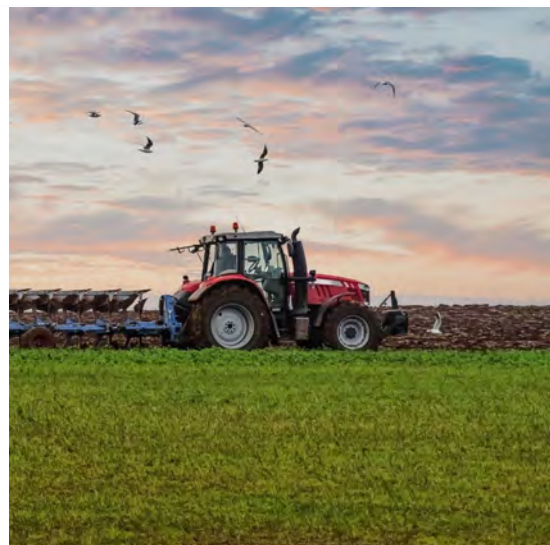




Harvest Water – Plan for Services



Prepared for



February 2021

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ACRONYMS AND ABBREVIATIONS

AF	acre-foot
AFY	acre-feet per year
CCR	California Code of Regulations
CHK Act	Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000
City	City of Elk Grove
CWC	California Water Commission
hp	horsepower
I-5	Interstate 5
LAFCo or Commission	Sacramento Local Agency Formation Commission
MGD	million gallons per day
NPDES	National Pollution Discharge Elimination System
PFS	Plan for Services
Project or Program	Harvest Water
PS&P	Sacramento LAFCo Policies, Standards and Procedures Guidelines
Regional San	Sacramento Regional County Sanitation District
ROW	rights-of-way
SCWA	Sacramento County Water Agency
SMUD	Sacramento Municipal Utility District
SOI	sphere of influence
SPA	Sacramento Power Authority
SRWTP	Sacramento Regional Wastewater Treatment Plant
Stone Lakes NWR	Stone Lakes National Wildlife Refuge
Title 22	Title 22, Division 4, Chapter 3, Article 7 of the California Code of Regulations
USBR	U.S. Bureau of Reclamation
WIIN	Water Infrastructure Improvements for the Nation
WRF	Water Recycling Facility
WSIP	Water Storage Investment Project

1. EXECUTIVE SUMMARY

1.1 Purpose Statement

The Sacramento Regional County Sanitation District (Regional San) is undertaking Harvest Water (formerly known as the South Sacramento County Agriculture & Habitat Lands Recycled Water Program), which will provide up to 50,000 acre-feet per year (AFY) of Title 22 disinfected tertiary treated recycled water from the Sacramento Regional Wastewater Treatment Plant (SRWTP) to the unincorporated south Sacramento County for agricultural and habitat enhancement uses.

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CHK Act) requires that a Plan for Services (PFS) be prepared prior to “changes of organization or reorganization.” The PFS is a tool for the Sacramento Local Agency Formation Commission (LAFCo or Commission) to consider an update to the physical boundaries and service area of a local agency. The PFS describes the services to be extended, the level and range of services, timing for the services, improvements and facility upgrades associated with the services, and how the services would be financed.

The purpose of this PFS is to provide an analysis of public services and background information for the proposed reorganization (annexation) of the Harvest Water (Program or Project) project area to Regional San.

This PFS incorporates the best available information regarding the extension of recycled water services provided by Regional San to the affected territory. Information contained herein has been obtained from various documents as listed in the references as well as comments from City of Elk Grove and affected agencies. Relevant Sacramento County 2030 General Plan policies that guide the extension of services are identified and referenced in this document.

1.2 Plan for Services Requirements

The PFS requirements are based on the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CKH Act), Section 56653. Section 56653(b) of the CKH Act stipulates that PFS include the following:

- (b) The plan for providing services shall include all of the following information and any additional information required by the Commission or the Executive Officer:
 - (1) An enumeration and description of the services currently provided or to be extended to the affected territory.
 - (2) The level and range of those services.
 - (3) An indication of when those services can feasibly be extended to the affected territory if new services are proposed.
 - (4) An indication of any improvement or upgrading of structures, roads, sewer or water facilities, or other conditions the local agency would impose or require within the affected territory if the change of organization or reorganization is completed.
 - (5) Information with respect to how those services will be financed.

1.3 Project Description

By 2023, the SRWTP will complete the EchoWater Project which includes treatment facility upgrades that will result in producing treated effluent meeting California Code of Regulations (CCR) Title 22, Division 4, Chapter 3, Article 7 (Title 22) “disinfected tertiary recycled water”. Regional San is implementing the Harvest Water Program, that includes pumping and piping facilities, to deliver its high quality recycled water to southern Sacramento County for agricultural and habitat land enhancement uses. The Harvest Water Program also provides Regional San an important long-term

alternative for discharge of its treated effluent; this alternative method of discharge provides a diversification for the disposition or use of the treated effluent, which provides value to all Regional San ratepayers.

Harvest Water will serve up to 50,000 AFY of recycled water produced from the EchoWater Project to the agricultural and habitat lands in southern Sacramento County. The project includes the proposal to annex approximately 26,000 acres of unincorporated irrigated lands and managed wetlands within southern Sacramento County into Regional San's current 245,000 acre service area. The proposed 26,000 acre annexation area will be for recycled water service only—no wastewater services are proposed for the annexation area.

