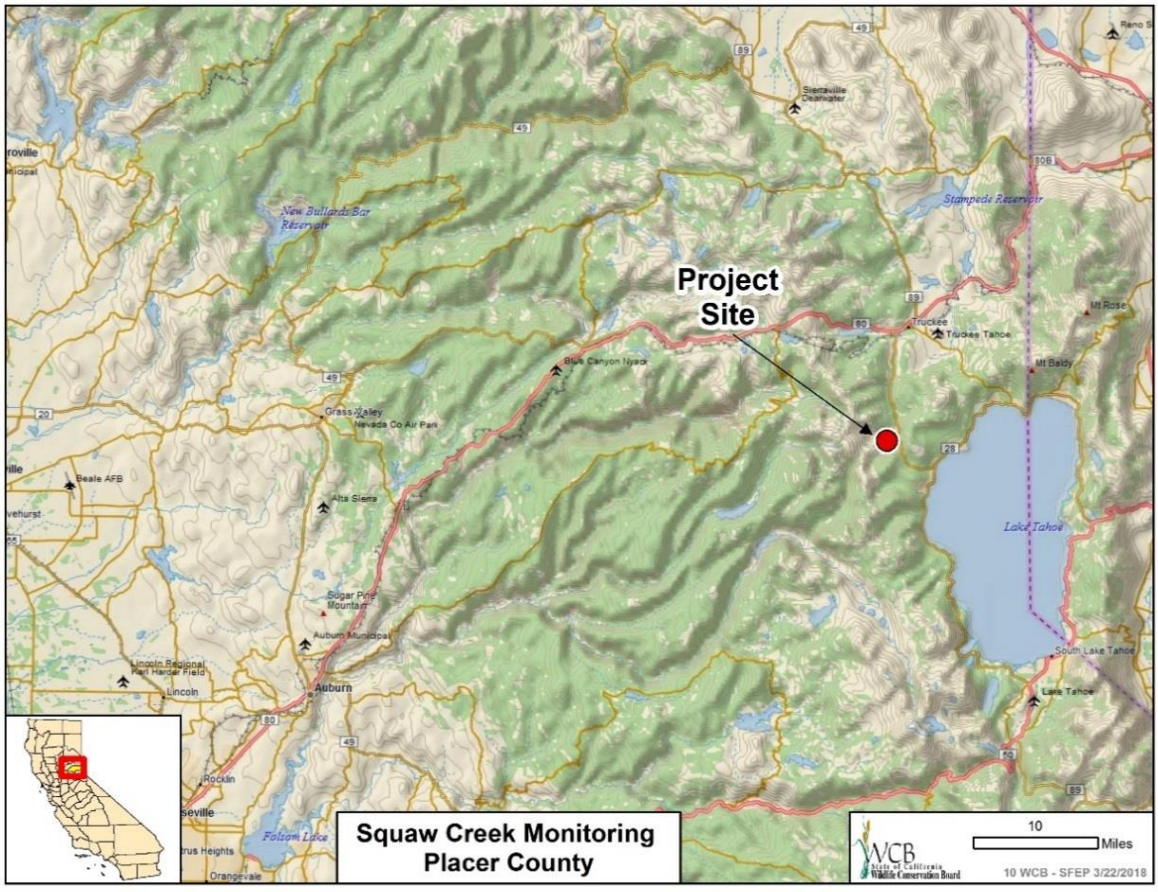
Project costs will be for: personnel services and operating expenses including subcontractor and equipment services. Other funding sources include Trout Unlimited Inc. (applicant), Tahoe Sierra IRWMP Grant, Lahontan Water Board, 319h Non-Point Source Funding, National Forest Foundation, and Truckee Tahoe Community Foundation.

CEQA

The project is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines California Code of Regulations, Title 14, Chapter 3, Section 15262, as feasibility and planning studies for possible future actions.

STAFF RECOMMENDATION

Staff recommended that the Board approve this project as proposed; allocate $150,862 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.



***12. Putah-Cache Watershed Arundo Eradication**
Yolo and Solano Counties
$373,616.27

This proposal was to consider the allocation for a grant to Yolo County Resource Conservation District (YCRCD) for the purpose of supporting the planning, outreach and permit acquisition necessary to implement a large-scale invasive *Arundo donax* (Arundo) eradication program in the Putah-Cache Watershed.

LOCATION

The Putah-Cache Watershed is located in the southern Sacramento Valley immediately west of the City of Sacramento and extends into the interior Coast Range. The watershed covers approximately 2500 square miles and contains three major sub-watersheds: Cache Creek, Putah Creek, and Willow Slough. The project area is in Yolo and Solano Counties and is comprised of 92± river miles along Cache Creek, Putah Creek, Dry Slough, Pleasants Creek, Union School Slough, and Willow Slough.

PROJECT DESCRIPTION

Problem:

There are extensive infestations of Arundo in the Putah-Cache Watershed. The California Invasive Plant Council (Cal-IPC) has mapped approximately 127 acres of Arundo over 92± river miles in the project area. Arundo is documented to utilize large amounts of groundwater to support its extensive aboveground vegetation. Evapotranspiration rates for Arundo have been documented up to 24 acre-feet of water per year (AFY) as opposed to the estimated 4 AFY for native riparian plant communities the Arundo has replaced. The infestation of Arundo is particularly acute within the Putah-Cache Watershed due to the management of water resources within the watershed. Management decisions have resulted in higher than normal stream flows during summer months when Arundo experiences its greatest growth.

Solution:

The proposed project will support the planning, outreach and permitting required implementing a large-scale invasive Arundo eradication program in the Putah-Cache Watershed. YCRCD will lead a project team to complete required site analyses, create a plan for optimal Arundo treatment, create a monitoring and reporting plan, and obtain all necessary local, state, and federal permits, including California Environmental Quality Act (CEQA) compliance, for a complete and sustained river restoration program centered on the control of Arundo. The proposed project will use a collaborative, locally led strategy to leverage existing landowner relationships to achieve full participation in the program. The planning, outreach and permitting undertaken by this project will enable a future project that will save up to 2,540 acre-feet of water per year by eliminating approximately 127 acres of Arundo.

PROJECT COST

Funding	
WCB	373,616.27
Other Funders	393,915.17
Total	*$760,054.44*

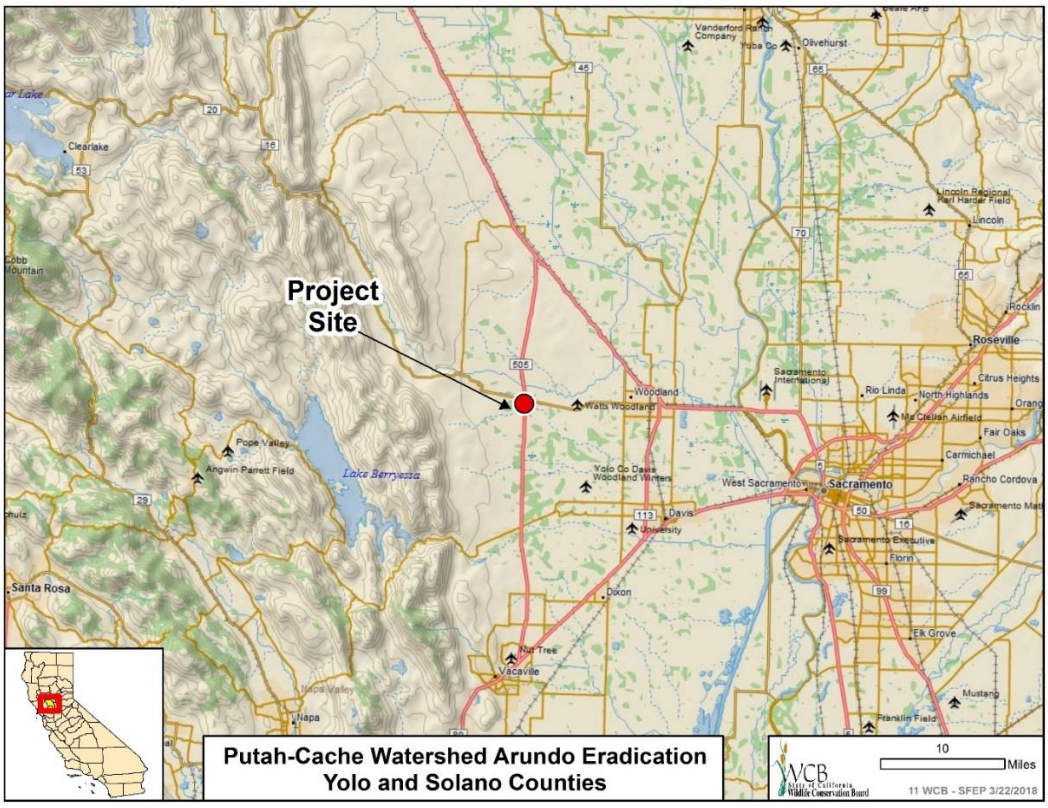
Project costs will be for planning, outreach and permit acquisition activities. Funding sources include the California Department of Fish and Wildlife (Proposition 1), Natural Resources Conservation Service, Yolo County, Solano Resource Conservation District, Putah Creek Council, Cache Creek Conservancy, and Yolo County Flood Control and Water Conservation District.

CEQA

The project is statutorily exempt from CEQA pursuant to the State CEQA Guidelines California Code of Regulations, Title 14, Chapter 3, Section 15262, as it involves only feasibility and planning studies for possible future actions. Subject to approval of this proposal by the Wildlife Conservation Board, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $373,616.27 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.



***13. Santa Rosa Creek Flow Enhancement Pilot Project**
San Luis Obispo County
$627,225.64

This proposal was to consider the allocation for a grant to Central Coast Salmon Enhancement for a cooperative project to provide engineering design plans, California Environmental Quality Act (CEQA) documentation, and permits necessary for a large-scale flow enhancement project that, once implemented, will supply water to the middle reach of Santa Rosa Creek during the five-month dry season.

LOCATION

The project is located in unincorporated San Luis Obispo County, within the Santa Rosa Creek watershed. The project area will be along the middle reach of Santa Rosa Creek and will begin at the intersection of Santa Rosa Creek Road and Main Street near the eastern border of the city of Cambria and continue eastward along Santa Rosa Creek for approximately four miles.

PROJECT DESCRIPTION

Problem:

Santa Rosa Creek is a typical central California stream whose instream flow becomes low, intermittent, or completely dry during the summer. When instream flow is sufficient, the middle reach of Santa Rosa Creek is an area of prime summer rearing habitat and a critical migration corridor for anadromous steelhead (Oncorhynchus mykiss). In dry water years, the middle reaches can dry up, confining adults to the lower reaches where spawning success is limited by poor quality habitat. Inadequate dry season flows have been identified as the key limiting factor for the recovery of steelhead in the Santa Rosa Creek watershed.

Solution:

The project proposes to design a large-scale flow enhancement project through a collaborative process involving the following steps:

- Convening of a Technical Advisory Committee,
- Investigation of geologic, groundwater, and surface water limitations,
- Hydrologic analyses,
- Conceptual design and alternative analyses,
- 60% and 100% Design Plans, Basis of Design Reports, and Specifications,
- Permitting, CEQA, and appropriative water rights,
- Outreach and education, and
- Surface and groundwater monitoring.

This integrated approach will allow the project team and stakeholders to develop a flow enhancement project that will provide between 0.25 to 0.5 cubic feet per second of cool and clean water to the middle reach of Santa Rosa Creek, which is known to be significantly flow-impaired.

PROJECT COST

Funding	
WCB	627,225.64
Other	187,689.98
Total	*$814,915.61*

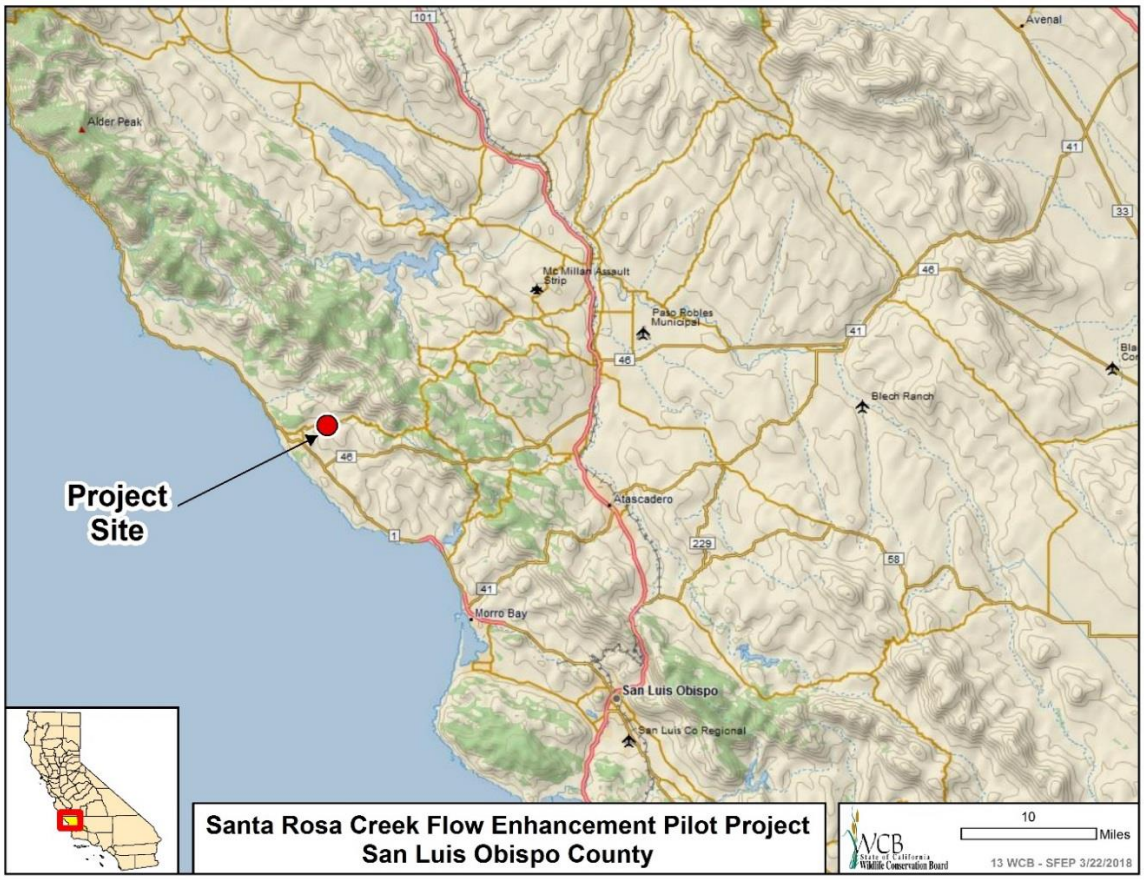
Project costs will be for engineering design plans, CEQA documentation, and the acquisition of permits. Other funding sources include the Central Coast Salmon Enhancement, California Conservation Corps, California State Polytechnic at San Luis Obispo, Natural Resources Conservation Service, Dr. John Jasbinsak (Consultant), Upper Salinas Las Tablas Resource Conservation District, Sierra Watershed Progressive, Dr. Misgana Muelta, (Consultant), Stillwater Consulting, Hicks Law, and the project's landowners.

