State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WATER QUALITY
John K. Mackey, P.E.
Director

Utah Water Quality Board Meeting
State Tax Commission
210 North 1950 West
Conference Room 1026 1st Floor
Salt Lake City, UT 84116
and
Via Zoom

October 25, 2023
Board Meeting Begins at 8:30 am

AGENDA

Water Quality Board Meeting – Call to Order & Roll Call — **Jim Webb**

Minutes:
Approval of Minutes for August 23, 2023 Water Quality Board Meeting — **Jim Webb**

Executive Secretary Report — **John K. Mackey**

Funding:
1. Financial Status Report — **Adriana Hernandez**
2. Request for Legislative Appropriation Authorization St. George — **Andrew Pompeo**
3. Project Funding Process Discussion — **Ken Hoffman**
   a. Request for Funding Monticello City — **Skyler Davies**
   b. Request for Funding Mount Pleasant City — **Glen Lischeske**
   c. Request for Funding Lewiston City — **Beth Wondimu, Ken Hoffman**
   d. Request for Funding Brian Head Town — **George Meados**
   e. Request for Funding Wolf Creek Water & Sewer Improvement District — **Andrew Pompeo**
   f. Request for Funding South Davis Sewer District — **George Meados**
4. Board SRF Funding Authorizations — **Ken Hoffman**

Other
1. Request to Commence Informal Rulemaking on HB513 Great Salt Lake Amendments — **Ben Holcomb**
2. Municipal Wastewater Planning Program/Clean Water Needs Survey Report — **Harry Campbell**

Public Comment Period

Meeting Adjournment — **Jim Webb**

In compliance with the American Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Larene Wyss, Office of Human resources, at (801) 536-4281, TDD (801) 536-4284, or by email at lwyss@utah.gov at least five working days prior to the scheduled meeting.

Next Meeting
December 13, 2023 at 8:30 am

MASOB & Via Zoom
195 North 1950 West
Salt Lake City, UT 84116

DWQ-2023-125087

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MINUTES

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
UTAH WATER QUALITY BOARD

MASOB
and
Via Zoom

August 23, 2023
8:30 am Meeting

UTAH WATER QUALITY BOARD MEMBERS PRESENT

Jim Webb	Jill Jones
Carly Castle	John Mackey
Trevor Heaton	Joe Havasi
Michela Harris	Kim Shelly
Mayor Kaufusi	
Robert Fehr	

Excused

DIVISION OF WATER QUALITY STAFF MEMBERS PRESENT &ONLINE

Emily Cantón	Skyler Davis
Ken Hoffman	Glen Lischeske
Clanci Hawks	Andrew Pompeo
Adrianna Hernandez	Robert Beers
Judy Etherington	
Britney Webb	
Melisa Herrera	
Haley Sousa	
George Meados	
Jake Vander Laan	
Ben Holcomb	
Jeff Studenka	
Harry Campbell	
Brendon Quirk	

OTHERS PRESENT & ONLINE

Miranda Menzies
Pan Young
Jon Bingham
Rob Thomas
Matt Myers
Jennifer Weidhaas
Bud Huchel
Dave Oxman
Mayor Mike Olsen
Gary Vance
Mayor Jeff Hall
Gary Lewiston
Nathan Langston
Mayor Hedglin

Mr. Webb, Chair, called the Meeting to order at 8:30 AM.

ROLL CALL

Mr. Webb took roll call for the members of the Board.

APPROVAL OF MINUTES OFJUNE 28, 2023 BOARD MEETING

Mr. Webb moved to approve the minutes of the June 28, 2023 Board meeting.

Motion: Ms. Jones motioned to accept the minutes.
Ms. Harris seconded the motion.
The motion passed unanimously to approve the June 28, 2023 meeting minutes.

SERVICE AWARD

Mr. Webb asked Mr. Mackey to present the service award to Dr. Weidhaas. Dr. Weidhaas provided exemplary service on the Wastewater Operator Certification Council (WWOCC). She served two terms of three years each. Dr. Weidhaas accepted the award and expressed her appreciation for being able to serve on the WWOCC.

EXECUTIVE SECRETARY REPORT

Mr. Mackey addressed the Board regarding the following:

- Work Meetings - A work meeting will follow the Board Meeting. The intention of a work meeting is to provide additional education to Board members and an opportunity for Board Members to ask questions. The first work meeting is with the Engineering Section to discuss the financial assistance program.

- Finance Committee - A finance committee meeting will be held in September. This is a subgroup of the Board that meets to review and discuss projects and available funding. No action is taken in these meetings.

- Recreational Health and Waterborne Pathogens - DWQ is seeing an increase of harmful algal blooms throughout the State. There have also been a couple of E. coli outbreaks in Utah County that were reported by the Utah County Health Department. These were the result of people recreating in irrigation water. DWQ staff are keeping a close watch on both issues in coordination with local health departments.

- Public Hearing – DWQ held a Public Hearing in Moab, UT regarding the permit that is anticipated for the Kane Creek Development.

- Utah Lake – The Utah Lake Authority has held several meetings and events. One included Representative Owen Burgess and discussion regarding improvement of the lake and getting support from the Federal level.

- Get to the River Festival – The Jordan River Commission (JRC) is holding an event for the Jordan River. Soren Simonsen, with the JRC, offered to go into more detail during the Public Comment section of the meeting.

Staff Introductions - Mr. Mackey introduced two new staff members, Melissa Herrera and Britney Webb. They both joined WQ Admin Services in July.

FUNDING

Financial Status Report: Ms. Hernandez presented the financial status report to the Board as indicated in the packet.

WQ Board Feasibility Reports for Sewer Improvement Projects

Applicant: Monticello City – The City is requesting funding from WQ Board in the amount of $1,213,093 to upgrade the sewer system by replacing several sections of the system that have reached the end of its service life.

Applicant: Wolf Creek & Sewer Improvement District – Wolf Creek is requesting funding from the WQ Board in the amount of $6,588,002 for the construction of a reuse storage pond and distribution pipeline and pump station. Wolf Creek plans to land apply their treated effluent at the golf course in town.

Applicant: Brian Head Town - Brian Head Town is requesting funding from the WQ Board in the amount of $8,398,155 to install wastewater collection lines into newly annexed areas of the Town. The Town would split the projects into different timelines with a preference of installing wastewater lines at Ponderosa Dr. and Snow Show Dr./Toboggan Circle during this funding cycle for $1,687,838.

Applicant: South Davis Sewer District - South Davis Sewer District is requesting funding from the WQ Board in the amount of $49,237,000 to install a moving bed biological reactor (MBBR) with chemical addition at their North Plant.

Applicant: Mount Pleasant City - Mount Pleasant City if requesting funding from the WQ Board in the amount of $2,670,000 for new construction and upgrades to their existing wastewater treatment facility.

Applicant: Lewiston City - Lewiston City is requesting funding rom the WQ Board in the amount of $6,512,000 to upgrade the sewer system and connect its collection system to the Richmond MBR treatment plant.

OTHER

Introduction to the 2023 Triennial Review: Mr. Jake Vanderlaan presented an introduction to the 2023 Triennial Review process as indicated in the packet.

PUBLIC COMMENTS

Soren Simonsen, with the Jordan River Commission, provided information regarding the upcoming activities of the Get to the River Festival. Communities and other organizations organize events that help with activation, education, outreach, conservation, and stewardship of the Jordan River Parkway.

WORK MEETING

Mr. Ken Hoffman provided information regarding the WQ Engineering Section and the financial assistance program.

MEETING ADJOURNMENT

Motion: **Mr. Webb motioned to adjourn the meeting.**
Ms. Jones seconded the motion. The motion passed unanimously.

Next Meeting – September 27, 2023
Meeting begins at 8:30 am

In-Person
MASOB
195 North 1950 West
Salt Lake City, UT 84116

Via Zoom
https://us02web.zoom.us/j/7074990271

James Webb, Chair
Utah Water Quality Board

DWQ-2023-123783

LOAN FUNDS FINANCIAL STATUS REPORT OCTOBER 2023

STATE REVOLVING FUND (SRF)	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027	State Fiscal Year 2028
CAP Grant Base Program					
Capitalization Grant Awards (FY22)	$ -				
Future Capitalization Grant	$ 3,952,000				
State Cap Grant Match (FY22)	$ -	$ -	$ -	$ -	$ -
Future State Cap Grant Match	$ 790,400	$ -	$ -	$ -	$ -
CAP Grant General Supplemental					
General Supplemental Grants (FY22)	$ 9,378,000	$ -	$ -	$ -	$ -
Future General Supplemental Grant	$ 10,983,000	$ 11,234,025	$ 12,169,025	$ 12,169,025	$ -
State General Supplemental Grants Match (FY22)	$ 937,800				
Future State Gen. Sup Grants Match	$ 1,098,300	$ 2,246,805	$ 2,433,805	$ 2,433,805	$ -
SRF - 2nd Round					
Account Balance	$ 26,392,076	$ (15,569,752)	$ 1,182,344	$ 26,115,785	$ 51,333,587
Interest Earnings at 5.4308%	$ 1,074,976	$ -	$ -	$ -	$ -
Loan Repayments (5255)	$ 7,199,987	$ 17,272,300	$ 17,225,194	$ 16,977,794	$ 20,691,107
Total Funds Available	$ 61,806,539	$ 15,183,377	$ 33,010,368	$ 57,696,409	$ 72,024,694
CWSRF Program Obligations					
Admin Expenses for all CAP Grant Awards	$ (1,037,080)	$ (894,361)	$ (931,761)	$ (400,000)	$ (400,000)
Cap Grant Principal Forgiveness (PF) (FY18-22)	$ (13,534,600)				
Future Cap Grant (PF portion)	$ (1,185,600)	$ -	$ -	$ -	$ -
General Supplemental Grants (PF portion)	$ (4,595,220)				
Future General Supplemental Grants (PF portion)	$ (5,381,670)	$ (5,504,672)	$ (5,962,822)	$ (5,962,822)	
Project Obligations					
Moab City	$ (80,000)	$ -	$ -	$ -	$ -
Provo City 262	$ (8,800,500)	$ -	$ -	$ -	$ -
Provo City 262b	$ (1,855,621)	$ -	$ -	$ -	$ -
South Salt Lake City (A)	$ (524,000)	$ -	$ -	$ -	$ -
Millville City Loan	$ (5,146,000)	$ -	$ -	$ -	$ -
Mountain Green	$ (6,949,000)	$ -	$ -	$ -	$ -
Payson City	$ (13,425,000)	$ -	$ -	$ -	$ -
Loan Authorizations					
Millville Refinance Loan	$ (1,261,000)				
Long Valley	$ (1,250,000)				
North Logan	$ (3,500,000)				
Planned Projects					
South Davis*		$ (4,000,000)			
Mt Pleasant*	$ (2,535,000)				

*WQB Agenda Items

Monticello*	$ (1,214,000)				
Wolf Creek*	$ (3,202,000)	$ (3,202,000)			
Brian Head*	$ (1,900,000)				
Lewiston*		$ (400,000)			
CWSRF Obligations	$ (77,376,291)	$ (14,001,033)	$ (6,894,583)	$ (6,362,822)	$ (400,000)
CWSRF Remaining Loan Balance	$ (15,569,752)	$ 1,182,344	$ 26,115,785	$ 51,333,587	$ 71,624,694
Addt'l Subsidy - Principal Forgiveness					
PF Balances (max for FY18-22)	$ 13,534,600	$ 788,490	$ 6,293,162	$ 12,255,985	$ 18,218,807
Future Cap Grant (PF portion)	$ 1,185,600	$ -	$ -	$ -	$ -
General Supplemental Balances (PF portion)	$ 4,595,220				
Future General Supplemental Grants (PF portion)	$ 5,381,670	$ 5,504,672	$ 5,962,822	$ 5,962,822	
Project Obligations					
South Salt Lake City (A)	$ (3,760,000)	$ -	$ -	$ -	$ -
Millville City	$ (3,604,000)	$ -	$ -	$ -	$ -
Provo City	$ (7,000,000)	$ -	$ -	$ -	$ -
Payson City	$ (1,000,000)	$ -	$ -	$ -	$ -
Millville City Refinance	$ (3,750,000)	$ -	$ -	$ -	$ -
Addt'l Subsidy Authorizations					
Hanksville	$ (1,694,600)				
Planned Projects					
Lewiston	$ (3,100,000)				
Principal Forgiveness Obligations	$ (23,908,600)	$ -	$ -	$ -	$ -
Principal Forgiveness Remaining Balance	$ 788,490	$ 6,293,162	$ 12,255,985	$ 18,218,807	$ 18,218,807

UTAH WASTEWATER LOAN FUND (UWLF)	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027	State Fiscal Year 2028
Funds Available					
UWLF	$ 33,605,378	$ 19,160,906	$ 21,183,060	$ 22,888,662	$ 24,349,582
Sales Tax Revenue	$ 329,986	$ 3,587,500	$ 3,587,500	$ 3,587,500	$ 3,587,500
Loan Repayments (5260)	$ 1,749,092	$ 2,606,859	$ 2,477,307	$ 2,232,625	$ 2,259,259
Total Funds Available	$ 35,684,456	$ 25,355,265	$ 27,247,867	$ 28,708,787	$ 30,196,341
General Obligations					
State Match Transfers Base Cap Grant	$ (790,400)	$ -	$ -	$ -	$ -

*WQB Agenda Items

LOAN FUNDS FINANCIAL STATUS REPORT OCTOBER 2023

State Match Transfers Gen. Supplemental Grant	$ (937,800)	$ -	$ -	$ -	$ -
State Match Transfers Gen. Supplemental Grant	$ (1,098,300)	$ (2,246,805)	$ (2,433,805)	$ (2,433,805)	
DWQ Administrative Expenses	$ (1,444,050)	$ (1,925,400)	$ (1,925,400)	$ (1,925,400)	$ (1,925,400)
Project Obligations					
South Salt Lake City (B)	$ (4,891,000)	$ -	$ -	$ -	$ -
South Salt Lake City (C)	$ (982,000)	$ -	$ -	$ -	$ -
Loan Authorizations					
Spanish Fork	$ (4,500,000)				
Hanksville	$ (350,000)				
Long Valley	$ (220,000)				
Grantsville	$ (1,000,000)				
Kane County	$ (310,000)				
Planned Projects					
	$ -				
Total Obligations	$ (16,523,550)	$ (4,172,205)	$ (4,359,205)	$ (4,359,205)	$ (1,925,400)
UWLF Remaining Loan Balance	$ 19,160,906	$ 21,183,060	$ 22,888,662	$ 24,349,582	$ 28,270,941
TOTAL LOAN FUND BALANCE	$ 4,379,643	$ 28,658,566	$ 61,260,431	$ 93,901,975	$ 118,114,441
PROJECT RESERVE	$ -	$ (5,000,000)	$ (10,000,000)	$ (15,000,000)	$ (20,000,000)
TOTAL AVAILABLE LOAN FUNDS	$ 4,379,643	$ 23,658,566	$ 51,260,431	$ 78,901,975	$ 98,114,441

*WQB Agenda Items

HARDSHIP GRANT FUNDS FINANCIAL STATUS REPORT OCTOBER 2023

HARDSHIP GRANT FUNDS (HGF)	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027	State Fiscal Year 2028
Funds Available					
Beginning Balance	$ -	$ 1,636,776	$ 1,586,986	$ 1,485,220	$ 1,330,746
Federal HGF Beginning Balance (5250)	$ 3,584,746	$ -	$ -	$ -	$ -
State HGF Beginning Balance (5265)	$ 4,706,867	$ -	$ -	$ -	$ -
Hardship Grant Assessments (5255)	$ 63,531	$ 689,765	$ 657,624	$ 624,522	$ 590,676
Interest Payments - (5260)	$ 184,055	$ 260,446	$ 240,609	$ 221,004	$ 206,353
Advance Repayments	$ -	$ -	$ -	$ -	$ -
Total Funds Available	$ 8,539,199	$ 2,586,986	$ 2,485,220	$ 2,330,746	$ 2,127,775
St George Appropriation					
Beginning Balance	$ 13,066,000				
Planned Projects					
*St George Graveyard Wash Res	$ (13,066,000)				
Total Funds Available	$ -	$ -	$ -	$ -	$ -
Financial Assistance Project Obligations					
Big Water-Planning Grant	$ (28,241)	$ -	$ -	$ -	$ -
Delta - Design Grant	$ (200,000)	$ -	$ -	$ -	$ -
Delta - Short Term Loan	$ (200,000)				
Dutch John - Planning	$ (95,000)	$ -	$ -	$ -	$ -
Dutch John - HGF Loan	$ (60,000)	$ -	$ -	$ -	$ -
Eagle Mountain City - Construction Grant	$ (510,000)	$ -	$ -	$ -	$ -
Elwood - Planning	$ (18,200)	$ -	$ -	$ -	$ -
Hanksville - Design	$ (29,700)	$ -	$ -	$ -	$ -
Hinckley Hardship Planning Grant	$ (15,000)	$ -	$ -	$ -	$ -
Kanab City Planning Advance	$ (29,800)	$ -	$ -	$ -	$ -
Lewiston City - Design and Construction	$ (460,000)	$ -	$ -	$ -	$ -
Lewiston City - De-Obligation	$ 460,000				
Long Valley - Design	$ (103,700)	$ -	$ -	$ -	$ -
Millville City - Construction Grant	$ (1,000,000)	$ -	$ -	$ -	$ -
Spanish Fork - Hardship Grant	$ (500,000)	$ -	$ -	$ -	$ -
Stockton - Planning	$ (20,000)	$ -	$ -	$ -	$ -
Spring City - Design Advance	$ (289,000)				
Non-Point Source/Hardship Grant Obligations					
OSG Cost Share Balances (FY20-21)	$ (56,000)				
McKees ARDL interest-rate buy down	$ (55,261)	$ -	$ -	$ -	$ -
Munk Dairy ARDL interest-rate buy down	$ (16,017)	$ -	$ -	$ -	$ -
(FY12) Utah Department of Agriculture	$ (122,748)	$ -	$ -	$ -	$ -
(FY15) DEQ - Ammonia Criteria Study	$ (27,242)	$ -	$ -	$ -	$ -
(FY17) DEQ - Utah Lake Water Quality Study	$ (348,301)	$ -	$ -	$ -	$ -
(FY19) USU - Nutrient Concentrations Paleolimnology of Utah Lake	$ (10,198)	$ -	$ -	$ -	$ -
FY 2018 - Remaining Payments	$ (7,100)	$ -	$ -	$ -	$ -

*WQB Agenda Items

HARDSHIP GRANT FUNDS FINANCIAL STATUS REPORT OCTOBER 2023

FY 2019 - Remaining Payments	$ (45,903)	$ -	$ -	$ -	$ -	
FY 2020 - Remaining Payments	$ (155,755)	$ -	$ -	$ -	$ -	
FY 2021 - Remaining Payments	$ (118,878)	$ -	$ -	$ -	$ -	
FY 2022 - Remaining Payments	$ (516,168)	$ -	$ -	$ -	$ -	
FY 2023 - Remaining Payments	$ (665,366)					
FY 2024 - Remaining Payments	$ (996,674)					
Future NPS Annual Allocations		$ (1,000,000)	$ (1,000,000)	$ (1,000,000)	$ (1,000,000)	
Authorizations						
Grantsville - Design Advance	$ (300,000)					
Kane County - Hardship Grant	$ (200,000)					
Rockville Town - Hardship Grant	$ (27,172)					
Planned Projects						
Mt Pleasant*	$ (135,000)					
Total Obligations	$ (6,902,423)	$ (1,000,000)	$ (1,000,000)	$ (1,000,000)	$ (1,000,000)	
HGF Unobligated Funds	$ 1,636,776	$ 1,586,986	$ 1,485,220	$ 1,330,746	$ 1,127,775	

*WQB Agenda Items

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WATER QUALITY BOARD
FEASIBILTY REPORT FOR WASTEWATER TREATMENT PROJECT
ST. GEORGE CITY GRAVEYARD WASH RESERVOIR
AUTHORIZATION

APPLICANT:	St. George City 811 E Red Hills Parkway St. George, Utah 84770 Telephone: 435-627-4000
PRESIDING OFFICIAL	Mayor Michele Randall 175 E 200 N St. George, Utah 84770 Telephone: 435-627-4001
CONTACT:	Scott Taylor Telephone: 435-627-4850
TREASURER:	Laura Olson, Treasurer Telephone: 435-627-4713
CONSULTING ENGINEER:	Glen Carnahan Alpha Engineering 435-628-6500

APPLICANT'S REQUEST

St. George is requesting funding from the Water Quality Board (Board) in the amount of **$13,066,000** for the construction of the Graveyard Wash Reuse Storage Reservoir project (Graveyard Wash). The reservoir will store treated effluent from the St George Wastewater Treatment Plant. In the Compendium of Budget Information (COBI) FY23-24, the legislature appropriated $13,066,000 to the Board for the purpose of funding the Graveyard Wash project.

APPLICANT'S LOCATION

Figure 1: Graveyard Wash Location

Figure 2: Approximate boundaries of Graveyard Wash Reservoir

PROJECT BACKGROUND

The City of St. George came in front of the Board on December 14, 2022 requesting American Rescue Plan Act (ARPA) funding of $10,000,000 for the construction of the Graveyard Wash Reuse Storage Reservoir from the Southern Utah Reuse Grant Program the Board was administering. The total cost of the project at the time is $17,000,000. The reservoir would store Type I treated effluent from St. George Water Reclamation Facility (WRF). The Reservoir would supply secondary irrigation water to St. George, Santa Clara, and Ivins. The dam would be built near where the current Santa Clara Public Works building is, where Graveyard Wash meets the Santa Clara River. The proposed reservoir would have a storage capacity of 2,030 acre-feet and would expand the annual yield of the entire reuse system by 4,000 acre-feet. At the time of the December 2022 Board meeting, the Board authorized $1,934,000 in ARPA Grant funds to St. George for the Graveyard Wash Reservoir project. As significant costs remained for Graveyard Wash, St George lobbied the legislature for additional assistance from the State of Utah's General Fund. The COBI FY23-24 states:

> "St. George - Graveyard Wash Reuse Storage Reservoir
>
> This funding item appropriates $13,066,000 to the Board of Water Quality for the purpose of funding the Graveyard Wash Reuse Storage Reservoir project. This project was previously awarded $1.93 m from the American Rescue Plan Act by the Water Quality Board in a competitive process."

These funds have been deposited into the Board's Hardship Grant Fund account and are currently available for issuance.

PROJECT NEED

St. George is in one of the most arid parts of the State, but has some of the greatest growth in the State. This has strained the water resources in St. George and the rest of Washington County to a point that growth cannot be sustained without water reuse. To decrease pressure on the culinary water supply, St. George has decided to build a reuse water storage reservoir to store treated effluent for secondary irrigation.

IMPLEMENTATION SCHEDULE

Apply to WQB for Funding:	October 2022
WQB Funding Authorization:	December 2022
Commence Design:	June 2021
Issue Construction Permit:	November 2023
Advertise for Bids:	November 2023
Bid Opening:	November 2023
Disbursement Request	January 2024
Commence Construction:	February 2024
Complete Construction:	September 2026

COST SHARING

The total cost of the project is $17,000,000.

Funding Source	Cost Sharing	Percent of Project
Local Contribution	$2,000,000	11.7%
ARPA Funding	$1,934,000	11.4%
COBI Authorization	$13,066,000	76.9%
Total Amount:	$17,000,000	100%

STAFF COMMENTS

Staff supports the project and believes it is an important new storage option for a growing community in Southern Utah. The project is currently being finalized for bidding in November 2023. The Board allocated $1,934,000 in ARPA grant funds through the Southern Utah Reuse Grant Program on December 14, 2022 for the Graveyard Wash Project. Authorization is important so all funds are available for the project prior to awarding the construction contract after bidding. In addition, in accordance with the ARPA Final Rule from the Treasury Department ARPA funding must be expended by no later than December 31, 2026.

STAFF RECOMMENDATION

Staff recommends the Water Quality Board **authorize funding in the amount of $13,066,000 as a grant from the Hardship Grant Fund:**

1. This is a direct grant from the State of Utah Legislature and will not be repaid.

2. St George must agree to participate annually, for at least 20 years, in the Municipal Wastewater Planning Program (MWPP).

3. St George must develop, commit to adopt, and implement a capital asset management plan that is consistent with the requirements of Utah Administrative Code (UAC) R317-3-101.

WATER QUALITY BOARD
FEASIBILITY REPORT FOR SEWER IMPROVEMENT PROJECT

INTRODUCTION

APPLICANT:	Monticello City 17 North 100 East Monticello, Utah 84535 Phone: (435) 587-2271
PRESIDING OFFICIAL:	Mayor Bayley Hedglin Email: bayley@monticelloutah.org and Kaeden Kulow, City Manager Phone: (435) 587-2271 extension 13 Email: kaeden@monticelloutah.org
CONTACT:	Nathan Langston, Public Works Director 17 North 100 East Monticello, Utah 84535 Phone: (435) 587-2271 Email: nathan@monticelloutah.org
TREASURER/RECORDER:	Melissa Gill, City Recorder Phone: (435) 587-2271 extension 12 Email: melissa@monticelloutah.org
CONSULTING ENGINEER:	Scoot Flannery, Project Manager Jones and DeMille Engineering, Inc. 696 North Main Street Monticello, Utah 84535 Phone: (435) 587-9100
BOND COUNSEL:	TBD

APPLICANT'S REQUEST

Monticello City is requesting funding from the Water Quality Board in the amount of **$1,213,093** to upgrade the sewer system by replacing several sections of the system that have reached the end of its service life.

