Legislation Details (With Text)

File #:	2020-0058		
Type:	Consent Calendar Item	**Status:**	Agenda Ready
File created:	1/21/2020	**In control:**	Sonoma County Water Agency
On agenda:	2/25/2020	**Final action:**	
Title:	Agreement between Sonoma County Water Agency and the City of Santa Rosa for Nutrient Offset Credits (Phosphorous)		
Sponsors:	Sonoma County Water Agency		
Indexes:			
Attachments:	1. Summary, 2. PowerPoint presentation, 3. Attachment 1, 4. Attachment 2, 5. Attachment 3, 6. Attachment 4, 7. Attachment 5, 8. Attachment 6		

Date	Ver.	Action By	Action	Result
2/25/2020	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: Neil Lassettre, 707 547-1951
Vote Requirement: Majority
Supervisorial District(s): Countywide

Title:
Agreement between Sonoma County Water Agency and the City of Santa Rosa for Nutrient Offset Credits (Phosphorous)

Recommended Action:
Authorize Sonoma Water's General Manager to execute an agreement between Sonoma County Water Agency and City of Santa Rosa in which Sonoma County Water Agency agrees to sell, and City of Santa Rosa agrees to purchase, up to 20,000 pounds of nutrient offset credits for Phosphorous at a cost of $50 per pound, for a total amount not to exceed cost to the City of Santa Rosa of one million dollars ($1,000,000).

Executive Summary:
Sonoma County Water Agency (Sonoma Water) will sell nutrient credits to the City of Santa Rosa (City) as allowed under the Santa Rosa Nutrient Offset Program administered by the North Coast Regional Water Quality Control Board (Regional Board). The City will apply the credits as offsets toward compliance with regulatory requirements on annual discharges from its Subregional Water Reclamation Facility (Subregional Facility) to the Laguna de Santa Rosa. The credits will be generated by excavation of legacy sediment and organic matter from the mainstem Laguna de Santa Rosa near its confluence with the Bellevue-Wilfred flood control channel. Sonoma Water manages this portion of the Laguna de Santa Rosa as part of its Stream Maintenance Program. In addition to removing nutrients, the project will modify hydraulic conditions to reduce growth of Ludwigia hexapetala (Ludwigia or water primrose, an invasive plant) and mosquito proliferation, and to favor establishment of native vegetation. The project will benefit the environment, and provide the City with a mechanism to meet its permit requirements.

Discussion:

HISTORY OF THE ITEM/BACKGROUND

In 2008, the Regional Board approved the Santa Rosa Nutrient Offset Program (Program; Regional Board Resolution No. R1-2008-0061) (Attachment 2) to allow the City to meet effluent limitations on seasonal discharges of nitrogen and phosphorus from its Subregional Facility as imposed by the City of Santa Rosa's National Pollution Discharge Elimination System permit (Regional Board Resolution No. R1-2006-0045, CA0022764). The Program allows the City to offset nutrient discharges from its Subregional Facility by performing off-site nutrient reduction projects. In 2018, the Regional Board adopted the Water Quality Trading Framework for the Laguna de Santa Rosa (Regional Board Resolution No. R1-2018-0025) (Attachments 3 and 4). The Water Quality Trading Framework revised and expanded the Nutrient Offset Program to ensure consistency between the implementation of phosphorus offset activities conducted by the City and National Pollution Discharge Elimination System permit terms.

In August 2017, Sonoma Water submitted a proposal to the Regional Board to consider a sediment removal project at Stream Maintenance Program Reaches Laguna 1 and Laguna 2 (Project) under the Santa Rosa Nutrient Offset Program. Sonoma Water proposed to conduct and fund the voluntary Project by selling nutrient credits to the City as part of the Program. The City would apply phosphorus reductions generated from the Project as offsets toward its compliance with regulatory requirements on annual discharges from the Subregional Facility to the Laguna de Santa Rosa.

Prior to Project approval, the Regional Board determined that the credits will be generated under the Nutrient Offset Program, but then transferred into the Water Quality Trading Framework. The proposal underwent a 21 -day public comment period and a review by Regional Board staff, who found the Project consistent with the requirements of the Nutrient Offset Program and determined that the Project's credits were transferable to the Water Quality Trading Framework (Attachments 5 and 6).

PROJECT DESCRIPTION

In September and October 2019, Sonoma Water excavated approximately 7,300 cubic yards of legacy sediment and organic matter from the mainstem Laguna de Santa Rosa near its confluence with the Bellevue-Wilfred flood control channel. As part of its Streambed Maintenance Program, Sonoma Water manages urban stream channels for flood control and habitat restoration, including this portion of the Laguna de Santa Rosa, designated by the program as Reaches Laguna 1 and Laguna 2.