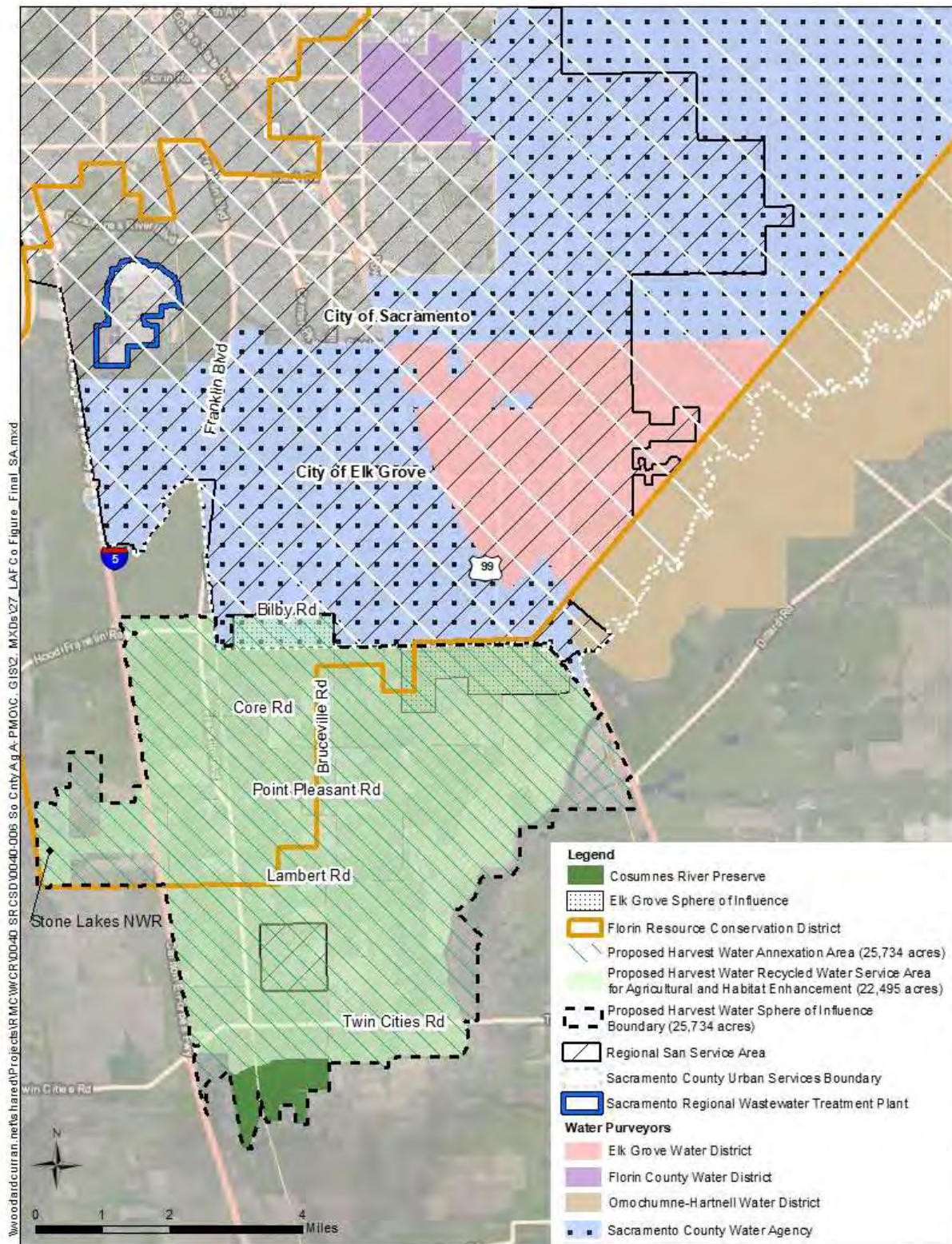
The proposed recycled water service area includes portions of unincorporated south Sacramento County, and portions of the Stone Lakes National Wildlife Refuge (NWR) and the Cosumnes River Preserve (CRP). The recycled water service area is generally bounded to the south by the Cosumnes River Preserve, to the north primarily by Bilby Road and Kammerer Road, and lies primarily between Interstate 5 (I-5) and Highway 99, both of which run in a north-south direction. A small portion of the service area is bisected by I-5.

The proposed service area boundaries were drawn as a logical extension of the existing Regional San service area, which currently terminates at Bilby Road and Kammerer Road at its southern border, and specifically, to target agricultural groundwater users. By providing recycled water for seasonal agricultural irrigation and offsetting current groundwater use, the project will result in in-lieu groundwater recharge in the area. The proposed boundary of I-5 on the west and the Cosumnes River Preserve on the south targets groundwater users within the boundary area. Agricultural irrigation outside of this area is mainly sourced from surface water. The proposed service area boundary of Hwy 99 and the Cosumnes River on the east avoids crossing the highway or the river, which would require adding a booster pump station and additional distribution systems. The annexation area is slightly larger than the service area in order to ensure annexation follows parcel boundaries, but as noted, recycled water service will not extend to the eastern side of the Cosumnes River. The proposed recycled water service area is shown in Figure 1.

1.4 Summary

A discussion of extension of recycled water service for agricultural and habitat enhancement uses is included in this PFS. This report provides for LAFCo a compilation of research and information for consideration of the proposed reorganization. Based on the information contained herein, recycled water service can be extended to serve the Harvest Water Project. Service can be provided without interruption of existing service delivery levels and/or adverse impacts to the existing infrastructure systems within Regional San's current service area. The Project will not directly induce population growth, as no new residential or commercial development projects would be served by the proposed Project, the Project will not require new permanent employees who will generate a demand for new housing, and the Project will provide a long-term sustainable water source to support on-going agriculture into the future. The extension of service to this project area by Regional San would provide a well-planned and logical expansion of recycled water service for agricultural and habitat enhancement uses to southern Sacramento County and will conserve existing groundwater and potable supplies in the project area. The findings in this PFS quantify the ability of Regional San to plan and provide services to meet the needs of the Harvest Water project.

Figure 1: Proposed Regional San Recycled Water Service Area and SOI Boundary



2. INTRODUCTION

2.1 Purpose

This PFS has been prepared for Sacramento LAFCo to comply with statutory requirements and to provide information for use in considering the reorganization of the Program Area into Regional San. The PFS evaluates a description of services, level and range of the services, extent of capital improvements and upgrades, local agency conditions, and financing. Specifics for extension of service to the affected territory by Regional San are presented herein. It is the intent of this document to provide additional information in accordance with the CKH Act, Section 56653.

This report incorporates information contained within the following reports:

- Sacramento Regional County Sanitation District's South Sacramento County Agriculture and Habitat Lands Recycled Water Program Draft Environmental Impact Report (July 2016).
- Sacramento Regional County Sanitation District's South Sacramento County Agriculture and Habitat Lands Recycled Water Program Final Environmental Impact Report (January 2017).
- Sacramento Regional County Sanitation District's Harvest Water Initial Study Checklist for the Lateral Pipelines and On-Farm Connections Project (August 2020)
- Sacramento Regional County Sanitation District South County Recycled Water Feasibility Study (January 2015)
- South Sacramento County Agriculture & Habitat Lands Recycled Water Program Facilities Plan – Final (August 2017)
- In the Matter of Wastewater Petition WW0092 Sacramento Regional County Sanitation District, Order Approving Change in Purpose of Use and Place of Use of Treated Wastewater (September 2019)
- Harvest Water Financing Plan – Service Area Annexation (January 2021)

2.2 Local Agency Formation Commission Requirements

The operations of Sacramento LAFCo are guided by the CKH Act. The CKH Act specifies the authority, responsibility, process, and other operating principles and requirements of LAFCo. Emphasis is placed on the role of LAFCo to encourage orderly growth and development, discourage urban sprawl, promote logical boundaries, and support the provision of efficient government services.