APPLICANT'S LOCATION

Monticello City is located in San Juan County, approximately 287 miles southeast of Salt Lake City.

BACKGROUND

The City of Monticello has a sewer system with nearly 28 miles of sewer pipeline which provides around 798 locations or 876 accounts with sewer services. The majority of the system is clay pipe that was installed in the 1940's. They also have a wastewater lagoon treatment system that was built in the early 1980s.

PROJECT NEED

The City's sewer lines have aged and begun to cause major issues with the sewer system. The City's sewer operator has documented sewer related events and issues since become employed by the City in 2008. These reports' identity five sections of sewer mainline that have been failing due to the extremes in the climate and age of the pipes. One of these sections covers the main connections to the San Juan Hospital, while other sections have been found to have a short distance of failing Orangeburg pipe. This last winter the city had a sewer backup that resulted in the need to borrow equipment from outside

of the City since the block in the line was caused by a tree root and pipe deterioration that couldn't be broken apart by the City's equipment.

City Councilmembers and staff have listed this project as a priority for the past six years due to the negative impacts these sections have had on the community. While working with Jones and DeMille Engineering the City has completed its sewer master plan which identifies two phases of upgrades to the sewer pipeline. The City is asking for assistance from the Utah State Water Quality Board to help fund phase 1 of this project.

PROJECT DESCRIPTION

The proposed project would include replacement of sections of the collection system, which have reached the end of their useful life.

ALTERNATIVES EVALUATED

As this is a replacement project no other alternatives were considered.

POSITION ON PROJECT PRIORITY LIST

The Monticello City project is currently ranked No. 06 of 11 on the FY 2023 Project Priority List (PPL)

IMPLEMENTATION SCHEDULE

Phase 1 design and construction will begin in 2023 and is anticipated to be completed in 2024.

APPLICANTS CURRENT USER CHARGE

Monticello City charges a base rate of $18.60 per month per ERU with a progressive flow-based charge per thousand gallons ($1.63/ thousand gallons for the first 5,000 gallons and $1.75/thousand gallons between 5,000-10,000 gallons). According to the Water Quality Board's criteria of 1.4% of MAGI ($40,400 for Monticello), a rate of $47.13 per month for wastewater service should be exceeded for grant consideration.

COST ESTIMATE

Project Costs		
Admin/Legal/Bonding	$	23,000
Pre-Construction Engineering	$	60,500
Construction Engineering Services	$	70,000
Construction	$	1,127,000
Contingency	$	225,625
Total Project Cost:	**$**	**1,506,125**

COST SHARING

Funding Source	Total	% of Project
Local Contribution	$ 60,000	4%
Local ARPA Funds	$ 233,032	15.5%
WQB Request	$ 1,213,093	80.5%
Total Amount	**$ 1,506,125**	**100.0%**

EFFORTS TO SECURE FINANCING FROM OTHER SOURCES

The City has set aside its ARPA funding as a partial match for this project the City currently has $233,032 set aside for this project. They also had applied to the Governor's Office of Planning and Budget Local Assistance Matching Grant Program, but were unsuccessful.

ESTIMATED ANNUAL COST FOR SEWER SERVICE

Staff developed static cost models (Attachment 1) to evaluate funding by the Board. The cost model analyzes several possible funding options. The resulting Total Annual Sewer Cost is shown for each funding option. Due to the rural nature and this being the first phase of the project staff anticipates that the future recommendation will be a low interest loan.

FINANCIAL BURDEN EVALUATION

The cost for sewer service shows the City does not qualify for grant consideration as part of a funding package under the State Affordability Criteria. In accordance with the Board's Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, staff utilized data from the United State Census Bureau (census) website (https://data.census.gov/cedsci/) to calculate the City's Financial Need Indicator (FNI). The calculated FNI is 1.60. Staff compared this FNI to the percent modified MAGI in the Financial Burden Matrix and displayed the Financial Burden in Attachment 1. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of Low.

As can be seen in the attachment none of the options exceed 1.4% of MAGI. Therefore, the project is affordable as a loan.

STAFF COMMENTS AND RECOMMENDATIONS

The Monticello City Sewer Improvements project will address needed replacement to the sewer system.

This project is being introduced. Staff recommendations will be made in a later Board meeting. A preliminary cost model is included as Attachment 1

DWQ-2023-119703
File: Monticello City, Municipal File

Monticello City
August 23, 2023
Attachment 1

Monticello City
20 Year Static Cost Model
(Attachment 1)

Project Costs	Sewer
Admin/Legal/Bonding	$ 23,000
Pre-Construction Engineering	$ 60,500
Construction Engineering Services	$ 70,000
Construction	$ 1,127,000
Contingency	$ 225,625
Total Project Cost:	**$ 1,506,125**

Project Funding	
Local Contribution	$ 60,000
ARPA Funds	$ 233,032
WQB Funding Requsted	$ 1,213,093
Total Project Cost:	**$1,506,125**

Current Customer Base & User Charges	ERC
Total ERC	672
MAGI (Monticello City 2020):	$ 40,400
1.4% MAGI Sewer Bill:	**$ 47.13**
Current Sewer Bill	$ 18.60
EXISTING DEBT	$ 17,000
O&M Expenses	$ 183,784
Funding Conditions	
Loan Repayment Term:	20

ESTIMATED COST OF SEWER SERVICE

Grant Amount	Loan Amount	Interest Rate	CIB Loan Debt Service	Annual Sewer O&M Cost	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ERU	Sewer Cost as a % of MAGI	Financial Burden
$ -	$ 1,213,093	0.00%	$60,655	$ 183,784	$ 17,000	$ 261,439	32.42	0.96%	Low
$ -	$ 1,213,093	0.25%	$62,259	$ 183,784	$ 17,000	$ 263,044	32.62	0.97%	Low
$ -	$ 1,213,093	0.50%	$63,889	$ 183,784	$ 17,000	$ 264,674	32.82	0.97%	Low
$ -	$ 1,213,093	1.00%	$67,224	$ 183,784	$ 17,000	$ 268,008	33.24	0.99%	Low
$ -	$ 1,213,093	1.50%	$70,657	$ 183,784	$ 17,000	$ 271,442	33.66	1.00%	Low
$ -	$ 1,213,093	1.75%	$72,411	$ 183,784	$ 17,000	$ 273,195	33.88	1.01%	Low
$ -	$ 1,213,093	2.00%	$74,189	$ 183,784	$ 17,000	$ 274,973	34.10	1.01%	Low
$ -	$ 1,213,093	2.50%	$77,816	$ 183,784	$ 17,000	$ 278,601	34.55	1.03%	Low
$ -	$ 1,213,093	3.00%	$81,539	$ 183,784	$ 17,000	$ 282,323	35.01	1.04%	Low
$ -	$ 1,213,093	3.50%	$85,355	$ 183,784	$ 17,000	$ 286,139	35.48	1.05%	Low
$ -	$ 1,213,093	4.00%	$89,262	$ 183,784	$ 17,000	$ 290,046	35.97	1.07%	Low
$ -	$ 1,213,093	4.10%	$90,054	$ 183,784	$ 17,000	$ 290,838	36.07	1.07%	Low

Monticello City
August 23, 2023
Attachment 1-Continued

Monticello City
20 Year Static Cost Model
(Attachment 1- Continued)

Green River City Financial Need Indicator					
Indicators	Local Value	StateValue	Score	Weighting Factor	Weighted Score
unemployment rate	3.50%	3.50%	2.00	4.00	8.00
Poverty Rate	4.20%	8.80%	1.00	2.50	2.50
Threshold LQI	$52,115	$37,685	1.00	2.50	2.50
Population Growth Rate	-13.4%	19.0%	3.00	1.00	3.00
Financial Need Indicator (Sum of weighted Scores/10)					1.60
2021 Population	2237	3,231,370			
2011 Population	2584	2,715,379			

Table 3 Financial Burden Matrix					
	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WATER QUALITY
John K. Mackey, P.E.
Director

WATER QUALITY BOARD
FEASIBILTY REPORT FOR WASTEWATER TREATMENT PROJECT
INTRODUCTION

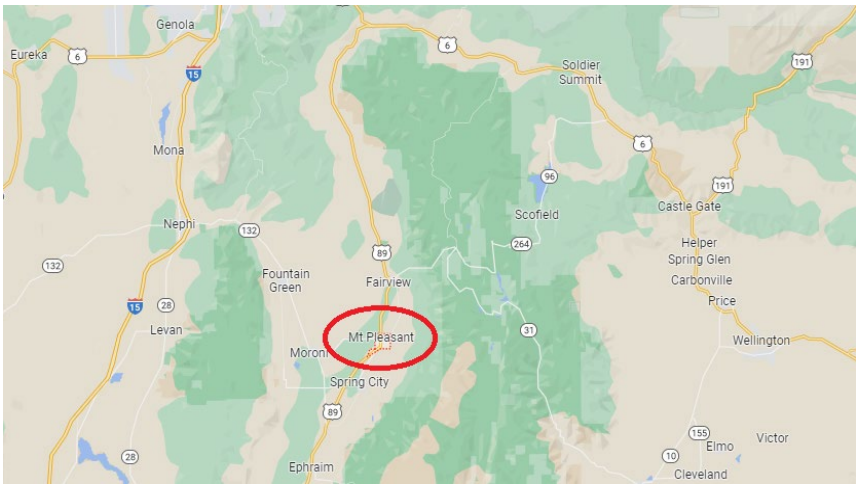
APPLICANT:	Mount Pleasant City 106 West Main Street Mount Pleasant, UT 84647 Telephone: 435-462-2456
PRESIDING OFFICIAL:	Michael Olsen, Mayor Email: mayor@mtpleasantcity.com Telephone: 435-462-2456
TREASURER:	Dave Oxman, Finance Director
CONSULTING ENGINEER:	Gary Vance, P.E. J-U-B Engineers, Inc.
BOND COUNSEL:	Richard Chamberlain
FINANCIAL ADVISOR:	Cody Deeter, President

APPLICANT'S REQUEST

Mount Pleasant City is requesting funding from the Water Quality Board (Board) in the amount $2,670,000 for new construction and upgrades to their existing wastewater treatment facility per the conclusions and recommendations from their 2022 Master Plan. This request is for the following: construction of a new headworks building including mechanical fine screen; installation of a septage receiving station at headworks; and bringing cell #3 of the existing total containment lagoon system on-line to increase capacity.

APPLICANT'S LOCATION

The project is located in Mount Pleasant City, to the south of Provo along Highway 89 in Sanpete County.



PROJECT BACKGROUND

In 2021, Mt. Pleasant City was granted a planning advance by the Board to conduct a study on the condition of the existing collection and treatment system to determine the need for capital improvement projects, including the introduction of a new headworks facility. The study was completed and a Master Plan produced in December 2022. Recommendations from the Master Plan included the installation of a mechanical fine screen upstream of the lagoons, incorporation of septage receiving into the headworks to allow septage to be treated within the lagoon system and better service septage haulers, and expansion of lagoon capacity. Mt. Pleasant City's wastewater treatment facility is classified as a non-discharging wastewater lagoon under General Permit No. UTOP00128, serving approximately 3,698 citizens.

PROJECT NEED

The existing lagoon system does not have a headworks treatment system, and has seen an increase in non-biodegradeable objects entering the system. The 2022 Master Plan recommended the construction of a new headworks facility to handle these solids. Septage receiving capabilities were also recommended with the construction of the headworks facility, as septage is not handled by the lagoon treatment system and is currently dumped into their abandoned Cell #3. A septage receiving station would incorporate septage into the treatment system, as well as provide more accessibility for septage haulers using the facility. Finally, the Master Plan recommended expanding lagoon capacity to meet future growth needs, as their 2-cell system is approaching capacity. To achieve this, the City plans to re-line the abandoned Cell #3 as the original clay liner is damaged with vegetation/cracking and needs replacement. An HDPE geomembrane liner is recommended for intermittent use.

ALTERNATIVES EVALUATED

An alternatives analysis was included in the report and presented to the City Council on November 8th, 2022. The Council selected their preferred alternatives as outlined in the Master Plan – A rotary drum screen in channel with a new headworks building, HDPE geomembrane liner for Cell #3, and a custom septage receiving station.

PROJECT DESCRIPTION

The project will include the construction of a headworks building with mechanical fine screen, installation of a septage receiving station at the new headworks, and lining Cell #3 with an HDPE geomembrane liner.

POSITION ON PROJECT PRIORITY LIST

The Mt Pleasant project is currently ranked No. 04 of 11 on the FY 2023 Project Priority List (PPL).

POPULATION GROWTH

Based on census data collected, the population growth over the past 10 years has been ~1% per year. The 2022 Master Plan estimates a future population growth of 2% per year projected to 2072 based on input from the City.

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT

The City has held several public meetings regarding the project over the past two years and believes the public is well-informed. The City Council is involved and supportive of the project, and has demonstrated their support by implementing sewer impact fees and exploring financial assistance with the Board. A public hearing will be held for the purpose of receiving comments on the project. The City will hold a final public hearing once funding is secured.

IMPLEMENTATION SCHEDULE

Construction is anticipated to begin in April 2024, with construction expected to be completed by the end of 2025.

APPLICANT'S CURRENT USER CHARGE

The current user charges are based on water usage, with a base rate of $17.50 for up to 3,000 gallons, and an overage rate of $1.75 per 1,000 gallons. There is a $400 sewer connection fee, and a $3,000 sewer and water excavation inspection fee. The current impact fee is $1,557. According to the Water Quality Board's criteria of 1.4% of MAGI ($46,300 for Mt Pleasant), a rate of $54.02 per month for wastewater service should be exceeded for grant consideration.

COST ESTIMATE

The total cost of the project and request for funding is $2,670,000. This includes 15% Engineering Design & CMS and a 50% contingency with the cost estimate. A breakdown of the cost by project is included below.

Headworks Building	$1,150,000
Septage Receiving Station	$270,000
HDPE liner in Cell #3	$1,250,000
Total Cost	**$2,670,000**

EFFORTS TO SECURE FINANCING FROM OTHER SOURCES

Mt Pleasant is a small community and bonding on the private market would likely be infeasible. In addition, credit enhancement agreements and interest buydown agreements are either unavailable or unreasonably expensive.

STAFF COMMENTS AND RECOMMENDATION

Staff is very supportive of the project. The City has done an excellent job of maintaining the system and keeping rates low, and this project addresses an immediate need for a small rural community with limited capital funds available. The septage receiving station likely meets the requirements of Green Project Reserve which is a requirement of the Annual Capitalization Grant from EPA.

No staff recommendations for funding are included in this report, as this is an introduction of the project.

Mt Pleasant - Water Quality Board
20 Year Loan Static Cost Model

Project Costs

Legal/Bonding		$ 30,000
DWQ Loan Origination Fee		$ 27,000
Engineering - Design & CMS (15%, included in total cost)		
Headworks Building	$ 1,150,000	
Septage Receiving Station	$ 270,000	
HDPE liner in Cell #3	$ 1,250,000	
Construction subtotal		**$ 2,670,000**
Contingency (50%, included in construction costs)		
Total Project Cost:		**$ 2,700,000**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	1,266
MAGI for Mt Pleasant (2020):	$40,800
Affordable Monthly Rate at 1.4%	$47.60
Impact Fee (per ERU):	$1,557
Current Monthly Fee (per ERU)	$22.50
Debt Service	$0
Annual O&M expense	$300,000

Project Funding

Local Contribution	$ -
Amount to be Funded	**$ 2,700,000**
WQB Grant	**$ -**
Total Project Cost:	**$ 2,700,000**

Funding Conditions

Loan Repayment Term:	20
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

WQB PF	WQB Loan	WQB Loan Interest Rate	WQB Loan Debt Service	WQB Loan Reserve	Annual Sewer	Existing Debt Service	Total Annual	Monthly Sewer Cost/	Sewer Cost as % of MAGI	Financial Burden
-	2,700,000	0.00%	135,000	33,750	300,000	0	468,750	30.86	0.91%	LOW
-	2,700,000	0.50%	142,199	35,550	300,000	0	477,749	31.45	0.92%	LOW
-	2,700,000	1.00%	149,621	37,405	300,000	0	487,027	32.06	0.94%	LOW
-	2,700,000	1.50%	157,263	39,316	300,000	0	496,579	32.69	0.96%	LOW
-	2,700,000	2.00%	165,123	41,281	300,000	0	506,404	33.33	0.98%	LOW
-	2,700,000	2.50%	173,197	43,299	300,000	0	516,497	34.00	1.00%	LOW
-	2,700,000	3.00%	181,482	45,371	300,000	0	526,853	34.68	1.02%	LOW
-	2,700,000	3.50%	189,975	47,494	300,000	0	537,469	35.38	1.04%	LOW
-	2,700,000	4.00%	198,671	49,668	300,000	0	548,338	36.09	1.06%	LOW
-	2,700,000	4.50%	207,566	51,891	300,000	0	559,457	36.83	1.08%	LOW

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	3.7%	3.6%	2.05	4	8.20	S2301
Poverty Rate	18.6%	9.1%	2.90	2.5	7.25	S1701
Threshold LQI	$ 26,957	$ 35,445	1.96	2.5	4.90	B19080
Population Growth Rate	9.0%	18.6%	1.97	1	1.97	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**2.23**	

2020 5 year ACS Table

** https://data.census.gov/cedsci/

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

WATER QUALITY BOARD
FEASIBILITY REPORT FOR SEWER IMPROVEMENT PROJECT

INTRODUCTION

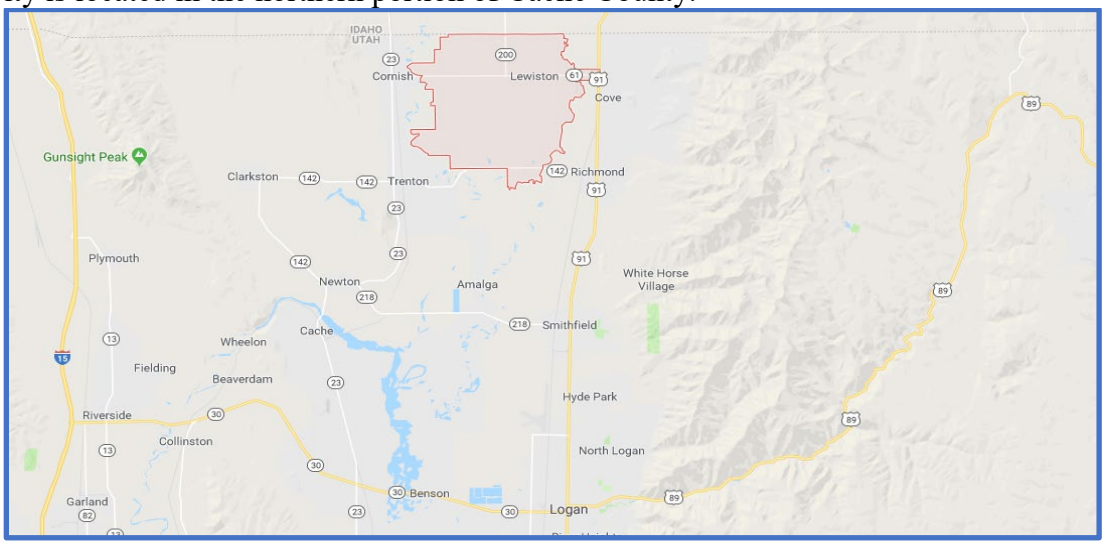
APPLICANT:	Lewiston City 29 South Main Lewiston, Utah 84320 Telephone: 435-258-2141
CONTACT PERSON:	Mayor Jeff Hall
TREASURER/RECORDER:	Mary Simpson
CONSULTING ENGINEER:	Gary Vance, P.E. J-U-B Engineers. 801-547-0393
CITY ATTORNEY:	Miles P. Jensen Olson & Hoggan P.C. 435-752-1551
BOND COUNSEL:	Eric Johnson Blaisdell Church & Johnson
FINANCIAL ADVISOR:	Cody Deeter EFG Consulting, LLC

APPLICANT'S REQUEST:

Lewiston City is requesting funding from the Water Quality Board in the amount of **$6,512,000** to upgrade the sewer system and connect its collection system to the Richmond MBR treatment plant.

APPLICANT'S LOCATION

Lewiston City is located approximately 27 miles north of Lewiston on the Utah-Idaho Border. The City is located in the northern portion of Cache County.



BACKGROUND

The City owns and operates a collection and lagoon wastewater systems. The system as currently configured is not capable of meeting the capacity and the future needs of the city. The collection system includes a lift station, around 3.3 miles of 8", 1.3 miles of 10" of bell and spigot concrete pipe constructed in 1974. The treatment system was constructed in 1974 and was designed as a three-cell total containment facultative lagoon treatment system. Chlorine disinfection and sulfur dioxide de-chlorination were added to the treatment facility in 1999. The lagoons discharge intermittently to the Cub River.

PROJECT NEED

The City completed a Wastewater Collection System and Treatment Facilities Plan in January 2020. The Facilities Plan recommended updated collection, treatment and land application to deal with future capacity and nutrient limits that could be imposed by the Cub River TMDL, phosphorus load cap rule, and growth in the community.

ALTERNATIVES EVALUATED

The Facilities Plan evaluated the following alternatives:

- Alternative 1: No action
- Alternative 2: Upgrade Collection and Lagoon Systems
- Alternative 3: Upgrade Lagoons, Winter Storage, and Land Apply All Effluent
- Alternative 4: Full Regionalization with Richmond

Alternative 3

Alternative 3 consists of improvements and upgrades to replace aging infrastructure, eliminate capacity limitations, improve lagoon wastewater treatment performance and enhance the overall system maintainability, flexibility, reliability, and customer service prior to discharge into the Cub River. The Alternative includes construction of a new lift station, 7,200 feet of sewer pipe capacity upgrades, treatment plant headworks upgrade, increased lagoon aeration capacity, new chlorination and de-chlorination facilities, and a new effluent reaeration facility. These improvements are needed to upgrade lift station and improve wastewater lagoon treatment performance and reliability.

Lewiston pursued Alternative 3 bidding the project twice. Lewiston appeared in front of the Board twice first receiving a $500,000 hardship grant. After bids came in high Lewiston reappeared in front of the Board resulting in undisbursed hardship grant funds de-obligated and $1,400,000 in funding authorized including a $400,000 loan at 0% for a term of 30 year and $1,000,000 in principal forgiveness. After the bids came in high again in winter 2023 Lewiston enquired if the Board had additional grant funds but they had been all authorized during October 2022. Lewiston did not indicate any interest if returning for addition loan funds which were available. Lewiston did not apply to United States Department of Agriculture-Rural Development (USDA-RD) which likely had additional funds available as a grant/loan blend.

Alternative 3 project is a total of $6,436,000. In addition to the $1,400,000 of Board funding previously discuss, the Alternative had funds authorized from USDA-RD as a $2,052,000 1.875% interest 40-year loan and $483,000 of grant funds for a total of $2,535,000. Lewiston City now has $1,500,000 in the sewer fund from sale of land for commercial development. The following cost sharing is proposed for this project including lagoon treatment system:

Funding Source	Cost Sharing	Percent of Project
Local Sewer Fund	$1,500,000	23%
WQB Funding	$1,400,000	22%
USDA-RD Funding	$2,535,000	39%
Total:	$6,436,000	100%
Funding Shortfall	$1,001,000	16%

Staff has included a cost model for Alternative 3 as Attachment 1. Staff indicated to Lewiston that as it is a new fiscal year there are additional principal forgiveness funds available which Alternative 3 would be eligible for Board consideration. Lewiston stated they wished to pursue Alternative 4 to connect to Richmond's treatment plant. As Alternative is substantially different from the previous project scope of work staff has removed Lewiston's previous Board authorization from the August 2023 Financial Report. Lewiston hopes to redirect the USDA-RD funding to Alternative 4, however during a phone call with USDA-RD staff they indicated this would be challenging.

Alternative 4

The proposed project would include the improvement of the collection system, connecting to the regional Richmond MBR wastewater treatment facility. It will address current and future treatment needs by pumping sewer flows to the Richmond City mechanical treatment plant, thereby eliminating the current Lewiston treatment lagoons. The City feels that this regionalization of treatment will be a long-term solution for the community. Effluent quality will be greatly improved by regionalizing and treating the city's sewer in Richmond's MBR. This also opens up Type 1 reuse opportunities.

The existing collection system lift station is over 50 years old and is undersized for current and future flows. The main sewer trunk line is also aging and has inadequate capacity and experiences surcharging within the system. The proposed project will address the existing lift station aging and main trunk deficiencies. The recommended Alternative is No. 4, which is to improve the collection system and connect to the Richmond MBR treatment works.

PROJECT DESCRIPTION

The propose project will improve collections and convey the city's wastewater to Richmond City's MBR wastewater treatment system for treatment and disposal. As part of this project, the following improvements will be implemented:

Refurbish the Existing Lift Station. This lift station and the equipment is old and showing signs of corrosion, the lift station will be refurbished with a new lining system, new pumps and rails, controls, SCADA and backup power

New Pump Station. A new pump station will be installed near the bottom of the system that will pump-the City sewer flows through a force main to an intermediate pump station. The new pump station will be complete with SCADA and backup power.