CEQA

The project is statutorily exempt from the CEQA pursuant to the State CEQA Guidelines California Code of Regulations, Title 14, Chapter 3, Section 15262, as it involves only feasibility and planning studies for possible future actions. Subject to approval of this proposal by the Wildlife Conservation Board, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $627,225.64 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.


Project Site
Alder Peak
Avenal
McMillan Assault Strip
Paso Robles Municipal
Blech Ranch
Atascadero
Morro Bay
San Luis Obispo
San Luis Co Regional
101
41
46
1
229
58
33
Santa Rosa Creek Flow Enhancement Pilot Project
San Luis Obispo County
10
Miles
WCB
State of California
Wildlife Conservation Board
13 WCB - SFEP 3/22/2018

***14 San Luis Obispo Creek Flow Enhancement**
San Luis Obispo County
$250,062

This proposal was to consider the allocation for a grant to Central Coast Salmon Enhancement for a cooperative project with California Conservation Corps, National Oceanographic and Atmospheric Administration, Water Systems Consulting, Hicks Law, and the City of San Luis Obispo to provide engineering design and permitting for a large-scale flow enhancement project that, once implemented, will enhance instream flow in San Luis Obispo Creek during the dry season to preserve prime steelhead rearing habitat

LOCATION

The project is located at Fox Hollow Reservoir (FHR) in San Luis Obispo County, which is within the San Luis Obispo Creek watershed. The FHR is along San Luis Obispo Creek immediately adjacent to the City of San Luis Obispo at the intersection of Fox Hollow Road and U.S. Highway 101.

PROJECT DESCRIPTION

Problem:

Due to existing natural underlying geologic and hydrologic conditions and modern land and water management conditions, San Luis Obispo Creek has reaches that dry out in the dry season. One perennially flowing reach in San Luis Obispo Creek that provides significant rearing habitat for steelhead (Oncorhynchus mykiss) is a 2.25 mile reach that begins at the confluence of Stenner-Brizzolari Creek and continues to Cuesta Park in the City of San Luis Obispo.

Studies have shown that once it reaches Cuesta Park, San Luis Obispo Creek typically maintains minimum environmental water demand for steelhead in both spring and summer in above average years, but falls below minimum environmental demand or goes subsurface by fall. In below average years, the minimum environmental demand for steelhead occurs even earlier in the year. The lack of sufficient water in this prime 0.70 mile section of mainstem San Luis Obispo Creek limits rearing habitat for steelhead trout.

Solution:

To prevent desiccation or near desiccation of prime steelhead rearing habitat in Cuesta Park, summer low flows (especially later summer/early fall flows) need to be enhanced. The proposed solution is to upgrade the existing Fox Hollow Reservoir to capture rainwater and retain peak flow during the wet season, and store the water for slow metering to the Cuesta Park reach during the dry season.

Specifically, the proposed project will accomplish the following: (1) develop a detailed plan on how to conduct maintenance on the roof and the concrete basin of the 2,000,000-gallon Fox Hollow Reservoir so that rainwater and peak flows can be stored in the reservoir; (2) develop 60% and 100% plans for components of Fox Hollow Reservoir needed to capture and release said waters; (3) develop a feasibility memo for utilizing an additional existing 7,000,000 million gallon water reservoir (which is currently utilized for drinking water by the City of San Luis Obispo but is scheduled to be decommissioned) to capture, store, and release additional rainwater in the same manner as Fox Hollow Reservoir; (4) apply for an appropriative water right to capture peak flows and release the flows (estimated to be 0.1 cfs for 30 days or 0.05 cfs for 60 days during the driest months) from Fox Hollow Reservoir for the benefit of fish and wildlife; and (5) strengthen the local team of organizations working to enhance instream flows in various reaches of San Luis Obispo Creek.

PROJECT COST

Funding	
WCB	250,062
Other	413,875
Total	*$663,937*

Project costs will be for planning, engineering design and permitting activities. Other funding sources include the Central Coast Salmon Enhancement, California Conservation Corps, National Oceanographic and Atmospheric Administration, Water Systems Consulting, Hicks Law, and the City of San Luis Obispo.

CEQA

The project is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, Section 15262, as it involves only feasibility and planning studies for possible future actions. Subject to approval of this proposal by the Wildlife Conservation Board, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $250,062 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

15. Russ Creek Stream Flow Enhancement
Humboldt County
$4,874,148

This proposal was to consider the allocation for a grant to The Wildlands Conservancy (TWC) for a project to enhance stream flow on Russ Creek by reestablishing channel alignment to provide continuous summer base flows suitable for fish passage.

LOCATION

The Project is located on the southern portion of the Eel River Estuary Preserve (Preserve), owned and managed by TWC. The Preserve occupies over 1,255 acres of the lower Eel River watershed within the Eel River Estuary and is located approximately four miles west of Ferndale.

PROJECT DESCRIPTION

Problem:

Historically the Preserve was an extensive network of marshlands and slough channels. Streams in the Wildcat Hills, which lie immediately south of the Eel River Delta, drained into this network of channels, before flowing into the Salt River and on into the lower Eel River. In the late 1800s, an estimated 2,900 acres of wetlands in the Eel River Delta were converted to pasturelands. Levees and tide gates were installed along and across waterways, disrupting the hydrologic flow and ecological connectivity of the basin. Many of the tributaries were severely affected by the land conversion activities and continuous agricultural land use, as well as by timber harvesting in the sediment rich Wildcat Hills.

Russ Creek, the primary freshwater stream course that flows south to north through the Preserve, was an intact riparian corridor that connected to the lower Eel River via Centerville Slough and the Salt River. Beginning in the early twentieth century, it was channelized upstream of the Project area and frequently diverted from its natural course at the property boundary. The common agricultural practice of manipulating directional instream flow and rerouting the creek was used to disperse sediment across pasturelands. This practice continued until TWC acquired the property in 2008.

The loss of a natural, meandering flow disconnected Russ Creek from its floodplain and increased flow velocity upstream of the Project area. In February of 2011, heavy rainfall in the upper watershed caused a broad overland sheetflow and an alluvial fan that now dominates the landscape. The channelization of Russ Creek also led to the loss of its intact riparian corridors which historically supported several species of anadromous fish populations, including the southern extent of the coastal cutthroat trout. Under current conditions flows are a limiting factor for salmonids in Russ Creek, and it has become disconnected from the lower Eel River. During winter precipitation, water sheets across the pasturelands creating impassable conditions for aquatic species, and the potential for entrapment of salmonids.

Solution:

To remedy these stream flow issues in the reach of Russ Creek on the Preserve, TWC proposes to reestablish hydrologic and ecologic connectivity of the lower Eel River to the Russ Creek corridor, restoring instream flow to benefit fish and wildlife. Work will include construction of approximately one mile of stream and integrated off-channel habitat by removing 230,000 cubic yards of sediment, thus reestablishing Russ Creek's historic

alignment. This action will reconnect winter flows into the channel and create continuous summer baseflow - from the current 0 cubic feet/second (cfs) to an average summer baseflow of 1 cfs (500 gallons/minute). The restored corridor will benefit all age classes of anadromous salmonids, including coho and Chinook salmon, and steelhead and coastal cutthroat trout. Restoration of 3.5 acres of forested riparian habitat, including revegetation and the installation of large wood structures, will provide complexity, reduce in-stream temperatures, and improve water quality. A reconnected inset floodplain will be established to restore significant habitat value and ecological function to short-grass habitat, benefitting migratory waterfowl and increasing the ecosystem's resiliency to sea level rise through improved drainage. Finally, a stream flow monitoring station will be installed post-construction to start establishing a database of instream flow and water levels in Russ Creek.

PROJECT COST

Funding	
WCB	4,874,148
TOTAL	$4,874,148

Project costs will be for: project management, mobilization and demobilization, temporary haul road construction, surveying, channel excavation, installation of wood structures and root wad deflectors, hauling of sediment, revegetation, community outreach, installation of stream flow monitoring station, and post project monitoring.

CEQA

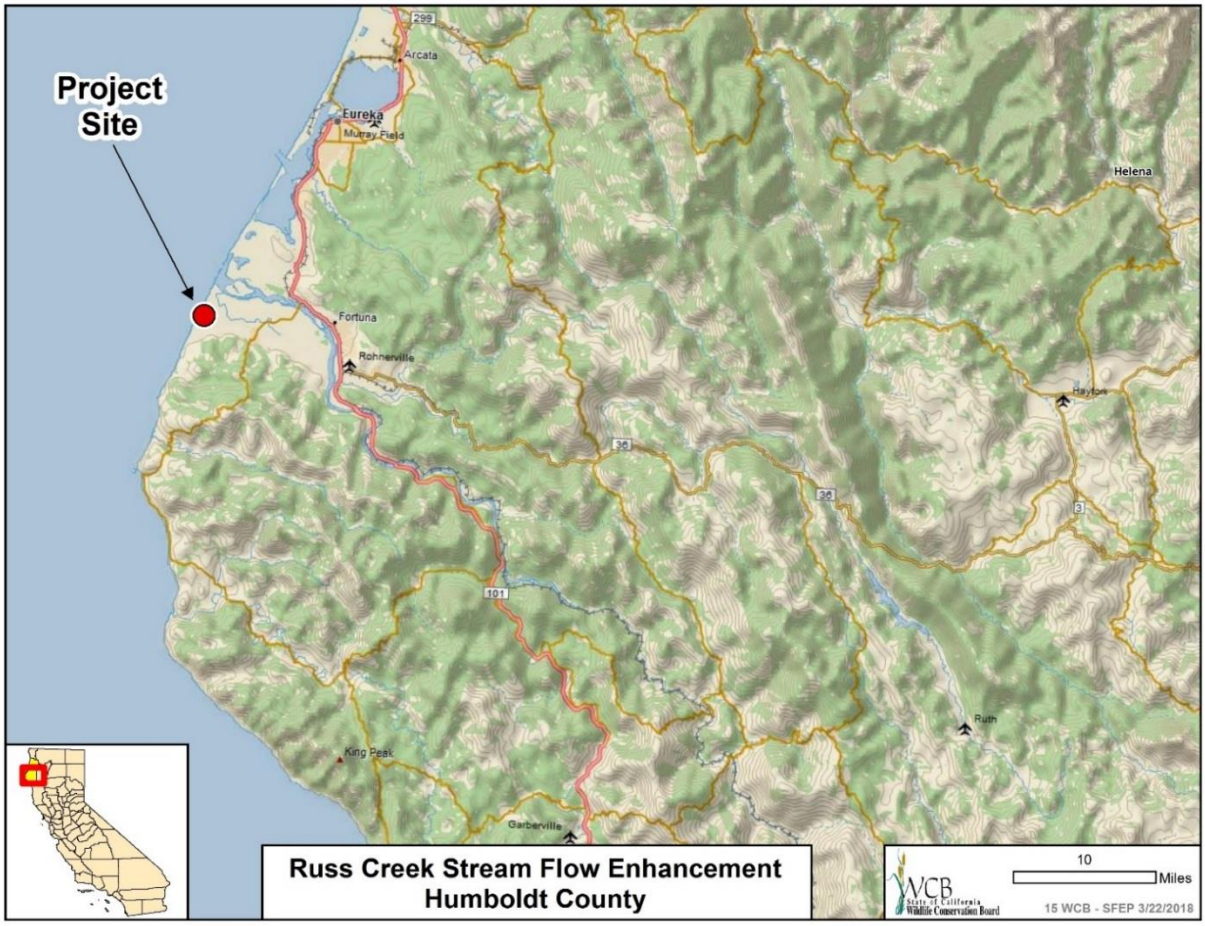
The California Coastal Conservancy as lead agency, prepared an Environmental Impact Report (EIR) for the project pursuant to the provisions of the California Environmental Quality Act (CEQA). Staff considered the EIR and has prepared proposed, written findings documenting the Wildlife Conservation Board's (WCB) compliance with CEQA. Subject to approval of this proposal by the WCB, the appropriate Notice of Determination will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board adopting the written findings and approve this project as proposed; allocate $4,874,148 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Chair Bonham noted there were two speaker cards for this project. The first was Dan York, Vice President of the Wildlands Conservancy and the second is Mark Smith, representative from California Trout. Mr. York introduced himself and thanked WCB and all those involved for support of this project and noted the Wildlands Conservancy was awarded $1.5 million to a different component of this project. Mr. Smith introduced himself and stated that California Trout is a privileged partner with the Coastal Conservancy and Wildlands Conservancy to support restoration of important tidal marsh and estuary inhabitant on the Eel River.

Chair Bonham asked if there were any questions, Executive Director Donnelly asked to note that many of these projects, if not all, have support letters associated with them, and if acceptable to the WCB, they will be listed as an attachment to the minutes.



16. McKee Creek Conservation and Stream Flow Enhancement
Humboldt County
$1,159,377

This proposal was to consider the allocation for a grant to the Sanctuary Forest, Inc. for a cooperative project with the Weeden Foundation to conserve approximately 300 acres of forestland, including 1.4 linear miles of anadromous stream, and install 29 instream structures to mimic natural geomorphic processes to enhance instream habitat within McKee Creek.

LOCATION

The project is located near Whitethorn at the headwaters of McKee Creek, a tributary to the Mattole River in Humboldt County.

PROJECT DESCRIPTION

Problem:

McKee Creek is characterized by simplified incised channels, disconnected floodplains, lack of off-channel habitat, limited or no presence of cover and velocity refuge, lack of instream wood, and low nutrient retention and food availability. These conditions are largely due to the loss of functional instream wood from pre-Forest Practices Act timber harvest in riparian zones throughout much of the watershed, coupled with widespread removal of wood from stream channels from the 1950s-1980s which has resulted in a substantial instream wood deficit.

The headwaters of McKee Creek are threatened by an imminent industrial timber harvest plan that would result in the clear-cut logging of some of the last mature conifer stands on the property. Following the harvest, these lands could then be sold off for subdivision and conversion to rural residential use. If sold and subdivided, the parcels would likely experience extensive road building, forest clearing, and other associated activities resulting in wildlife habitat and forestland fragmentation as well as degraded riparian conditions including increased water temperature and severely diminished instream flows.

The current wood deficit is one of the primary factors that has resulted in the highly incised condition of McKee Creek. Instream wood increases instream channel roughness, which dissipates the unit stream power of peak flows and prevents channel incision by providing locations for the accumulation of instream sediment. Channel incision is a widespread problem throughout the Mattole watershed and beyond and is responsible for a variety of physical and biological problems including disconnected floodplains, lowering of the water table, reduced groundwater storage, reduced magnitude and duration of base flows, and reduced quality and extent of riparian vegetation and aquatic habitat.

