Legislation Details (With Text)

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File created:	7/5/2019	**In control:**	Sonoma County Water Agency
On agenda:	8/6/2019	**Final action:**	
Title:	Engineering and Design for Dry Creek Habitat Enhancement Projects, Phase IV		
Sponsors:	Sonoma County Water Agency		
Indexes:			
Attachments:	1. Summary Report, 2. Resolution, 3. Agreement, 4. Map		

Date	Ver.	Action By	Action	Result
8/6/2019	1	Board of Supervisors	Approved as recommended	Pass

To: Board of Directors, Sonoma County Water Agency
Department or Agency Name(s): Sonoma County Water Agency
Staff Name and Phone Number: Greg Guensch 707-547-1972
Vote Requirement: 4/5th
Supervisorial District(s): All

Title:
Engineering and Design for Dry Creek Habitat Enhancement Projects, Phase IV

Recommended Action:
In an ongoing effort to provide site analysis, design, and construction support of habitat enhancement projects in Dry Creek:

A) Authorize Sonoma County Water Agency's General Manager to execute the Second Amended Agreement for Engineering and Design Services for Dry Creek Habitat Enhancement Project, Phase IV with Inter-Fluve, Inc. to provide engineering and design services for Dry Creek. The amended agreement increases the amount by $478,056, for additional two-dimensional hydraulic modeling to satisfy new US Army Corps of Engineers requirements, installation and monitoring of water level recorders, sediment dynamics analysis, and additional public outreach, and extends the agreement term by five years for a new not-to-exceed agreement total of $2,004,166 and end date of December 31, 2024.
B) Adopt a resolution authorizing a budgetary adjustment in the amount of $478,056 for the Watershed Planning and Restoration available fund balance to finance the Engineering and Design for Dry Creek, Phase IV.

Executive Summary:
This Second Amended Agreement expands the scope of the two-dimensional hydraulic modeling to satisfy new US Army Corps of Engineers (Corps) requirements. The Corps is partnering with Sonoma County Water Agency (Sonoma Water) and sharing the cost of pre-construction engineering and design services for Phases IV, V and VI of Dry Creek's Habitat Enhancement Project (Project). The expanded modeling includes the entire 14 mile reach of lower Dry Creek from Warm Springs Dam at Lake Sonoma to its confluence with the Russian

River, and the installation and monitoring of water level recorders for model calibration. Inter-Fluve will also analyze sediment supply and transport dynamics relative to the habitat projects in Dry Creek, and assist the Sonoma Water with developing public outreach print media and short videos showcasing the Project.

Discussion:

HISTORY OF ITEM/BACKGROUND

Sonoma Water and the Corps have undertaken a Section 7 consultation under the Federal Endangered Species Act with the National Marine Fisheries Service. The purpose of the consultation was to assess the ongoing water supply, flood control, and channel maintenance operations conducted in the Russian River Watershed by Sonoma Water, the Corps, and the Mendocino County Russian River Flood Control District. In September 2008, the National Marine Fisheries Service issued the resulting Biological Opinion based on the results of the Section 7 Consultation.

The Biological Opinion requires Sonoma Water and the Corps to implement a series of actions to minimize impacts to listed salmon species and enhance their habitats within the Russian River and its tributaries. In return, the Biological Opinion contains an incidental take statement that allows Sonoma Water to "take" listed salmonid species, (within limits specified in the Biological Opinion) while operating its water transmission system and flood control activities, without violating the federal Endangered Species Act. The Biological Opinion is in effect until October 2023.

The Biological Opinion specifically identified the need to improve rearing habitat for coho and steelhead in Dry Creek and the Russian River at the water-supply flows proposed. To address this need, while allowing continued discharges from Lake Sonoma for water supply purposes, the Biological Opinion has required habitat enhancement of six miles of Dry Creek to provide improved summer and winter rearing conditions for coho and steelhead. Rearing habitats are areas with low velocities and depths between 2 and 4 feet. These habitat improvements are achieved by constructing backwater ponds and alcoves, side channels and in-channel enhancements along Dry Creek. The Project is being developed to meet these habitat enhancement requirements and is an important component of the larger effort to improve conditions for salmonid species in the Dry Creek and Russian River watersheds.