Force Main. A new 2-mile force main pipe will be installed from the new pump station and south along 800 E where it will transition into a gravity system.

Gravity System. A new 1/2-mile gravity sewer will be installed to convey the flows from the force main along 800 E down the hill and under the Cub River to the Intermediate Pump Station.

Intermediate Pump Station. A new intermediate pump station will be installed on the west side of the Cub River that will pump the City sewer flows through a 2.21-mile force main to the Richmond Treatment Plant headworks. The new pump station will be complete with SCADA and backup power.

POPULATION GROWTH

The population of the City is projected growth at an annual rate used will be 1.20% by United States Census Bureau. Current populations and associated ERUs are shown in the table below along with the 20-year projections.

	Year	Population	ERU[2]	Population on Sewer	ERU on Sewer[2]
Current	2020	1,776	456	885	300
Design	2039	2,515	796	1,440	488

[2]ERU = Equivalent Residential Connection.

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT:

Public Meetings and several City Council meetings were held to discuss the initial project and potential funding of Alternative 3. City council has discussed the Alternative 3 in several open public meetings. The council was in favor of a project that will serve long term needs and the elimination of the City's lagoon treatment facility provided that the financial aspects can be satisfied. This includes the support of the council to raise user rates to meet those financial needs. It is not clear the City Council discussed the sort of rates estimated for Alternative 4.

The public hearings will be held as required when funding is authorized. The City will hold a final public hearing once funding is secured.

IMPLEMENTATION SCHEDULE:

Public Meeting	July 2023
Apply to WQB for Funding:	August 2023
Public Hearing:	October 2023
WQB Funding Authorization:	September 2023
Advertise EA (FONSI):	October 2023
Engineering Report Approval:	Novenary 2023
Commence Design:	December 2023
Issue Construction Permit:	October 2024
Advertise for Bids:	January 2025
Bid Opening:	February 2025
Loan Closing:	April 2025
Commence Construction:	June 2025
Complete Construction:	June 2026

PROJECT PRIORITY LIST

The proposed project was ranked 7 out of 11 on the project priority list.

APPLICANT'S CURRENT USER CHARGE:

Currently, the City charges a sewer user fee of approximately $53.00 per residential and non-residential connection per month. There are approximately 456 ERUs in the City with 300 ERUs on the sewer. The City's median adjusted gross income (MAGI) in 2021 was $47,000 and the affordable monthly fee was $54.83. The cost of this project will result in a sewer services exceeding 1.4% of the local MAGI if the Richmond MBR for treatment in be selected.

COSTS SHARING:

The following cost sharing is proposed for this project including treatment connecting Richmond MBR treatment system:

Funding Source	Cost Sharing	Percent of Project
Local Cost	$1,500,000	14%
WQB Funding	$6,512,000	62%
USDA-RD Funding	$2,535,000	24%
Total:	$10,547,000	100%

COST ESTIMATE:

Project Costs

Legal/Bonding/ Easement/Water Rights/ Environmental/ NEPA	$297,000
DWQ Loan Origination Fee	60,000
Engineering - Design & CMS	$710,000
Capacity Purchase to Richmond City's Treatment	$2,280,000
Construction	$6,000,000
Contingency (21%)	$1,200,000
Total:	$10,547,000

EFFORTS TO SECURE FINANCING FROM OTHER SOURCES:

The City intends to reapply to USDA-RD to apply the previously authorized Alternative 3 funds to Alternative 4. This request will be presented during the USDA-RD's meeting that will be held in September 2023.

ESTIMATED ANNUAL COST FOR SEWER SERVICE:

In order to develop a valid detailed cost model staff requires the cost to purchase capacity in the Richmond treatment plant and the monthly rate for treatment at the Richmond treatment plant. These costs would be defined in an interlocal agreement between Lewiston and Richmond which does not exist yet. These costs will be taken from the Preliminary Engineering Report (PER) from March 2020. Discussion were held with Richmond during the preparation of this report but costs may be outdated. The PER estimates $2,280,000 in capacity cost and $47/month per ERU in treatment costs.

According to the Richmond website the sewer fee is $77/month for up to 20,000 gallons of wastewater discharged into the system. The PER estimates the City's annual average wastewater flow at approximately 100,000 gpd. Assuming Richmond applied the $77 per 20,000 gallons this results in a cost of approximately $40/month per ERU. The website states the impact fee to Richmond for a 4" connection in 2023 is $7,952.

Staff developed static cost model for Alternative 4 (Attachment 2) to evaluate funding by the Board. The cost model analyzes several possible funding options. The resulting Total Annual Sewer Cost is shown for each funding option. Staff estimates the City will grow by 126 ERUs over 19 years with an impact fee of $8,056 per ERU that is $80,0650/yr. in impact fees. Incorporating these impact fees and $3,800,000 in principal forgiveness (the maximum staff believes is available for the FY23 application period) from the Board the projected **sewer rate is $109**. In order to reduce the monthly rate more the City would either have to find additional City funds, grant funds from another source, get Richmond to dismiss the impact fees, or reduce the monthly treatment fee.

FINANCIAL BURDEN EVALUATION:

The cost for sewer service shows the City will qualify for grant consideration as part of a funding package under the State Affordability Criteria. In accordance with the Board's Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, staff utilized data from the United State Census Bureau (census) website (https://data.census.gov/cedsci/) to calculate the City's Financial Need Indicator (FNI). The calculated FNI is 1.14 which is the bottom of the range of the FNI. Staff compared this FNI to the percent modified MAGI in the Financial Burden Matrix and displayed the Financial Burden in Attachment 1 or Attachment 2.

Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, Alternative 3 would result in the community having a Financial Burden of Low. However, based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, Alternative 4 would result in the community having a Financial Burden of **High**.

STAFF COMMENTS

The recommended Alternative 4 would connect the City's sewer to the regional wastewater treatment plant in Richmond City, linking the regional needs for water quality protection. Staff supports the city's project to improve a collection and treatment improvements that will protect the water quality. Alternative 4 will enable the City to sustain its public health, current rate of growth and aging infrastructure. Through regionalization of wastewater treatment services, the City utilities often benefit from reduced capital and operational costs, and increased economies of scale. Efficiencies of regionalization are achieved in administrative tasks (billing, planning, rate setting or engineering services) and operational tasks (equipment maintenance, sampling, laboratory testing, day-to-day operations).

Staff remains uncertain if the City is fully prepared to take on Alternative 4 at the projected monthly sewer rates. Staff would feel more comfortable proceeding with a funding authorization if the City held a public meeting detailing the project and the projected monthly user rates. In addition, a draft interlocal agreement would greatly aid cost evaluations.

Staff does not have a strong preference between Alternative 3 and 4. Both are good projects which will protect water quality and result in a long-term solution for Lewiston. Lewiston has appeared in front of the Board other times in pursuit of a project. Staff would like to see a successful project in Lewiston and is concerned about the bidding environment and the potential impacts of a Board authorization on USDA-RD funds.

One idea is a potential Board authorization which might offer Lewiston some discretion in the Alternative ultimately selected. One such approach the Board might consider is an authorization at a grant/loan ratio with a not to exceed total funding amount. This is not a typical authorization from the Board but would give the Executive Secretary to the Board the ability to set the final grant and loan amounts after bids are received. Staff has added a "WQB Grant Percent" column in the Attached Cost Models so the Board can consider the concept.

Another potential idea would be to reserve some funds on the Financial Report and ask Lewiston to report back a meeting potentially later than October when project details are more developed. While this idea might add clarity for staff and the Board it would pose challenges to Lewiston's leadership while trying to do outreach on a very financially challenging project. Staff would encourage Board discussion on this topic with Lewiston and during the September Finance Committee meeting.

No staff recommendations for funding are included in this report, as this is an introduction of the project.

DWQ-2023-121503
File: SRF-Lewiston City, Administration, Section 1

ATTACHEMENT 1

Lewiston City - Water Quality Board

30 Year Loan Static Cost Model - Lewiston's Collection and Lagoon treatment system

Project Costs		
Legal/Bonding - Environmental		$ 40,000
DWQ Loan Origination Fee		$ -
Engineering - Design & CMS		$ 433,000
Collections	$ 1,700,000	
Lift station	$ 1,500,000	
Headworks	$ 1,300,000	
Lagoon Treatment	$ 1,000,000	
Construction subtotal		$ 5,500,000
Contingency		$ 463,000
Total Project Cost:		**$ 6,436,000**

Project Funding	
Local Sewer Fund	$ 1,500,000
Requested Funding	**$ 2,401,000**
USDA-RD Existing Grant	$ 483,000
USDA-RD Existing Loan	$ 2,052,000
Total Project Cost:	**$ 6,436,000**

Current Customer Base & User Charges	
Initial Total Customer (ERU's)	300
MAGI for Lewiston City (2021):	$47,000
Affordable Monthly Rate at 1.4%	$54.83
Impact Fee (per ERU):	$8,065
Current Monthly Fee (per ERU)	$53.00
Debt Service	$0
Annual O&M expense	$109,000

Funding Conditions	
Loan Repayment Term:	30
Reserve Funding Period:	6

USDA-RD Funding Conditions	
USDA-RD Loan Repayment Term	40
USDA-RD Interest Rate	1.875%

ESTIMATED COST OF SEWER SERVICE

Principal Forgiveness	WQB Grant Percent	WQB Loan	RD Loan	WQB Loan Interest Rate	RD Loan Interest Rate	WQB Loan Debt Service	WQB Loan Reserve	RD Loan Debt Service	Annual Sewer	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Sewer Cost as % of MAGI	Financial Burden
-	**0%**	2,401,000	2,052,000	0.00%	1.875%	80,033	20,008	91,722	109,000	220,114	61.14	1.56%	**Medium**
1,000,000	**42%**	1,401,000	2,052,000	0.00%	1.875%	46,700	11,675	91,722	109,000	259,097	71.97	1.84%	**low**
1,400,000	**58%**	1,001,000	2,052,000	0.00%	1.875%	33,367	8,342	91,722	109,000	242,430	67.34	1.72%	**low**
1,850,000	**77%**	551,000	2,052,000	0.00%	1.875%	18,367	4,592	91,722	109,000	223,680	62.13	1.59%	**low**
2,000,000	**83%**	401,000	2,052,000	0.00%	1.875%	13,367	3,342	91,722	109,000	217,430	60.40	1.54%	**low**
2,350,000	**98%**	51,000	2,052,000	0.00%	1.875%	1,700	425	91,722	109,000	202,847	56.35	1.44%	**low**
2,401,000	**100%**	0	2,052,000	0.00%	1.875%	0	0	91,722	109,000	200,722	55.76	1.42%	**low**

FNI Calculation	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	0.5%	3.6%	1.00	4	4.00	S2301
Poverty Rate	3.2%	8.8%	1.00	2.5	2.50	S1701
Threshold LQI	$42,063	$37,685	1.00	2.5	2.50	B19080
Population Growth Rate	13.6%	19.0%	2.43	1	2.43	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**1.14**	
2020 5 year ACS Table				** https://data.census.gov/cedsci/		

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	High	High	High	High

Attachment 1 – Alternative 3 Lagoon Upgrades

ATTACHEMENT 2

Lewiston City - Water Quality Board

30 Year Loan Static Cost Model - Connect to Richmond MBR Treatment Plant

Project Costs		
Legal - Right of Way		$ 60,000
Legal/Bonding -		$ 59,000
DWQ Loan Origination Fee		$ 60,000
Engineering - Design		$ 355,000
Engineering - CMS		$ 325,000
Engineering - Planning		$ 30,000
Capacity Purchase to Richmond		$ 2,280,000
Environmental		$ 59,000
Legal Services		$ 119,000
Construction - Pump Station	$1,700,000	
Construction - Collection Sewer	$1,500,000	
Construction - Mobilization/Demobilization	$ 500,000	
Construction - 8" PVC Force Main	$1,500,000	
Construction - Decommission :Lagoon	$ 800,000	
Construction subtotal		$ 6,000,000
Contingency (21%)		$ 1,200,000
Total Project Cost:		**$ 10,547,000**

Project Funding	
Requested Funding by WQB	**$ 6,512,000**
Lewiston Sewer Fund	$ 1,500,000
USDA-RD Existing Grant	$ 483,000
USDA-RD Existing Loan	$ 2,052,000
Total Project Cost:	**$ 10,547,000**

Current Customer Base & User Charges	
Initial Total Customer (ERU's)	300
MAGI for Lewiston City (2021):	$47,000
Affordable Monthly Rate at 1.4%	$54.83
Impact Fee (per ERU):	$8,065
Current Monthly Fee (per ERU)	$53.00
Existing Debt	$0
Annual O&M Collection	$109,000
Richmond Impact fee 4" (2023)	$7,952
Annual O&M for Richmond's Treatment	$169,200
Monthly Treatment to Richmond	$47

Funding Conditions	
Loan Repayment Term:	30
Reserve Funding Period:	10

USDA-RD Funding Conditions	
USDA-RD Loan Repayment Term	40
USDA-RD Interest Rate	1.875%

ESTIMATED COST OF SEWER SERVICE

Principal Forgiveness	WQB Grant Percent	WQB Loan	Existing RD Loan	WQB Loan Interest Rate	RD Loan Interest Rate	WQB Loan Debt Service	WQB Loan Reserve	RD Loan Debt Service	Annual O&M - collection & Treatment	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Sewer Cost as % of MAGI	Financial Burden
1,200,000	**18%**	5,312,000	2,052,000	0.00%	1.875%	177,067	26,560	91,722	278,200	573,549	159.32	4.07%	**HIGH**
1,500,000	**23%**	5,012,000	2,052,000	0.00%	1.875%	167,067	25,060	91,722	278,200	562,049	156.12	3.99%	**HIGH**
2,000,000	**31%**	4,512,000	2,052,000	0.00%	1.875%	150,400	22,560	91,722	278,200	542,882	150.80	3.85%	**HIGH**
2,177,500	**33%**	4,334,500	2,052,000	0.00%	1.875%	144,483	21,673	91,722	278,200	536,078	148.91	3.80%	**HIGH**
3,000,000	**46%**	3,512,000	2,052,000	0.00%	1.875%	117,067	17,560	91,722	278,200	504,549	140.15	3.58%	**HIGH**
3,800,000	**58%**	2,712,000	2,052,000	0.00%	1.875%	90,400	13,560	91,722	278,200	473,882	131.63	3.36%	**HIGH**

FNI Calculation	**Lewiston City**						
	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	0.5%	3.6%	1.00	4	4.00	S2301
Poverty Rate	3.2%	8.8%	1.00	2.5	2.50	S1701
Threshold LQI	$42,063	$37,685	1.00	2.5	2.50	B19080
Population Growth Rate	13.6%	19.0%	2.43	1	2.43	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**1.14**	
2020 5 year ACS Table				** https://data.census.gov/cedsci/		

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	low	Medium	Medium	High
1.5 to 2.5	Medium	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

Attachment 2 – Alternative 4 Connection to Richmond MBR Treatment Plant

State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WATER QUALITY
John K. Mackey, P.E.
Director

WATER QUALITY BOARD
FEASIBILITY REPORT FOR WASTEWATER TREATMENT PROJECT

INTRODUCTION

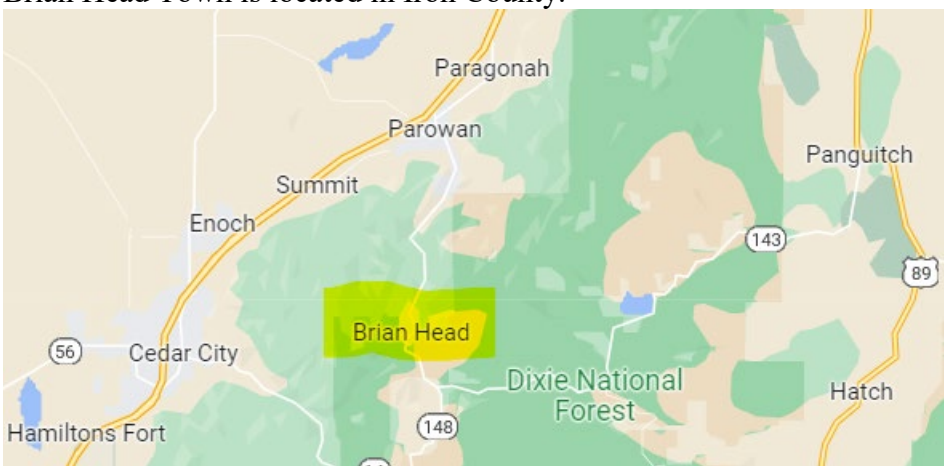
APPLICANT:	Brian Head Town 56 North Highway 143 PO Box 190068 Brian Head Town, 84719 Telephone: (435) 677-2029
PRESIDING OFFICIAL	Bret Howser, Town Manager
CONTACT:	Aldo Biasi, Public Works Director
TREASURER:	Shane Williamson
CONSULTING ENGINEER:	Todd Gardner, Project Engineer Alpha Engineering (435) 628-6500
BOND COUNSEL:	Eric Johnson Blaisdell, Church, and Johnson
FINANCIAL ADVISOR	Marcus Keller, Managing Director Crews & Associates, Inc.

APPLICANT'S REQUEST

The Brian Head Town is requesting funding from the Water Quality Board in the amount of **$8,398,155** to install wastewater collection lines into newly annexed areas of the Town. The Town would split these projects into different timelines with a preference of installing wastewater lines at Ponderosa Drive and Snow Show Drive/Toboggan Circle during this funding cycle for $**1,687,838**.

APPLICANT'S LOCATION

Brian Head Town is located in Iron County.



PROJECT BACKGROUND

Main water lines are being extended into areas of Brian Head for fire protection. With the extension of these lines Brian Head would like to install sanitary sewer lines. In addition, Southwest Utah Department of Health has recently implemented a policy of not issuing septic permits for properties with year-round access which intend to employ water hauling as a culinary water solution. With this policy the development of new homes will not be possible without the expansion of water lines.

In response Brian Head has a goal to develop water and sewer service throughout town. In pursuit of this goal Brian Head has developed numerous Special Assessment Areas (SAA) for water service in Town. On such SAA is the Ponderosa Drive and Snow Show Drive/Toboggan Circle area (Ponderosa Area).

PROJECT NEED

The Town has a large tourism industry and would like to develop these new areas with culinary and wastewater lines. The Town of Brian Head has received funding to install culinary water lines into newly annexed areas. The Town discharges their wastewater into the Town of Parowan's Wastewater Treatment Facility. Currently, the Ponderosa Area is fully funded to install water service throughout the area.

PROJECT DESCRIPTION

In discussions with Town staff the application was split into two separate potential funding requests options of the Full Project and Ponderosa Area.

Full Project
Brian Head would like to install wastewater lines into annexed areas of the town. These areas are mostly development with a few current houses that have installed septic systems along with water hauling.

With the new health department policy septic permits will not be issued to houses that employ water hauling. The Town would like to install wastewater lines to 12 different areas of the Town; 1. Ponderosa Drive Sewer; 2. Snow Shoe/Toboggan Circle, 3. Mountain View Drive A, 4. Mountain View Drive B, 5. Mountain View Drive C, 6. Mountain View Drive D, 7. Mountain View Drive E, 8. Mountain View Drive F, 9. Ridge Top Drive A, 10. Ridge Top Drive B, 11. Aspen Drive Sewer A, and 12. Aspen Drive Sewer B.

Ponderosa Area
Currently, the town is installing culinary water lines to Snow Shoe Drive/Toboggan Circle to reduce the cost of construction in the area the Town would like to install wastewater lines at the same time. If Snow Shoe Drive/Toboggan Circle install wastewater lines the Town would like to complete the run of wastewater lines by installing them on Ponderosa Drive.

ALTERNATIVES EVALUATED

The Town is working on a septic density study to determine if water can be installed in the SAAs without the need for wastewater collection to be installed.

POSITION ON PROJECT PRIORITY LIST

Brian Head is currently ranked No. **10** of 11 on the FY 2023 Wastewater Treatment Project Priority List (PPL).

POPULATION GROWTH

Based on the 2020 US Census data the 2020 population was 35. According to the State's projections the Town of Brian Head has a negative growth rate of -31% from 2010 to 2020. This results in a build out population of 20 people in 2050. These population figures from the Census are not very relevant as the area is dominated by tourism, a ski resort, and second homes.

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT

Brian Head has held a number of public meeting on the water projects but not the proposed sewer projects.

EFFORTS TO SECURE FINANCING FROM OTHER SOURCES

The Town intends to apply to all funding options that it is able to. Brian Head is a small community and bonding on the private market would likely be infeasible. In addition, credit enhancement agreements and interest buydown agreements are either unavailable or unreasonably expensive.

IMPLEMENTATION SCHEDULE

Full Project
Construction will be initiated in 2024 – 2025 and finished in 2025 – 2026.

Ponderosa Area

The Town intends to bid the water project in February 2024 with construction summer of 2024.

APPLICANT'S CURRENT USER CHARGE

Currently, Brian Head Town charges approximately $42 per ERU. According to the Utah Water Quality Board's criteria of 1.4% MAGI ($24,900 for Brian Head), a rate of $29.05 per month for wastewater service should be exceeded for grant consideration. The impact fee is $1,096.91 and the hookup fee is $350.

COST ESTIMATE

Full Project
The total cost of the project is estimated to be $8,398,155. A breakdown of these costs follows:

Legal/Bonding	$30,000
Loan Origination Fee	$60,000
Design	$744,936
Collection System	$5,817,861
Contingency (30%)	$1,745,358
Total Project Costs	$8,398,155

Ponderosa Area
The total cost of the Snow Shoe Drive/Toboggan Circle and Ponderosa Drive project is estimated to be $1,687,838. A breakdown of these costs follows:

Legal/Bonding	$30,000
Loan Origination Fee	$20,000
Design	$108,807
Collection System	$1,176,178
Contingency (30%)	$352,853
Total Project Costs	$1,687,838

COST SHARING

Full Project

Funding Source	**Cost Sharing**	**Percent of Project**
Local Contribution	$381,589	4.5%
WQB Funding	$8,016,566	95.5%

Ponderosa Area

Funding Source	**Cost Sharing**	**Percent of Project**
Local Contribution	$381,589	22.6%
WQB Funding	$1,306,249	77.4%

ESTIMATED ANNUAL COST FOR SEWER SERVICE

Two cost models which analyzes possible funding options are included as Attachment 1 and Attachment 2 for the Full Project and Ponderosa Area, respectively. The resulting total annual sewer cost is shown for each funding option.

FINANCIAL BURDEN EVALUATION

In accordance with the Board's Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, staff utilized data from the United State Census Bureau (census) website (https://data.census.gov/cedsci/) to calculate the City's Financial Need Indicator (FNI). The calculated FNI is 2.12. Staff compared this FNI to the percent modified MAGI in the Financial Burden Matrix and displayed the Financial Burden in Attachment 1 and 2. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of High.

Staff ran the cost models and the Board financial burden evaluation for consistency between Feasibility Reports. The cost for sewer service shows the Town qualifies for grant consideration as part of a funding package under the State Affordability Criteria. Staff's evaluation is only the 35 permanent residents (according to the census) would qualify for grant consideration and as this project would not serve these residents. Thus, staff believes the project does not qualify for consideration.

STAFF COMMENTS

Staff is supportive of Brian Head's efforts to bring water and sewer service to the developable land in the Town. The project will address needed replacement to the sewer system and help to protect the local groundwater aquifer from the use of septic systems. This project is primarily for development and the Water Quality Board has not historically funded development projects with a mantra "Growth should pay for growth." However, this project would address historic subdivisions which would likely lead to impacts to the local groundwater aquifer.

Staff believes the costs of these projects should be directly charged to the land owners which will be supplied new water and sewer service and allow their properties to be "buildable". While this is the case for the water service, it is not the case for the sewer project costs. Staff is very concerned the cost of this project would largely be placed on the existing rate payers in the Brian Head Town.

Staff is more supportive of the Ponderosa Area Project since it just makes sense to put sewer service in with the water service project. Staff has suggested to the Town they should re-evaluate their approach to the additional SAAs to include addressing sewer service or find another sewer service charge remedy to charge the cost of this project to the local land owners receiving new sewer service.

No staff recommendations for funding are included in this report, as this is an introduction of the project.