Solution:

The acquisition will preempt the imminent threats of industrial timber harvest in the McKee and Van Arken Creek watersheds and permanently protect these lands from subdivision and development. The acquisition will preclude all groundwater pumping and surface water diversions, resulting in the preservation of almost 1 million gallons of water per season preserved instream during a critical time for salmonids, and will protect 300± acres and approximately 1.4± linear miles of a salmon bearing stream in the McKee Creek headwaters. The improved stream flow from the acquisition allows a shovel ready stream flow enhancement project to move forward (implementation component).

Stream flows in McKee Creek will be further enhanced through the installation of a total of 29 instream structures along a 1,000-foot reach of the mainstem of McKee Creek and 275 feet of an unnamed class 2 side tributary. The structures are designed to mimic natural geomorphic processes of channel aggradation through a series of log and boulder grade controls that will increase pool depth and area. Stream flow enhancement will be achieved through inundation of the adjacent inset floodplain—providing a source of groundwater recharge and storage resulting in stream flows that are less 'flashy' and persist for much longer into the dry season. The structures located in the side tributary will mimic natural accumulations of large wood, and serve as grade control structures. They will raise the bed elevation through trapping sediment and will create pools upstream. This will enhance groundwater recharge, storage, and corresponding instream flow, as well as create much needed winter and summer rearing habitat for anadromous salmonids. The increased pool depth and area and enhanced channel connectivity to inset floodplains will provide greater resilience to drought and act as a buffer during extreme winter storm events; improving winter habitat for juvenile salmonids.

PROJECT COST

Funding	
WCB –for Implementation	1,139,377
WCB – for Project Administrative Costs	20,000
Total WCB Funding	*$1,159,377*
Other Sources	239,422
Total Project Costs	*$1,398,799*

The Wildlife Conservation Board's (WCB) funding includes $1,000,000 for the property acquisition. An estimated $20,000 will be needed to cover project-related administrative costs, including DGS appraisal review. The implementation funding is $139,377 and includes project management, monitoring, finalizing plans, permits, equipment rentals, and purchase and installation of logs, boulders and other materials.

Funding sources include, Sanctuary Forest, Inc., (applicant), California Conservation Corps, Weeden Foundation, Redwood Community Action Agency, Bureau of Land Management, and the U.S. Fish and Wildlife Service.

CEQA

The project has been reviewed for compliance with the California Environmental Quality Act (CEQA) requirements. The project is exempt under CEQA Guidelines Section 15313, Class 13, as an acquisition of land for wildlife conservation purposes, Section 15325, Class 25, as a transfer of an ownership interest in land to preserve open space, and Section 15333, Class 33, Small Habitat Restoration Projects. Subject to approval of this proposal by the WCB, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

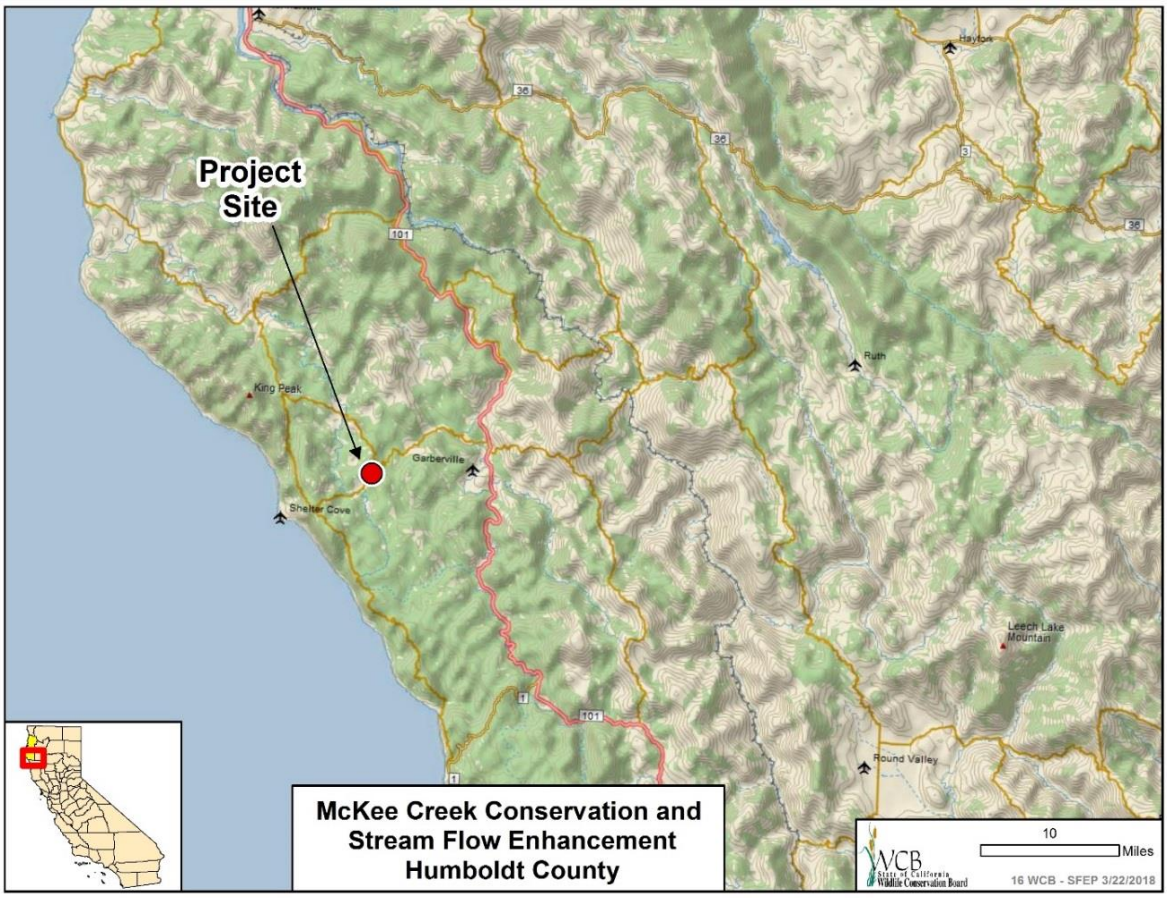
Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $1,159,377 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into

appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Chair Bonham noted one speaker card – Galen Dougherty. Mr. Dougherty of Sanctuary Forest introduced himself and reiterated the importance of this project and others where Prop 1 funding is being used to protect previously impacted but still undeveloped wildlands, and to do implementation projects on them to enhance stream flows for downstream fish and wildlife.

Chair Bonham asked Mr. Dougherty to describe how he would monitor the potential water benefit from the implementation actions. Mr. Dougherty stated he wanted to recognize that WCB had funded an instream flow enhancement project downstream of McKee Creek, immediately downstream of this acquisition property. As part of that project, for the past 10 years Sanctuary Forest has been monitoring stream flows in McKee Creek and has installed over 30 groundwater wells with pre-project well data downstream of the project. They will be installing them on the property following acquisition so we can accurately categorize pre- and post-project groundwater levels, and the stream flow data will also help inform how much of a benefit this data is. Mr. Dougherty added that acquiring this property opens the door for further groundwater recharge projects which will be more extensive.

Chair Bonham asked if there were any questions, there were none.



17. Mad River Enhancement
Humboldt and Trinity County
$693,408

This proposal was to consider the allocation for a grant to the Humboldt Bay Municipal Water District (HBMWD) for the purpose of dedicating a portion of HBMWD's diversion water rights to instream flow use that will benefit fish and wildlife by creating an increase in habitat for salmonids and special status species in the Mad River.

LOCATION

The project is located along the mainstem Mad River in the Mad River Watershed. Flow enhancement water releases will occur at Matthews Dam from Ruth Reservoir upstream of the project reach. Downstream of Matthews Dam, the Mad River travels approximately 84 miles to the Pacific Ocean, flowing through both Trinity and Humboldt Counties. Matthews Dam is located approximately 48 miles south east of Eureka and 53 miles south west of Redding.

PROJECT DESCRIPTION

Upon acquiring necessary data on state and federally listed species, water quality and availability and through the review of reservoir operations, this proposed project will ensure enhanced flow of 39 cubic feet per second (cfs), expected to keep the reaches in the upper watershed accessible to fish and providing an estimated 450 acres of increased habitat. Release of the in-stream dedication is to occur in low flow months such as summer and fall, the time of year when it is most beneficial to aquatic species.

Problem:
Several flow-related limiting factors occur in the Mad River system. Overdraft of river and tributary flow in summer by landowners and cannabis growers is ongoing. Fish migration barriers exist when flows at riffles become too shallow to allow passage. Low flows reduce available habitat and water quality for salmonids and other aquatic species especially during the summer. The Mad River is listed as impaired for sediment, turbidity, and temperature under Section 303(d) of the Clean Water Act.

Solution:
The project will gather necessary data on species, water quality, reservoir operations, and revision of reservoir operations in order to process a petition of change under Water Code Section 1707 through the State Water Resources Control Board (SWRCB). If approved, the petition will authorize a change in purpose of use to include instream uses for fish and wildlife enhancement. This proposed project will ensure enhanced flow of up to 39 cubic feet per second (cfs) expected to keep the reaches in the upper watershed accessible to fish and providing access to an estimated additional 450 acres of fish habitat.

PROJECT COST

Funding	
WCB	693,408
Other	67,833
Total	*$761,241*

Project costs will be for: project management, permit fees, operation, equipment, and subcontractor operating expenses. Other funding sources include the Humboldt Bay Municipal Water District (applicant), H.T. Harvey and Associates, Mad River Alliance, and Stillwater Sciences.

CEQA

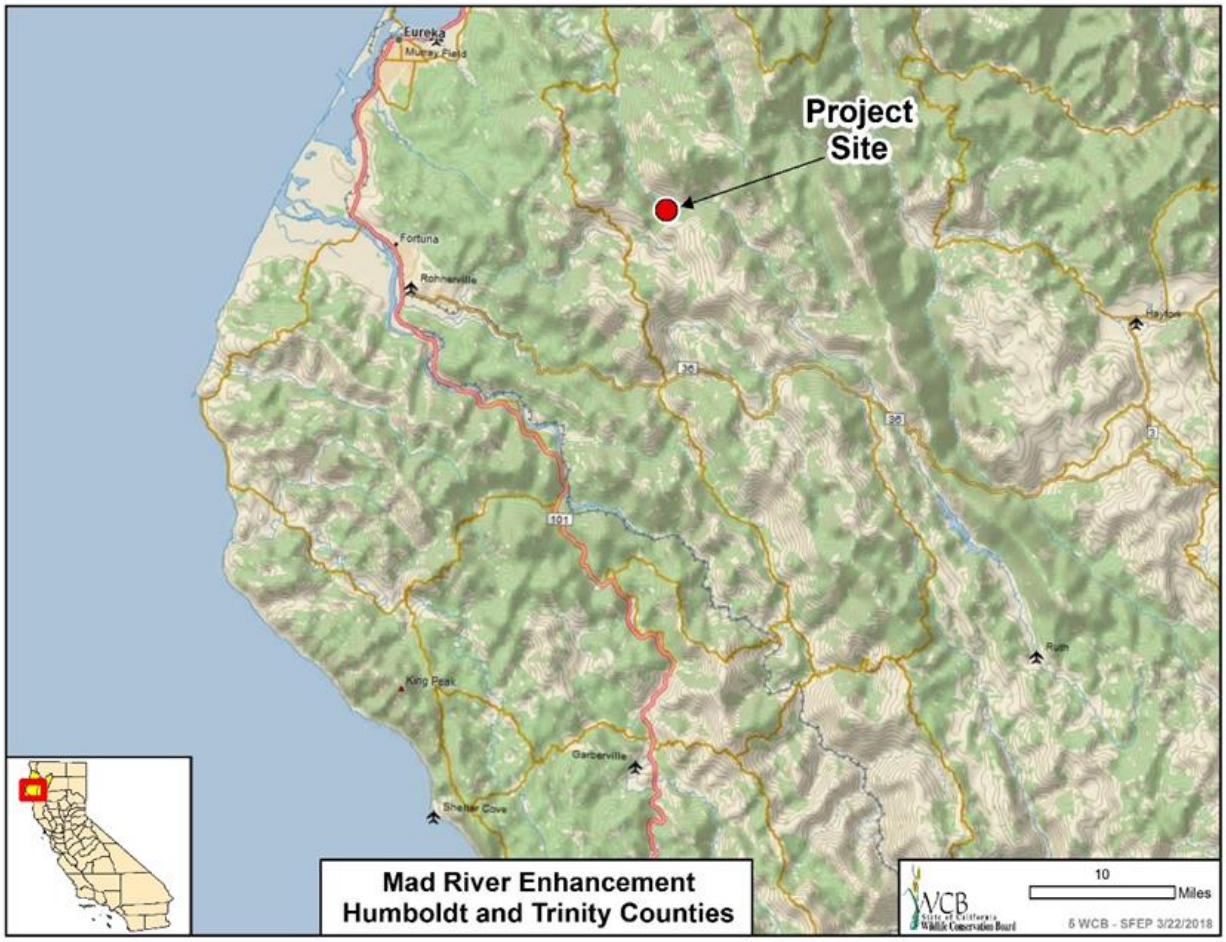
The project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines California Code of Regulations, Title 14, Chapter 4, Section 15304, as a minor alteration in the condition of land, water, or vegetation which does not involve removal of healthy, mature, scenic trees.

STAFF RECOMMENDATION

Staff recommended that the Board approve this project as proposed; allocate $693,408 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Chair Bonham stated for a long time California has had a mechanism at the State Water Board where you can take a water right and dedicate the volume for fish and wildlife and leave it instream. It's rarely used and needs to be used more. This is the kind of project to exercise that existing mechanism.

Chair Bonham asked if there were any questions, there were none.



18. Navarro River Watershed Stream Flow Enhancement
Mendocino County
$726,374.23

This proposal was to consider the allocation for a grant to Mendocino County Resource Conservation District (MCRCD) for a cooperative project with Trout Unlimited, The Nature Conservancy, and the National Fish and Wildlife Foundation to reduce summer diversions and improve dry season stream flows for the benefit of coho salmon and steelhead trout.

LOCATION

The Navarro River watershed is the largest coastal basin in Mendocino County, three miles south of the town of Albion, encompassing approximately 315 square miles. The Navarro River flows through the coastal range, the Anderson Valley, and out to the Pacific Ocean.

PROJECT DESCRIPTION

Problem:

Overall, the Navarro and its tributaries lack adequate stream shelter and pool habitat, largely from the lack of large woody debris. Baseflows in many sub-watersheds are depressed by water diversions for agricultural and residential uses, compromising the availability of summer habitat for salmonids, and in some cases impairing water temperatures.

Solution:

Through the prior phase of this collaborative flow enhancement program, funded by the Wildlife Conservation Board (WCB), the core planning team developed a planning process and explored the feasibility and application of a number of tools for enhancing and optimizing stream flows including storage and forbearance projects, voluntary coordinated watershed management planning, and largescale groundwater infiltration projects to optimize flow during low flow conditions. This second project phase will build off the initial planning work to further develop and implement tools to enhance stream flow.