The CKH Act requires that a PFS be prepared prior to, or concurrent with, a reorganization. The intent of the PFS is to assist with the reorganization proceedings. The PFS is a resource that can be used to inform the Commission during the public review process.

This PFS has been prepared for Sacramento LAFCo in accordance with the requirements of the CKH Act and the Sacramento LAFCo's Policies, Standards, and Procedures Guidelines (PS&P) as a means of identifying and evaluating public services extended to the affected territory by Regional San. Topics addressed in the PS&P are implemented during the Commission proceedings for the following actions: sphere of influence (SOI) amendment, annexation, detachment, incorporation and dis-incorporations, district formations and dissolutions, consolidations and mergers, and reorganizations. Key LAFCo policies include:

- Encourage communications on actions among cities, counties, special districts, and community members.
- Assess environmental consequences of actions.
- Assure costs for services and infrastructure benefits to other service areas are not shifted.
- Assure community favorably balances between jobs and housing.
- Community needs are met most efficiently and effectively by public service agencies.

2.3 Services and Issues Review

In accordance with the CKH Act, the PFS provides an analysis for the extension of recycled water services and infrastructure. The project will provide recycled water for agricultural and habitat enhancement uses (non-potable uses) and will result in in-lieu groundwater recharge in the area.

Recycled water service will be analyzed in the following section by:

- Description of services to be extended to the affected territory. An indication of any improvement or upgrade of facilities and other conditions Regional San would impose or require within the affected territory if the reorganization is completed.
- An indication of when the services can feasibly be extended to the affected territory.
- Information with respect to how the services will be financed.

The Project will not induce population growth, as no new residential or commercial development projects would be served by the proposed Project, the Project will not require new permanent employees who will generate a demand for new housing, and the Project will provide a long-term reliable water source to support on-going agriculture into the future. Sewer and wastewater treatment services for the recycled service area are not included in the Project. The PFS does not provide analyses for wastewater, circulation and roadways, animal care, code enforcement, law enforcement, fire protection, solid waste, drainage and flood control, parks and recreation, and library services as these services are not required as a result of the Project and no change in existing services are proposed.

Recycled water infrastructure may have the ancillary benefit of making hydrant water access available to the Cosumnes Fire Department of the Cosumnes Community Services District. The fire department needs additional water to support its operations outside of the municipal areas, and for the municipal areas that are served by lower capacity wells and tanks. Feasibility and regulatory compliance requirements for recycled water as supply for fire protection will be further explored during the early design phases of the Program. However, no change in fire services are proposed.

3. AREAS OF SERVICE

3.1 Recycled Water

This section identifies the details regarding a description of non-potable recycled water services. A summary regarding the implementation measures and funding necessary to serve the Harvest Water Project is identified in the following subsections.

The following Sacramento County 2030 General Plan policies are applicable to recycled water services:

- Policy AG-27: The County shall actively encourage groundwater recharge, water conservation and water recycling by both agricultural and urban water uses.
- Policy CO-10: Support local watershed initiatives that enhance groundwater recharge.
- Policy CO-14: Support the use of recycled wastewater to meet non-potable water demands where financially feasible.
- Policy CO-15: Support effective agricultural water conservation practices, including the use of recycled wastewater where financially feasible.
- Policy CO-20: Support preservation and restoration of the Cosumnes River riparian ecosystem.
- Policy CO-22: Support water management practices that are responsive to the impacts of Global Climate Change such as groundwater banking and other water storage projects.

(1) Description, level, and range of services to be extended to the affected territory.

The Program is projected to deliver up to 50,000 acre-feet per year (AFY) of recycled water to landowners in the service area for agricultural and habitat enhancement uses. Initially, an estimated average of 32,500 AFY of recycled water (in a dry irrigation season, up to 37,500 AFY) will be provided for irrigation during the growing season (typically April through October) to landowners who have agreed to participate in the Program. The recycled water used for irrigation will result in in-lieu groundwater recharge in the area. The Program will also provide up to 17,500 AFY of recycled water for wintertime application for fish and wildlife habitat enhancement, consistent with the SSHCP.

In the future, the Program may directly (actively) recharge groundwater with up to 5,000 AFY, and provide up to 500 AFY of recycled water, mostly delivered during the spring and fall, to 400 acres of wetlands at the Stone Lakes NWR. These future potential project elements are not being pursued at this time and will be evaluated for inclusion in the future, including compliance with all applicable Mitigation Measures and Conditions of Project Approval issued by LAFCo prior to implementing.

(2) An indication of any improvement or upgrade of facilities and other conditions Regional San would impose or require within the affected territory if the reorganization is completed.

Proposed facilities include a pump station, pipelines and distribution mains, service connection laterals, and ancillary facilities. The proposed pump station would be located within the SRWTP site. Transmission pipelines and distribution mains would be located on County and City streets and rural roads, primarily within public road rights-of-way (ROW), although distribution mains may also occur on private lands. Service connection laterals would generally be located on private agricultural lands or unimproved service roads. A summary of project facilities is presented in Table 1. A facilities map is provided in Figure 3.