ATTACHMENT 1
Brian Head - Water Quality Board
30 Year Loan Static Cost Model

Project Costs

Legal/Bonding	$	30,000
Loan Origination Fee	$	60,000
Engineering - Design & CMS	$	744,936
Wastewater Collection System	$	5,817,861
Contingency (30%)	$	1,745,358
Total Project Cost:	**$**	**8,398,155**

Project Funding

Local Contribution	**$**	**381,589**
Amount to be Funded	**$**	**8,016,566**
WQB Grant	**$**	-
Total Project Cost:	**$**	**8,398,155**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	1,650
MAGI for Brian Head Town (2020):	$24,900
Affordable Monthly Rate at 1.4%	$29.05
Impact Fee (per ERU):	$1,097
Current Monthly Fee (per ERU)	$42.00
Debt Service	$0
Annual O&M Cost of Collections	$518,163
Cost of Treatment	$177,402

Funding Conditions

Loan Repayment Term:	30
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

WQB PF	WQB Loan	WQB Loan Interest Rate	WQB Loan Debt Service	WQB Loan Reserve	Annual Sewer Cost	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Sewer Cost as % of MAGI	Financial Burden
0	8,016,566	0.00%	267,219	66,805	$695,565	$0	$1,029,589	52.00	2.51%	HIGH
0	8,016,566	0.50%	288,427	72,107	$695,565	$0	$1,056,099	53.34	2.57%	HIGH
0	8,016,566	1.00%	310,627	77,657	$695,565	$0	$1,083,849	54.74	2.64%	HIGH
0	8,016,566	1.50%	333,803	83,451	$695,565	$0	$1,112,819	56.20	2.71%	HIGH
0	8,016,566	2.00%	357,939	89,485	$695,565	$0	$1,142,989	57.73	2.78%	HIGH
0	8,016,566	2.50%	383,013	95,753	$695,565	$0	$1,174,331	59.31	2.86%	HIGH
0	8,016,566	3.00%	408,999	102,250	$695,565	$0	$1,206,814	60.95	2.94%	HIGH
0	8,016,566	3.50%	435,871	108,968	$695,565	$0	$1,240,404	62.65	3.02%	HIGH
0	8,016,566	4.00%	463,599	115,900	$695,565	$0	$1,275,064	64.40	3.10%	HIGH

*Staff Estimate

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	0.0%	3.5%	1.00	4	4.00	S2301
Poverty Rate	17.1%	8.8%	2.66	2.5	6.65	S1701
Threshold LQI	$ 11,250	$ 37,685	3.00	2.5	7.50	B19080
Population Growth Rate	-31.0%	19.0%	3.00	1	3.00	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**2.12**	

** https://data.census.gov/cedsci/

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

Brian Head - Water Quality Board
30 Year Loan Static Cost Model

Project Costs

Legal/Bonding	$	30,000
Loan Origination Fee	$	20,000
Planning Advance		
Engineering - Design & CMS	$	108,807
Wastewater Collection System	$	1,176,178
Contingency (30%)	$	352,853
Total Project Cost:	**$**	**1,687,838**

Project Funding

Local Contribution	**$**	**381,589**
Amount to be Funded	**$**	**1,306,249**
WQB Grant	**$**	**-**
Total Project Cost:	**$**	**1,687,838**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	1,400
MAGI for Brian Head Town (2020):	$24,900
Affordable Monthly Rate at 1.4%	$29.05
Impact Fee (per ERU):	$1,097
Current Monthly Fee (per ERU)	$42.00
Debt Service	$0
Annual O&M Cost of Collections	$518,163
Cost of Treatment	$177,402

Funding Conditions

Loan Repayment Term:	30
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

WQB PF	WQB Loan	WQB Loan Interest Rate	WQB Loan Debt Service	WQB Loan Reserve	Annual Sewer Cost	Existing Debt Service	Total Annual	Monthly Sewer Cost/	Sewer Cost as % of MAGI	Financial Burden
0	1,424,830	0.00%	47,494	11,874	695,565	0	754,933	44.94	2.17%	HIGH
0	1,424,830	0.50%	51,264	12,816	695,565	0	759,645	45.22	2.18%	HIGH
0	1,424,830	1.00%	55,209	13,802	695,565	0	764,577	45.51	2.19%	HIGH
0	1,424,830	1.50%	59,329	14,832	695,565	0	769,726	45.82	2.21%	HIGH
0	1,424,830	2.00%	63,619	15,905	695,565	0	775,088	46.14	2.22%	HIGH
0	1,424,830	2.50%	68,075	17,019	695,565	0	780,659	46.47	2.24%	HIGH
0	1,424,830	3.00%	72,694	18,173	695,565	0	786,432	46.81	2.26%	HIGH
0	1,424,830	3.50%	77,470	19,367	695,565	0	792,402	47.17	2.27%	HIGH
0	1,424,830	4.00%	82,398	20,600	695,565	0	798,563	47.53	2.29%	HIGH

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	0.0%	3.5%	1.00	4	4.00	S2301
Poverty Rate	17.1%	8.8%	2.66	2.5	6.65	S1701
Threshold LQI	$ 11,250	$ 37,685	3.00	2.5	7.50	B19080
Population Growth Rate	-31.0%	19.0%	3.00	1	3.00	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**2.12**	

** https://data.census.gov/cedsci/

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

WATER QUALITY BOARD
FEASIBILTY REPORT FOR WASTEWATER TREATMENT PROJECT

INTRODUCTION

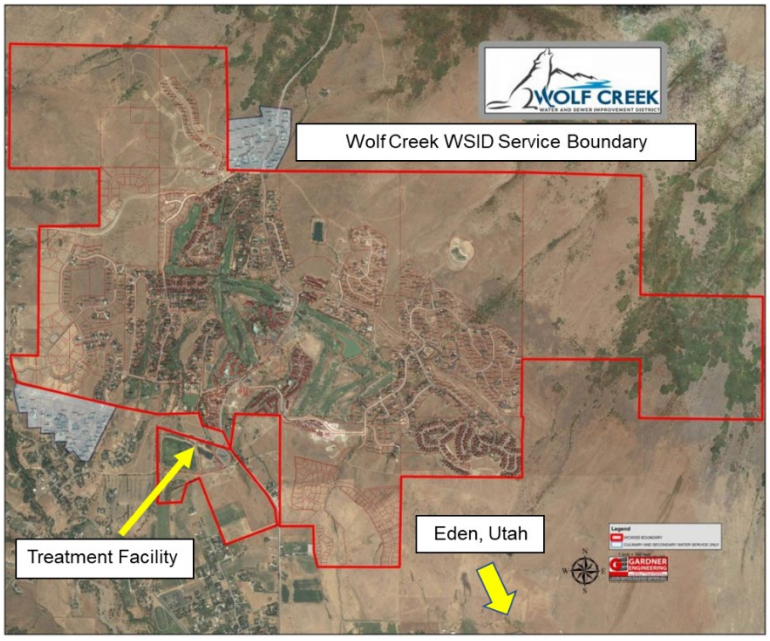
APPLICANT:	Wolf Creek Water and Sewer Improvement District 2580 N Hwy 162 Suite A Eden, Utah 84310 Telephone: 801-745-3435
PRESIDING OFFICIAL	E. Miranda Menzies, Chair Board of Trustees Telephone: 801-745-3435
CONTACT:	Pam Young Telephone: 801-745-3435
TREASURER:	Pam Young
CONSULTING ENGINEER:	Tom Wright, PE AECOM Phone: 801-673-7352
FINANCIAL ADVISOR	Fred Philpott Firm: Lewis, Young, Robertson, and Birmingham

APPLICANT'S REQUEST

Wolf Creek Water and Sewer Improvement District (Wolf Creek) is requesting funding from the Water Quality Board in the amount **$6,588,002** for the construction of a reuse storage pond and distribution pipeline and pump station. Wolf Creek plans to land apply their treated effluent at the golf course in town.

APPLICANT'S LOCATION

Wolf Creek service boundary is located in Weber County, just north of Eden, Utah.



PROJECT BACKGROUND

Wolf Creek installed an MBR process back in 2008 which replaced the old lagoons which were constructed in the 1980s. The current MBR system is designed for 450,000 gallons per day. Wolf Creek sits in a Category 1 watershed and currently does not discharge to surface waters. Wolf Creek's disposal methods are evaporation from their storage ponds, Type I reuse to the golf course, and two RIBs for which Wolf Creek has an operating permit.

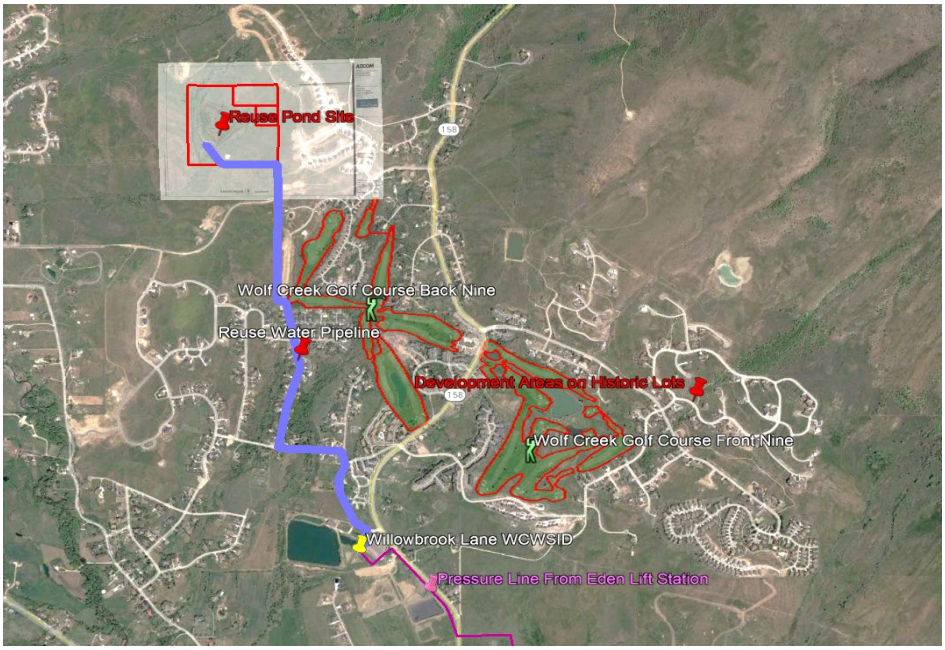
PROJECT NEED

Wolf Creek is experiencing pressure from rapid growth in the area. This growth pressure has spread the disposal capacity and water supply very thin and Wolf Creek lacks the amount of culinary water necessary to supply the projected growth. Wolf Creek has the capability to produce Type I treated effluent for reuse, and Wolf Creek would like to expand the use of Type I reuse water on their golf course. Wolf Creek already supplies Type I reuse water to the front nine holes of the golf course. Wolf Creek currently does not have the proper storage and piping infrastructure in place to send more reuse water to the golf course. Nutrients contained in the treated effluent (approximately 10 mg/L of NO_3 as N) will be utilized by golf course turf and landscaping. These nutrients would otherwise be entering groundwater through the Rapid Infiltration Basin. The area is a Category 1 watershed which has a prohibition on surface water discharges.

PROJECT DESCRIPTION

Wolf Creek is constructing a new 45 acre-ft reuse storage pond for storage of treated effluent from their MBR plant, as well as construct a new pump station and pipeline to the golf course. At buildout in 2032, Wolf Creek plans to expand their sewer plant and extend their sewer service area into

unsewered areas of Eden and Wolf Creek. This will take more homes off of septic systems in a Category 1 watershed. Wolf Creek also plans to double the capacity of the storage pond in the future to 90 acre-ft. The map below shows the proposed Reuse Water Pipeline from the treatment plant to the proposed 45 acre-ft Reuse Pond Site.



ALTERNATIVES EVALUATED

Wolf Creek evaluated the alternative to construct a second reuse holding pond. It was evaluated and it is Wolf Creek's hope to pursue a Water Smart Grant from the Bureau of Reclamation. Thus, Wolf Creek is pursuing the construction of the first reuse holding pond now and to pursue the second pond funding in the future.

POSITION ON PROJECT PRIORITY LIST

The WSID project is currently ranked No. 08 of 11 on the FY 2023 Project Priority List (PPL)

POPULATION GROWTH

The population has grown from 1200 in 2010 to 1364 today. That is a growth rate of 13.7%. Based on the 2021 Wolf Creek Sanitary Sewer Impact Fee Facilities Plan, the amount of ERUs currently served in Wolf Creek's service area was 1114. Upon completion of the wastewater treatment plant expansion in 2032, there will be a projected 2500 ERUs in Wolf Creek's service area.

Year	ERUs
2021	1,114
2032	2,500
2040	4,000

(Source: Wolf Creek WSIS Sanitary Sewer Impact Fee Facilities Plan – Gardner Engineering – 2022)

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT:

The Secondary Water Impact Fee Facility Plan and the Sanitary Sewer Impact Fee Facility Plan was adopted by Board Resolution at a public hearing on April 14, 2022. Public involvement over the planning and funding development period (Sept 2021 to present), has involved discussion at over 15 open public board meetings, some of them attended by 30+ members of the public. Petitions requested funding support were signed by over 70 community members (check number), and number of community organizations.

IMPLEMENTATION SCHEDULE

Project Initiation upon receipt of ARPA funding commitment from Weber County	October 2022
Bidding of Design Engineering and permitting	December 2022
Contract award March 2023	March 2023
Water right application filed February 2023. Water Right pending.	February 2023
Water Reuse Authorization Contract signed with Weber Basin Conservancy April 2023.	April 2023
Construction bidding	Fall 2023
Bonding for balance beyond cash in hand and grants	Spring 2024
Delivery pipeline and concurrent Reuse Pond Construction	Spring 2024 to Fall 2024
Disbursement Request	Spring 2024
Project Commissioning Spring 2025.	Spring 2025
Punchlist items and Invoicing deadline	Summer 2025

APPLICANT'S CURRENT USER CHARGE

Currently, Wolf Creek charges approximately $55 per month per ERC. According to the Utah Water Quality Board's affordability criteria of 1.4% of MAGI ($77,600 for nearby Eden), the highest affordable monthly rate for wastewater services would be $90.53 per month. The impact fee is $4573 and the hookup fee is $915.,

COST ESTIMATE

The total cost of the project is estimated to be $10,441,937. A breakdown of these costs follows.

Legal/Bonding	$	30,000
DWQ Loan Origination Fee	$	65,000
Pre-Construction Engineering & CMS	$	1,276,788
Construction - Reuse Pond	$	4,920,918
Contingency (30%) - Reuse Pond	$	1,471,559
Construction - Reuse Water Pump Station	$	1,202,733
Construction - Reuse Water delivery pipeline	$	1,473,502
Contingency (15%) Reuse Water Pump Station and Pipeline	$	401,437
Total Project Cost:	$	10,441,937

COST SHARING

Funding Source	Cost Sharing	Percent of Project
Local Contribution	$503,935	4.83%
Weber County ARPA Grant	$1,850,000	17.72%
GOEO Grant	$1,500,000	14.37%
WQB Funding	$6,588,002	63.09%
Total Amount:	$10,441,937	100.00%

ESTIMATED ANNUAL COST FOR SEWER SERVICE

Different funding options result in different annual sewer costs. A cost model is shown in Attachment 1, which analyzes many possible funding options. Also included is a second cost model with the inclusion of impact fees subtracted from the annual debt service. The resulting Total Annual Sewer Cost is shown for each funding option. This analysis shows Wolf Creek appears to be doing an excellent job at collecting appropriate impacts as with the collection of impact fees the growth will have a minimal impact on monthly fees.

Wolf Creek is a small community and bonding on the private market would likely be challenging. However, WSID's application indicates the possibility of a loan from Washington Federal Bank for $5,000,000 at 3.7% interest for a term of 20 years. In addition, credit enhancement agreements and interest buydown agreements are either unavailable or unreasonably expensive.

FINANCIAL BURDEN EVALUATION

Based on the inclusion of impact fees the cost for sewer service shows the Wolf Creek does not qualify for grant consideration as part of a funding package under the State Affordability Criteria. In accordance with the Board's Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, staff utilized data from the United State Census Bureau (census) website (https://data.census.gov/cedsci/) to calculate the City's Financial Need Indicator (FNI). The calculated FNI is 1.0. Staff compared this FNI to the percent modified MAGI in the Financial Burden Matrix and displayed the Financial Burden in Attachment 1. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of Low.

A cost model is included as Attachment 2 with Impact Fees subtracted from total annual sewer cost. As can be seen in the model none of the options exceed 1.4% of MAGI. Therefore, the project does not exceed the threshold for grant consideration.

STAFF COMMENTS

Staff believes that this is an important project. Type I reuse is an essential mechanism for disposal of Wolf Creek's treated effluent. Funding this reuse storage, pump station, and pipeline will allow Wolf Creek to have more disposal capacity with minimal impact in the Category 1 watershed. It will also help increase the storage and disposal capacity of the treatment plant, which will be hooking up more homes to sewer in the future.

No staff recommendations for funding are included in this report, as this is an introduction of the project.

ATTACHMENT 1: STATIC COST MODEL FOR WOLF CREEK WSID

Attachment 1
Wolf Creek - Water Quality Board
20 Year Loan Static Cost Model

Project Costs

Legal/Bonding	$	30,000
DWQ Loan Origination Fee	$	65,000
Pre-Construction Engineering & CMS	$	1,276,788
Construction - Reuse Pond	$	4,920,918
Contingency (30%) - Reuse Pond	$	1,471,559
Construction - Reuse Water Pump Station	$	1,202,733
Construction - Reuse Water delivery pipeline	$	1,473,502
Contingency (15%) Reuse Water Pump Station and Pipeline	$	401,437
Total Project Cost:	$	10,441,937

Project Funding		
Local Contribution	$	503,935
ARPA Weber County	$	1,850,000
GOEO (Local Matching and Innovation Water)	$	1,500,000
WQB Funding	$	6,588,002
Total Project Funding:	$	10,441,937

Current Customer Base & User Charges

Initial Total Customer (ERU's)	1,157
MAGI for Eden (2020):	$77,600
Affordable Monthly Rate at 1.4%	$90.53
Impact Fee (per ERU):	$4,573
Current Monthly Fee (per ERU)	$55.00
Existing Sewer Debt Service	$638,894
O&M Expenses	$266,000

Funding Conditions

Loan Repayment Term:	20
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE- 20 Year

WQB Loan	WQB Loan Interest Rate	WQB Debt Service	WQB Loan Reserve	Market Loan Interest Rate	Market Loan Amount	Market Loan Debt Service	Annual Sewer O&M Cost	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Financial Burden Indicator	Sewer Cost as % of MAGI
6,468,122	0.00%	80,852	323,406	3.70%	0	0	266,000	638,894	1,309,152	94.29	LOW	1.46%
6,468,122	2.00%	98,892	395,569	3.70%	119,880	8,588	266,000	638,894	1,407,944	101.41	LOW	1.57%
3,234,061	2.00%	49,446	197,785	3.70%	3,353,941	240,278	266,000	638,894	1,392,403	100.29	LOW	1.55%
6,468,122	3.50%	113,776	455,104	3.70%	119,880	8,588	266,000	638,894	1,482,363	106.77	LOW	1.65%
3,234,061	3.50%	56,888	227,552	3.70%	3,353,941	240,278	266,000	638,894	1,429,612	102.97	LOW	1.59%
2,000,000	3.50%	35,181	140,722	3.70%	4,588,002	328,686	266,000	638,894	1,409,483	101.52	LOW	1.57%
0	3.50%	0	0	3.70%	6,588,002	471,967	266,000	638,894	1,376,861	99.17	LOW	1.53%

Wolf Creek Financial Need Indicator

Indicators	Local Value	State Value	Score	Weighting Factor	Weighted Score
Unemployment rate	0.0%	3.5%	1.0	4.0	4.0
Poverty Rate	0.8%	8.8%	1.0	2.5	2.5
Threshold LQI	$ 76,082	$ 37,685	1.0	2.5	2.5
Population Growth Rate	123%	19%	1.0	1.0	1.0
Financial Need Indicator (Sum of weighted Scores/10)					**1.0**

Table 3 Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

ATTACHMENT 2: STATIC COST MODEL WITH IMPACT FEES SUBTRACTED

Attachment 2
Wolf Creek - Water Quality Board
20 Year Loan Static Cost Model with Projected Impact Fees

Project Costs	
Legal/Bonding	$ 30,000
DWQ Loan Origination Fee	$ 65,000
Pre-Construction Engineering & CMS	$ 1,276,788
Construction - Reuse Pond	$ 4,920,918
Contingency (30%) - Reuse Pond	$ 1,471,559
Construction - Reuse Water Pump Station	$ 1,202,733
Construction - Reuse Water delivery pipeline	$ 1,473,502
Contingency (15%) Reuse Water Pump Station and Pipeline	$ 401,437
Total Project Cost:	$ 10,441,937

Project Funding	
Local Contribution	$ 503,935
ARPA Weber County	$ 1,850,000
GOEO (Local Matching and Innovation Water)	$ 1,500,000
WQB Funding	$ 6,588,002
Total Project Funding:	$ 10,441,937

Current Customer Base & User Charges	
Initial Total Customer (ERU's)	1,157
MAGI for Eden (2020):	$77,600
Affordable Monthly Rate at 1.4%	$90.53
Impact Fee (per ERU):	$4,573
Current Monthly Fee (per ERU)	$55.00
Existing Sewer Debt Service	$638,894
O&M Expenses	$266,000

New Homes per year	126
Impact Fees Collected	$576,198

Funding Conditions	
Loan Repayment Term:	20
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE- 20 Year

WQB Loan	WQB Loan Interest Rate	WQB Debt Service	WQB Loan Reserve	Market Loan Interest Rate	Market Loan Amount	Market Loan Debt Service	Annual Sewer O&M Cost	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Financial Burden Indicator	Sewer Cost as % of MAGI
6,468,122	0.00%	80,852	323,406	3.70%	0	0	266,000	638,894	732,954	52.79	LOW	0.82%
6,468,122	2.00%	98,892	395,569	3.70%	119,880	8,588	266,000	638,894	831,746	59.91	LOW	0.93%
3,234,061	2.00%	49,446	197,785	3.70%	3,353,941	240,278	266,000	638,894	816,205	58.79	LOW	0.91%
6,468,122	3.50%	113,776	455,104	3.70%	119,880	8,588	266,000	638,894	906,165	65.27	LOW	1.01%
3,234,061	3.50%	56,888	227,552	3.70%	3,353,941	240,278	266,000	638,894	853,414	61.47	LOW	0.95%
2,000,000	3.50%	35,181	140,722	3.70%	4,588,002	328,686	266,000	638,894	833,285	60.02	LOW	0.93%
0	3.50%	0	0	3.70%	6,588,002	471,967	266,000	638,894	800,663	57.67	LOW	0.89%

Wolf Creek Financial Need Indicator					
Indicators	Local Value	State Value	Score	Weighting Factor	Weighted Score
Unemployment rate	0.0%	3.5%	1.0	4.0	4.0
Poverty Rate	0.8%	8.8%	1.0	2.5	2.5
Threshold LQI	$ 76,082	$ 37,685	1.0	2.5	2.5
Population Growth Rate	123%	19%	1.0	1.0	1.0
Financial Need Indicator (Sum of weighted Scores/10)					**1.0**

	Table 3 Financial Burden Matrix				
	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WATER QUALITY
John K. Mackey, P.E.
Director

WATER QUALITY BOARD
FEASIBILITY REPORT FOR WASTEWATER TREATMENT PROJECT
INTRODUCTION

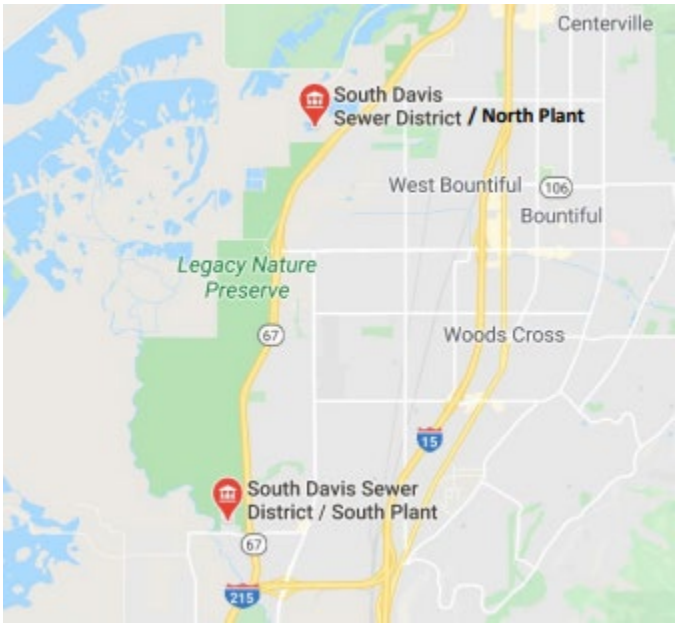
APPLICANT:	South Davis Sewer District 1800 West 1200 North West Bountiful, Utah 84087 Telephone: (801) 295-3469
PRESIDING OFFICIAL	Matthew Myers, General Manager
CONTACT:	Matthew Myers, General Manager
TREASURER:	Matthew Myers
CONSULTING ENGINEER:	Brad Rasmussen Aqua Engineering (801) 536-1426
BOND COUNSEL:	Ryan Bjerke Capman & Cutler (801) 53-1426
FINANCIAL ADVISOR	Matt Dugdale Stifel

APPLICANT'S REQUEST

South Davis Sewer District (SDSD) is requesting funding from the Water Quality Board in the amount of $49,237,000 to install a moving bed biological reactor (MBBR) with chemical addition at their North Plant.

APPLICANT'S LOCATION

South Davis Sewer District is located in Davis County and provides wastewater services to the southern half of Davis County; consisting of Bountiful, Centerville, North Salt Lake, West Bountiful, Woods Cross, and the unincorporated areas south of Lund Lane. SDSD owns and operates two treatment plants: the North Plant (12 MGD) in West Bountiful and the South Plant (4 MGD) in North Salt Lake.



BACKGROUND

SDSD provides sewer services to 34,096 residential households. SDSD is facing more stringent effluent limits for phosphorus and ammonia. In December 2017, the ammonia effluent limits were lowered on both plants based on an updated Jordan River Watershed wasteload analysis that evaluated all POTWs discharges to the Jordan River. At the North Plant, maximum monthly average effluent limits were reduced for: Spring (Mar-May) from 12 mg/l to 6 mg/l, Summer (Jun-Aug) from 8 mg/l to 5.5 mg/l, and Fall (Sep-Nov) from 10 mg/l to 6.5 mg/l.