This proposed project will develop four water storage and forbearance projects to 100% design, implement two water storage and forbearance projects, develop groundwater infiltration projects to 100% design, establish a tributary water management group, and develop a voluntary coordinated watershed management plan. In addition, the project will continue implementing a complimentary stream flow monitoring program, as well as increase the MCRCD's gauge network and begin groundwater infiltration baseline data collection. The combination of these tasks and projects will reduce summer diversions and improve dry season stream flows for the benefit of coho salmon and steelhead trout.

Tasks for this project include:

- Partnership planning meetings and calls,
- Outreach to landowners about project goals and to recruit landowner participation,
- Developing storage and forbearance projects to 100% design, applying for project permits and developing risk-benefit analyses for projects identified in the first phase/grant of our partnership's work,
- Implementing a storage and forbearance project for Husch Winery and Indian Creek County Park,

- Establishing a collaborative water management group in a tributary to the Navarro and developing a coordinated water management plan including three projects to 30% design,
- Developing groundwater infiltration projects to 100% design,
- Collecting stream flow data to assess the impacts of diversions on summer low flow conditions, and
- Collecting pre-project groundwater infiltration monitoring/baseline data to assess groundwater and surface water interactions in the North Fork Navarro watershed

PROJECT COST

Funding	
WCB	726,374.23
Other	377,015
Total	*$1,103,389.23*

Project costs will be for: personnel services and operating expenses including subcontractor and equipment services. Funding sources include Trout Unlimited Inc., National Fish and Wildlife Foundation, and The Nature Conservancy.

CEQA

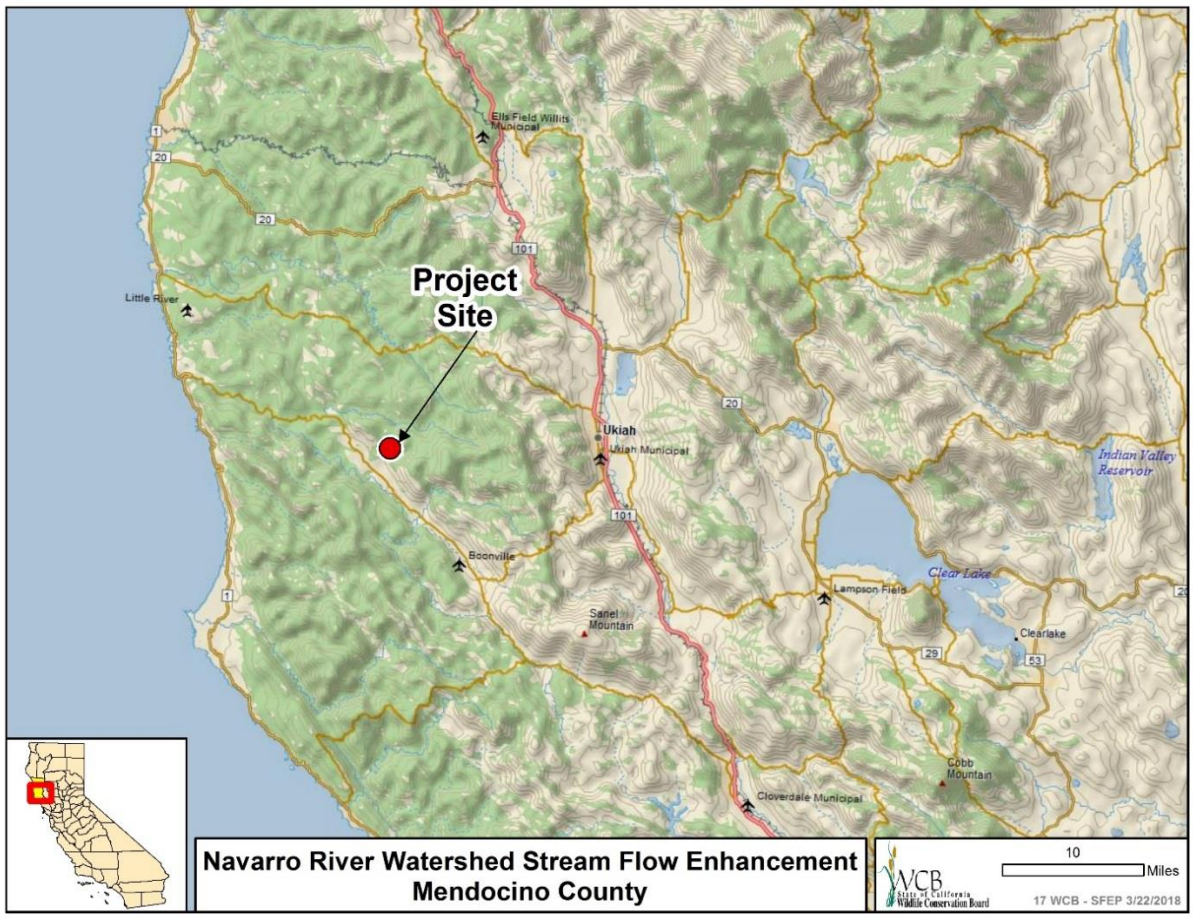
The project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines California Code of Regulations, Title 14, Chapter 3, Section 15303, Class 3, New Construction or Conversion of Small Structures and Section 15304, Class 4, Minor Alterations to Land. Subject to WCB approval of the project, staff will file the appropriate Notice of Exemption with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $726,374.23 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Executive Director Donnelly noted one speaker card from Matt Clifford. Mr. Clifford with Trout Unlimited introduced himself and stated his strong support for this project, noting that this project is designed to get at the problems being experienced in coastal California.

Chair Bonham asked if there were any questions, there were none.


Project Site
Ells Field Willits Municipal
Little River
Ukiah
Ukiah Municipal
Indian Valley Reservoir
Boonville
Clear Lake
Lampson Field
Sanel Mountain
Clearlake
Cobb Mountain
Cloverdale Municipal
Navarro River Watershed Stream Flow Enhancement
Mendocino County
10
Miles
17 WCB - SFEP 3/22/2018

19. Oroville Wildlife Area Restoration Project
Butte County
$5,070,900

This proposal was to consider the allocation for a grant to the Sutter Butte Flood Control Agency for a cooperative project with the Department of Water Resources and the California Department of Fish and Wildlife, to improve roughly 7,500 linear feet of existing channels to connect isolated ponds, which will provide fish refugia and eliminate potential fish stranding. Design for this project was funded by the Stream Flow Enhancement Program in 2016.

LOCATION

The project is located along the east side of the Feather River, just west of State Route 70 and across the river from the Thermalito Afterbay outlet. The project site is within the Sacramento River Watershed and less than one mile southwest of the town of Oroville.

PROJECT DESCRIPTION

Problem:

The project area is characterized by a highly disturbed floodplain that has been hydraulically disconnected from the Feather River by gold dredging and borrow pits excavated during construction of the Oroville Dam. The project area is disconnected from the Feather River during times of low flow by a 15- to 20-feet-high berm along the northeast boundary of the project area. High flows back up into the project area through the outflow weirs, and when flows reach ~60,000 cubic feet per second, water spills through the inflow weir.

The interior of the project area contains a network of channels and disconnected ponds, created by gold dredging and use of the area for borrow during construction of the Oroville Dam.

The historical ground disturbance has resulted in conditions that are conducive to colonization by invasive plant species, which results in associated low dissolved oxygen water content and the potential stranding of native fish. Widespread invasive plant species present in the project area include water primrose, annual grasses, broom, giant reed, scarlet wisteria, purple loosestrife, tree-of-heaven, yellow star-thistle, and Himalayan blackberry. Fish stranding occurs when fish enter the area during high flows and become stranded in the ponds and interior waterways as flows recede.

Solution:

Work will include the creation of roughly 150 acres of new 2-year floodplain habitat and approximately 400 acres of new 3-year shallow floodplain habitat. Project area canal berms will be modified to enhance floodplain connectivity. The project will re-connect the Feather River to its historic floodplain thereby increasing the mixing of shallow groundwater and surface water resulting in cooler stream temperatures during spring and summer when air temperatures increase. Additionally, the project will increase channel complexity to provide better habitat and water quality, and provide more frequently inundated floodplain rearing habitat for juvenile salmonids. Invasive plant species will be eradicated and wetland and fish rearing habitat improved.

PROJECT COST

Funding	
WCB	5,070,900
Other	11,589,269
Total	*$16,660,169*

Project costs will be for: project management, environmental support and construction activities. Other funding sources include the Department of Water Resources, California Department of Fish and Wildlife, and Sutter Butte Flood Control Agency. Note: This budget reflects other sources of funding, some of which has already been expended towards earlier phases of this project.

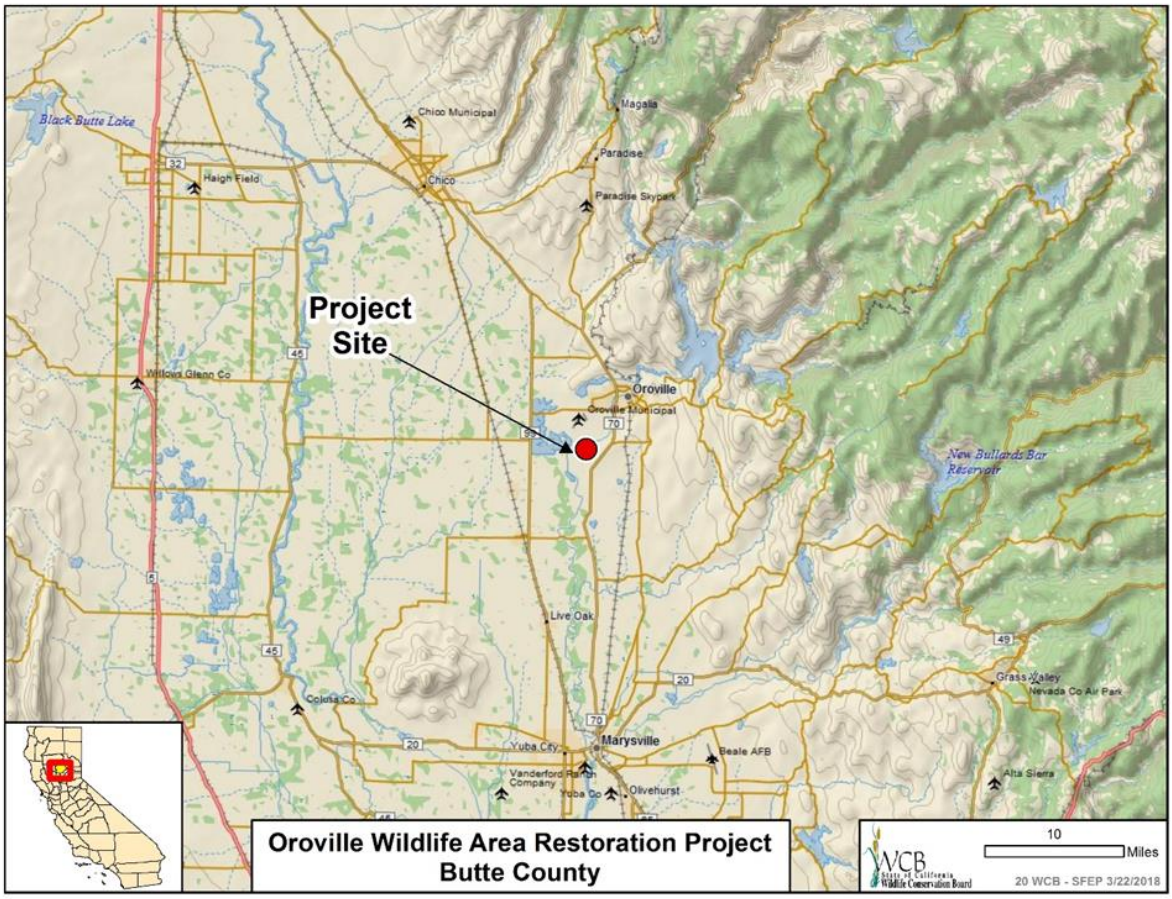
CEQA

As lead agency, the Sutter Butte Flood Control Agency prepared a Mitigated Negative Declaration (MND) for the project pursuant to the provisions of the California Environmental Quality Act (CEQA). Staff has considered the MND and prepared proposed, written findings documenting the Wildlife Conservation Board's (WCB) compliance with CEQA. Subject to approval of this proposal by the WCB, the appropriate Notice of Determination will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board adopt the written findings and approve this project as proposed; allocate $5,070,900 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Chair Bonham asked if there were any questions, there were none.


Project Site
Oroville Wildlife Area Restoration Project
Butte County
Black Butte Lake
Chico Municipal
Magalia
Paradise
Haigh Field
Chico
Paradise Skypark
Willows Glenn Co
Oroville
Oroville Municipal
New Bullards Bar Reservoir
Live Oak
Colusa Co
Yuba City
Marysville
Beale AFB
Vanderford Ranch Company
Yuba Co
Olivehurst
Grass Valley
Nevada Co Air Park
Alta Sierra
10
Miles
20 WCB - SFEP 3/22/2018

20. Forest Management Strategies to Increase Stream Flow
El Dorado, Nevada and Placer Counties
$609,970

This proposal was to consider the allocation for a grant to the University of California, Santa Barbara for a cooperative project with the University of Nevada, Reno (UNR) and the Desert Research Institute, to expand monitoring, scientific studies and modeling in the Tahoe-Truckee Basin in order to develop watershed-scale forest thinning strategies that enhance stream flow within an area that is critical as habitat for threatened species.

LOCATION

The project is located in the central Sierra Nevada mountain range, primarily on National Forest lands in the Lake Tahoe Basin and Tahoe National Forest. The project boundaries are within the Sagehen Creek watershed in Little Truckee Basin and Lake Tahoe's west shore in the Lake Tahoe Basin.

PROJECT DESCRIPTION

Problem:

The health and productivity of aquatic biota, including native cutthroat trout, are limited by warm water temperatures that occur during summer low flows. Throughout the California Sierra Nevada, snow pack stores water during the winter and spring and provides water to streams during the summer. Earlier snowmelt can extend the period of water temperature stress for aquatic biota. Forest management actions that retain snow on the landscape later in the year will delay runoff and reduce the duration of summer low flows. Additionally, forest thinning may reduce forest water stress during drought years, both by reducing competition between remaining trees and via the change in timing and magnitude of water inputs. Reduced forest water stress is likely to lead to reductions in forest mortality and high intensity fire, disturbances that can negatively impact stream water quality. Forest thinning, therefore, has multiple benefits for managing and enhancing stream flow.

Forest thinning effectiveness is likely to vary with climate and during post-treatment regrowth. Therefore, modeling will estimate the likely impact of forest treatment strategies and quantify the stream flow enhancement opportunities during post-treatment regrowth and across a range of climate futures and associated disturbance regimes. Few, if any, existing modeling efforts can account for fine scale forest treatment effects (such as changing snow accumulation and melt) and the interaction between treatments, forest growth, water use and disturbance risk to fire and climate over multiple years.