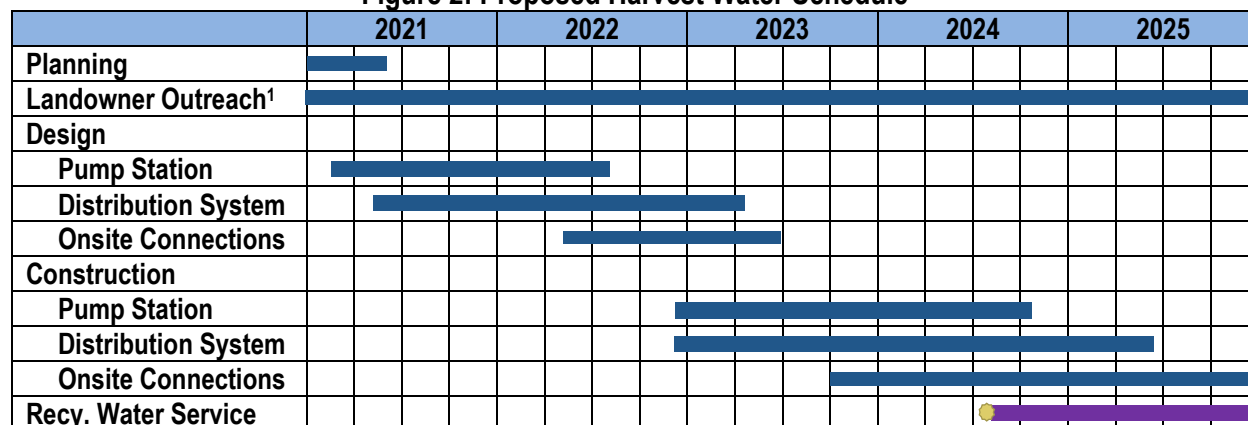
Table 1: Proposed Project Facilities

Facility Component	Location	Description
Pump Station	SRWTP	1 pump station, with multiple variable speed pumps
Transmission Pipeline	From pump station to Twin Cities Road and sited in County, City, and Rural roads in public rights-of-way	Approximately 72,800 feet (~13.8 miles) of 30 to 66-inch diameter pipeline
Distribution Mains	County, City, and Rural roads (public rights-of-way), private dirt roads and other private lands	Approximately 185,000 feet (25 miles) of 12 to 30-inch diameter pipeline
Service Connection Laterals	Private dirt roads and other private lands, public open space lands	6 to 12-inch diameter pipeline
Turnouts	On existing private agricultural land	Pipe and metering equipment that connects directly into existing irrigation systems or discharge into a landowner's onsite water storage area including installation of necessary backflow prevention measures.
OPTIONAL FUTURE ELEMENTS – Not Included in Harvest Water at this time		
Turnout	Stone Lakes NWR	Provision of water to South Stone Lakes wetlands
Groundwater Extraction Wells	To be determined, within service area	Groundwater Extraction Wells may be further evaluated in the future to provide groundwater to the Harvest Water system in-lieu of individual landowners maintaining their own supplemental supply source.

(3) An indication of when the services can feasibly be extended to the affected territory.

The delivery of recycled water service to the project area requires additional planning, permitting (environmental and water quality), design, and construction of the pump station and distribution system facilities. The project will most likely be designed, bid, and constructed in four separate packages, corresponding to major facilities: 1) recycled water pump station; 2) transmission main; 3) distribution mains; and 4) on-site connections. Recycled water delivery is estimated to start in the first quarter of 2024. A simple project schedule of activities from now through recycled water delivery is included as Figure 2.

Figure 2: Proposed Harvest Water Schedule



Notes

1. Landowner outreach including, but not limited to, public noticing, customer recruitment, and recycled water service contract execution.

(4) Information with respect to how the services will be financed.

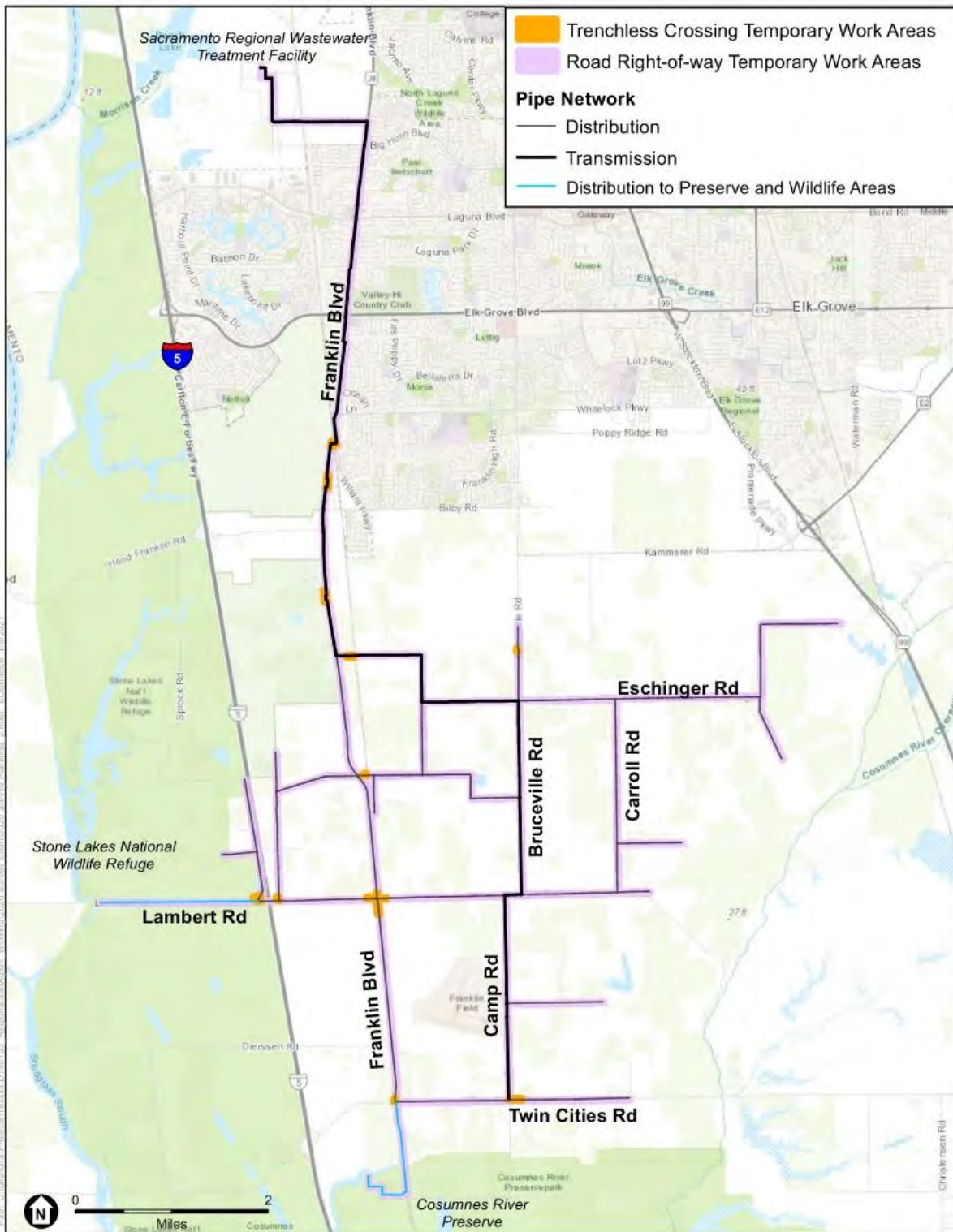
Regional San's discharge of treated wastewater to the Sacramento River is regulated by the Sacramento Regional Water Quality Control Board and its National Pollution Discharge Elimination System (NPDES) permit. With the upgrade of the SRWTP to provide nitrogen removal and enhanced solids removal through filtration and enhanced disinfection, Regional San will be producing high-quality recycled water complying with California's Title 22, Unrestricted Reuse criteria, rendering the water suitable for irrigation of all types of food and fodder crops, as well as body contact recreation. This enhanced effluent water quality will allow Regional San to significantly diversify where it discharges and reuses its treated effluent. Historically, Regional San has been limited in its water recycling capability by the capacity of its 5 MGD water recycling plant and its existing Water Right under the State Water Resources Control Board of 10 MGD diversion from discharge to the Sacramento River. The delivery of recycled water to the Harvest Water area would complement Regional San's current recycled water projects and treated effluent discharges to the Sacramento River. Regional San considers the Harvest Water Program to be essential to its long term reuse and disposal plans, and therefore a fundamental service and value to all Regional San ratepayers. Consequently, financing the capital and operational costs of this Program will be supported by all user rates and fees. This approach for the Harvest Water program is similar to Regional San's financing of its Regional Interceptors, its Regional Treatment Plant and its Biosolids reuse and disposal program, where the capital and annual costs are borne by Regional San ratepayers.