SDSD previously received a Board authorization for a project to construct an algae-based tertiary treatment system for nutrient removal. The authorization was for a loan of $14,176,000 with an interest rate of 0.25% and a 20-year term, including $1,000,000 in principal reserved for SRF eligible nonpoint source project funding. SDSD previously changed the location of the project from the South Plant to the North Plant. SDSD spent over 4 years piloting the process. Due to process reliability issues, SDDS made the decision to proceed with an alternative treatment technology to meet their compliance schedule. As this application is a substantive change to the scope of the previous project it is viewed as a new application and the previous (South Plant) authorization has been removed from the financial report.

PROJECT NEED

South Davis Sewer District has a compliance schedule for the North Plant to reduce their ammonia discharge by September 1, 2026. The North Plant is trickling filter plant without additional ammonia removal. For the facility to reduce their ammonia discharge, an upgrade is required.

PROJECT DESCRIPTION

The North Plant intends to upgrade nutrient removal, solids treatment, and solids handling. This upgrade as determined through an alternatives evaluation requires the installation of a grit removal system, an MBBR with a concrete basin along with an aeration grid and three 500 HP blowers to aerate the basin. A blower building will be needed and an upgrade to their pumps will be required to pump to the new MBBR. Finally, a new digester tank will be installed to handle the additional solids.

ALTERNATIVES EVALUATED

Five alternatives were evaluated for the North Plant: 1. Eco Recover with an MBBR tank; 2. Eco Recover with more capacity; 3. MBBR and Ferric Addition; 4. Biological Nutrient Removal with Side Stream Treatment; 5. Biological Nutrient Removal with Thermal Drying. Due to the risks of operating the Eco Recover within the timeline of the compliance schedule alternative 3 was chosen as it has the lowest upfront capitol cost compared to the other alternatives and is proven technology that has worked in various locations including the South Plant.

POSITION ON PROJECT PRIORITY LIST

SDSD is currently ranked No. **1** of 11 on the FY 2023 Wastewater Treatment Project Priority List (PPL).

POPULATION GROWTH

Based on the 2020 US Census data the 2020 population was 103,000. According to the State's projections the SDSD has a growth rate of 8% from 2010 to 2020. This results in a build out population of 130,000 people in 2050.

Year	Population
2020	103,000
2040	120,000
2050	130,000

IMPLEMENTATION SCHEDULE

Construction will be initiated in 2024 and finished in 2026.

APPLICANT'S CURRENT USER CHARGE

Currently, South Davis Sewer District charges approximately $26 per ERU. According to the Utah Water Quality Board's criteria of 1.4% MAGI ($57,603 for SDSD North Plant), a rate of $67.20 per month for wastewater service should be exceeded for grant consideration. The impact fee is $2,453.00. There is no hookup fee.

COST ESTIMATE

A breakdown of the costs follows.

Legal/Bonding	$30,000
Loan Origination Fee	$537,000
Engineering – CMS	$6,735,000
Wastewater Treatment Plant Upgrades	$37,956,000
Contingency (13%)	$8,979,000
Total Project Costs	$54,237,000

COST SHARING

Funding Source	Cost Sharing	Percent of Project
Existing Bond	$5,000,0000	9.2%
WQB Funding	$49,237,000	90.8%

EFFORTS TO SECURE FINANCING FROM OTHER SOURCES

The SDSD has around $5,000,000 in an existing direct payment bond from Zions Bank, an application into the Water Infrastructure Finance and Innovation Act, and will bond publicly for outstanding need. SDSD is a large sewer district which received a Bond Rating in 2017 and is capable of borrowing on the private market. SDSD's financial advisors indicated they could Bond on the open market for $50,000,000 at a 4.5% interest rate with a 20-year term. In the case of SDSD, credit enhancement agreements and interest buydown agreements could be evaluated for availability.

Finally, SDSD has indicated they will be pursuing a Water Infrastructure Finance and Innovation Act (WIFIA) loan. WIFIA is a loan program similar to the CWSRF administers directly by EPA. The program is created to handle projects too large for State SRF programs. Large communities have a minimum project size of $20 million. If successful, WIFIA can only fund 49% of a project. Co-funding from a State's SRF program is viewed as a positive under WIFIA evaluation.

ESTIMATED ANNUAL COST FOR SEWER SERVICE

Different funding options result in different annual sewer costs. A cost model is shown in Attachment 1, which analyzes many possible funding options. The resulting total annual sewer cost is shown for each funding option.

FINANCIAL BURDEN EVALUATION

The cost for sewer service shows the City does not qualify for grant consideration as part of a funding package under the State Affordability Criteria. In accordance with the Board's Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, staff utilized data from the United State Census Bureau (census) website (https://data.census.gov/cedsci/) to calculate the City's Financial Need Indicator (FNI). The calculated FNI is 1.60. Staff compared this FNI to the percent modified MAGI in the Financial Burden Matrix and displayed the Financial Burden in Attachment 1. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of Low.

A cost model is included as Attachment 1. As can be seen in the model none of the options exceed 1.4% of MAGI. Therefore, the project does not exceed the threshold for grant consideration.

STAFF COMMENTS

Staff is supportive of the project as the installation of the MBBR can be completed expeditiously without substantial site changes at the North Plant. The project is important to reduce ammonia concentrations in the receiving water.

No staff recommendations for funding are included in this report, as this is an introduction of the project.

DWQ-2023-121508

Attachment 1

ATTACHMENT 1
SDSD North Plant - Water Quality Board
20 Year Loan Static Cost Model

Project Costs

Legal/Bonding	$	30,000
Loan Origination Fee	$	537,000
Engineering - Design		
Engineering - CMS	$	6,735,000
Wastewater Treatment Plant	$	37,956,000
Contingency (13%)	$	8,979,000
Total Project Cost:	**$**	**54,237,000**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	43,766
MAGI for SDSD (2020):	$57,603
Affordable Monthly Rate at 1.4%	$67.20
Impact Fee (per ERU):	$2,453
Current Monthly Fee (per ERU)	$26.00
Debt Service	$1,401,950
Annual O&M expense	$8,000,000

Project Funding

Local Contribution	**$**	**5,000,000**
Amount to be Funded	**$**	**49,237,000**
WQB Grant	**$**	**-**
Total Project Cost:	**$**	**54,237,000**

Funding Conditions

Loan Repayment Term:	20
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

WQB Loan	Private Loan Amount	WQB Loan Interest Rate	Private Loan Interest Rate*	WQB Loan Debt Service	WQB Loan Reserve	Private Loan Debt Service	Annual Sewer	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Sewer Cost as % of MAGI	Financial Burden
0	49,237,000	0.00%	4.50%	0	0	3,785,151	8,000,000	1401950	13,187,101	25.11	0.52%	**LOW**
45,000,000	4,237,000	0.00%	4.50%	2,250,000	562,500	325,724	8,000,000	1401950	12,540,174	23.88	0.50%	**LOW**
40,000,000	9,237,000	3.50%	4.50%	2,814,443	703,611	710,105	8,000,000	1401950	13,630,109	25.95	0.54%	**LOW**
35,000,000	14,237,000	3.50%	4.50%	2,462,638	615,659	1,094,486	8,000,000	1401950	13,574,733	25.85	0.54%	**LOW**
30,000,000	19,237,000	3.50%	4.50%	2,110,832	527,708	1,478,866	8,000,000	1401950	13,519,357	25.74	0.54%	**LOW**
25,000,000	24,237,000	3.50%	4.50%	1,759,027	439,757	1,863,247	8,000,000	1401950	13,463,981	25.64	0.53%	**LOW**
20,000,000	29,237,000	3.50%	4.50%	1,407,222	351,805	2,247,628	8,000,000	1401950	13,408,605	25.53	0.53%	**LOW**
15,000,000	34,237,000	3.50%	4.50%	1,055,416	263,854	2,632,009	8,000,000	1401950	13,353,229	25.43	0.53%	**LOW**
10,000,000	39,237,000	3.50%	4.50%	703,611	175,903	3,016,389	8,000,000	1401950	13,297,853	25.32	0.53%	**LOW**
5,000,000	44,237,000	3.50%	4.50%	351,805	87,951	3,400,770	8,000,000	1401950	13,242,477	25.21	0.53%	**LOW**

*Staff Estimate

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	2.5%	3.5%	1.50	4	6.00	S2301
Poverty Rate	5.7%	8.8%	1.00	2.5	2.50	S1701
Threshold LQI	$ 42,786	$ 37,685	1.00	2.5	2.50	B19080
Population Growth Rate	8.4%	19.0%	2.11	1	2.11	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**1.31**	

** https://data.census.gov/cedsci/

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WATER QUALITY
John K. Mackey, P.E.
Director

MEMORANDUM

TO: Utah Water Quality Board

THROUGH: John K. Mackey, P.E.

FROM: Engineering Section

DATE: October 25, 2023

SUBJECT: Water Quality Board Meeting – FY 2024 Funding Request Staff Recommendations

BACKGROUND (Ken Hoffman P.E.)

Due to limited fund balances the Water Quality Board has moved from bringing projects in on a first come first serve basis, to reviewing projects in batches. Applications over the past few years have exceeded available fund balances necessitating the need for the Finance Committee to meet and discuss funding options with staff. During that meeting staff met with available Board Members to discuss available funding balances and help form staff recommendations that utilize the available funds in a way to best support the interest of Utah's water quality.

Over the past two years congressionally directed spending has utilized a portion of the base capitalization grant and directed it to projects outside of the State Revolving Fund (SRF) program. Due to uncertainty that this causes, Staff no longer projects future funds coming from the base capitalization grant until we receive notification on the actual amount that we are going to receive.

It should be noted that Lewiston City and South Davis Sewer District (SDSD) have previously been authorized for funding packages for alternative projects. The previous projects will need to be deauthorized in conjunction with Board authorizations of the alternative projects presented in this meeting.

PROJECTS FOR WATER QUALITY BOARD CONSIDERATION

In June 2023, the Board received applications with funding requests over $65 Million. As there are not sufficient funds to fully fund all of the requests, staff requested to review these requests with the Finance Committee.

Staff prepared a brief summary of each project that is provided in Enclosure 1 as well as a cost model for each project. Cost models are provided in Attachments 1 through 6.

Table 1, below, shows a summary of the Funding Requests. Historically, when the Board funds Planning, Engineering, or Construction Management services it is done from the UT Wastewater Loan Fund or Hardship Grant Fund due to Federal Architectural and Engineering procurement requirements.

Table 1: Summary of Project Requests

Entity	**Planning, Engineering, & CMS**	**Construction & Other Costs**	**Total Project Cost**	**Total Requested Funding***
Monticello City	$153,500	$1,352,625	1,506,125	$1,214,000
Mount Pleasant City	Not Broken Out	$2,670,000	$2,670,000	$2,670,000
Lewiston City	$710,000	$9,837,000	$10,547,000	$6,512,000
Brian Head Town	$110,000	$1,578,000	1,688,000	$1,688,000
Wolf Creek WSID	$1,276,788	$9,470,149	$10,441,937	$6,405,000
South Davis SD	$6,735,000	$47,502,000	54,237,000	$49,237,000

INTEREST RATE STARTING POINT

Table 2 provides an example of how interest rates can be determined for each project. Recommended discounts are given in similar tables by individual projects as applicable below. Consideration begins with the 20-year market rate of 5.00% based on the October 3, 2023 Daily Treasury Yield Curve[1].

Table 2-Interest Rate Factors

Market Rate (20-year basis)	5.00%	
Discount Factors:	Maximum Discount	Recommended Discount
SRF Programmatic Costs	1.00%	calculated
*Rural/Disadvantaged Community	1.00%	calculated
Fiscal Sustainability Credit	0.50%	calculated
Existing Asset Management Plan	0.50%	calculated
Green Project Reserve	0.50%	calculated
Regionalization	0.25%	calculated
Economic Hardship	5.00%	calculated
Recommended Interest Rate		calculated

*Only Applies to projects that are primarily serving first homes and not for development

No Board direction has been given for rate reduction for economic hardship based on the Financial Burden Indicator. Staff has estimated a rate reduction of 0%-50% for Low burden, 25%-75% for Medium burden, and 50%-100% for High burden.

[1] https://home.treasury.gov/resource-center/data-chart-center/interest-rates/TextView?type=daily_treasury_yield_curve&field_tdr_date_value=2023

ENCLOSURE 1- PROJECT SUMMARY AND STAFF COMMENTS

MONTICELLO CITY (Skyler Davis P.E.)

Monticello City (Monticello) is requesting funding from the Water Quality Board (Board) in the amount of **$1,214,000** to upgrade the sewer system by replacing several sections of the system that have reached the end of its service life. Monticello has a sewer system with nearly 28 miles of sewer pipeline which provides around 798 locations or 876 accounts with sewer services. The majority of the system is clay pipe that was installed in the 1940's. This project would replace the most critical parts of the sewer system that have reached the end of their useful life. Monticello has set aside its ARPA funding as a partial match for this project the City currently has $233,032 set aside for this project. They also had applied to the Governor's Office of Planning and Budget Local Assistance Matching Grant Program, but were unsuccessful.

The Monticello City Sewer Improvements project will address needed replacement to the sewer system. Staff is supportive of this project as a loan from the Board as it would replace critical sections of the sewer system.

Updated funding alternatives that include various mixtures of loan rates are provided in Attachment 1. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of: **Low**.

The SRF Programmatic Costs discount was applied at 1.0%. The Rural/Disadvantaged community discount of 1.0% was applied as Monticello is a rural small community which is not experiencing substantial growth. The Fiscal Sustainability credit was applied because Monticello is conducting long term planning including the recent completion of their Sanitary Sewer Master Plan and bringing local contribution as well as phasing the replacement to account for the limited availability of funding. The suggested interest rate is calculated in the table below:

Market Rate (20-year basis)	5.00%	
Discount Factors:	Maximum Discount	Recommended Discount
SRF Programmatic Costs	1.00%	1.00%
Rural/Disadvantaged Community	1.00%	1.00%
Fiscal Sustainability Credit	0.50%	0.50%
Existing Asset Management Plan	0.50%	0.00%
Green Project Reserve	0.50%	0.00%
Regionalization	0.25%	0.00%
Economic Hardship (Low)	5.00%	0.00%
Recommended Interest Rate		**2.50%**

MOUNT PLEASANT CITY (Glen Lischeske P.E.)

Mount Pleasant City (Mount Pleasant) is requesting funding from the Water Quality Board (Board) in the amount $2,670,000 for new construction and upgrades to their existing wastewater treatment facility per the conclusions and recommendations from their 2022 Master Plan. This request is for the following: construction of a new headworks building, including mechanical fine screen ($1,150,000); installation of a septage receiving station at headworks ($270,000); and bringing cell #3 of the existing total containment lagoon system on-line to increase capacity ($1,250,000). The existing lagoon system does not have a headworks treatment system, and has seen an increase in non-biodegradable objects entering the system. Mount Pleasant's 2022 Master Plan recommended the construction of a new headworks facility to handle these solids. Septage receiving capabilities were also recommended with the construction of the headworks facility, as septage is not handled by the lagoon treatment system and is currently dumped into their unused Cell #3. A septage receiving station would incorporate septage into the treatment system, as well as provide more accessibility for septage haulers using the facility. Finally, the Master Plan recommended expanding lagoon capacity to meet future growth needs, as their 2-cell system is approaching capacity.

To achieve this, Mount Pleasant plans to re-line the unused Cell #3 as the original clay liner is damaged with vegetation/cracking and needs replacement. An HDPE geomembrane liner is recommended. Mount Pleasant has completed a Master Plan and is preparing plans and specifications for bidding Spring 2024.

Staff recognizes the importance of small communities providing septage receiving stations and service which protects their wastewater facility while also offering a vital service that protects the greater area surrounding their community, by providing for the economical disposal of septage that contributes to proper maintenance of onsite systems in the surrounding area. Sometimes these facilities can earn considerable funds for a community but they can often also just be an additional cost to a community. Staff recommends the Board consider funding up to 50% of the septage receiving station from hardship grant funds, which would amount to a $135,000 grant.

Updated funding alternatives that include various mixtures of loan rates are provided in Attachment 2. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of: **Low**.

The SRF Programmatic Costs discount was applied at 1.0%. The Rural/Disadvantaged community discount of 1.0% was applied as Mount Pleasant is considered a small, rural community. The Fiscal Sustainability credit was applied because of Mount Pleasant's ongoing efforts to provide funding for the project, including recent efforts to assess and implement impact fees and raise rates. The suggested interest rate is calculated in the table below:

Market Rate (20-year basis)	5.00%	
Discount Factors:	Maximum Discount	Recommended Discount
SRF Programmatic Costs	1.00%	1.00%
Rural/Disadvantaged Community	1.00%	1.00%
Fiscal Sustainability Credit	0.50%	0.50%
Existing Asset Management Plan	0.50%	0.00%
Green Project Reserve	0.50%	0.00%
Regionalization	0.25%	0.00%
Economic Hardship (Low)	5.00%	0.00%
Recommended Interest Rate		**2.50%**

LEWISTON CITY (Ken Hoffman P.E. and Beth Wondimu P.E.)

Lewiston City (Lewiston) is requesting funding from the Water Quality Board (Board) in the amount of $6,512,000 to upgrade the sewer system and connect its collection system to the Richmond City (Richmond) Membrane Bioreactor (MBR) treatment plant. It will address current and future treatment needs by pumping sewer flows to the Richmond mechanical treatment plant, thereby eliminating the current Lewiston treatment lagoons. Lewiston feels that this regionalization of treatment will be a long-term solution for the community. Effluent quality will be greatly improved by regionalizing and treating the city's sewer in Richmond's MBR. This also opens up Type 1 reuse opportunities.

A total of $10,547,000 is needed to fund the project. In addition to the Board funding, Lewiston hopes to re-authorize funds from United States Department of Agriculture-Rural Development (USDARD) of a $2,052,000 1.875% interest 40-year loan and $483,000 of grant funds for a total of $2,535,000. Furthermore, Lewiston now has $1,500,000 in the sewer fund from the sale of land for commercial development. Lewiston is ready to increase the monthly sewer rates due to the regional wastewater treatment plant in Richmond. Lewiston has requested the Board largely support the project with principal forgiveness authorization which will allow them the opportunity to explore additional funding from USDA-RD. Staff recommends all funding packages include some loan funds and does not recommend a funding package which contains only principal forgiveness.

Lewiston has completed a Preliminary Engineering Report and intends to begin plans and specifications preparation after completing negotiations with Richmond for impact fees and monthly treatment fees. Richmond is currently in the process of re-evaluating their impact fees and anticipates completing this analysis sometime around Spring 2024.

Updated funding alternatives that include various mixtures of loan rates are provided in Attachment 3. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of: **High**.

The SRF Programmatic Costs discount was applied at 1.0%. The Rural/Disadvantaged community discount of 1.0% was applied as Lewiston is a rural small community which is not experiencing substantial growth. The Fiscal Sustainability credit was applied because Lewiston is conducting long term planning and bringing substantial local contribution. The suggested interest rate is calculated in the table below:

Market Rate (20-year basis)	5.00%	
Discount Factors:	Maximum Discount	Recommended Discount
SRF Programmatic Costs	1.00%	1.00%
Rural/Disadvantaged Community	1.00%	1.00%
Fiscal Sustainability Credit	0.50%	0.50%
Existing Asset Management Plan	0.50%	0.00%
Green Project Reserve	0.50%	0.00%
Regionalization	0.25%	0.00%
Economic Hardship (High)	5.00%	2.50%
Recommended Interest Rate		**0.00%**

BRIAN HEAD TOWN (George Meados)

Brian Head Town (Brian Head) is currently constructing water lines into annexed areas of the town that do not have water utilities. The land proposed for installation of wastewater sewer lines has lots between 0.25 and 0.5 acres. The local health department is initiating a new policy that will not allow the issuance of septic permits to households that intend to employ water hauling as a culinary water solution. While they are constructing the water lines the Brian Head would like to install wastewater lines. This would remove the need for septic systems in the area. Brian Head would like to focus on the condensed version of the project that includes Snow Shoe Drive, Toboggan Circle, and Ponderosa Drive. These areas include 20% existing households and 80% development. This project requires $2,201,688 to complete that includes 30% contingency. The community has $381,589 in local contribution. The MAGI is not included in the cost model for this project, in Attachment 4, as the cost of sewer service as a percent of MAGI does not accurately portray hardship for this area due to the high percentage of second homes in the area.

To evaluate hardship staff would require an evaluation of the service population and their incomes. Therefore, staff would suggest that any funding for this project be offered as a loan. Brian Head is preparing plans and specifications for bidding Spring 2024.

Updated funding alternatives that include various mixtures of loan rates are provided in Attachment 4. A financial burden was not determined as the MAGI does not accurately portray hardship for the area.

The SRF Programmatic Costs discount was applied as they are going through the SRF Program to receive the loan. The Rural/Disadvantaged community discount was not applied because the community is primarily second homes. The suggested interest rate is calculated in the table below:

Market Rate (20-year basis)	5.00%	
Discount Factors:	Maximum Discount	Recommended Discount
SRF Programmatic Costs	1.00%	1.00%
Rural/Disadvantaged Community	1.00%	0.00%
Fiscal Sustainability Credit	0.50%	0.00%
Existing Asset Management Plan	0.50%	0.00%
Green Project Reserve	0.50%	0.00%
Regionalization	0.25%	0.00%
Economic Hardship (Low)	5.00%	0.00%
Recommended Interest Rate		**4.00%**

WOLF CREEK WATER & SEWER IMPROVEMENT DISTRICT (Andrew Pompeo)

Wolf Creek Water and Sewer Improvement District (Wolf Creek) is requesting funding from the Water Quality Board in the amount **$6,404,000** for the construction of a reuse storage pond and distribution pipeline and pump station. Wolf Creek plans to land apply their treated effluent at the golf course in town. Wolf Creek installed a membrane bioreactor (MBR) process back in 2008 which replaced the old lagoons that were constructed in the 1980s. The current MBR system is designed for 450,000 gallons per day. Wolf Creek sits in a Category 1 watershed and currently does not discharge to surface waters. Wolf Creek's disposal methods are evaporation from their storage ponds, Type I reuse to the golf course, and two Rapid Infiltration Basins (RIBs) for which Wolf Creek has an operating permit.

Wolf Creek is experiencing intense development pressure in the area. This development pressure has spread the disposal capacity and water supply very thin and Wolf Creek lacks the amount of culinary water necessary to supply the projected growth. Wolf Creek is located within a Category 1 Watershed and surface water discharge is prohibited. Thus, Wolf Creek must discharge to groundwater or reuse treated effluent at agronomic rates.

Wolf Creek has the capability to produce Type I treated effluent for reuse, and Wolf Creek would like to expand the use of Type I reuse water on their golf course.

Type I reuse is an essential mechanism for disposal of Wolf Creek's treated effluent. Funding this reuse storage, pump station, and pipeline will allow Wolf Creek to have more disposal capacity with minimal impact in the Category 1 watershed. It will also help increase the storage and disposal capacity of the treatment plant, which will be hooking up more homes to sewer in the future. Wolf Creek has completed a Facilities Plan and is preparing plans and specifications for bidding Spring 2024.

Staff is supportive of funding this project as a loan from the Water Quality Board. This project, upon completion, will greatly help maintain water quality in a very sensitive area. Wolf Creek has indicated that they are willing to take any amount of loan that is feasible for the Board.

Updated funding alternatives that include various mixtures of loan rates are provided in Attachment 5. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of: **Low**.

The SRF Programmatic Costs discount was applied at 1.0%. The Rural/Disadvantaged community discount of 0.50% was applied because of the remote nature of Wolf Creek but does include a mix of second homes so the full value was not applied. The Fiscal Sustainability credit was applied because of Wolf Creek's efforts to use the rapid development in their community to help fund this project through Impact Fees ($4,573/ERU). The Green Project Reserve discount was applied because this project is eligible for Green Project Reserve. EPA requires that the Board appropriates 10% of available SRF funds towards Green Project Reserve if eligible projects apply. If the Board were to appropriate $1.5 million towards this project, that 10% requirement would be met. The suggested interest rate is calculated in the table below:

Market Rate (20-year basis)	5.00%	
Discount Factors:	Maximum Discount	Recommended Discount
SRF Programmatic Costs	1.00%	1.00%
Rural/Disadvantaged Community	1.00%	0.50%
Fiscal Sustainability Credit	0.50%	0.50%
Existing Asset Management Plan	0.50%	0.00%
Green Project Reserve	0.50%	0.50%
Regionalization	0.25%	0.00%
Economic Hardship (Low)	5.00%	0.00%
Recommended Interest Rate		**2.50%**

SOUTH DAVIS SEWER DISTRICT (George Meados)

South Davis Sewer District (SDSD) is requesting funding from the Water Quality Board in the amount of $49,237,000 to install a moving bed biological reactor (MBBR) with chemical addition at their North Plant. SDSD owns two wastewater treatment plants and provides sewer services to 34,096 residential households. Currently, the applicant has a Board authorized loan of $14,176,000 with an interest rate of 0.25% and a 20-year term, including $1,000,000 in principal reserved for SRF eligible nonpoint source project funding, but they have changed their scope of the project and prior to authorizing funds for any of the projects these funds need to be de-obligated and this project will need a new authorization.