Solution:

One of the large open questions in forest restoration, is how often forest treatments need to occur to maintain a desired hydrologic condition, particularly under a changing and uncertain climate. This project will provide fundamental understanding on this front through long-term modeling and the development of 25- and 50- year forest management plans. The proposed work leverages several existing models to provide a more complete picture of treatment impacts and provide a new state-of-the art approach for designing effective and efficient treatment strategies.

In coordination with the 59,000 acre interagency Lake Tahoe West Project (LTWP) led by the U.S. Forest Service, this project will expanded monitoring, scientific studies and

modeling in the Tahoe-Truckee Basin in order to develop watershed-scale forest thinning strategies that enhance stream flow within an area that is critical as habitat for threatened species. The primary goal of this project is to develop actionable information for managers by identifying strategic forest practices that will retain snow on the landscape in ways that delay the stream hydrograph and improve the quantity and quality of summer low flows – the time period when aquatic ecosystems are most stressed and human water demands are greatest. Three project objectives will be utilized to meet the overall goal of stream flow enhancement in snow-melt forested watersheds: 1) Provide baseline stream flow monitoring and develop science-based tools to quantify the effects of forest treatments on stream flow and forest growth and water use across diverse watersheds, 2) Use these tools to design watershed-scale forest thinning strategies for the LTWP retaining snow in key parts of the landscape, 3) Develop 25- and 50-year forest management strategies in key watersheds to ensure stream flow enhancement gains under the combined effects of climate change, drought, and forest disturbance.

To meet the project objectives state-of-the-art ecohydrological models will be combined with existing and new stream flow monitoring. By combining several models with differing strengths and capabilities confidence will be built in the ability to estimate the likely impact of forest treatment strategies on future stream flow regimes. In particular, the applicant will investigate how different forest treatment intensity, extent, and frequency will impact stream flow response to future droughts to develop 25- and 50- year forest management strategies*.* This project will interface with many local and regional managers and stakeholders to achieve the greatest stream flow enhancements from these important scientific studies.

PROJECT COST

Funding	
WCB	609,970
Other	98,150
Total	*$708,120*

Project costs will be for: project management, operating expenses and indirect costs construction activities. Funding sources include UNR and the High Desert Institute.

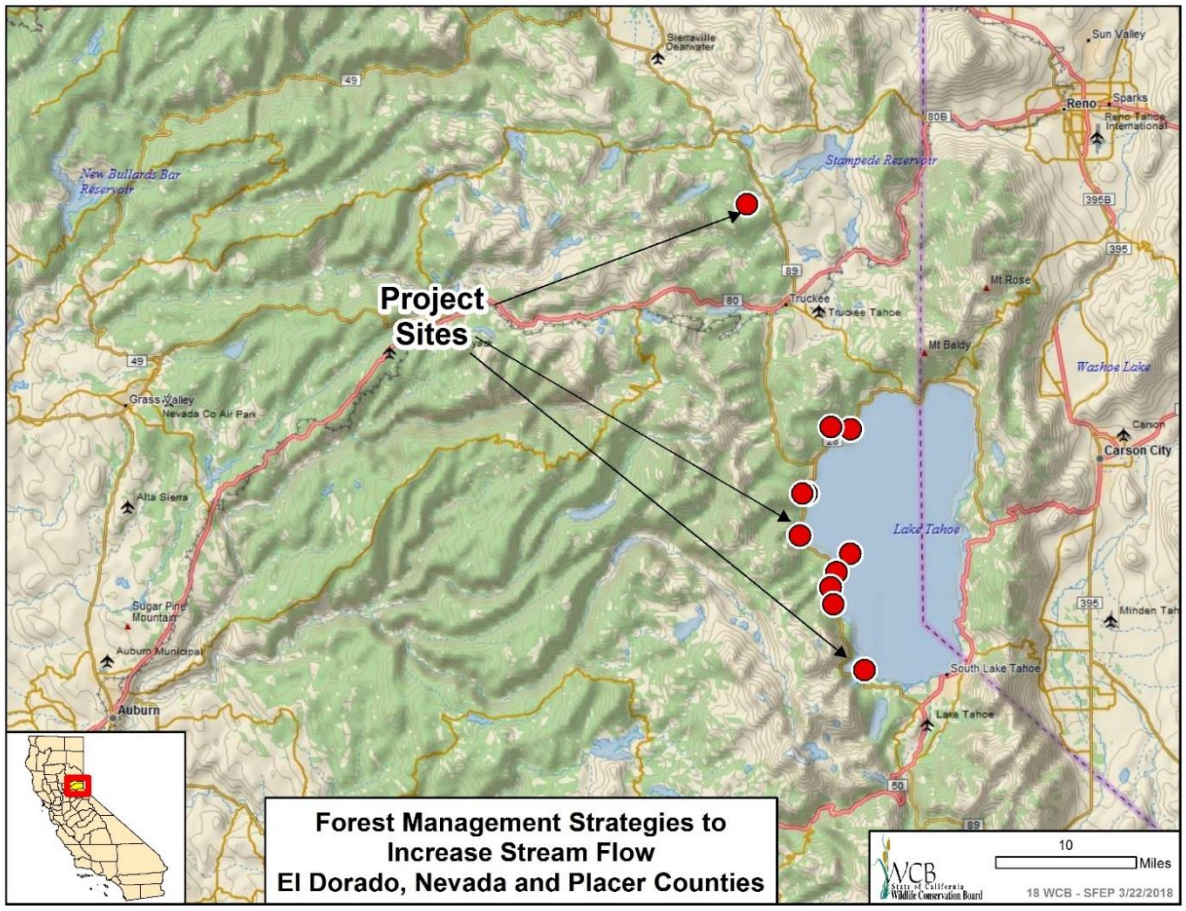
CEQA

The project is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines California Code of Regulations, Title 14, Chapter 3, Section 15262, as it involves only feasibility and planning studies for possible future actions. Subject to approval of this proposal by the Wildlife Conservation Board, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $609,970 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Chair Bonham asked if there were any questions, there were none.



21. French Meadow Watershed Restoration
Placer County
$788,202

This proposal was to consider the allocation for a grant to The Regents of the University of California for a cooperative project with The Nature Conservancy to measure and assess how the effects of ecologically-based forest management on year-round stream flow in source-water watersheds affect drought resiliency on downstream water supplies. This scientific study will focus on the feedbacks between forests, management, water use, and climate by investigating the impact of restoration on stream flow, soil moisture, snow depth, evapotranspiration, and tree growth- in both space and time.

LOCATION

The project is located in the North Fork American River Watershed. The streams this project will evaluate include: Cottonwood Creek, Dolly Creek, Grayhorse Creek, Rice Creek, and Chipmunk Creek. All streams within the project area are tributaries to the Middle Fork American River, which flows through French Meadows Reservoir and onward through Folsom Lake to the Sacramento River. The project is located in the headwaters of the Middle Fork American River Watershed approximately 13 miles west of Tahoe City and 15 miles southwest of Truckee.

PROJECT DESCRIPTION

Problem:
Forest management decisions in California and across the western United States are affecting hydrology. Fire suppression activities have allowed forests to become unnaturally dense contributing to extensive drought-induced mortality and high-intensity wildfires. Increases in mass tree mortality are linked to drought stress. Fire and drought-related mortality is projected to intensify with reduced snowpack due to further precipitation shifts (from snow to rain) and earlier snow melt. These effects will go beyond the expansion and contraction of individual species' ranges and are expected to impact water supplies. Higher temperature and vegetation expansion at higher elevations will increase evapotranspiration and reduce stream discharge, affecting both instream flows and water supplies for downstream agriculture and municipalities.

Restoring forested watersheds to a more resilient and natural state will mitigate these problems and offers the best protection for the future. Without forest vegetation management, a warming climate will extend growing seasons, resulting in more biomass, increased forest evapotranspiration and reduced runoff during the dry season.

Solution(s):
This project will fill a critical gap in our knowledge around water, climate and forest management. Continued investment in baseline hydrologic measurement, assessment and research are needed to accurately establish the connection between watershed restoration and stream flow enhancement.

To quantify the potential impacts of future forest fuel management activities on forest health and water quantity, detailed measurements of stream flow, soil moisture, snow depth, evapotranspiration, forest health, and tree growth in both treated and untreated watersheds will be collected. An expanded monitoring network will be established to collect the baseline data for evaluating the impacts of forest restoration. Hydrological modeling will then provide an estimate of the expected water yield and forest health benefits from the proposed restoration.

PROJECT COST

Funding	
WCB	788,202
Other	302,936
Total	*$1,091,138*

Project costs will be for: monitoring, analysis and modeling services, including equipment and administrative services. Other funding sources include The Regents of the University of California, Merced and The Nature Conservancy.

CEQA

The project is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, Section 15262, as it involves only feasibility and planning studies for possible future actions. Subject to approval of this proposal by the Wildlife Conservation Board, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

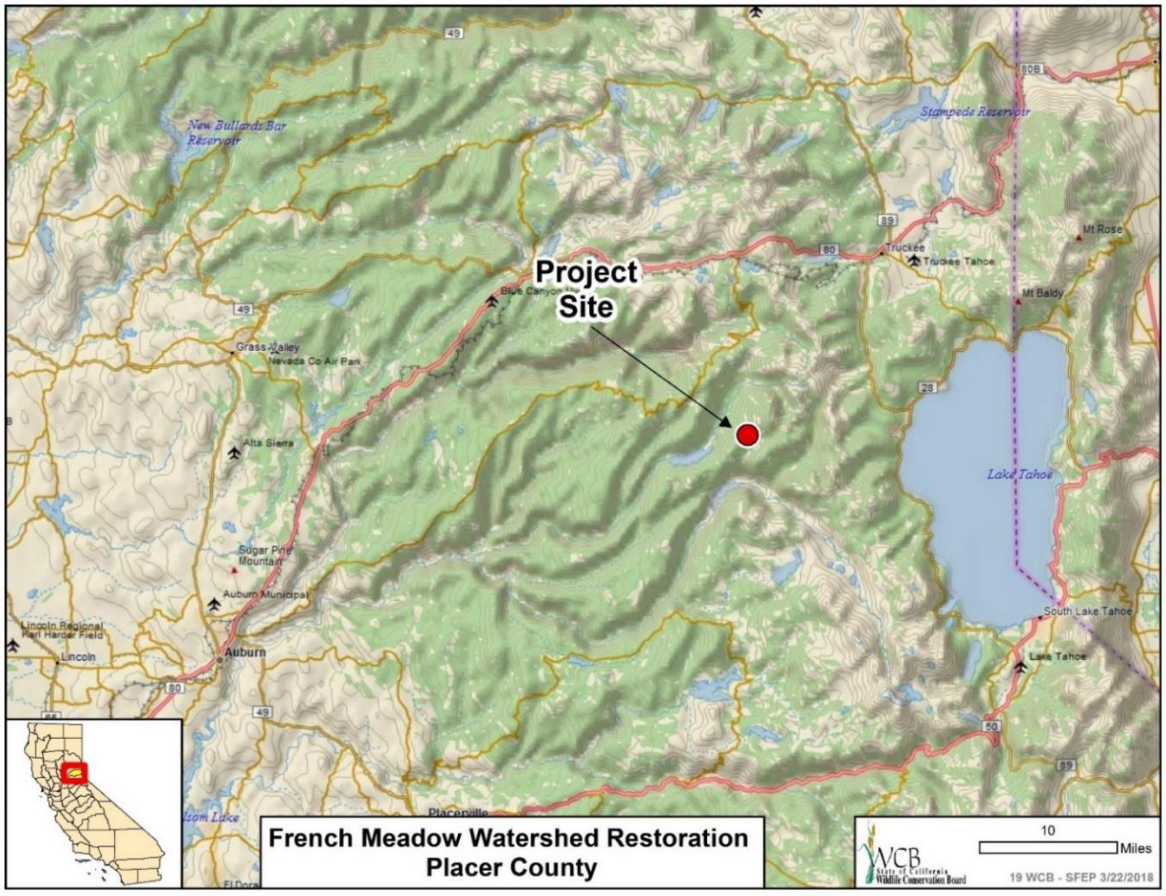
Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $788,202 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Ms. Catherine Freeman commented this project states it is statutorily exempt from CEQA because it is for feasibility and planning studies. Am I missing something on this?

Staff member Cary asked for help answering the question from Roger Bales, professor at UC Merced and the lead on this proposal. Professor Bales stated this is a partnership and the university's role in this partnership is to do the monitoring and assessment. The actual landowner is the US Forest Service in a checkerboard pattern with the American River Conservancy. They are undergoing their own NEPA and CEQA processes as appropriate on their lands.

Chair Bonham asked if the University is the potential grantee of this funding and don't own fee title to any of the property? Professor Bales stated that was correct. Chair Bonham stated the landowners will have to complete whatever level of environmental review to take those actions. He further stated for purposes of this Board's discretionary decision, we are funding the monitoring as described in the proposal scope.

Chair Bonham asked if there were any questions, there were none.


Project Site
New Bullards Bar Reservoir
Stampede Reservoir
Truckee
Tahoe Truckee
Mt Rose
Mt Baldy
Blue Canyon
Grass Valley
Nevada Co Air Park
Alta Sierra
Sugar Pine Mountain
Auburn Municipal
Lincoln Regional Karl Harder Field
Lincoln
Auburn
Lake Tahoe
South Lake Tahoe
Placerville
French Meadow Watershed Restoration
Placer County
10
Miles
19 WCB - SFEP 3/22/2018

22. Sonoma County Coastal Rainwater Catchment and Forbearance
Sonoma County
$851,806

This proposal was to consider the allocation for a grant to the Sonoma Resource Conservation District (SRCD) for a cooperative project with the Coast Ridge Community Forest and 29 landowners, for the purpose of installing rainwater harvesting tanks and entering into agreements to forbear stream flow diversions during dry season periods.

LOCATION

The project area consists of 29 properties within the coastal Gualala River, Russian Gulch, and Austin Creek watersheds. These coastal watersheds in northwestern Sonoma County drain approximately 380 square miles through a vast network of streams before discharging in the Pacific Ocean, near the towns of Gualala and Jenner.

PROJECT DESCRIPTION

Problem:

Historical logging practices, legacy logging roads, sheep and cattle grazing, vineyard conversions, the recent five-year drought, and a Mediterranean climate pattern all have impacts to stream flow in the project area. The watersheds once supported thriving populations of now endangered Central California Coast (CCC) Coho Salmon, threatened Northern California Steelhead Trout Distinct Population Segment (DPS), and threatened CCC Steelhead Trout DPS. Low flow, with associated elevated temperatures and a lack of complex habitat, must be remediated to recover anadromous fish populations in watersheds.

Solution:

This project will enhance stream flows by working with 29 private landowners to install fifty-eight (two on each property) 5,000-gallon rainwater catchment tanks and systems on their land which will capture and store rainwater. Each landowner will enter into a 20-year agreement to use the stored water first, eliminating or reducing the need to divert stream water during dry summer periods. This will enable landowners to meet their water use needs while maintaining flows in adjacent streams when these flows are needed most by coho and steelhead. The project will capture approximately 290,000 gallons of rainwater each year, allowing for .9 acre-feet to remain in stream.