Capital costs to implement the Harvest Water Program are currently estimated at approximately \$441 million, encompassing planning, design, construction, and other capital costs. The California Water Commission (CWC) has awarded Regional San \$280.5 million in Proposition 1 grant funding through the Water Storage Investment Program (WSIP). Recently the CWC has increased Regional San's WSIP grant award by an additional \$7 million. The U.S. Bureau of Reclamation (USBR) has awarded Regional San \$4.2 million in grant funding through the Water Infrastructure Improvements for the Nation (WIIN) program. It is anticipated that the balance of capital costs and costs ineligible for grant funding will be financed through tax exempt revenue bonds issued by Regional San. It is conceivable that some financing will be pursued with Clean Water State Revolving Fund (CWSRF), as administered by the State Water Resources Control Board, but the environmental documentation for the program has not yet been prepared to support such financing.

Annual costs for the operation, maintenance and rehabilitation and replacement of facilities and equipment for the Harvest Water Program will be financed with Regional San wastewater ratepayer revenue. To help offset some of the annual costs, Regional San will receive contracted payment from recycled water users for the treated water delivered by the project. These system revenues and those generated from wastewater rates will fund the operations and maintenance (O&M) of the system and will contribute to reserve accounts for emergencies, repairs, and debt coverage. The rate structure for the project has not yet been established; however, based on (1) groundwater use costs in the area targeted for recycled water distribution, (2) recycled water commodity pricing, and (3) willingness-to-pay, the recycled water rate for Harvest Water is estimated to be up to \$30 per acre-foot (AF) supplied – to be paid only by program participants.

Funding and financing information for the project are detailed in the Financing Plan included in Appendix A.

Figure 3: Harvest Water Project Facilities



SOURCE: ESA, 2020; Regional San, 2020.

Harvest Water

4. REFERENCES

- Ascent Environmental. 2020. Initial Study Checklist for the Sacramento Regional County Sanitation District's Harvest Water Program Lateral Pipelines and On-Farm Connections Project. August 2022.
- California Water Commission (CWC). 2017. South Sacramento County Agriculture & Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program (Harvest Water Program).
- RMC Water and Environment (RMC). 2015. Sacramento Regional County Sanitation District's Harvest Water Recycled Water Feasibility Study. January 2015.
- RMC Water and Environment (RMC). 2016. Sacramento Regional County Sanitation District's South Sacramento County Agriculture and Habitat Lands Recycled Water Program Draft Environmental Impact Report, SCH#: 2015022067. July 2016.
- RMC Water and Environment (RMC). 2017. Sacramento Regional County Sanitation District's South Sacramento County Agriculture and Habitat Lands Recycled Water Program Final Environmental Impact Report Volume II Responses to Comments, SCH#: 2015022067. January 2017.
- RMC Water and Environment (RMC). 2017. South Sacramento County Agriculture & Habitat Lands Recycled Water Program Facilities Plan – Final. August 2017.
- Sacramento County. 2011. General Plan of 2005-2030. Amended November 9, 2011.
- State Water Resources Control Board (SWRCB). 2019. In the Matter of Wastewater Petition WW0092, Sacramento Regional County Sanitation District, Order Approving Change in Purpose of Use and Place of Use of Treated Wastewater. September 10, 2019.
- Woodard & Curran (W&C). 2021. Harvest Water Financing Plan for Service Area Annexation. January 2021.

**APPENDIX A: HARVEST WATER FINANCING PLAN FOR RECYCLED WATER
SERVICE AREA ANNEXATION**

TECHNICAL MEMORANDUM

TO: Jose Ramirez, Regional San
CC: Terrie Mitchell, Regional San
PREPARED BY: Shelly Masuda and Sarah Rhodes, Woodard & Curran
REVIEWED BY: Dave Richardson, Woodard & Curran
DATE: January 25, 2021
RE: Harvest Water Financing Plan for Recycled Water Service Area Annexation

1. BACKGROUND

The Sacramento Regional County Sanitation District (Regional San) is undertaking the Harvest Water Program (formerly the South Sacramento County Agriculture & Habitat Lands Recycled Water Program), which will provide Title 22 disinfected tertiary treated recycled water from the Sacramento Regional Wastewater Treatment Plant (SRWTP) to southern Sacramento County for agricultural and habitat enhancement uses.

By 2023, the SRWTP will be improved to produce tertiary treated effluent meeting California Code of Regulations (CCR) Title 22, Division 4, Chapter 3, Article 7 (Title 22) “disinfected tertiary recycled water” equivalent standards through Regional San’s EchoWater Project. The EchoWater Project provides Regional San with the opportunity to diversify its effluent management and discharge options through the Harvest Water Program and its recycled water delivery to southern Sacramento County. The Harvest Water Program is an essential part of Regional San’s long-term effluent management and discharge plans, and therefore a fundamental service and value to all Regional San ratepayers and the limited water resources in the Sacramento region.