PROJECT BENEFITS

The completed Project removed approximately 22,000 pounds of phosphorus that generated 14,700 pounds of nutrient offset credits after application of a trading ratio. The project also modified hydraulic conditions to reduce Ludwigia hexapetala (Ludwigia or water primrose) growth, favor establishment of native vegetation and wildlife, and reduce mosquito proliferation. The excavation created a narrower and deeper summer low flow channel than under current conditions to benefit aquatic and riparian habitat. The narrower and deeper dimensions will allow the current floodplain to drain into the newly excavated summer low flow channel to create conditions less suitable for Ludwigia and emergent (submerged) aquatic plants and creating conditions more suitable for the establishment of native grasses, sedges, and other riparian vegetation capable of suppressing Ludwigia. The native plants would then remove contaminants from urban and rural runoff during the winter while providing shade during the summer. Reconfiguration of the channel will provide for more in-channel transitional wetlands that would improve habitat for aquatic species, encourage wildlife movement, and foraging and nesting opportunities for native birds along the riparian corridor. The Marin-Sonoma Mosquito and Vector Control District is unable to adequately control mosquito production in the project area,

as Ludwigia is a physical barrier against the application of control products. The District has found mosquitos carrying West Nile Virus in nearby channels. Thus the project provides public health benefits.

PHOSPHORUS REMOVAL MECHANISMS

Direct removal of phosphorus-laden sediment eliminates phosphorus from the system through two mechanisms. The first is the removal of phosphorus within the excavated sediments. The second comes from reducing phosphorus flux from the sediment into the water column. Phosphorus flux occurs during low flow, anoxic conditions and is exacerbated by the presence of Ludwigia. After sediment excavation and Ludwigia removal, a reduced area of the stream bed will be inundated, thereby reducing flux of phosphorus into the water column. The narrower, deeper channel will prevent water from spreading across the full width of the stream, allowing water to flow more quickly over a smaller area. This will limit phosphorus dissolution from sediment into the water column, minimize Ludwigia and mosquito habitat, reduce the potential for sediment deposition, and create better habitat for native aquatic and riparian species. The Project also contains a revegetation and vegetation management component to generate a canopy of native tree and shrub species that provide riparian habitat and shade, reducing water temperature.

PROJECT IMPLEMENTATION AND VERIFICATION

Sonoma Water implemented the project according to its Streambed Maintenance Program Manual. The Streambed Maintenance Program follows an approach that informs activities by detailing broad principles for the entire program and for primary activities by describing ecological goals for each activity. The Streambed Maintenance Program greatly reduces impacts through avoidance and minimization measures implemented within its overall approach with Best Management Practices (BMPs) for each activity, including sediment disposal. The Streambed Maintenance Program approach reduces potential impacts through pre-maintenance planning and avoidance approaches, using a variety of impact avoidance and reduction measures, and by taking steps to reduce the overall need for maintenance work over the longer-term.

Maintenance principles provide overall guidance for primary Streambed Maintenance Program activities, including impact avoidance and minimization approaches.

The area and depth of sediment removal estimated will be verified by truckload count per location of any materials removed and other data necessary to verify the amount of phosphorus removal. A third-party credit verifier (e.g., a resource conservation district or a qualified non-profit organization) will review the list of BMPs for each project activity and verify BMP application.

ENVIRONMENTAL REVIEW

The Project is within the existing permits and entitlements for the Streambed Maintenance Program. No additional review is required under the California Environmental Quality Act.

Prior Board Actions:

N/A

FISCAL SUMMARY

Expenditures	**FY 19-20 Adopted**	**FY20-21 Projected**	**FY 21-22 Projected**
Budgeted Expenses	550,000		
Additional Appropriation Requested			

Total Expenditures	**550,000**		
Funding Sources			
General Fund/WA GF			
State/Federal			
Fees/Other	550,000		
Use of Fund Balance			
Contingencies			
Total Sources	**550,000**		

Narrative Explanation of Fiscal Impacts:
Budgeted expenses of $550,000 in Fiscal Year 2019/2020 have been incurred for (1) the excavation of legacy sediments and organic matter from the Laguna de Santa Rosa Flood Control Channel, (2) for reports necessary to gain regulatory approval for generation of nutrient credits, and (3) for sales agreement development. Previous total expenditures of $200,000 were incurred from Fiscal Years 2016/2017 through 2018/2019 for site preparation and nutrient credit report preparation. All of these costs will be offset by selling nutrient credits estimated at $750,000 to the City of Santa Rosa. Future expenditures will be limited to administrative costs associated with the sales of future nutrient credits to the City of Santa Rosa; these costs will be fully offset by the sale of the nutrient credits. No additional field costs over and above routine stream maintenance costs are anticipated in the future for this project and no additional appropriation is required.

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

Narrative Explanation of Staffing Impacts (If Required):
N/A

Attachments:
Attachment 1: Agreement (agreement exhibits are Attachments 2 through 6)
Attachment 2: California Regional Water Quality Control Board Resolution No. R1-2008-0061
Attachment 3: California Regional Water Quality Control Board Resolution No. R1-2018-0025
Attachment 4: Resolution No. R1-2018-0025 Attachment
Attachment 5: Sonoma Water Nutrient Offset Project Proposal
Attachment 6: Revised Phosphorus Reduction and Credit Calculation

Related Items "On File" with the Clerk of the Board:

N/A