PROJECT COST

Funding	
WCB	851,806
Other	130,018
Total	$981,824

Project costs will be for: project management, construction activities, and development of a monitoring and evaluation plan. Other funding sources include the SRCD (applicant) and landowners.

CEQA

The project is exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15303, Class 3, New Construction or Conversion of Small Structures, as the installation of small new facilities. Subject to approval of this proposal by the WCB, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

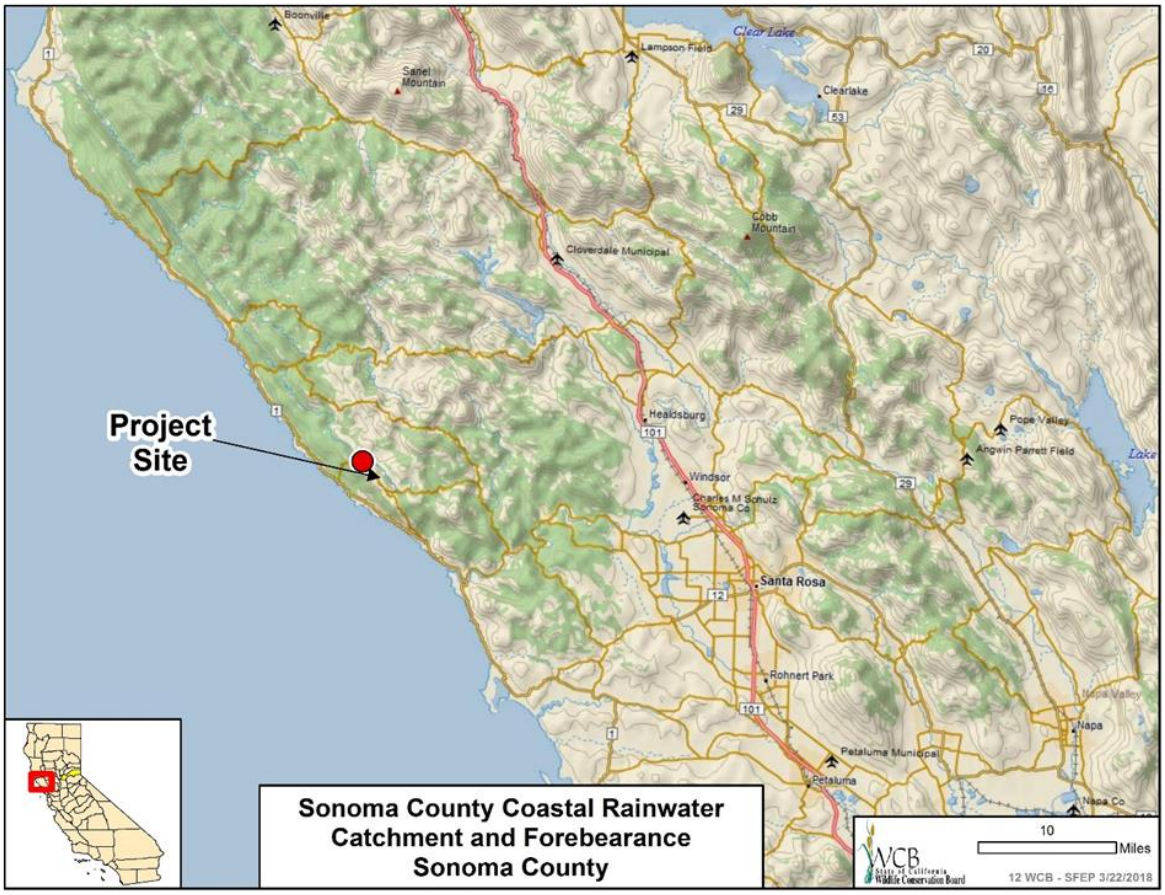
STAFF RECOMMENDATION

Staff recommended that the Board approve this project as proposed; allocate $851,806 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Board Member Diane Colborn asked if this will help with some of the problems they've had with using water for frost protection in vineyards that has caused lowering of the water in the streams and fish stranding.

Justin Bodell from Sonoma Resource Conservation District responded that they are primarily working with rural landowners and not many vineyards. The frost issue was a huge problem in this area and has been solved through landowners working with each other and timing their frost diversion and also switching from overhead sprinklers to frost fans.

Chair Bonham asked if there were any questions, there were none.


Project Site
Sonoma County Coastal Rainwater Catchment and Forebearance Sonoma County
Boonville
Lampson Field
Clear Lake
Clearlake
Sanel Mountain
Cobb Mountain
Cloverdale Municipal
Healdsburg
Pope Valley
Angwin Parrett Field
Windsor
Charles M Schulz Sonoma Co
Santa Rosa
Rohnert Park
Napa
Petaluma Municipal
Petaluma
Napa Co
10
Miles
12 WCB - SFEP 3/22/2018

23. Napa River and Bear Creek Tributary Restoration
Napa County
$3,000,000

This proposal was to consider the allocation for a grant to the Napa County Public Works Department for a cooperative project with the California Department of Fish and Wildlife and private parties to restore and enhance long-term river/stream and floodplain function, improve water quality and stream flow conditions, and enhance the resiliency of aquatic and terrestrial riparian habitats.

LOCATION

The project is located within the Napa River Watershed, along the Napa River and Bear Creek, which flow into San Pablo Bay. Project reaches are north-west, east and south east of Yountville.

PROJECT DESCRIPTION

Problem:

Prior to significant changes in land use in the Napa Valley, the Napa River was a broad, shallow river system with multiple channels. At present, the Napa River is generally confined to a single deeply incised river channel which exhibits poor habitat quality and river function expressed with poor stream flow and water quality, bank destabilization, limited in-channel features (riffles, bars, and pools), a narrow riparian corridor and limited floodplain connectivity. In certain reaches, the Napa River is now 12-20 feet deeper and much narrower than its pre-development condition

The primary limiting factors and stressors include excessive erosion from vineyard facilities and rural roads; degraded water quality from fine sediment; incision in the main stem river and tributary creeks; reduced instream habitat complexity; altered steam flows; fish migration barriers; non-native invasive plants and limited riparian canopy/corridor; and water temperature.

Solution:

This large-scale restoration project will enhance stream flow by reconnecting the river mainstem to floodplain features that slow and store seasonal flood waters. It will also improve local groundwater recharge and extend the periods for which floodplain features are inundated. The project will restore geomorphic processes to the incised channel, improving base flow conditions and enhancing stream flow for salmonids during critical life stages. This will also reestablish and sustain physical and hydraulic processes that maintain riffle pool habitat units responsible for aquatic habitat complexity. Channel widening and streambank stabilization will reduce the input of fine sediment and improve water quality. Creating large floodplain features adjacent to the mainstem will improve stream flow by lengthening the duration of inundation, therefore providing prolonged access to off-channel low velocity refugia. Extensive invasive species management and native riparian revegetation occurs at all sites and will enhance species diversity, terrestrial habitat, canopy complexity, and overall corridor width. Enhancement of geomorphic processes combined with riparian corridor expansion, invasive management, and native planting is a holistic restoration approach that will improve stream flow through the project reaches over time.

PROJECT COST

Funding	
WCB	3,000,000
Other – Secured	1,572,000
Other- Unsecured	3,678,000
Total	*$8,250,000*

Project costs will be for: project management, design, revegetation and construction activities. Funding sources include Napa County Public Works Department (applicant), California Department of Fish and Wildlife, private landowners, and additional sources to be determined.

CEQA

Napa County Public Works prepared a Mitigated Negative Declaration (MND) for the project pursuant to the provisions of the California Environmental Quality Act (CEQA). Staff considered the MND and has prepared proposed, written findings documenting the Wildlife Conservation Board's (WCB) compliance with CEQA. Subject to approval of this proposal by the WCB, the appropriate Notice of Determination will be filed with the State Clearinghouse.

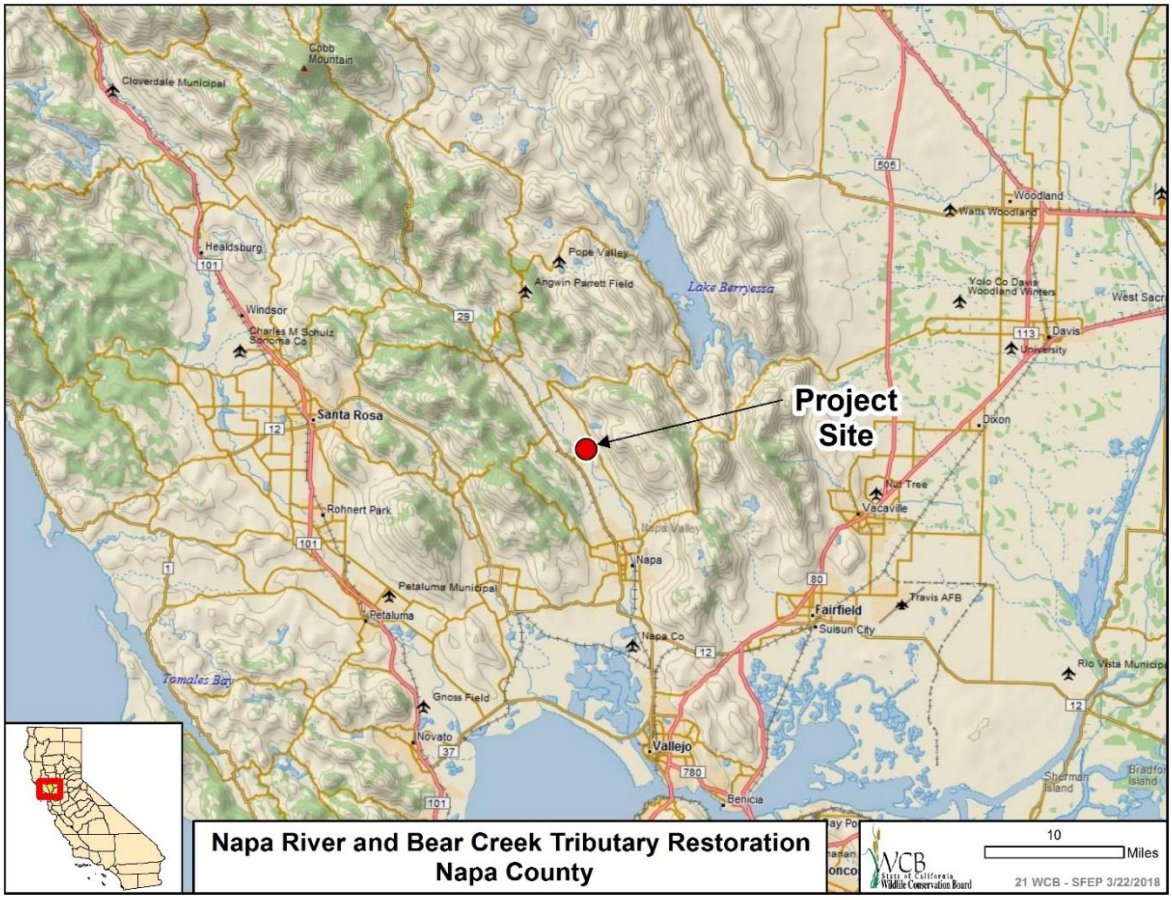
STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $3,000,000 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Chair Bonham noted one speaker card from Shaun Horne. Mr. Horne, Napa County Public Works, stated the importance of this project from a public/private partnership with local landowners in the Oakville reach alone -- over 13 landowners are participating and rededicating over 36 acres of active vineyard agricultural lands to allow for this river restoration project.

Board Member Eric Sklar added his support for this great project.

Chair Bonham asked if there were any questions, there were none.


Project Site
Napa River and Bear Creek Tributary Restoration
Napa County
10
Miles
21 WCB - SFEP 3/22/2018
Cloverdale Municipal
Cobb Mountain
Healdsburg
Windsor
Charles M Schulz Sonoma Co
Santa Rosa
Rohnert Park
Petaluma Municipal
Petaluma
Tomales Bay
Gnoss Field
Novato
Pope Valley
Angwin Parrett Field
Lake Berryessa
Napa Valley
Napa
Napa Co
Vallejo
Benicia
Fairfield
Suisun City
Travis AFB
Vacaville
Nut Tree
Dixon
Woodland
Watts Woodland
Yolo Co Davis Woodland Winters
Davis University
West Sacr
Rio Vista Municipa
Sherman Island
Bradfor Island

24. San Geronimo Flow Enhancement Project
Marin County
$3,420,000

Item withdrawn from consideration at this time.

25. Alameda Creek Fish Passage
Alameda County
$5,358,075

This proposal was to consider the allocation for a grant to the Alameda County Water District for a cooperative project with the Alameda County Flood Control and Water Conservation District, California Natural Resources Agency, State Coastal Conservancy, and the U.S. Bureau of Reclamation to modify flow releases in Alameda Creek and construct two concrete fish ladders around existing fish passage barriers to provide salmonids access to high value habitat upstream of the project location.

LOCATION

The project is located in the Alameda Creek Watershed, within the Alameda Creek Flood Control Channel approximately 0.75 miles downstream of I Street in the city of Fremont. The lower portion of Alameda Creek has been re-directed through the Alameda Creek Flood Control Channel for approximately 12 miles before flowing directly into the San Francisco Bay. This project location is approximately 17 miles north of San Jose and 22 miles southeast of Oakland.

PROJECT DESCRIPTION

Problem:

Many decades ago, lower Alameda Creek was re-directed and channelized to provide flood protection, and water in the upper watershed was diverted for human uses. At the time the flood control and water supply facilities were constructed, no provisions for fish passage were included in the designs. However, steelhead trout, coho and Chinook salmon have all been observed within the tailrace of the lowermost passage barrier within the flood control channel.

Two primary limiting factors impact the ability for these fish to migrate through the Flood Control Channel and access high value spawning and rearing habitat upstream. These include extreme alterations to the natural stream flow hydrograph as a result of urban development within the watershed and the presence of passage barriers within the Flood Control Channel. These limiting factors and their associated recovery actions have been identified in the National Marine Fisheries Service Multispecies Recovery Plan and by the Alameda Creek Fisheries Workgroup as being top priority remediation to restore California Central Coast steelhead within the Alameda Creek watershed.

Solution:

The proposed project will enhance migration opportunities downstream of the project area by providing new downstream flow releases and address three critical fish passage barriers through construction of two fish ladders that will be operated to pass the enhanced stream flow. One of the fish ladders will be constructed so that fish may pass two of the three barriers. The second fish ladder will allow fish passage past the third fish barrier. Modifications in the water supply operations to enhance downstream flow will enhance flow/depth condition for anadromous steelhead and other fish species. The flow releases were developed in coordination with regional stakeholders and fisheries agencies to optimize passage conditions during migration seasons. These passage-enhancing activities will allow for safe migration through the Flood Control Channel and the three identified barriers so steelhead and salmon can access high quality spawning and rearing habitat upstream.