The objective of this technical memorandum (TM) is to describe anticipated financing for capital and annual costs for Regional San’s Harvest Water Program specifically to support the Sacramento Local Agency Formation Commission (LAFCo) annexation process. The Program is entering the design phase in 2021, as such the costs will continue to be refined.

2. PROGRAM DESCRIPTION

The Program is projected to deliver up to 50,000 acre-feet per year (AFY) of recycled water for agricultural and habitat enhancement uses to around 16,000 acres of currently irrigated land, all within southern Sacramento County. The proposed recycled water service area is bounded to the south by the Cosumnes River Preserve, to the north primarily by Bilby Road and Kammerer Road, and lies mostly between Interstate 5 (I-5) and Highway 99, both of which run in a north-south direction. A portion of the proposed service area is bisected by I-5. Initially, an estimated average of 32,500 AFY of recycled water will be provided for irrigation during the growing season (typically April through October) to landowners who have agreed to participate in the Program. Using recycled water for irrigation will allow groundwater to remain in the aquifer, resulting in in-lieu groundwater recharge in the area. The Program will also provide wintertime application of 12,000 to 17,500 AFY for fish and wildlife habitat enhancement.

Proposed facilities include a pump station, transmission pipelines and distribution mains, service connection laterals, and ancillary facilities. The proposed pump station would be located within the SRWTP site. Transmission pipelines and distribution mains would be located on County and City of Elk Grove streets and rural roads, primarily within public road rights-of-way (ROW), although distribution mains may also occur on private lands. Service connection

laterals would generally be located on private agricultural lands or dirt roads. The proposed recycled water service area and project facilities are presented in Figure 1.

2.1 Future Program Options

In the future, Regional San may build and expand the Harvest Water in the following ways:

- May provide up to 500 AFY of recycled water, mostly delivered during the spring and fall, to 400 acres of wetlands at the Stone Lakes National Wildlife Refuge (Stone Lakes NWR)
- May install up to 10 groundwater wells to supplement recycled water service during operational shutdowns of the SRWTP or dry years.
- May develop a groundwater recharge basin to directly recharge groundwater with up to 5,000 AFY of recycled water.

3. HARVEST WATER PROGRAM COSTS

3.1 Capital Costs

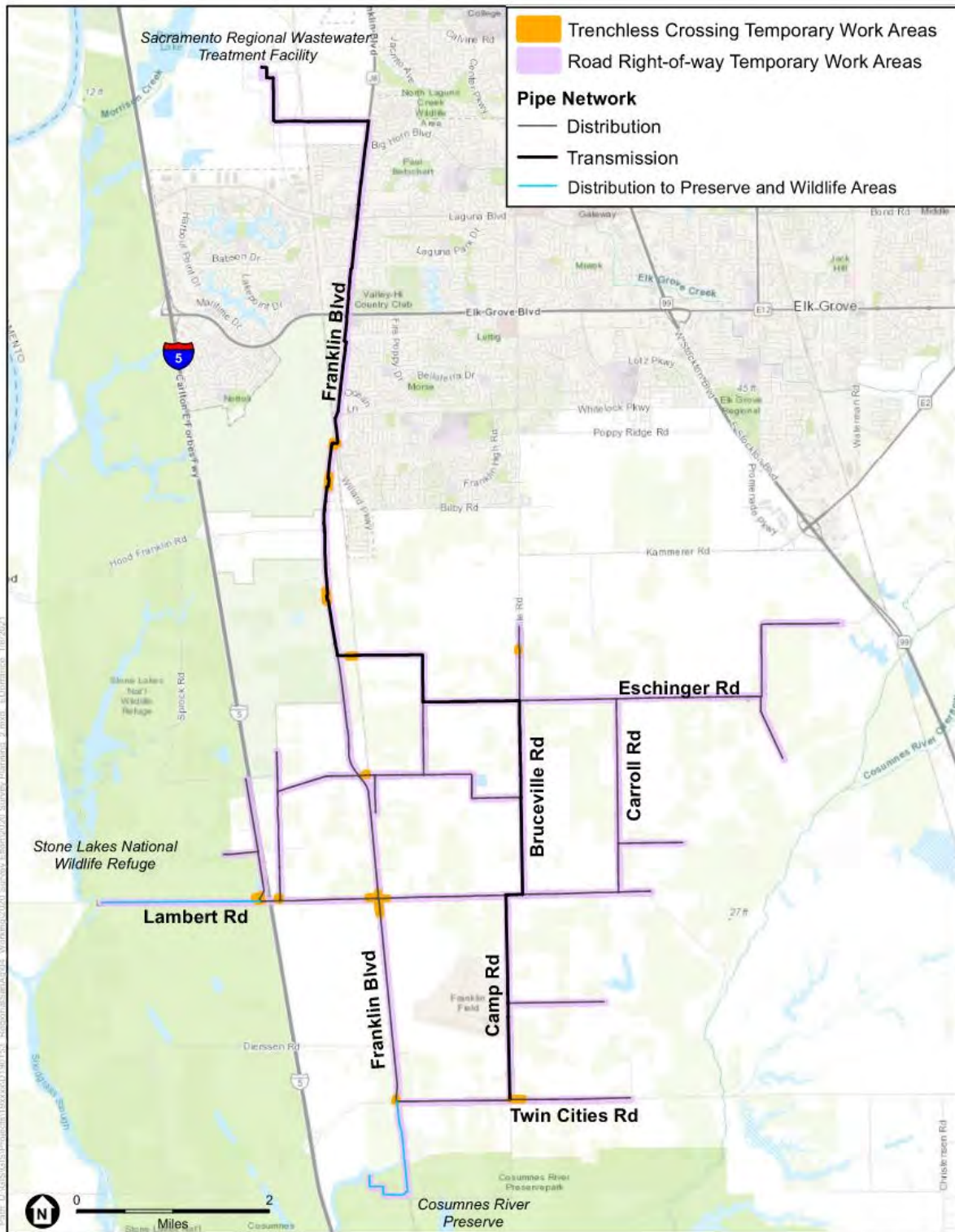
The projected capital costs for the project are comprised of construction costs and soft costs. Construction costs for project facilities were developed as part of the South Sacramento Agriculture & Habitat Lands Recycled Water Program Facilities Plan prepared in 2015 and recently updated. Other major administrative capital costs include development of a recycled program, ecological program, and groundwater accounting and conjunctive use program. Total capital costs are currently estimated at \$441.1 million. A summary of capital costs is presented in Table 1.