SDSD is facing more stringent effluent limits for ammonia. South Davis Sewer District has a compliance schedule for the North Plant to reduce their ammonia discharge by September 1, 2026. In order for the facility to reduce their ammonia discharge an upgrade is required. This upgrade has a total estimated cost of $54,237,000. SDSD has completed a Facilities Plan and is preparing plans and specifications for bidding Spring 2024.

The North Plant intends to upgrade nutrient removal, solids treatment, and solids handling. This upgrade as determined through an alternatives evaluation requires the installation of a grit removal system, a screw press, an MBBR with a concrete basin along with an aeration grid and blowers to aerate the basin. A blower building will be needed for the aeration grid and an upgrade to their pumps will be required to pump to the new MBBR. Finally, a new digester tank will be installed to handle the additional solids. Staff is supportive of funding a portion of this project as a loan from the Water Quality Board. SDSD has indicated that they are willing to take any amount of loan that is feasible for the Board, and receive the rest of the funding through private loans.

Updated funding alternatives that include various mixtures of loan rates are provided in Attachment 6. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of: **Low**.

The SRF Programmatic Costs discount was applied as they are going through the SRF Program to receive the loan. The Fiscal Sustainability Credit was applied because of their impact fee of $2,453 per ERU. The suggested interest rate is calculated in the table below:

Market Rate (20-year basis)	5.00%	
Discount Factors:	Maximum Discount	Recommended Discount
SRF Programmatic Costs	1.00%	1.00%
Rural/Disadvantaged Community	1.00%	0.00%
Fiscal Sustainability Credit	0.50%	0.50%
Existing Asset Management Plan	0.50%	0.00%
Green Project Reserve	0.50%	0.00%
Regionalization	0.25%	0.00%
Economic Hardship (Low)	5.00%	0.00%

Recommended Interest Rate	**3.50%**

STAFF RECOMMENDED FUNDING AMOUNTS FOR PROJECTS

Staff recommendations for funding these projects are outlined in the table below. These recommendations have a total commitment of $19,553,000.

Summary of Funding Amount Recommendations

Entity	CWSRF	Principal Forgiveness	Hardship Grant
Monticello City	$1,214,000	$0	$0
Mount Pleasant City	$2,535,000	$0	$135,000
Lewiston City	$400,000	$3,100,000	$0
Brian Head Town	$1,900,000	$0	$0
Wolf Creek Water and Sewer District	$6,404,000	$0	$0
South Davis Sewer District	$4,000,000	$0	$0

MONTICELLO CITY

Staff recommends the Water Quality Board **authorize funding in the amount of $1,214,000 as as loan at an interest rate of 2.5% repayable over 20 years to Monticello under the following special conditions:**

1. Monticello must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

2. As part of the facility planning, Monticello must complete a Water Conservation and Management Plan.

3. Monticello must develop, commit to adopt, and implement a capital asset management plan that is consistent with Utah Administrative Code R317.

MOUNT PLEASANT CITY

Staff recommends the Water Quality Board **authorize funding in the amount of $2,535,000 as loan at an interest rate of 2.5% repayable over 20 years and a Hardship Grant in the amount of $135,000 to Mount Pleasant City under the following special conditions:**

1. Mount Pleasant must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

2. As part of the facility planning, Mount Pleasant must complete a Water Conservation and Management Plan.

3. Mount Pleasant must develop, commit to adopt, and implement a capital asset management plan that is consistent with Utah Administrative Code R317.

LEWISTON CITY

Staff recommends the Water Quality Board **authorize funding in the amount of $3,100,000 as principal forgiveness and $400,000 loan at an interest rate of 0% repayable over 30 years to Lewiston under the following special conditions:**

1. Lewiston must pursue and retain remaining funding necessary to fully implement the project. Lewiston must reappear in front of the Board no later than April 2024 if all necessary funds have not been secured by that time.

2. Hold a public meeting detailing the project and the projected monthly user rates prior to the April Board meeting.

3. Draft an interlocal agreement with Richmond including monthly treatment costs and impact fees to be collected prior to the April Board meeting.

4. Lewiston must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

5. As part of the facility planning, Lewiston must complete a Water Conservation and Management Plan.

6. Lewiston must develop, commit to adopt, and implement a capital asset management plan that is consistent with EPA's Fiscal Sustainability Plan guidance.

BRIAN HEAD TOWN

Staff recommends the Water Quality Board **authorize funding in the amount of $1,900,000 as loan at an interest rate of 4.0% repayable over 30 years to Brian Head under the following special conditions:**

1. Brian Head must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

2. As part of the facility planning, Brian Head must complete a Water Conservation and Management Plan.

3. Brian Head must develop, commit to adopt, and implement a capital asset management plan that is consistent with Utah Administrative Code R317.

WOLF CREEK WATER AND SEWER DISTRICT (WOLF CREEK)

Staff recommends the Water Quality Board **authorize funding in the amount of $6,404,000 as loan at an interest rate of 2.5% repayable over 20 years to Wolf Creek under the following special conditions:**

1. Wolf Creek must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

2. As part of the facility planning, Wolf Creek must complete a Water Conservation and Management Plan.

3. Wolf Creek must develop, commit to adopt, and implement a capital asset management plan that is consistent with Utah Administrative Code R317.

SOUTH DAVIS SEWER DISTRICT (SDSD)

Staff recommends the Water Quality Board **authorize funding in the amount of $4,000,000 as loan at an interest rate of 3.5% repayable over 20 years to South Davis under the following special conditions:**

1. SDSD must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

2. As part of the facility planning, SDSD must complete a Water Conservation and Management Plan.

3. SDSD must develop, commit to adopt, and implement a capital asset management plan that is consistent with Utah Administrative Code R317.

NEXT FUNDING APPLICATION PROCESS

Staff anticipate the Board will authorize all available balances for FY24 during the October 2023 Board meeting. Currently, staff is scheduled to accept applications December 31, 2023. However, assuming all funds are authorized, staff suggests the next regular construction funding application date be set for **June 30, 2024**. Applications will continue to be accepted at any time for emergency construction projects, planning advances, and design advances.

Attachments
October 25, 2023
Water Quality Board Meeting
FY 2023 Funding Requests

ATTACHMENT 1- Monticello 20 Year Loan Static Cost Model

Monticello City
20 Year Static Cost Model

Project Costs	Sewer
Admin/Legal/Bonding	$ 23,000
Pre-Construction Engineering	$ 60,500
Construction Engineering Services	$ 70,000
Construction	$ 1,127,000
Contingency	$ 225,625
Total Project Cost:	**$ 1,506,125**

Project Funding	
Local Contribution	$ 60,000
ARPA Funds	$ 233,032
WQB Funding Requsted	$ 1,213,093
Total Project Cost:	**$1,506,125**

Current Customer Base & User Charges	ERC
Total ERC	672
MAGI (Monticello City 2020):	$ 40,400
1.4% MAGI Sewer Bill:	**$ 47.13**
*Current Sewer Bill	$ 18.60
EXISTING DEBT	$ 17,000
O&M Expenses	$ 183,784
* Does not include usage charge	
Funding Conditions	
Loan Repayment Term:	20

ESTIMATED COST OF SEWER SERVICE

Grant Amount	Loan Amount	Interest Rate	Loan Debt Service	Annual Sewer O&M Cost	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ERU	Sewer Cost as a % of MAGI	Financial Burden
$ -	$ 1,213,093	0.00%	$60,655	$ 183,784	$ 17,000	$ 261,439	32.42	0.96%	Low
$ -	$ 1,213,093	0.50%	$63,889	$ 183,784	$ 17,000	$ 264,674	32.82	0.97%	Low
$ -	$ 1,213,093	1.00%	$67,224	$ 183,784	$ 17,000	$ 268,008	33.24	0.99%	Low
$ -	$ 1,213,093	1.50%	$70,657	$ 183,784	$ 17,000	$ 271,442	33.66	1.00%	Low
$ -	$ 1,213,093	2.00%	$74,189	$ 183,784	$ 17,000	$ 274,973	34.10	1.01%	Low
$ -	$ 1,213,093	2.50%	$77,816	$ 183,784	$ 17,000	$ 278,601	34.55	1.03%	Low
$ -	$ 1,213,093	3.00%	$81,539	$ 183,784	$ 17,000	$ 282,323	35.01	1.04%	Low
$ -	$ 1,213,093	3.50%	$85,355	$ 183,784	$ 17,000	$ 286,139	35.48	1.05%	Low
$ -	$ 1,213,093	4.00%	$89,262	$ 183,784	$ 17,000	$ 290,046	35.97	1.07%	Low

Monticello City Financial Need Indicator

Indicators	Local Value	State Value	Score	Weighting Factor	Weighted Score
unemployment rate	3.50%	3.50%	2.00	4.00	8.00
Poverty Rate	4.20%	8.80%	1.00	2.50	2.50
Threshold LQI	$52,115	$37,685	1.00	2.50	2.50
Population Growth Rate	-13.4%	19.0%	3.00	1.00	3.00
Financial Need Indicator (Sum of weighted Scores/10)					1.60

Table 3 Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

Attachments
October 25, 2023
Water Quality Board Meeting
FY 2023 Funding Requests

ATTACHMENT 2- Mount Pleasant Cost Model

Mt Pleasant - Water Quality Board
20 Year Loan Static Cost Model

Project Costs

Legal/Bonding		$ 30,000
DWQ Loan Origination Fee		$ 27,000
Engineering - Design & CMS (Included in construction cost)		
Headworks Building	$ 1,150,000	
Septage Receiving Station	$ 270,000	
HDPE Liner in Cell #3	$ 1,250,000	
Construction subtotal		**$ 2,670,000**
Contingency (Included in construction cost)		$ -
Total Project Cost:		**$ 2,700,000**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	1,266	
MAGI for Mt Pleasant (2020):	$40,800	
Affordable Monthly Rate at 1.4%	$47.60	
Impact Fee (per ERU):	$1,557	
Current Monthly Fee (per ERU)	$22.50	avg monthly bill
Debt Service	$0	
Annual O&M expense	$300,000	

Project Funding

Local Contribution	$ -
Amount to be Funded	**$ 2,700,000**
WQB Grant	**$ -**
Total Project Cost:	**$ 2,700,000**

Funding Conditions

Loan Repayment Term:	20
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

WQB Grant	WQB Loan	Private Loan Amount	WQB Loan Interest Rate	Private Loan Interest Rate*	WQB Loan Debt Service	WQB Loan Reserve	Private Loan Debt Service	Annual Sewer	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Sewer Cost as % of MAGI	Financial Burden
	0	2,700,000	0.00%	4.50%	0	0	207,566	300,000	0	507,566	33.41	0.98%	LOW
135,000	2,565,000	0	0.00%	4.50%	128,250	32,063	0	300,000	0	460,313	30.30	0.89%	LOW
135,000	2,565,000	0	0.50%	4.50%	135,089	33,772	0	300,000	0	468,862	30.86	0.91%	LOW
135,000	2,565,000	0	1.00%	4.50%	142,140	35,535	0	300,000	0	477,675	31.44	0.92%	LOW
135,000	2,565,000	0	1.50%	4.50%	149,400	37,350	0	300,000	0	486,750	32.04	0.94%	LOW
135,000	2,565,000	0	2.00%	4.50%	156,867	39,217	0	300,000	0	496,084	32.65	0.96%	LOW
135,000	2,565,000	0	2.50%	4.50%	164,537	41,134	0	300,000	0	505,672	33.29	0.98%	LOW
135,000	2,565,000	0	3.00%	4.50%	172,408	43,102	0	300,000	0	515,510	33.93	1.00%	LOW
135,000	2,565,000	0	3.50%	4.50%	180,476	45,119	0	300,000	0	525,595	34.60	1.02%	LOW

*Staff Estimate

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	3.7%	3.6%	2.05	4	8.20	S2301
Poverty Rate	18.6%	9.1%	2.90	2.5	7.25	S1701
Threshold LQI	$ 26,957	$ 35,445	1.96	2.5	4.90	B19080
Population Growth Rate	9.0%	18.6%	1.97	1	1.97	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**2.23**	

2020 5 year ACS Table

** https://data.census.gov/cedsci/

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

Attachments
October 25, 2023
Water Quality Board Meeting
FY 2023 Funding Requests

ATTACHMENT 3 - Lewiston Cost Model

Lewiston City - Water Quality Board

30 Year Loan Static Cost Model - Connect to Richmond MBR Treatment Plant

Project Costs		
Legal - Right of Way		$ 60,000
Legal/Bonding -		$ 59,000
DWQ Loan Origination Fee		$ 60,000
Engineering - Design		$ 355,000
Engineering - CMS		$ 325,000
Engineering - Planning		$ 30,000
Capacity Purchase to Richmond		$ 2,280,000
Environmental		$ 59,000
Legal Services		$ 119,000
Construction - Pump Station	$ 1,700,000	
Construction - Collection Sewer	$ 1,500,000	
Construction - Mobilization/Demobilization	$ 500,000	
Construction - 8" PVC Force Main	$ 1,500,000	
Construction - Decommission :Lagoon	$ 800,000	
Construction subtotal		$ 6,000,000
Contingency (21%)		$ 1,200,000
Total Project Cost:		**$ 10,547,000**

Project Funding	
Requested Funding by WQB	**$ 6,512,000**
Lewiston Sewer Fund	$ 1,500,000
USDA-RD Existing Grant	$ 483,000
USDA-RD Existing Loan	$ 2,052,000
Total Project Cost:	**$ 10,547,000**

Current Customer Base & User Charges	
Initial Total Customer (ERU's)	300
MAGI for Lewiston City (2021):	$47,000
Affordable Monthly Rate at 1.4%	$54.83
Impact Fee (per ERU):	$8,065
Current Monthly Fee (per ERU)	$53.00
Existing Debt	$0
Annual O&M Collection	$109,000
Richmond Impact fee 4" (2023)	$7,952
Annual O&M for Richmond's Treatment	$169,200
Monthly Treatment to Richmond	$47
Funding Conditions	
Loan Repayment Term:	30
Reserve Funding Period:	10
USDA-RD Funding Conditions	
USDA-RD Loan Repayment Term	40
USDA-RD Interest Rate	1.875%

ESTIMATED COST OF SEWER SERVICE

Principal Forgiveness	WQB Grant Percent	WQB Loan	Existing RD Loan	WQB Loan Interest Rate	RD Loan Interest Rate	WQB Loan Debt Service	WQB Loan Reserve	RD Loan Debt Service	Annual O&M-collection & Treatment	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Sewer Cost as % of MAGI	Financial Burden
1,200,000	**18%**	5,312,000	2,052,000	0.00%	1.875%	177,067	26,560	91,722	278,200	573,549	159.32	4.07%	**HIGH**
1,500,000	**23%**	5,012,000	2,052,000	0.00%	1.875%	167,067	25,060	91,722	278,200	562,049	156.12	3.99%	**HIGH**
2,000,000	**31%**	4,512,000	2,052,000	0.00%	1.875%	150,400	22,560	91,722	278,200	542,882	150.80	3.85%	**HIGH**
2,177,500	**33%**	4,334,500	2,052,000	0.00%	1.875%	144,483	21,673	91,722	278,200	536,078	148.91	3.80%	**HIGH**
3,100,000	**48%**	3,412,000	2,052,000	0.00%	1.875%	113,733	17,060	91,722	278,200	500,715	139.09	3.55%	**HIGH**
3,800,000	**58%**	2,712,000	2,052,000	0.00%	1.875%	90,400	13,560	91,722	278,200	473,882	131.63	3.36%	**HIGH**

FNI Calculation	**Lewiston City**						
		Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate		0.5%	3.6%	1.00	4	4.00	S2301
Poverty Rate		3.2%	8.8%	1.00	2.5	2.50	S1701
Threshold LQI		$42,063	$37,685	1.00	2.5	2.50	B19080
Population Growth Rate		13.6%	19.0%	2.43	1	2.43	B01003
Financial Need Indicator (Sum of weighted Scores/ 10)						1.14	
2020 5 year ACS Table					** https://data.census.gov/cedsci/		

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	low	Medium	Medium	High
1.5 to 2.5	Medium	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

Attachments
October 25, 2023
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ATTACHMENT 4 - Brian Head Cost Model

Brian Head - Water Quality Board
30 Year Loan Static Cost Model

Project Costs

Legal/Bonding	$	30,000
Loan Origination Fee	$	20,000
Planning Advance		
Engineering - Design & CMS	$	108,807
Wastewater Collection System	$	1,571,447
Contingency (30%)	$	471,434
Total Project Cost:	**$**	**2,201,688**

Project Funding

Local Contribution	**$**	**381,589**
Amount to be Funded	**$**	**1,820,099**
WQB Grant	**$**	-
Total Project Cost:	**$**	**2,201,688**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	1,400
MAGI for Brian Head Town (2020):	N/A
Affordable Monthly Rate at 1.4%	N/A
Impact Fee (per ERU):	$1,097
Current Monthly Fee (per ERU)	$42.00
Debt Service	$0
Annual O&M Cost of Collections	$518,163
Cost of Treatment	$177,402

Funding Conditions

Loan Repayment Term:	30
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

WQB PF	WQB Loan	WQB Loan Interest Rate	WQB Loan Debt Service	WQB Loan Reserve	Annual Sewer Cost	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU
0	1,900,000	1.00%	73,621	18,405	695,565	0	787,592	46.88
0	1,900,000	1.50%	79,114	19,779	695,565	0	794,458	47.29
0	1,900,000	2.00%	84,835	21,209	695,565	0	801,609	47.71
0	1,900,000	2.50%	90,778	22,694	695,565	0	809,037	48.16
0	1,900,000	3.00%	96,937	24,234	695,565	0	816,736	48.62
0	1,900,000	3.50%	103,306	25,826	695,565	0	824,697	49.09
0	**1,900,000**	**4.00%**	**109,877**	**27,469**	**695,565**	**0**	**832,911**	**49.58**
0	1,900,000	4.50%	116,644	29,161	695,565	0	841,370	50.08
0	1,900,000	5.00%	123,598	30,899	695,565	0	850,062	50.60

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	0.0%	3.5%	1.00	4	4.00	S2301
Poverty Rate	17.1%	8.8%	2.66	2.5	6.65	S1701
Threshold LQI	$ 11,250	$ 37,685	3.00	2.5	7.50	B19080
Population Growth Rate	96.0%	19.0%	1.00	1	1.00	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**1.92**	

** https://data.census.gov/cedsci/

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

ATTACHMENT 5 - Wolf Creek Cost Model

Wolf Creek - Water Quality Board
20 Year Loan Static Cost Model with Projected Impact Fees

Project Costs		
Legal/Bonding	$	30,000
DWQ Loan Origination Fee	$	65,000
Pre-Construction Engineering & CMS	$	1,276,788
Construction - Reuse Pond	$	4,920,918
Contingency (30%) - Reuse Pond	$	1,471,559
Construction - Reuse Water Pump Station	$	1,202,733
Construction - Reuse Water delivery pipeline	$	1,473,502
Contingency (15%) Reuse Water Pump Station and Pipeline	$	401,437
Total Project Cost:	$	10,441,937

Project Funding		
Local Contribution	$	503,935
ARPA Weber County	$	1,850,000
GOEO (Local Matching and Innovation Water)	$	1,500,000
WQB Funding	$	6,588,002
Total Project Funding:	$	10,441,937

Current Customer Base & User Charges	
Initial Total Customer (ERU's)	1,157
MAGI for Eden (2020):	$77,600
Affordable Monthly Rate at 1.4%	$90.53
Impact Fee (per ERU):	$4,573
Current Monthly Fee (per ERU)	$55.00
Existing Sewer Debt Service	$638,894
O&M Expenses	$266,000

New Homes per year	126
Impact Fees Collected	$576,198

Funding Conditions	
Loan Repayment Term:	20
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE- 20 Year

WQB Loan	WQB Loan Interest Rate	WQB Debt Service	WQB Loan Reserve	Market Loan Interest Rate	Market Loan Amount	Market Loan Debt Service	Annual Sewer O&M Cost	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Financial Burden Indicator	Sewer Cost as % of MAGI
6,468,122	2.50%	103,728	414,911	5.00%	0	0	266,000	638,894	847,336	61.03	LOW	0.94%
6,468,122	3.75%	116,365	465,460	5.00%	119,880	9,619	266,000	638,894	920,140	66.27	LOW	1.02%
6,468,122	5.00%	129,755	519,019	5.00%	119,880	9,619	266,000	638,894	987,089	71.10	LOW	1.10%
3,234,061	2.50%	51,864	207,456	5.00%	3,353,941	269,129	266,000	638,894	857,145	61.74	LOW	0.95%
3,234,061	3.75%	58,182	232,730	5.00%	3,353,941	269,129	266,000	638,894	888,737	64.01	LOW	0.99%
3,234,061	5.00%	64,877	259,509	5.00%	3,353,941	269,129	266,000	638,894	922,212	66.42	LOW	1.03%
1,500,000	2.50%	24,055	96,221	5.00%	5,088,002	408,274	266,000	638,894	857,247	61.74	LOW	0.95%

Wolf Creek Financial Need Indicator					
Indicators	Local Value	State Value	Score	Weighting Factor	Weighted Score
Unemployment rate	0.0%	3.5%	1.0	4.0	4.0
Poverty Rate	0.8%	8.8%	1.0	2.5	2.5
Threshold LQI	$ 76,082	$ 37,685	1.0	2.5	2.5
Population Growth Rate	123%	19%	1.0	1.0	1.0

	Table 3 Financial Burden Matrix				
	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

Attachments
October 25, 2023
Water Quality Board Meeting
FY 2023 Funding Requests

ATTACHMENT 6- South Davis Cost Model

SDSD North Plant - Water Quality Board
20 Year Loan Static Cost Model

Project Costs

Legal/Bonding	$	30,000
Loan Origination Fee	$	537,000
Engineering - Design		
Engineering - CMS	$	6,735,000
Wastewater Treatment Plant	$	37,956,000
Contingency (13%)	$	8,979,000
Total Project Cost:	**$**	**54,237,000**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	43,766
MAGI for SDSD (2020):	$57,603
Affordable Monthly Rate at 1.4%	$67.20
Impact Fee (per ERU):	$2,453
Current Monthly Fee (per ERU)	$26.00
Debt Service	$1,401,950
Annual O&M expense	$8,000,000

Project Funding

Local Contribution	**$**	**5,000,000**
Amount to be Funded	**$**	**49,237,000**
WQB Grant	**$**	-
Total Project Cost:	**$**	**54,237,000**

Funding Conditions

Loan Repayment Term:	20
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

WQB Loan	Private Loan Amount	WQB Loan Interest Rate	Private Loan Interest Rate*	WQB Loan Debt Service	WQB Loan Reserve	Private Loan Debt Service	Annual Sewer	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Sewer Cost as % of MAGI	Financial Burden
0	49,237,000	0.00%	5.00%	0	0	3,950,904	8,000,000	1401950	13,352,854	25.42	0.53%	LOW
6,000,000	43,237,000	0.00%	5.00%	300,000	75,000	3,469,449	8,000,000	1401950	13,246,399	25.22	0.53%	LOW
5,500,000	43,737,000	3.50%	5.00%	386,986	96,746	3,509,570	8,000,000	1401950	13,395,252	25.51	0.53%	LOW
5,000,000	44,237,000	3.50%	5.00%	351,805	87,951	3,549,691	8,000,000	1401950	13,391,398	25.50	0.53%	LOW
4,500,000	44,737,000	3.50%	5.00%	316,625	79,156	3,589,813	8,000,000	1401950	13,387,544	25.49	0.53%	LOW
4,000,000	**45,237,000**	**3.50%**	**5.00%**	**281,444**	**70,361**	**3,629,934**	**8,000,000**	**1401950**	**13,383,689**	**25.48**	**0.53%**	LOW
3,500,000	45,737,000	3.50%	5.00%	246,264	61,566	3,670,055	8,000,000	1401950	13,379,835	25.48	0.53%	LOW
3,000,000	46,237,000	3.50%	5.00%	211,083	52,771	3,710,177	8,000,000	1401950	13,375,981	25.47	0.53%	LOW
2,500,000	46,737,000	3.50%	5.00%	175,903	43,976	3,750,298	8,000,000	1401950	13,372,126	25.46	0.53%	LOW
2,000,000	47,237,000	3.50%	5.00%	140,722	35,181	3,790,419	8,000,000	1401950	13,368,272	25.45	0.53%	LOW

*Staff Estimate

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	2.5%	3.5%	1.50	4	6.00	$2301
Poverty Rate	5.7%	8.8%	1.00	2.5	2.50	$1701
Threshold LQI	$ 42,786	$ 37,685	1.00	2.5	2.50	B19080
Population Growth Rate	8.4%	19.0%	2.11	1	2.11	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**1.31**	

** https://data.census.gov/cedsci/

Financial Burden Matrix

	Modified MAGI				
FNI	Below 1.4%	1.4% to 1.75%	1.75% to 2.1%	2.1% to 2.45	Above 2.45
Below 1.5	Low	Low	Medium	Medium	High
1.5 to 2.5	Low	Medium	Medium	High	High
Above 2.5	Medium	Medium	High	High	High

State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WATER QUALITY
John K. Mackey, P.E.
Director

MEMORANDUM

TO: Utah Water Quality Board

THROUGH: John K. Mackey, P.E.
Division Director

FROM: Ben Holcomb
Environmental Program Manager, Standards and Technical Services

DATE: October 25, 2023

SUBJECT: Request to Commence Informal Rulemaking Necessary to Address H.B. 513

During the 2023 General Session, the legislature passed H.B. 513 "Great Salt Lake Amendments" (le.utah.gov/~2023/bills/static/HB0513.html). H.B. 513 addresses the environmental impacts of mineral extraction on the Great Salt Lake.