The channel of Dry Creek, between Warm Springs Dam and the confluence with the Russian River, has been divided into 14 reaches, each approximately 1 mile long. Construction of the first mile of the habitat enhancement projects was completed in 2014. This first mile is referred to as the Demonstration Reach because it was intended to demonstrate the proposed habitat enhancement approach to the regulatory agencies and project stakeholders. The Demonstration Reach included 3 large backwater habitats, 2 constructed riffles, boulder clusters and fields, numerous log habitat structures, and 2 large bank repairs.

Phases II and III of the Project are each approximately 1-mile and were designed and constructed from 2016 to the present. The 7 Phase II sites are located between Warm Springs Dam (Lake Sonoma) and Lambert Bridge. The final of the Phase-II sites is presently under construction and will be completed this summer. The 5 Phase III sites are located between Lambert Bridge and the confluence with the Russian River. The final of the 7 Phase-II sites is presently under construction and will be completed this summer. The final Phase-III site is planned for construction in 2020.

Phases IV, V, and VI are currently in the design stage and each includes approximately 1 mile of habitat enhancement. Sonoma Water and the Corps have partnered for these phases. Costs for engineering design

and Project construction will be cost-shared with the Corps on a 65% Federal/35% Sonoma Water basis. Phase IV sites will be located between Warm Springs Dam and Lambert Bridge, and the Phase V and VI sites will be located between Lambert Bridge and the Russian River. Construction of these sites by the Corps is planned for 2021 - 2025.

The Dry Creek Habitat Enhancement Project Reaches and Timeline map of the entire Project area is included in this agenda item as Attachment 3.

Costs for feasibility studies, planning, design, and construction of various phases of the Dry Creek Project have been shared with the Corps at rates dependent on the source of federal funds. In 2013, as part of Phase I, the Corps planned and constructed a habitat project immediately below Warm Springs Dam using 100% federal funds. Feasibility study costs for the Continuing Authorities Program 1135 Project (part of Phase III) and General Investigation Ecosystem Restoration Project (Phases IV, V, and VI) were shared on 50% federal and 50% non-federal basis. Construction of the Continuing Authorities Program 1135 Project occurred in 2018 and was cost shared using 75% federal and 25% local funds. As previously described, costs for design and construction of the General Investigation Ecosystem Restoration Project are being shared on a 65% federal and 35% non-federal basis. To date, the Corps has contributed approximately $9.6 million in federal funds to the Dry Creek project. Future federal expenditures for design and construction of Phases IV, V, and VI is estimated to be $26 million.

Sonoma Water and Inter-Fluve, Inc. entered into an agreement for engineering and design services, dated February 2, 2016 in the amount of $1,526,110.

The First Amended Agreement was executed to change the insurance requirements to more accurately fit the agreement. To date, Consultant has made progress on, or completed, field data collection, surveying, conceptual designs, landowner information booklets, the engineering design report, hydraulic modeling, 30% detailed design, and supporting Sonoma Water in the collaboration process with the Corps.

SELECTION PROCESS

On December 29, 2014, Sonoma Water issued a Request for Statements of Qualifications to 19 firms. The RFQ was also posted on the Sonoma Water website.

The seven firms listed below submitted Statements of Qualifications (SOQs):

1. Balance Hydrologics; Berkeley, CA
2. Cardno ENTRIX; Concord, CA
3. ESA; San Francisco, CA
4. Inter-Fluve, Inc.; Hood River, OR
5. Northwest Habitat Institute; Corvallis, OR
6. O'Connor Environmental, Healdsburg, CA
7. Wildscape Engineering; Lafayette, CA

The following criteria were used to evaluate each firm:

1. Responsiveness to the work requirements and desired experience.
2. Demonstrated understanding of all aspects and phases of design, bid, build process for river restoration habitat enhancement projects.

3. Professional qualifications and overall performance commitment
4. Demonstrated ability to perform the work in accordance with good practices common to the industry
5. Exceptions to standard terms in the sample agreement

Based on the evaluations, the following respondents were selected for the list of qualified consultants:

1. Cardno ENTRIX
2. ESA
3. Inter-Fluve, Inc.

The Inter-Fluve, Inc. team was selected for this agreement because they have an in-depth understanding of the background science, design concepts, timeline, and issues and challenges of the Project based on work performed for earlier phases. They also have existing relationships with a number of property owners where potential Project sites are located. The participation of Inter-Fluve, Inc. provides continuity that is important for property owner outreach efforts, ongoing relationships with permitting agencies, and overall design development.