PROJECT COST

Funding	
WCB	5,358,075
Other	22,523,453
Total	*$27,881,528*

Project costs will be for: project management and construction activities. Other funding sources include the Alameda County Water District, California Natural Resources Agency, State Coastal Conservancy, U.S. Bureau of Reclamation, and Alameda County Flood Control and Water Conservation District. Note: this budget reflects other sources of funding, some of which have already been expended towards earlier phases of this project.

CEQA

The Alameda County Water District, as lead agency, prepared a Mitigated Negative Declaration (MND) for the project pursuant to the provisions of the California Environmental Quality Act (CEQA). Staff considered the MND and has prepared proposed, written findings documenting the Wildlife Conservation Board's (WCB) compliance with CEQA. Subject to approval of this proposal by the WCB, the appropriate Notice of Determination will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board adopt the written findings and approve this project as proposed; allocate $5,358,075 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Chair Bonham asked if there were any questions, there were none.


Project Site
Alameda Creek Fish Passage
Alameda County
10
Miles
23 WCB - SFEP 3/22/2018
San Francisco
Oakland
Berkeley
Richmond
Concord
Antioch
Fremont
Hayward
San Jose
Sunnyvale
Santa Clara
Livermore
Pleasanton
Tracy
Stockton

26. San Gregorio Creek Enhancement at Blue House Farm
San Mateo County
$886,590

This proposal was to consider the allocation for a grant to the San Mateo County Resource Conservation District (SMCRCD) for a cooperative project with San Mateo County, California Department of Water Resources, Blue House Farms, and other entities for the purpose of improving instream flow conditions in San Gregorio Creek for salmonids during yearly low stream flow periods.

LOCATION

The project is located at Blue House Farms in the San Gregorio Creek Watershed approximately 1.75 miles upstream of where San Gregorio Creek meets the Pacific Ocean. The project location is adjacent to the unincorporated community of San Gregorio and is approximately 9 miles south of Half Moon Bay.

PROJECT DESCRIPTION

Problem:

Coho salmon and steelhead trout historically existed in abundance in the San Gregorio watershed but, by the end of the twentieth century, populations were severely reduced due to significant drought and human activities. Impacts from ongoing water diversion are most severe in urbanized watersheds and those with a large percentage of agricultural development, like the San Gregorio Creek Watershed. Agricultural diversions that occur during the summer salmonid rearing period into fall further reduce naturally low seasonal flows with pronounced impacts to juvenile coho and steelhead survival. Federal and state recovery and management plans have identified instream flow as one of the most important factors in addressing the recovery of these salmonid species.

The target flow rate identified for San Gregorio Creek to maximize juvenile salmonid survival is 4 cubic feet per second (cfs). Flows recorded at existing stream gauges for almost half a century show that flows often reach no more than 1 cfs in September, the month of lowest average stream flow. An existing 14-acre foot (AF) pond, located at Blue House Farms, stores water used for agricultural purposes during the dry season in late summer and early fall when stream flows are at their lowest level. In addition to being undersized for the farm's needs, the pond leaks and is clogged with sediment and tule plants which further reduce its storage capacity. As a result, the farm currently diverts water from the creek during dry months to meet agricultural needs.

Solution:

Improving stream flow conditions through water conservation and storage projects will result in permanent decreases in diversion rates and temporary forbearance of diversions that have the capacity to impair stream flows in low flow months. Enhancing instream flows during the dry season will improve rearing conditions for over-summering salmonids by reducing water temperatures, increasing transport of forage to rearing grounds, improving low dissolved oxygen levels, increasing mobility between rearing grounds, and reducing competition. The project at Blue House Farms will construct a 30-acre foot (AF) off-stream irrigation pond that will replace the existing 14 AF pond. The new pond will allow the farmer to reduce diversion rates during the spring and summer, and eliminate diversions in late summer and early fall. As a result, the project would reduce instantaneous stream diversion by approximately 0.13 cfs from the beginning of April

through the end of July and 0.29 cfs from the beginning of August through October. The seasonal changes to the farm's diversions will protect an equivalent of 30 AF of creek water to forbear agricultural diversions from August through October, the months of the lowest recorded average stream flow in San Gregorio Creek. The 30 AF of water left in stream will, along with other water efficiency projects at this farm and other farms in the watershed, collectively contribute to enhancing instream flow conditions and improve aquatic habitat for salmonids, California red-legged frogs, San Francisco garter snakes, and other wildlife.

PROJECT COST

Funding	
WCB	886,590
Other	19,000
Other-Committed Unsecured	50,000
Other- Unsecured	150,000
Total	*$1,105,590*

Project costs will be for: project management and administration, design and environmental permitting, and construction activities. Secured funding sources include the SMCRCD (applicant) and California Department of Water Resources (IRWM Prop 84). Committed, unsecured funding includes Peninsula Open Space Trust and Blue House Farms. Additional funders will be determined.

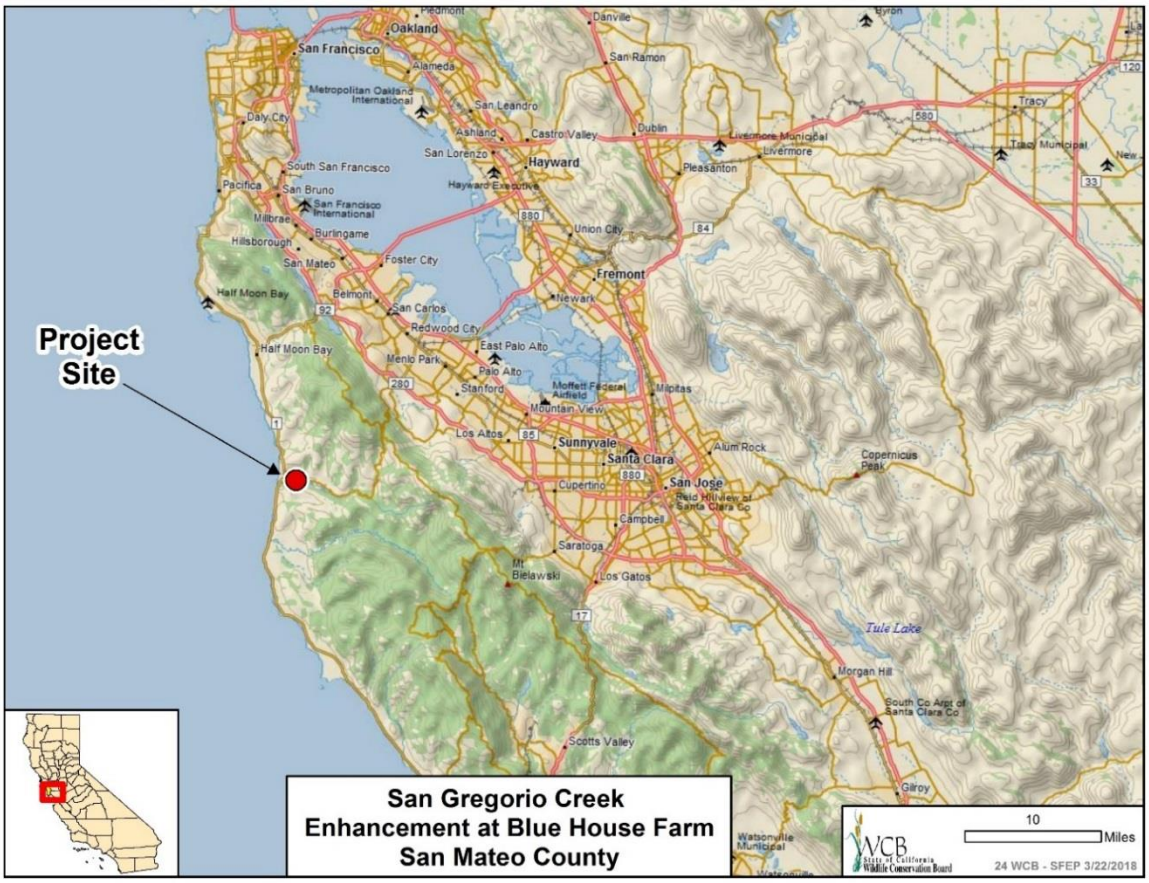
CEQA

The project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines California Code of Regulations, Title 14, Chapter 3, Section 15303 as it pertains to the construction or conversion of new, small facilities or structures, and California Code of Regulations, Title 14, Chapter 3, Section 15304, as it involves the minor alteration of land, water, and vegetation which does not involve the removal of healthy, mature, scenic trees. Subject to approval of this proposal by the WCB, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Board approve this project as proposed; allocate $886,590 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Chair Bonham asked if there were any questions, there were none.


Project Site
San Gregorio Creek
Enhancement at Blue House Farm
San Mateo County
10
Miles
24 WCB - SFEP 3/22/2018
San Francisco
Oakland
Alameda
San Leandro
Hayward
Fremont
Union City
Newark
Pleasanton
Livermore
Tracy
Dublin
San Ramon
Danville
Castro Valley
San Lorenzo
South San Francisco
San Bruno
Pacifica
Daly City
Millbrae
Burlingame
Hillsborough
San Mateo
Foster City
Belmont
San Carlos
Redwood City
Menlo Park
East Palo Alto
Palo Alto
Stanford
Mountain View
Los Altos
Sunnyvale
Santa Clara
San Jose
Cupertino
Campbell
Saratoga
Los Gatos
Mt Bielawski
Scotts Valley
Morgan Hill
Gilroy
Half Moon Bay
Milpitas
Alum Rock
Copernicus Peak
Tule Lake

27. Santa Clara River Riparian Improvement
Ventura County
$3,919,146

This proposal was to consider the allocation for a grant to The Nature Conservancy for a cooperative project with U.C. Santa Barbara and the Santa Clara River Watershed Conservancy to remove 250± acres of the invasive giant reed (Arundo donax), which will save approximately 2,000 acre-feet of water annually for the Santa Clara River.

LOCATION

The project is located in unincorporated Ventura County approximately two miles east of the city of Santa Paula and three miles west of the city of Fillmore along the Santa Clara River.

PROJECT DESCRIPTION

Problem:

The Santa Clara River is regionally significant as one of the least altered river systems in southern California, retaining its relatively natural flows, and without significant channelization and/or concrete. Despite this relative health, the river is threatened by invasive, non-native vegetation. Arundo donax (Arundo), also known as giant reed, is a large invasive grass introduced from Europe, which occupies nearly half of the vegetated riparian area in the Ventura County portion of the Santa Clara River.

In the project area, Arundo is present at varying densities ranging from monotypic stands to scattered plants in the understory of dense native willow-cottonwood forest. Arundo has a high water demand, which reduces instream flows, particularly in the critical summer months when fish and aquatic wildlife are rearing and terrestrial wildlife water needs increase. The California Invasive Plant Council (Cal-IPC) estimates Arundo uses up to 24 acre-feet of water per year, compared to approximately four acre-feet of water annually for native vegetation. This increased water usage reduces the quality and quantity of breeding and foraging habitat for birds and wildlife.

Solution:

The focus of the restoration work for the proposed project will be Arundo removal from mature willow-cottonwood woodland and riparian scrub adjacent to the active river channel. Based on Cal-IPC water consumption estimates for the range of Arundo densities in the Project Area, removing 250 acres of Arundo will save ±2,000 acre-feet of water annually. This water savings will promote percolation to sub-surface groundwater, which feeds into the permanent wetland features and active river channel, improving instream habitat for Southern California steelhead and other aquatic and riparian wildlife. Removing Arundo will facilitate native revegetation through natural successional processes.

PROJECT COST

Funding	
WCB	3,919,146
Other	1,080,854
Total	$5,000,000

Project costs will be for Arundo removal and project management. Other funding sources include the Wildlife Conservation Board (Prop. 1), The Nature Conservancy (applicant), Regents of the University of California, and the Santa Clara River Watershed Conservancy. Note: This budget reflects other sources of funding, some of which has already been expended towards earlier phases of this project.

CEQA

The project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines Section 15304, Class 4, as a minor alteration to land, water and vegetation, which does not involve the removal of healthy, mature, scenic trees. Subject to approval of this proposal by the Wildlife Conservation Board, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $3,919,146 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife (CDFW) to proceed substantially as planned.

Ms. Catherine Freeman had a question directed to this and the next project, namely how the interaction of the fires might have impacted the projects themselves, if at all, as it is right in that area. Has there been any discussion on that?

Staff member Brian Cary replied that he had not had any discussion with the applicant. The general treatment is to get rid of the biomass, the old growth Arundo, the 30-foot tall stands. They mulch it and then wait for it to regrow to four feet tall and then spray it. I assume with fire, they wait for the regrowth and then spray.

Executive Director Donnelly added that the majority of the detriment by these fires occurred north of where these sites are, mainly on the north side of the Santa Clara River, and these are right down in the drainage. Some of the fires did affect these projects, particularly the one near I-5, but when you get to the coast where this project is, the fire was not an issue.

Chair Bonham asked if there were any questions, there were none.


Project Site
Frazier Mountain
Quail Lake Sky Park
General Wm J Fox Airfield
Lancaster
Quartz Hill
Elderberry Forebay
Agua Dulce
Santa Clarita
Carpinteria
Fillmore
Santa Paula
Moorpark
Simi Valley
San Fernando
Whiteman
Camarillo
Oxnard
Thousand Oaks
Van Nuys
Bob Hope
La Canada Flintridge
Burbank
Atadena
Glendale
Pasadena
South Pasadena
Alhambra
Calabasas
Agoura Hills
Port Hueneme
Point Mugu NAS
West Hollywood
Beverly Hills
Brentwood
Los Angeles
Malibu
Culver City
East Los Angeles
Santa Monica
Santa Monica Municipal
Maywood
Bell
Inglewood
Cudahy
Los Angeles International
Santa Clara River Riparian Improvement
Ventura County
10
Miles
WCB
State of California
Wildlife Conservation Board
25 WCB - SFEP 3/22/2018

28. Arundo Removal at the Sespe Cienega
Ventura County
$2,793,858

This proposal was to consider the allocation for a grant to University of California, Santa Barbara (UCSB) for a 175-acre habitat restoration and enhancement project that will save approximately 1,340 acre-feet of water annually through removal of *Arundo donax* (Arundo) from the Santa Clara River floodplain at the Sespe Cienega wetland.

LOCATION

The project is located in Ventura County, within the Santa Clara River watershed. The project area is known as the Sespe Cienega wetland, which is along the Santa Clara River, at the city of Fillmore.

PROJECT DESCRIPTION

Problem:

A critical problem in the Santa Clara system is the dominance of non-native Arundo that aggressively uses available soil moisture at the expense of native riparian species. Arundo competes with native vegetation by extracting soil moisture from the surrounding floodplain. Preliminary measurements suggest that Arundo could use three or more times the water that the native cottonwood-willow-forb assemblage that was formerly present at the project site would use. This substantial increase in water uptake removes water from the system that would contribute to instream flows either directly, or through percolation to shallow groundwater.