The Division of Forestry, Fire and State Lands (FFSL) is responsible for entering into royalty agreements with certain mining operators on the Great Salt Lake. Prior to entering into a royalty agreement, per H.B. 513, the mineral extraction operator must "certify before operation begins that the operator is not negatively impacting the biota or chemistry of the Great Salt Lake." Both FFSL and the Division of Water Quality (DWQ) must then review and "approve" that certification.

Existing DWQ rules need to be revised to incorporate this review process. DWQ's current rules are designed to implement federal Clean Water Act requirements and primarily concern protection of defined beneficial uses. H.B. 513 extends beyond beneficial uses, and encompasses all negative impacts to the Great Salt Lake's biota and chemistry. As such, DWQ proposes to enact a new rule section to address DWQ's certification approval process.

DWQ has begun drafting the rules and has engaged with FFSL to coordinate efforts for consistent certification review and approval. However, DWQ believes it necessary to engage a wider stakeholder group in development of these rules. DWQ requests the Board identify members who are interested in reviewing draft rules and assisting staff in identifying and engaging key stakeholders prior to initializing formal rulemaking.

DWQ-2023-124830

State of Utah

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Governor

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Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WATER QUALITY
John K. Mackey, P.E.
Director

M E M O R A N D U M

TO: Utah Water Quality Board

THROUGH: John Mackey, Director

FROM: Harry Campbell, P.E., George Meados, Robert Beers, & Paul Burnett

DATE: October 25, 2023

SUBJECT: Report on the Utah 2022 Clean Water Needs Survey and the 2022 Municipal Wastewater Planning Program

Background

The Clean Water Needs Survey (CWNS) was completed for 2022 and the Municipal Wastewater Planning Program (MWPP) survey was completed for 2023. The CWNS focuses on projected capital improvement costs for four types of infrastructure: Wastewater, Stormwater, Decentralized Wastewater, and Nonpoint Source. The CWNS requires specific high-quality cost data in the form of master plans, engineering reports, facility plans, etc. The MWPP also covers projected capital improvement, but it comes from the responses of wastewater facilities taking the survey and back up documentation is not required. However, the MWPP goes a little deeper with questions on financial issues, treatment, collections, operator certification, and facility treatment types.

This memorandum focuses on the CWNS (see below), but in the associated PowerPoint more focus is on the MWPP.

CWNS

The CWNS began in the 1970s and was conducted periodically (every two years to start, but was changed to every four years) and its findings are reported to the US Congress. The purpose of the CWNS is for EPA to inform Congress of the "needs" (or costs) related to compliance with the Clean Water Act. In 2012, the EPA paused requiring States to conduct the CWNS. On November 15, 2021, Congress reasserted its mandate for EPA to collect the CWNS every four years. The Utah Legislature reaffirmed this commitment to the collection of the CWNS in House Bill 269 by requiring wastewater service providers to participate.

In the 2012 CWNS Utah had a total need of $832 million for the 20-year period extending to 2032. The breakdown of the $832 million need was: wastewater treatment had a need of $355 million, collection systems had a need of $461 million, and recycled water distribution had a need of $26 million.

Reclaim60 Survey

Reclaim60 was conducted in 2019 in partnership with the Division of Water Quality (Division), the Wasatch Front Water Quality Council, Forsgren Associates Inc., and Statepoint Engineering with the purpose of informing the public and for advising the Utah Legislature regarding the need and costs for wastewater and stormwater development through 2060. Reclaim60 developed cost models based on future population growth and other data that was collected, to estimate future costs (in 2019 dollars) for mechanical treatment, lagoons, collections, and stormwater gray infrastructure. Reclaim60 has a need of $15 billion through 2060.

Reclaim60 gathered population, length of existing pipe, and average system age from as many municipalities and service districts as they could. For the municipal stormwater industry that was about 13%; for the municipal wastewater industry that was about 21%. The information was gathered in a survey by phone calls and emails. For stormwater total facilities were 281, of which 84 were considered for needs. Wastewater total facilities were 310. Of the communities with wastewater systems, 109 were on septic systems, which were counted as not having collection systems. The work completed by the Reclaim60 team was very valuable to Division staff completing the CWNS.

Clean Water Needs Survey

The Division of Water Quality Engineering, Stormwater, and Watershed Protection Sections worked on collecting the required data for projects within the following four infrastructure types: wastewater, stormwater, decentralized wastewater, and nonpoint source. To aid States in the collection of the data the EPA developed a Data Entry Portal (DEP). All data connected with the four stated infrastructure types had to be from projects that were initiated after January 1, 2022, and that will be completed by December 31, 2041, a twenty-year period. States were provided three methods to enter needs data into the DEP; by submitting planning documents, by completion of "the small community form", or by use of a State Specific Approach (SSA).

Planning Documents

To maintain data quality the EPA limited data submission to only specific document types that had been stamped by a licensed engineer. Acceptable documents were Master Plans, Facility Plans, Asset Management Plans, and other documents (56 total document types could be submitted without approval and 6 more with approval). Data was submitted by entering the document type, then the data, and then the entire source document file (which were annotated by Division staff to assist the EPA doing audits).

Small Community Form

In the DEP the EPA developed a process called, “the small community form” (SCF). The SCF was for communities with a population under 10,000 people. The form contained multiple questions regarding their wastewater treatment and collection facilities. These questions included: does your facility have water quality related capital improvement needs, facility information, facility types, facility discharges, population information, and flow information. To receive responses staff made phone calls and held biweekly conference calls to encourage and assist communities choosing this submission method. The responses were completed by people from the community, but were reviewed by the EPA and by DWQ. Ultimately, the data from the SCFs were migrated into the DEP after being reviewed by Division staff. Phone calls were required for any missing or incorrect data. Overall the SCF created by EPA was overly complicated and not very successful on a National level.

State Specific Approach (SSA)

The last available process was for States to develop cost modeling with estimation calculations called a State Specific Approach (SSA). States had to submit their SSA proposals before data submission. The Division developed four SSA’s to gather Utah data: 1. wastewater collections, 2. stormwater gray infrastructure, 3. decentralized wastewater, and 4. nonpoint sources. The EPA reviewed and approved each SSA before it could be used.

Division staff worked with Leland Meyers and Jason Broome from the Reclaim60 to develop the SSA process for wastewater collections and stormwater gray infrastructure. These SSAs were developed due the experience of Reclaim60 that most small and medium sized communities do not have formal documentation showing projected costs for projects. Reclaim60 had already developed methods the Division could modify with the use of EPA tools and submit for an SSA process. This proved to be true and the SSAs were valuable to produce an approximation of the ultimate “needs” found in Utah.

The SSA submitted to the EPA for estimation of wastewater collection systems was used when facilities were unable to complete the small community form or submit future planning documents The Division asked these communities three questions:

1. What is the average age of the wastewater collection system?

2. What is the population served by the system?

3. What are the miles of pipe of the system?

With these answers’ estimations were made from a formula created by the EPA for cost estimation using the SCF. If the facilities were not able to answer all three questions, estimations were based on the questions they answered and estimates developed from Reclaim60.

An SSA process was developed for decentralized facilities by Robert Beers Onsite Coordinator from the Engineering Section. Robert Beers is the Division’s lead for decentralized facilities, requiring coordination with Utah's local health departments. The local health departments permit decentralized facilities with wastewater flows less than 5,000 gpd.

The SSA that was developed using the number of decentralized permits issued by the local health departments (actual data from 2012 - 2021) and projected into the future, while a method to determine costs was devised also. This process produced a significant overall need which had not been captured in earlier CWNS efforts.

Nonpoint source needs were estimated by the Division's Nonpoint Source Program Coordinator. Staff developed an internet survey that was dispersed on the internet to gather information about nonpoint source clean water needs. The survey created a spreadsheet that cataloged the information watershed stakeholders provided. Survey respondents were asked to identify specific locations, the water quality concerns, what caused those concerns, and the anticipated cost of implementing best management practices to reduce the pollutant source. The Division reached out to a wide range of stakeholders, including watershed groups, conservation districts, local non-governmental organizations, and other agency partners. Respondents were instructed to consider potential projects with a four-year window of completion. After receiving the responses, the Division reviewed the responses for quality assurance, consolidated duplicate responses, and then applied a standard method for cost verification by cross-referencing Natural Resources Conservation Service and other documented cost rates. Overall, the Division received 73 responses. The EPA accepted 37 of the entries because the others were either duplicates or not within the scope of the CWNS. Nevertheless, all of the survey responses are useful for Nonpoint Source Project prioritization by UDWQ staff.

Results

Data for this report was taken from the EPA DEP on July 17, 2023. Pie charts showing quantities of needs by facility group are included as Attachment I. EPA is still completing their audit of the data and has not release National data yet.

Discussion

The Division was able to capture 90% of the data or better for other categories. However, only 12% of the treatment category for small communities was captured because of challenges with the Small Community Form and a requirement stamped planning documentation. Depending on the changes the EPA makes to the process, the Division will evaluate development of a SSA for lagoons considering that most small communities use lagoons as their form of wastewater treatment. The SSA used for wastewater collection systems worked very well for all sizes of facilities and should continue to be used in the future.

Another area of concern for data was in the collection of stormwater data gathered from the SSA. The stormwater SSA accounted for only gray infrastructure. Utah is the second driest state in the nation and although green infrastructure and low impact development is practiced in Utah. Collecting data on green infrastructure is difficult to track as it is often completed by developers and not the permitted MS4. For this reason, the Division did not report on green infrastructure (Reclaim60 came to the same conclusion).

Gray infrastructure needs for stormwater were reported and criteria for the Utah stormwater SSA (a criteria acquired from Reclaim60) limited stormwater needs to communities over a population of 9,000. It was assumed in Reclaim60 that smaller communities would not initiate a piped stormwater drainage system early in the life of a community.

However, it seemed during the collection of data that there were several small communities under a population of 9,000 that had piped stormwater systems. The population criterion will be reconsidered and a population of 5,000 or 6,000 will be considered for the 2026 CWNS. Doing so would increase the number of communities in Utah evaluated for stormwater "needs."

Many of the planning documents used for data submission in the CWNS started before the 20-year CWNS window, and did not contain planning data that extended through the entire 20-year CWNS window (a 10-year period was a common time frame for planning documents). Because of this there were needs that were not eligible (occurring before the 20-year CWNS window) or were not determined because of the mismatch with the time period required by the CWNS window. This problem tends to shorten the needs determined in the final CWNS outcome.

EPA Report

The EPA will complete a detailed report of the final tabulated needs that were identified in each state, to each state. The EPA has not yet completed the review of all the submitted data. During the data submission period the EPA audits the work of the states and give feedback requiring the states to make corrections. Now that data submission has been closed, the EPA is still reviewing facility files and communicates with states when there are questions but they make the corrections.

MWPP Results

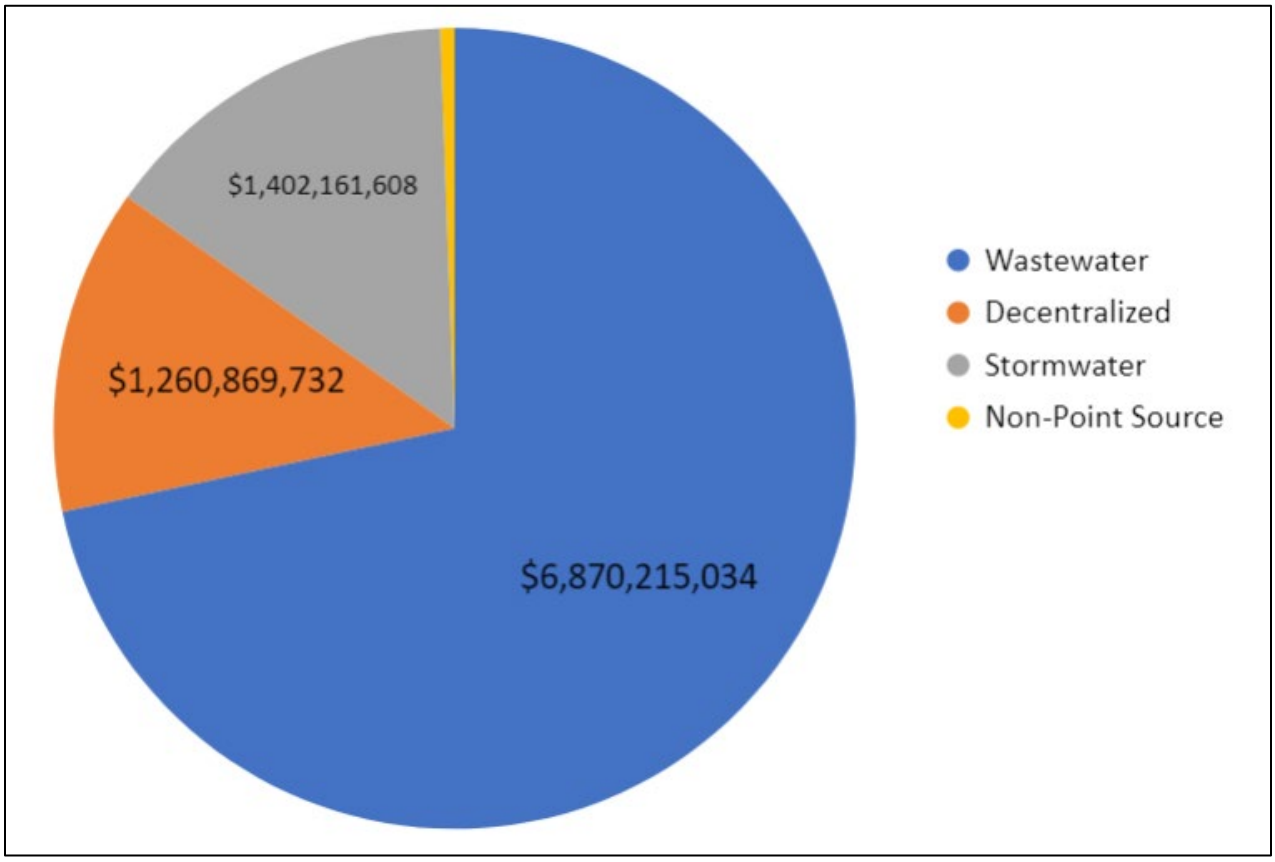
In 2022 a MWPP State survey was not conducted with the submission of the CWNS fulfilling this requirement. In 2023 there were not as many respondents to the MWPP as normal with only 65% of the mailing list responding. Historically, the response is around 75% to 80%. Unfortunately, work on the CWNS continued into 2023 when the MWPP is normally completed. Thus, MWPP completion suffered. Normally the MWPP survey is emailed out along with two email reminders to those who are yet to respond (as was done this year). Select pie charts of MWPP data are include as Attachment II.

Attachment I

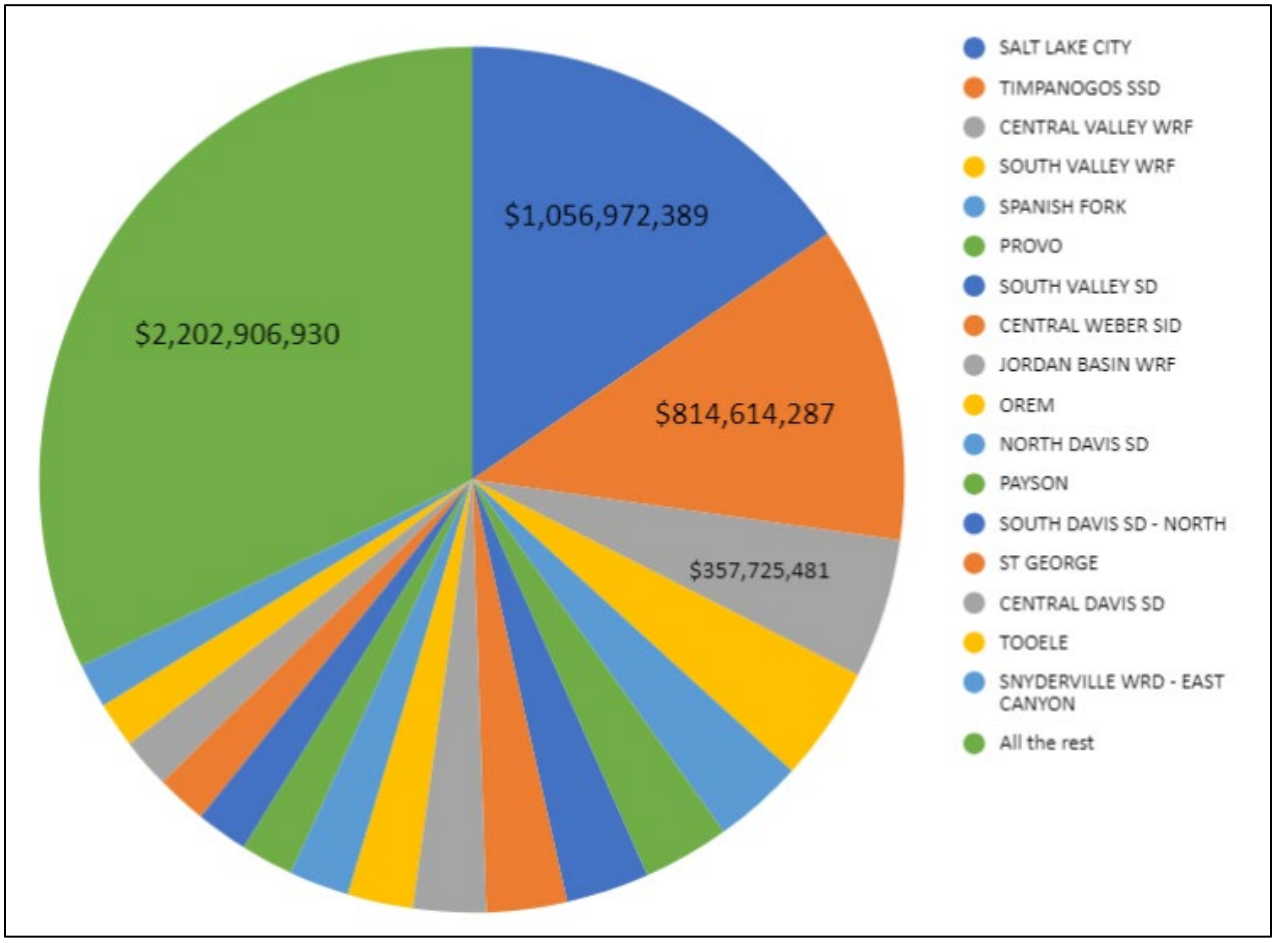
CWNS

(Data covers from 1/1/2022 to 12/31/2041)

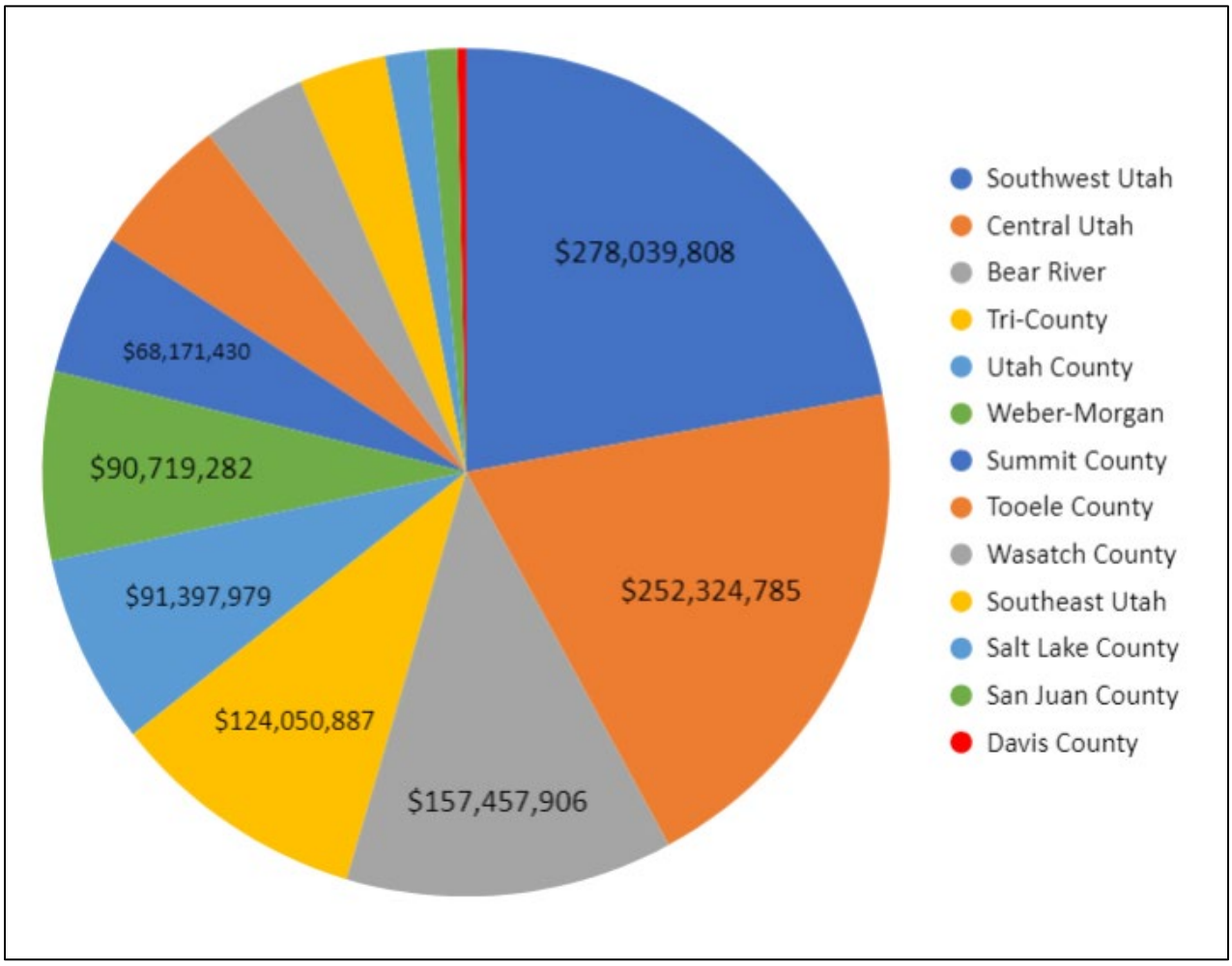
Total Needs of the Four Infrastructure Types $9,588,457,016



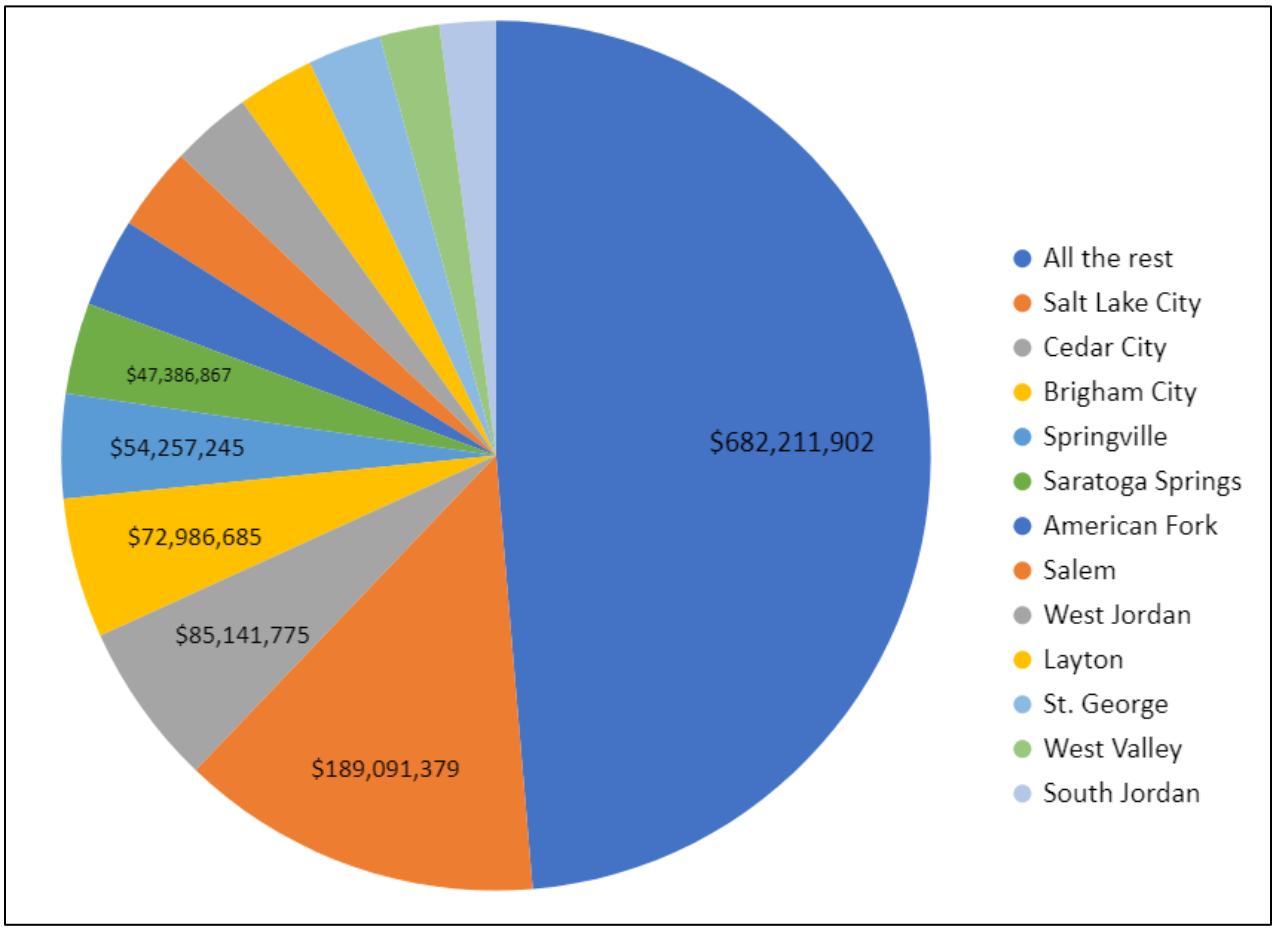
Total Wastewater Needs are $6,870,215,034 (District & Cities)