Sonoma Water elected to amend this agreement with Inter-Fluve for the additional work because they have a long history working on Dry Creek and are familiar with site conditions, topography, flow characteristics, implemented and proposed designs, available data, and existing hydraulic models. Additionally, the new three -dimensional hydraulic modeling will be incorporated into the design report Inter-Fluve is already preparing for this agreement.

SERVICES TO BE PERFORMED

Under the proposed amended agreement, Consultant will perform the following additional services:

1. Develop a reach-scale two-dimensional hydraulic model of Dry Creek from Warm Springs Dam at Lake Sonoma to its confluence with the Russian River and conduct water level monitoring to calibrate the model ($218,016, this amount will count toward the 35% cost-share with the Corps for engineering design services, and Project construction),
2. Provide additional public outreach support to develop print media and short videos promoting the Project ($65,000),
3. Perform an analysis of sediment supply and transport dynamics in Dry Creek ($119,240), and
4. Project management to support the additional services and the extended contract period ($30,800).

This amended agreement also includes an additional $45,000 budget for optional tasks that may be necessary to address unforeseen review comments from the Corps, additional efforts necessary for the sediment analysis, or other efforts. This budget will only be used if necessary and will require written approval by Sonoma Water.

These additional services are needed because the Corps has required that the two-dimensional hydraulic modeling be expanded from specific habitat Project reaches to include the entire 14 miles of Dry Creek between Warm Springs Dam and the confluence with the Russian River as a condition of Project approval. The intent of the modeling is to determine whether the Project will cause or exacerbate localized flooding. Consultant will assimilate the surveys and designs from the other design consultants working on Dry Creek, assemble the best available model terrain, and upgrade their existing hydraulic model to a two-dimensional platform for multiple scenarios. The sediment supply and transport dynamics analyses assist Sonoma Water in

identifying and understanding connections between the ongoing Dry Creek Habitat Enhancement Project and geomorphic processes in the system. The other task covered by this Second Amended Agreement is for Consultant to develop print and digital media materials to support public outreach efforts by Sonoma Water.

The duration of the time extension is necessary because construction of the final Phases are scheduled for 2025, and design support services will be needed though that time and beyond if there are any delays.

The additional cost is $478,056, for a new not-to-exceed agreement total of $2,004,166. The new end date is December 31, 2024.

The agreement includes two options for Sonoma Water to extend this agreement for a period of one year each by providing written notice to Consultant thirty days in advance of the expiration date of the agreement and of the first extension option.

Prior Board Actions:

02/02/2016: Approved agreement with Inter-Fluve, Inc. for engineering and design services for the Dry Creek Habitat Enhancement Project, Phase IV ($1,526,110 through November 30, 2019).

FISCAL SUMMARY

Expenditures	**FY 19-20 Adopted**	**FY20-21 Projected**	**FY 21-22 Projected**
Budgeted Expenses			
Additional Appropriation Requested	$478,056		
Total Expenditures	**$478,056**		
Funding Sources			
General Fund/WA GF			
State/Federal			
Fees/Other			
Use of Fund Balance	$478,056		
Contingencies			
Total Sources	**$478,056**		

Narrative Explanation of Fiscal Impacts:

With Board approval, additional appropriations of $478,056 for the five-year agreement which will be fully encumbered in FY 2019/2020 will be made in the Watershed Planning and Restoration Fund pursuant to the attached budgetary resolution. The requirement for these items arose too late to be incorporated in the FY 19/20 budget. This fund is anticipated to have approximately $4.5 million in fund balance as of 6/30/2020.

Costs for engineering phase design and Project construction for Phases IV, V, and VI of the Dry Creek Habitat Project will be cost-shared with the Corps on a 65% Federal/35% Sonoma Water basis. The additional hydraulic modeling under this amended agreement is an engineering design service and the associated $218,016 cost will count towards Sonoma Water's 35% cost-share match.

Staffing Impacts:			
Position Title (Payroll Classification)	**Monthly Salary Range (A-I Step)**	**Additions (Number)**	**Deletions (Number)**
N/A			

Narrative Explanation of Staffing Impacts (If Required):
None

Attachments:
Attachment 1: Amended Agreement with Inter-Fluve, Inc.
Attachment 2: Resolution
Attachment 3: Dry Creek Habitat Enhancement Project Reaches and Timeline

Related Items "On File" with the Clerk of the Board:
None