Capital expenditures are anticipated from fiscal year 2019-20 through fiscal year 2024-25. Construction is anticipated to start in late 2022 with recycled water deliveries beginning in 2024, as shown in the project schedule provided in Figure 2.

Table 1: Planning Level Capital Cost Estimate

Capital Cost Category	Estimated Cost	Description
Recycled Water Infrastructure	\$349.5M	Capital program implementation, design and construction of recycled water pump station, distribution system, and customer connections
Ecological Program	\$76.7M	Ecological program development, outreach, recruitment, monitoring, etc.
Implementation and Groundwater Monitoring	\$14.9M	Administrative program implementation, including outreach, environmental documentation, and developing groundwater accounting and monitoring network.
Total Estimated Capital Cost	\$441.1M	

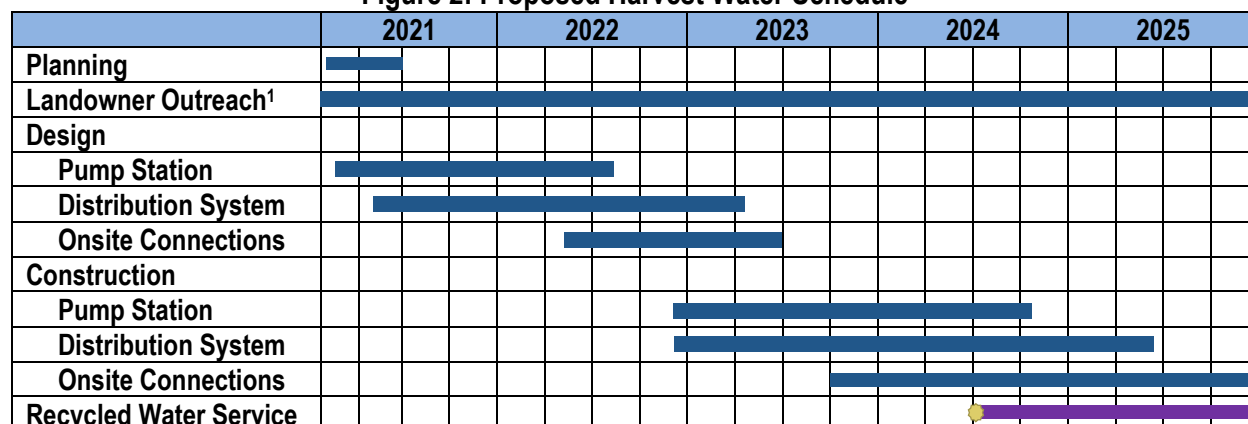
Figure 1: Recycled Water Service Area and Project Facilities



SOURCE: ESA, 2020; Regional San, 2020.

Harvest Water

Figure 2: Proposed Harvest Water Schedule



Notes

1. Landowner outreach including, but not limited to, public noticing, customer recruitment, and recycled water service contract execution.

3.2 Operational Costs

The projected operational costs for the project are comprised of facilities (pump station and pipelines) operations and maintenance (O&M), facilities equipment replacement fund, and recycled water, groundwater, and ecological programs management costs. Total annual costs are currently estimated at \$5.0 million starting in 2024. A summary of annual costs is presented in Table 2.

Table 2: Planning Level Cost Estimate of Projected Annual Costs

Annual Cost Category	Annual Cost	Description
Recycled Water Utility Administration and Permitting	\$200,000	Administration of the Recycled Water Utility including customer connections, permitting & reporting, etc.
Ecological Monitoring Program	\$1,500,000	On-going ecological program monitoring
Environmental Compliance; Mitigation Monitoring	\$75,000	On-going mitigation monitoring for environmental compliance
Groundwater Management (Bank O&M)	\$200,000	On-going management of groundwater bank including modeling updates
Groundwater Monitoring Program	\$75,000	On-going groundwater monitoring program
Pipeline & Pump Station Operations and Maintenance	\$2,600,000	Regional San labor and equipment for pipeline and pump stations operations and maintenance
Pipeline & Pump Station Renewal and Replacement Fund	\$500,000	Reserve for future pump station and pipeline renewal, replacement, and rehabilitation paid into Regional San's existing Replacement Reserve
Total Annual Cost	\$5,150,000	

4. FUNDING SOURCES

The EchoWater Project is scheduled for completion and start-up in 2023, presenting Regional San with the opportunity to diversify its effluent management discharge options with recycled water delivery to southern Sacramento County through Harvest Water. Harvest Water is an essential part of Regional San's long-term effluent management and discharge plans, and therefore a fundamental service and value to all Regional San ratepayers and the water resources in the Sacramento region. Consequently, financing of capital debt service and operational costs of this Program will be

supported by user rates and fees, grant funding, and recycled water revenues. This approach for Harvest Water is similar to Regional San's financing of the collection system interceptors and the SRWTP and its Biosolids reuse and disposal program.

4.1 Capital Funding

Capital funding is anticipated from four sources, including a Water Storage Investment Program (WSIP) grant, Water Infrastructure Improvements for the Nation (WIIN) grant, cash reserves, and pay go cash. The Harvest Water Program capital funding approach will be developed in more detail as the state and federal grants are received and the capital cost estimates are refined by Regional San.

WSIP Funding

The California Water Commission (CWC) has awarded the Harvest Water Program \$287.5 million in Proposition 1 grant funding through the Water Storage Investment Program (WSIP), as of January 2021. In addition to executing a funding agreement with CWC, Regional San must enter into contracts with both the California Department of Fish and Wildlife (CDFW) and the State Water Resources Control Board (SWRCB) to develop and implement the public benefits associated with the Program. Ongoing coordination continues with each state agency through on-going meetings and future contracting negotiations. In addition, Regional San submits required Quarterly Reports providing a summary level update of the project status for the requirements and milestones. Regional San anticipates executing the final funding agreement with the CWC in mid-2022.

WIIN Funding

The U.S. Bureau of Reclamation (USBR) has awarded the Harvest Water Program \$4.2 million in grant funding through the Water Infrastructure Improvements for the Nation (WIIN) program round 2. Regional San is currently positioning for pursuing Round 4 of WIIN funding anticipated to become available in 2021. The total WIIN funding is anticipated to be a maximum of \$20 million.