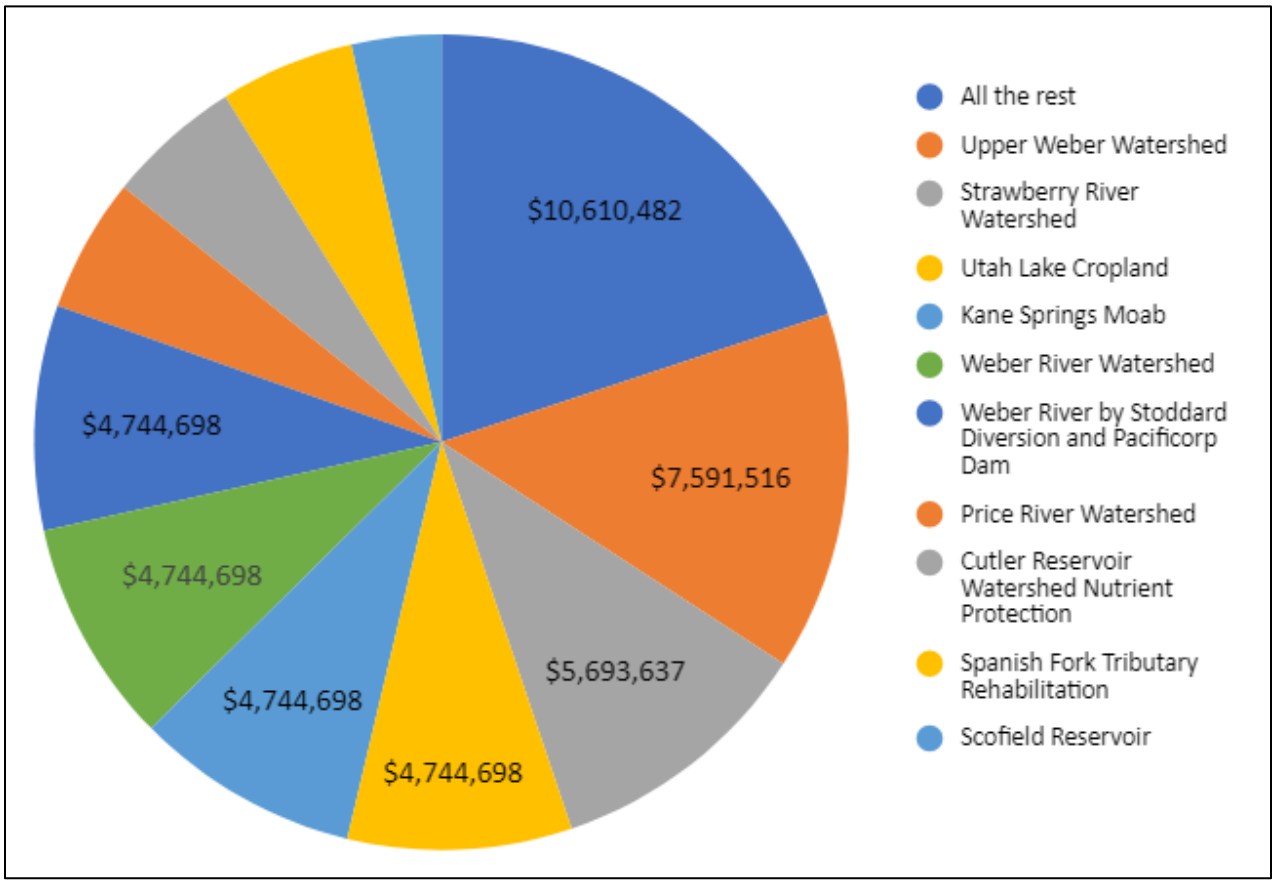
Total Decentralized Needs $1,260,869,732 (Health Departments)



Total Stormwater Needs $1,402,161,608 (Cities)



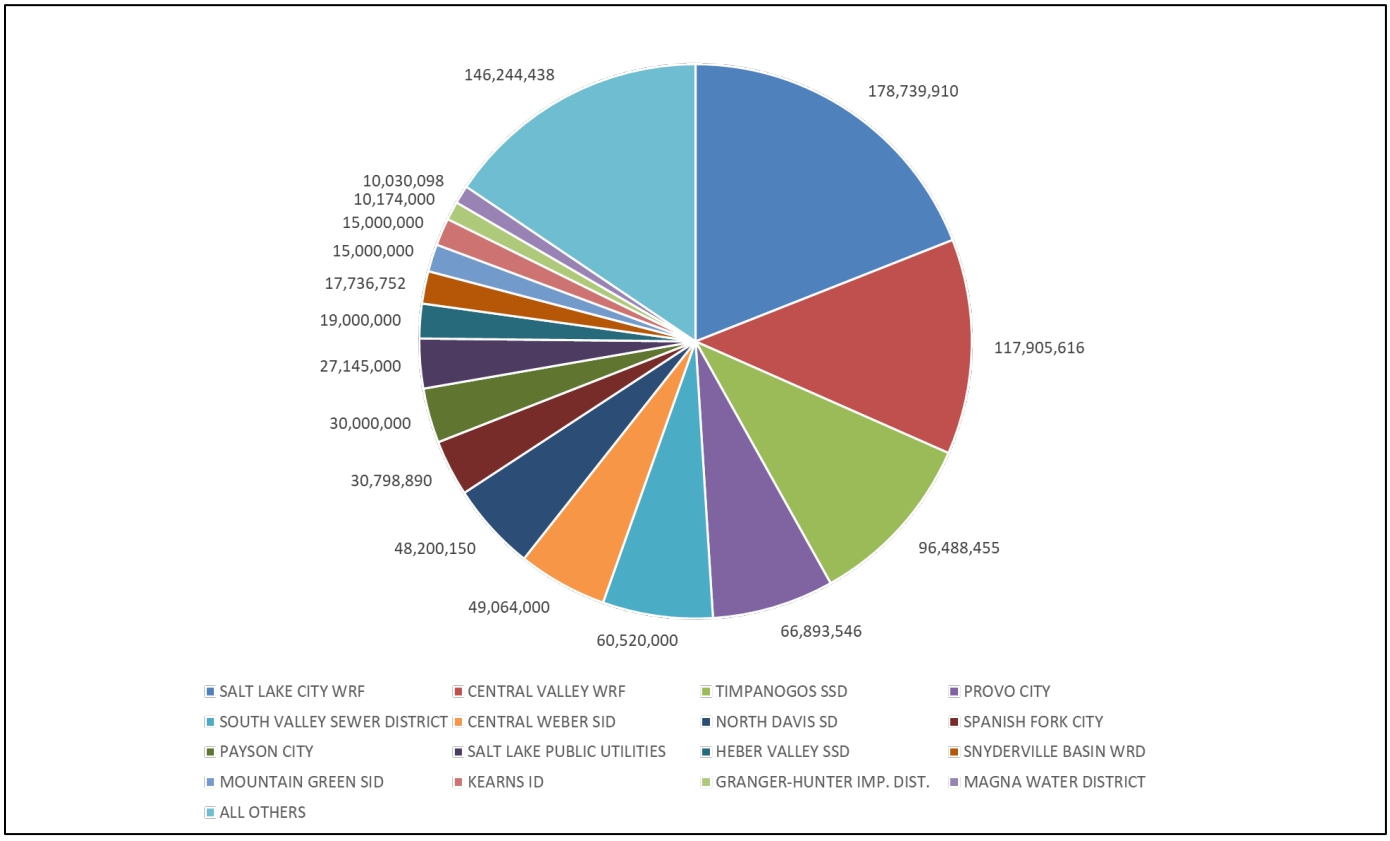
Total Non-Point Source Needs $55,210,682 (Projects)



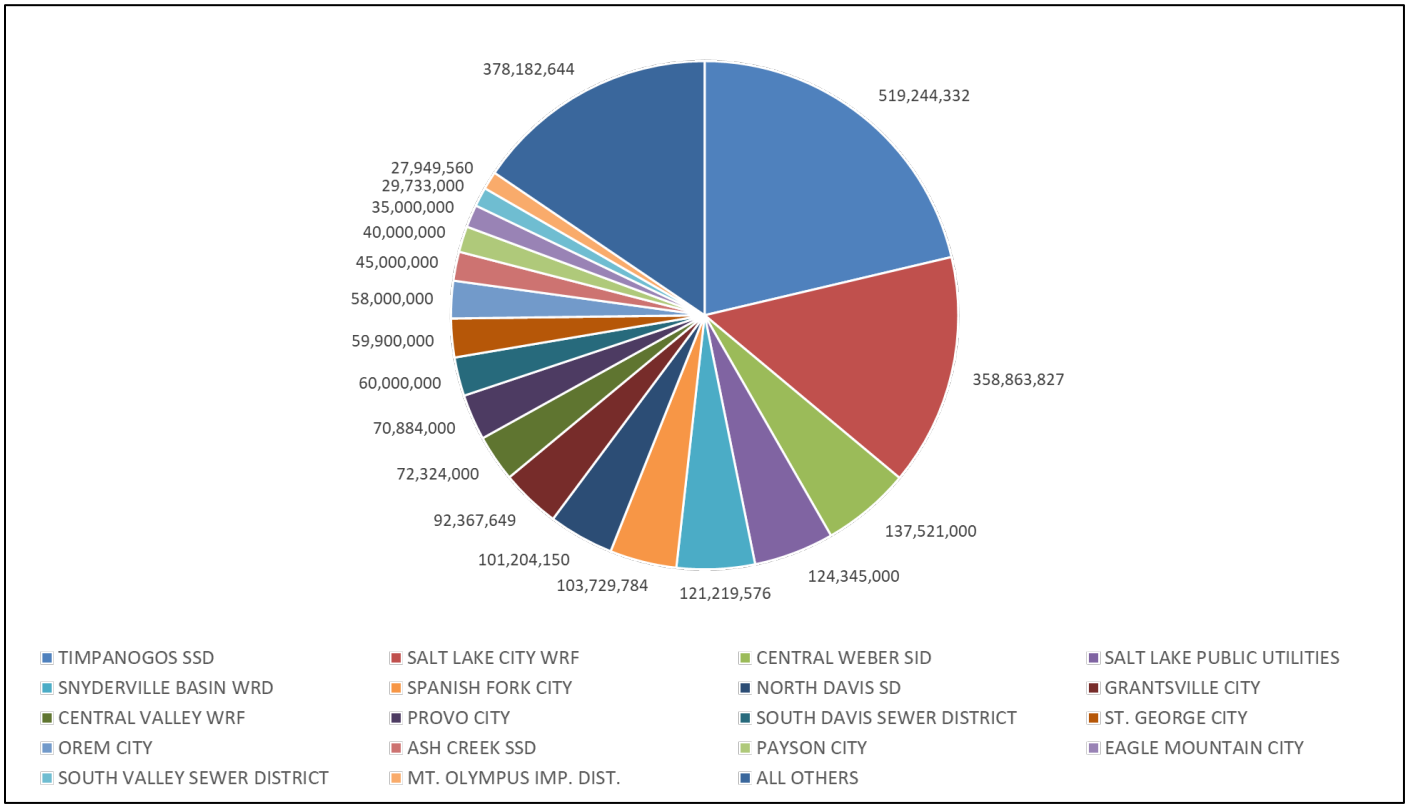
Attachment II

MWPP Data

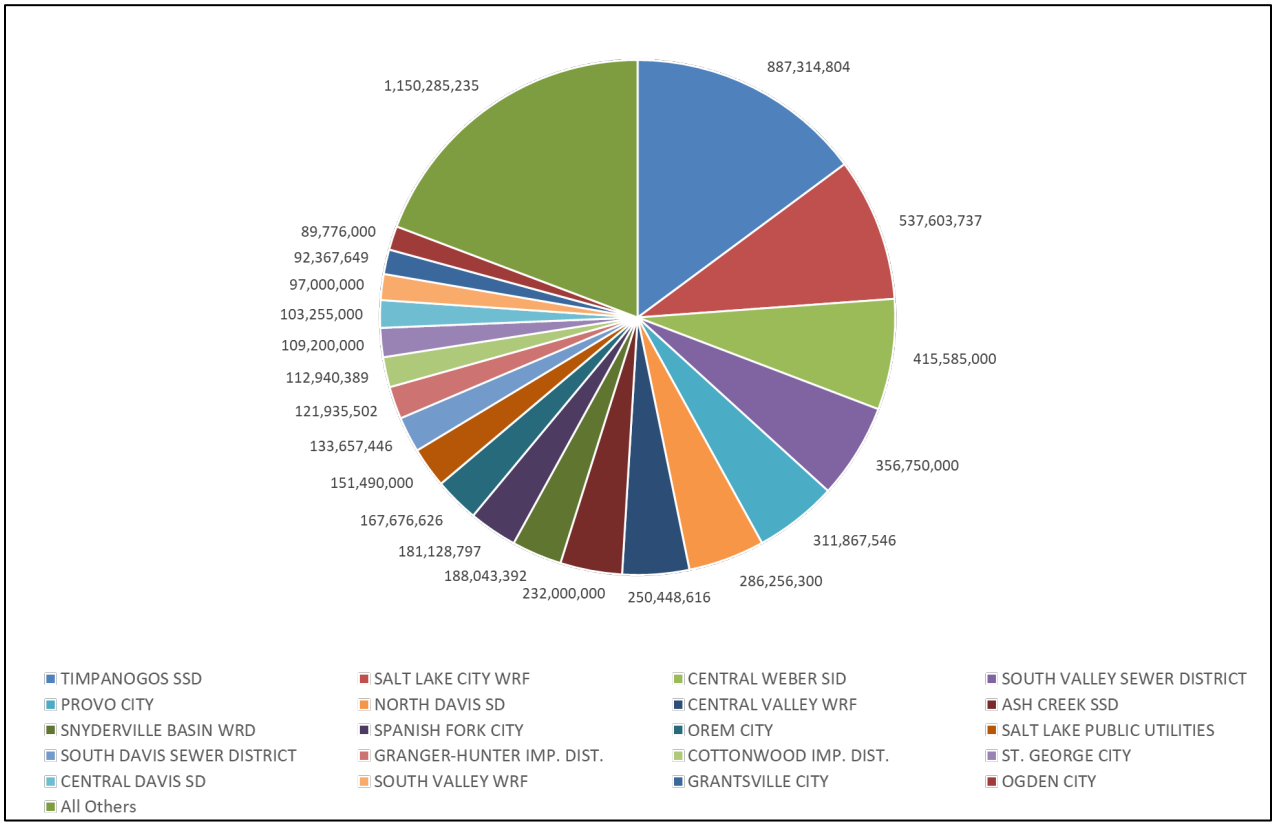
Total Capital Plans for 2022 ($938,940,855)

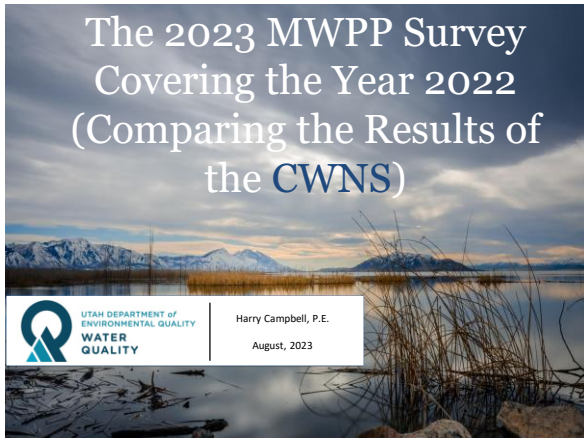


Total Capital Plans for 2023 to 2027 ($2,435,468,522)



Total Capital Plans for 2022 to 2042 ($5,976,582,039)





MWPP and CWNS

- Municipal Wastewater Planning Program (MWPP) is a survey the Division does every year.
- The Clean Water Needs Survey is an EPA sponsored survey and it is done every 4 years.
- We do the MWPP for a few reasons:
  1. It keeps us in touch with the financial side of the WW industry.
  2. It gives us a chance to press Asset Management on the industry.
  3. It is practice for when CWNS comes.
  4. The Utah Sewer Management Program (USMP) requires reporting.
  5. Helps us to stay up to date on Operator Certification.
- DWQ geared up in 2022 for CWNS which hasn't been done since 2012.

Survey Groups

Collections	64
Collections & Treatment	41
Small Lagoons	29
Treatment	8
Total	142
Total Treatment	78

2020 MWPP Survey

- 65% of Mailing List (Mailing List 220)
- Qualtrics Software
- Municipal Wastewater
- Year to Year comparisons
- Financial Planning
- Improved Operations (Asset Management)

MWPP Survey Coverage

- 44 of 65 UPDES Municipal Permits (68%)
- 29 of 61 Operating Permits (48%)
- 134 Collections Facilities
- 142 Total WW Systems

Funding Sources

Fund	% of Use	Average	Median	Max	Min
User Fee	91%	$35.33	$31.21	$98.92	$8.33
Impact Fee	68%	$2,606	$2,200	$11,016	$113
Tax	16%	$2.2 mil	$674,847	$10.9 mil	$8,000

Funding Sources Used by Participants

No Fees – 17 (9 cities, Deseret Chemical Depot, Bryce Canyon NP, Hite Marina NPS, South Valley WRF, Snyderville Basin EC & SC, So. Davis N & S, SLC WRF, CVWRF)

User Fees Only – 31

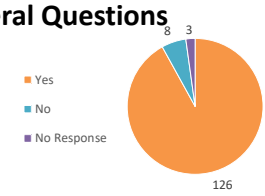
User Fees & Impact Fees -- 72 Timpanogos

User Fee, Impact Fee, Tax -- 20

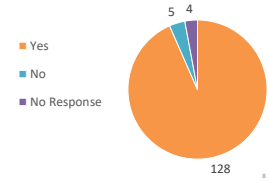
User Fees & Tax -- 2

Part I General Questions

Are sewer revenues maintained in a dedicated purpose enterprise/district account?

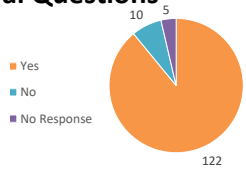


Are you collecting 95% or more of your anticipated sewer revenue?

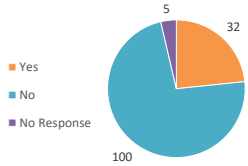


Part I General Questions

Are Debt Service Reserve Fund requirements being met?

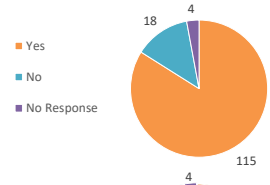


Do you have a water and/or sewer customer assistance program (CAP)?

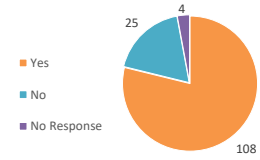


Part II Operating Revenues and Reserves

Are sewer revenues sufficient to cover operations & maintenance costs, and repair & replacement costs (OM&R) at this time?

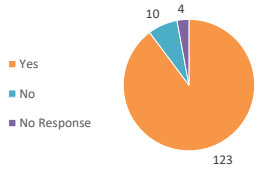


Are projected sewer revenues sufficient to cover OM&R costs for the next five years?

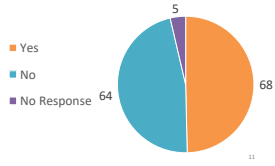


Part II Operating Revenue and Reserves

Does the sewer system have sufficient staff to provide proper OM&R?

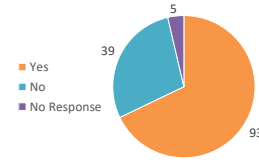


Are projected Capital Improvements Reserve Funds sufficient for the next <u>five</u> years?

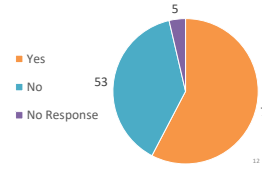


Part IV Fiscal Sustainability Review

Have you completed a Rate Study within the last five years?

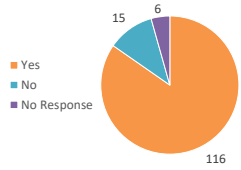


Have you completed an Impact Fee Study in accordance with UCA 11-36a-3 within the last five years?

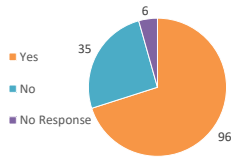


Part IV Fiscal Sustainability Review

Do you maintain a Plan of Operations?



Have you updated your Capital Facility Plan within the last five years?



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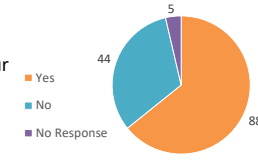
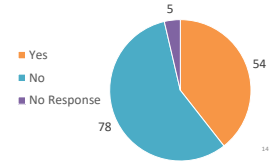
Part IV Fiscal Sustainability Review

Do you use an Asset Management system for your sewer systems?



Do you know the total replacement cost of your sewer system capital asset?



14

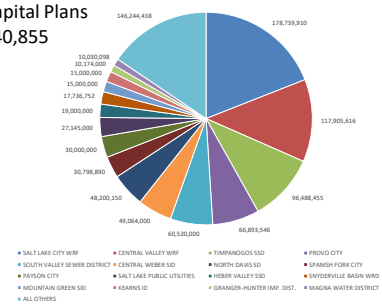
Capital Improvement Projects (2022)

How Many Projects?

	’22	’23-’27	’28-’32	‘33–’37	‘38-’42
0 to $1 M	51	33	19	19	17
$1 M to $5 M	19	26	24	19	21
$5 M to $10 M	15	14	16	11	12
$10 M to $50 M	11	18	14	18	13
$50 M to $100 M	3	6	3	2	1
$100 M to more	2	7	2	0	2

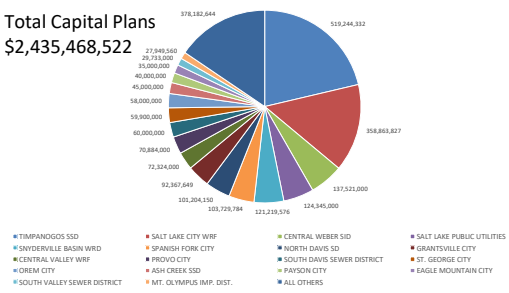
2022 Capital Plans (1-year)

Total Capital Plans
$938,940,855



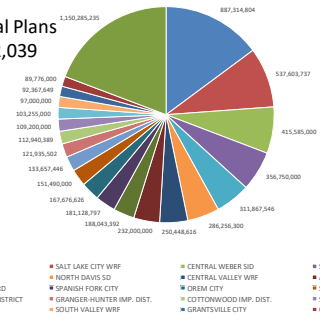
2023 – 2027 Capital Plans (5-years)

Total Capital Plans
$2,435,468,522

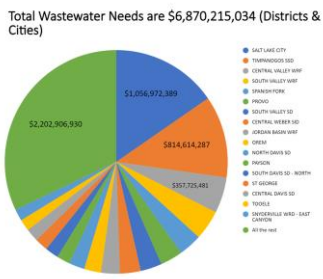


2022 - 2042 Capital Plans (20-years)

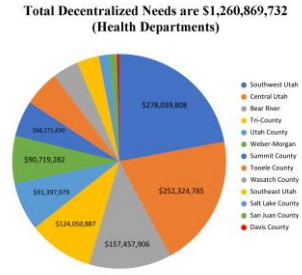
Total Capital Plans
$5,976,582,039



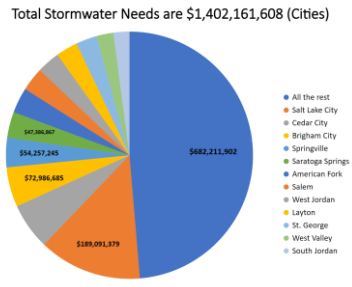
CWNS Results WW (2022 to 2042)



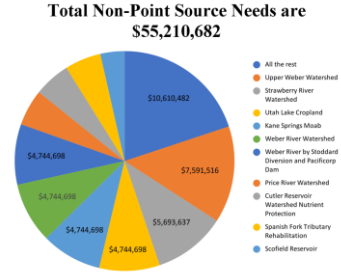
CWNS Results Decentralized WW



CWNS Results SW (2022 to 2042)



CWNS Results NPS (2022 to 2042)



Questions?

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