Historically, the project location was an extensive wetland complex originating from artesian waters from the Sespe sub-drainage. A natural geologic sill or flat forces groundwater near the surface; this area was historically referred to as the 'Cienega' and 'Sespe Cienega'. Following construction of the Fillmore Fish hatchery in 1940, agricultural operations diverted hatchery outflows to support commercial watercress production, which eliminated natural wetland habitat.

Solution:

This project will remove invasive Arundo, reducing evapotranspiration losses of groundwater to the atmosphere. This will expand water conservation and increase flows for the benefit of aquatic taxa. Using published comparisons of Arundo and native riparian vegetation water use, UCSB has estimated that removing Arundo from the 175-acre project site will save up to 1340 acre-feet of water per year. Removal of invasive Arundo has numerous other ecological benefits--in particular to local riparian fauna including federally protected species such as Southern California steelhead trout, least Bell's vireo, yellow-billed cuckoo, and southwestern willow flycatcher.

PROJECT COST

Funding	
WCB	2,793,858
Other Funders	432,140
Total	$3,225,998

Project costs will be for Arundo removal and riparian restoration. Funding sources include U.C. Santa Barbara (applicant).

CEQA

The project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, Section 15304, Class 4, as a minor alteration to land, water and vegetation, which does not involve the removal of healthy, mature, scenic trees. Subject to approval of this proposal by the Wildlife Conservation Board, the appropriate Notice of Exemption will be filed with the State Clearinghouse.

STAFF RECOMMENDATION

Staff recommended that the Wildlife Conservation Board approve this project as proposed; allocate $2,793,858 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733; authorize staff to enter into appropriate agreements necessary to accomplish this project; and authorize staff and the California Department of Fish and Wildlife to proceed substantially as planned.

Executive Director Donnelly pointed out that this project is really close to a project WCB completed for CDFW at Cienega Springs. WCB just closed escrow a couple of months ago, so this will not only benefit Santa Clara River but will assist in restoring part of the property WCB acquired a couple of months ago. It is a really important location for a number of reasons.

Chair Bonham asked if there were any questions, there were none. He then asked Mr. Donnelly to read through the motion that WCB crafted for approval of new projects in the 2017-2018 SFEP solicitation

Staff recommends that the Wildlife Conservation Board approve the Consent Items 4-14 as proposed including the minutes from the 2016 and 2017 Stream Flow Enhancement Program board meetings; adopt the written findings and approve the following projects: the Navarro River Large Wood Augmentation; the Russ Creek Stream Flow Enhancement; the Alameda Creek Fish Passage; the Napa River and Bear Creek Tributary Restoration; and the Oroville Wildlife Area Restoration Project. Approve all the individual projects, excepting Item 24 identified by the selection panel, as suitable for funding up to the amounts requested for each as identified in the Wildlife Conservation Board Stream Flow Enhancement Program Fiscal Year 2017-2018 Final Agenda. Allocate a total of $33,174,150.80 for the Water Quality Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code Section 79733.

It was moved by Board Member Eric Sklar that the Wildlife Conservation Board approve Consent Items 4-14 and all non-consent items, except for Item 24, San Geronimo Flow Enhancement Project, as suitable for funding up to the amounts requested for each as identified in the Wildlife Conservation Board Stream Flow Enhancement Program Fiscal Year 2017-2018 Final Agenda. Allocate a total of $33,174,150.80 from the Water Quality, Supply and Infrastructure Improvement Fund of 2014 (Proposition 1), Water Code section 79733; authorize staff 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.
Bonham - Yes
Colborn - Yes
Creasman - Yes
Sklar - Yes

Executive Director Donnelly noted that staff member Brian Cary completed most of the work prepared for this board meeting. Last year he had help from Maggie Massie who was instrumental in our SFEP, but she transferred to a position in CDFW's Region 1. WCB is in the process of backfilling that position, and he thanked Mr. Cary for the good job.

29. **Climate Adaptation and Resiliency**
Informational/Action

Staff presented the final draft of the Wildlife Conservation Board's Climate Adaptation and Resiliency Program Guidelines (Guidelines) and a draft of the Project Solicitation Notice (PSN) for this Program. The Program's Greenhouse Gas Reduction Funds will be used for climate adaption projects that will result in enduring benefits and provide the following objectives:

- At least 60 percent of the funds appropriated shall be made available for grants for conservation easements and long-term conservation agreements that conserve natural and working lands for at least 50 years for the benefit of climate adaptation and resilience.
- The remainder of the funds may also be used to develop and implement natural and working lands adaptation and resiliency planning that prioritizes the conservation and management of natural and working lands, provide technical assistance for natural and working land managers, and support efforts that improve rural-urban coordination on climate change adaptation.

WCB staff held a workshop on March 2, 2018, to solicit comments on the draft Guidelines that were presented to the Board on February 22, 2018. Forty-five participants provided comments, and an additional 26 comments were received by email or letter. Comments were incorporated into the Guidelines as appropriate.

The draft PSN identifies the proposed focus of the Program for 2018, outlines the scoring criteria, and identifies a timeline for submittal, scoring and award.

Executive Director Donnelly briefed the WCB Board members on the updates to the guidelines. He then asked if there were any questions.

Chair Bonham asked Mr. Donnelly to summarize the changes made based on public comment. He responded there were not a lot of changes, more clarification. Staff member Peter Perrine noted that WCB clarified that conservation easements are in perpetuity, identified priority populations, and defined climate adaptation and resilience. WCB added detail about Air Resources Board requirements especially as it relates to priority populations and their funding guidelines.

Board Member Mary Creasman asked how WCB thought about the scoring differently from implementation or easement projects and also looking at technical assistance and planning. Mr. Perrine responded WCB would be scoring conservation easements against other conservation easements, and technical assistance/planning or implementation projects, scored against each other. WCB is developing the application which will help further clarify what is being looked for in the solicitation. Ms. Creasman said that would be helpful because those will be new for WCB in terms of what is being granted. She noted she thought more time would be needed in the future to build in a public review process to create more time and more outreach.

Ms. Catherine Freeman asked about monitoring in perpetuity which has been hard for the Department of Fish and Wildlife and the Wildlife Conservation Board, given the lack of base-line funding for monitoring going forward.

Mr. Donnelly responded that it is a problem for WCB and all funding agencies. The Natural Resources Agency has recently established a monitoring unit and WCB will work closely with them and all other funders to address and improve on the ability to effectively monitor its projects.

Chair Bonham noted there was one speaker card, Mr. Brian Shobe of the California Climate and Agricultural Network who spoke in favor of the guidelines.

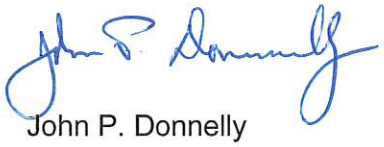
Chair Bonham asked if there were any further questions, there were none.

It was moved by Board Member Mary Creasman that the Wildlife Conservation Board approve the Climate Adaptation and Resiliency Program Guidelines and approve and move forward on the Project Solicitation Notice (PSN) for this Program.

Passed Unanimously.
Bonham – Yes
Colborn - Yes
Creasman - Yes
Sklar - Yes

Executive Director Donnelly thanked Board members and staff. Chair Bonham declared the meeting adjourned at approximately 2:35 pm.

Respectfully Submitted



John P. Donnelly
Executive Director

ATTACHMENT A

Letters of Support Received for the Wildlife Conservation Board
Stream Flow Enhancement Program Funding
March 22, 2018

Marshall Ranch Flow Enhancement Design

Estelle Fennell, County of Humboldt
Thomas Hicks
Sapna Khandwala, Stillwater Sciences

Redwood Creek Enhancement Planning

Estelle Fennell, County of Humboldt
Dana Stolzman, Salmonid Restoration Federation
Sapna Khandwala, Stillwater Sciences

Lower Bear Creek Slough Enhancement

Molly Brown, Bureau of Land Management
April Newlander, Sanctuary Forest
Susan Corbaley, California State Coastal Conservancy
Rex Bohn, County of Humboldt
Conor Shea, U.S. Fish and Wildlife Service
Cassie Pinnell, Mattole Restoration Council

Navarro River Large Wood Augmentation

Jared Huffman, Congress member
Mike McGuire, Senator
Jim Wood, Assembly member
Zac Robinson, Husch Vineyards
Bruce Orr, Stillwater Sciences
Patrick Miller, Anderson Valley Land Trust
Matthias St. John, North Coast Regional Water Quality Control Board
Mike Lair, California State Parks

Squaw Creek Monitoring

Chevis Hosea, Squaw Valley Real Estate
Eric Sather, Resort at Squaw Creek
Jennifer Montgomery, Placer County Supervisor
Truckee River Watershed Council

Putah-Cache Watershed Arundo Eradication

Cecilia Aguiar-Curry, Assembly member
John Garamendi, Congress member
John Young, County of Yolo
Elisa Sabatini, County of Yolo
Chris Lee, Solano County Water Agency
Beverly Sandeen, Water Resources Association of Yolo County

Max Stevenson, Yolo County Flood Control and Water Conservation District
Nancy Ullrey, Cache Creek Conservancy
Doug Johnson, California Invasive Plant Council
Rich Marovich, Lower Putah Creek Coordinating Committee
Phil Hogan, Natural Resources Conservation Service
Kent Anderson, Putah Creek Council
Christopher Rose, Solano RCD
Andrew Fulks, Tuleyome
Andrew Fulks, UC Davis
Petrea Marchand, Yolo Habitat Conservancy

Santa Rosa Creek Flow Enhancement Pilot Project

Salud Carbajal, Congress member
Upper Salinas- Las Tablas RCD
Constance Higdon Gannon, Greenspace
Central Coast Water Conservancy
Karen Worcester, Central Coast Regional Water Quality Control Board
Dan Sutton, San Luis Obispo County Farm Bureau
Bruce Gibson, San Luis Obispo County Supervisor
Amanda Rice, Cambria Community Services District

San Luis Obispo Creek Flow Enhancement

Robert Hill, City of San Luis Obispo
Robb Moss, California Polytechnic State University
San Luis Obispo County Parks and Recreation

Russ Creek Stream Flow Enhancement

Mike McGuire, Senator
Jim Wood, Assembly member
Karen Pingitore, Ferndale Chamber of Commerce
Noah Oppenheim, Pacific Coast Federation of Fishermen's Associations
Jeffrey Jahn, National Marine Fisheries Service
Dana Stolzman, Salmonid Restoration Federation
Isaac Mikus, Eel River Watershed Improvement Group

McKee Creek Conservation and Stream Flow Enhancement
(Acquisition and Restoration)

Molly Brown, Bureau of Land Management
Janet Hook
Jared Huffman, Congress member
Jim Wood, Assembly member
Mike McGuire, Senator
Sr. Kathy DeVico, Our Lady of the Redwoods Monastery
Cassie Pinnell, Mattole Restoration Council
Sungnome Madrone, Mattole Salmon Group
Jonathan Warmerdam, North Coast Regional Water Quality Control Board
Estelle Fennell, County of Humboldt
John Bernstein, The Trust for Public Land

Mad River Enhancement

Matthias St. John, North Coast Regional Water Quality Control Board
Justin Ly, National Marine Fisheries Service
Jana Ganion, Blue Lake Rancheria
Dave Feral, Mad River Alliance
Darren Mierau, California Trout
Michael Green, Six Rivers National Forest

Navarro River Watershed Streamflow Enhancement

Jared Huffman, Congress member
Mike McGuire, Senator
Jim Wood, Assembly member
Zac Robinson, Husch Vineyards
Bruce Orr, Stillwater Sciences
Patrick Miller, Anderson Valley Land Trust
Matthias St. John, North Coast Regional Water Quality Control Board
Catherine Burns, The Nature Conservancy
Mary Ann King, Trout Unlimited
Patricia Hickey, Mendocino County RCD

Oroville Wildlife Area Restoration Project

Maria Rea, National Marine Fisheries Service
Pat Whitlock, Department of Water Resources
Doug Teeter, Butte County Board of Supervisors
Kevin Zeitler, Oroville Recreation Advisory Committee
Bill Connelly, Butte County Supervisor

Forest Management Strategies to Increase Stream Flow

Joanne Roubique, Tahoe National Forest
Teresa McClung, Lake Tahoe Basin Management Unit
Shana Gross, Forest Service Central Sierra Province
Marilyn Linkem, California State Parks
Joanne Marchetta, Tahoe Regional Planning Agency
Jim Branham, Sierra Nevada Conservancy
Jane Freeman, California Tahoe Conservancy
Truckee River Watershed Council

French Meadow Watershed Restoration

Alan Ehrgott, American River Conservancy
David Edelson, The Nature Conservancy
Jim Branham, Sierra Nevada Conservancy
Andrew Fecko, Placer County Water Agency
Nick Wobbrock, Blue Forest Conservation
Victor Lyon, Tahoe National Forest

Sonoma County Coastal Rainwater Catchment and Forbearance

Jim Wood, Assembly member
Jill Butler
Mike McGuire, Senator
Wendy Eliot, Sonoma Land Trust
Lynda Hopkins, Sonoma County Board of Supervisors
Brook Edwards, The Wildlands Conservancy

Napa River and Bear Creek Tributary Restoration

Leigh Sharp, Napa RCD
Bruce Wolfe, San Francisco Bay Regional Water Quality Control Board
Richard Thomasser, Napa County Flood Control and Water Conservation District
Mike Thompson, Congress member
Diane Dillon, Napa County Supervisor

Alameda Creek Fish Passage

Jeff Miller, Alameda Creek Alliance
Hank Ackerman, Alameda County Flood Control and Water Conservation District
Joe Sullivan, East Bay Regional Parks
Peter Mangarella, Trout Unlimited

San Gregorio Creek Enhancement at Blue House Farm

Tim Frahm, Trout Unlimited
Walter Moore, Peninsula Open Space Trust
Ryan Casey, Blue House Farm

Santa Clara River Riparian Improvement

Hannah Garcia, Santa Clara Watershed Conservancy
Adam Lambert, UC Santa Barbara
Ron Bottoroff, Friends of the Santa Clara River
Stephen Henry, U.S. Fish and Wildlife Service
Santa Clara River Watershed Committee
Maricela Morales, CAUSE
Glenn Shephard, Ventura County Watershed Protection District

Arundo Removal at the Sespe Cienega

Bruce Schoppe, Ventura Audubon Society
Maricela Morales, CAUSE
Christopher Kroll, California State Coastal Conservancy
Ron Bottoroff, Friends of the Santa Clara River
Sanger Hedrick, Santa Clara River Watershed Conservancy
Nina Danza, Ventura Sierra Club
Stephen Henry, U.S. Fish and Wildlife Service
Bruce Dandy, United Water Conservation District
Glenn Shephard, Ventura County Watershed Protection District
Nichia Huxtable, Fillmore High School
Laura Riege, The Nature Conservancy
Santa Clara River Watershed Committee