CWSRF Funding

It is conceivable that some financing will be pursued with Clean Water State Revolving Fund (CWSRF) administered by the State Water Resources Control Board.

Additional Grant and Loan Funding

Regional San is aware of other federal funding programs such as Water Infrastructure Finance and Innovation Act (WIFIA) program, which provides subsidized interest funding for capital infrastructure projects. At this time, there does not appear to be a compelling rationale for pursuing additional federal funding over and above the WIIN financing described above.

At the state level, integrated regional water management was officially embraced by the state of California with the passage of the Integrated Regional Water Management Planning Act of 2002. This act, among other things, provides funding to develop local Integrated Regional Water Management Plans (IRWMPs). The American River Basin (ARB) IRWMP is a comprehensive planning document that encourages development of voluntary regional strategies to address water resources challenges, water management issues, and proposed solutions. It also creates opportunities to develop multi-partner projects that create flexibility in the use of available funding from various sources. The ARB IRWMP is developed by the Regional Water Authority (RWA) and is approved by the California Department of Water Resources. The Harvest Water Project has been vetted by RWA and its participating agencies and is included as a high-ranking project in the ARB IRWMP. This allows Regional San to be eligible to seek potential future IRWM funding for the Harvest Water Project.

Cash Reserves and Tax-Exempt Bonds

It is anticipated that the balance of capital costs and costs ineligible for grant funding, approximately \$160 million, will be financed through cash reserves and pay-go cash (pay-go cash is cash available from user rate revenues). Most likely, additional debt financing will not be required. If it were, the portion not covered by cash reserves and pay-go cash could be financed with tax-exempt (fixed rate) revenue bonds issued by Regional San. Debt financing of up to \$120 million would be approximately 30 percent of capital costs. This option would be in compliance with Regional San's debt management policy that targets financing of 75 percent or less of new major capital projects with debt proceeds. Regional San has approximately \$1.21 billion of bond debt outstanding as of June 2019. Approximately 46% of this debt is fixed rate, and 54% is in a variable rate mode.

4.2 Annual Funding

Annual costs for the operation, maintenance and rehabilitation and replacement of facilities and equipment for the Harvest Water Program are estimated at approximately \$5 million and will be largely financed with Regional San wastewater ratepayer revenue and offset with revenue from recycled water sales.

Existing Wastewater Revenues

Existing wastewater revenues include sewer service fees and sewer impact fees. Other non-operating revenue consists mainly of interest income on invested cash balances. All users of the Regional San sewer system are required to pay sewer service fees based on the wastewater characteristics of the user. Since 2011, the Board of Directors has approved annual rate increases totaling \$17 per month, per equivalent single-family dwelling (ESD), mainly to fund the EchoWater Project. The monthly rate increased from \$20 per ESD in 2011, to \$37 per ESD on July 1, 2018. In April of 2017, the Board approved the final set of rate increases needed to support the EchoWater Project that took the monthly rate per ESD up to \$37. In May of 2019, the Board approved an ordinance amendment that froze the monthly service rate per ESD at \$37 through fiscal year 2020-21 due to a combination of increasing revenue from growth, operating cost containment, reduced capital spending projections, and low cost financing for the EchoWater Project.

In addition, all users discharging directly or indirectly into the Regional San's sewer system are required to pay for a portion of the capital investment of the system. These amounts are included in the sewer impact fee, the incremental sewer impact fee, or such other fees as are required. Sewer impact fees are reviewed periodically and adjusted as necessary to account for items such as Regional San costs, inflation, etc. A sewer impact fee must be paid for all parcels served by the Regional San's sewer system and are based on the connection occurring within infill or a new community.

In 2013, sewer impact fees were restructured which resulted in decreases from \$2,800 to \$2,396 per ESD for infill, and from \$7,450 to \$4,032 per ESD for new communities. Under the new structure, impact fee levels will adjust each year by an inflation factor and estimated changes in capital spending. The impact fees in effect as of July 1, 2019, are \$3,602 per ESD for infill areas, and \$6,479 per ESD for new communities. Impact fees are assumed to increase at an inflationary rate of 2.5% per year. The level of impact fee revenue is difficult to predict because it can vary significantly even when net growth is estimated to be constant at 0.40%. Factors that can affect impact fee revenues include fee increases, proportion of growth in infill versus new communities, new construction levels, level of impact fee credits used, proportion of commercial development versus residential development, and levels of redevelopment.

Total revenue in fiscal year 2018-19 was approximately \$340 million and is projected to increase to approximately \$350 million by fiscal year 2028-29. Existing and project revenues are sufficient to cover anticipated Harvest Water annual costs.

Recycled Water Revenues

To help offset some of the annual costs, Regional San will also receive payment from recycled water users for the treated water delivered by the project. System revenues and those generated from wastewater rates will fund the operations and maintenance (O&M) of the system and will contribute to reserve accounts for emergencies, repairs, and debt coverage. The rate structure for the project, including incentives for early adopters, has not yet been finalized, but based on groundwater use costs in the area targeted for recycled water distribution, recycled water commodity pricing, based on willingness-to-pay, are estimated to be \$30 or less per acre-foot (AF) of recycled water supplied. With an estimated average of 32,500 AFY of recycled water deliveries to participating landowners, annual recycled water revenue is estimated at approximately \$750,000.

5. NEXT STEPS

The following is a summary of next steps needed to secure the discussed funding:

- On an ongoing basis, update capital and O&M cost estimates
- Pursue WIIN Round 4 funding
- Pursue IRWM funding
- WSIP funding agreement with CWC by early 2022

6. REFERENCES

- California Water Commission (CWC). South Sacramento County Agriculture & Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program (South County Ag Program). Available at: <https://cwc.ca.gov/Water-Storage/WSIP-Project-Review-Portal/All-Projects/South-Sacramento-County-Agriculture>.
- RMC Water and Environment (RMC). 2015. Sacramento Regional County Sanitation District's South County Ag Recycled Water Feasibility Study. January 2015.
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- State Water Resources Control Board (SWRCB). 2019. In the Matter of Wastewater Petition WW0092, Sacramento Regional County Sanitation District, Order Approving Change in Purpose of Use and Place of Use of Treated Wastewater. September 10, 2019.