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
MASOB
195 North 1950 West
Board Room 1015 & Via Zoom
Salt Lake City, UT 84116

August 24, 2022
Board Meeting Begins at 8:30 am

AGENDA

Water Quality Board Meeting – Roll Call

A. Minutes:
Approval of Minutes for June 22, 2022 Water Quality Board Meeting ..... Steven Earley

B. Executive Secretary's Report ..... John Mackey

9:00 – 9:30 am

C. Rule Making:
1. Initiate Rule Making for the Jordan River Watershed E.coli Total Maximum Daily Load…….. …….. .....Sandy Wingert

9:30 – 10:30 am

D. Funding:
1. Financial Report ..... Krystol Carfaro
2. Stockton – Planning Advance..... Andrew Pompeo
3. Elwood – Planning Advance ..... Ken Hoffman
4. Dutch John – Planning Advance & Project Funding Introduction .....Glen Lischeske
5. Long Valley SID – Design Advance & Project Funding Introduction..... Andrew Pompeo

10:30 – 10:45 am Break

10:45 am

6. Lewiston – Additional Project Funding Introduction..... Beth Wondimu & Ken Hoffman
7. Hanksville – Design Advance & Project Funding Introduction..... George Meados
8. Springdale – Project Funding Introduction..... Beth Wondimu & Ken Hoffman
9. North Logan – Project Funding Introduction .....Glen Lischeske
10. Delta City – Planning & Design Advance & Project Funding Introduction..... George Meados
11. Central Valley – Additional Project Funding Introduction ..... Skyler Davies

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.

E. Public Comment Period

F. Meeting Adjournment

Next Meeting
September 28, 2022 at 8:30 am

DEQ Board Room 1015 & Via Zoom
195 North 1950 West
Salt Lake City, UT 84116

Revised 8/9/2022
DWQ-2022-025928

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John K. Mackey, P.E.
Interim Director

MINUTES

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
UTAH WATER QUALITY BOARD

MASOB
and
Via Zoom

June 22, 2022
8:30 am Work Meeting

UTAH WATER QUALITY BOARD MEMBERS PRESENT

Carly Castle	Trevor Heaton
Brandon Gordon	Mike Luers
Michela Harris	Kim Shelley
Joe Havasi	James Webb

Excused Steven Earley

DIVISION OF WATER QUALITY STAFF MEMBERS PRESENT

Robert Beers	Ken Hoffman
Jennifer Berjikian	Brenda Johnson
Hannah Bonner	Glen Lischeske
Paul Burnett	Leanna Littler-Woolf
Emily Cantón	John Mackey
Krystol Carfaro	George Meados
Harry Campbell	Baylie Nusink
Eric Castrejon	Winnie Pan
Skyler Davies	Danny Ryan
Judy Etherington	Jeff Studenka
Clanci Hawks	Lenora Sullivan
Samantha Heusser	

OTHERS PRESENT

Soren Simonson	Jordan River Commission
Justin Marshall	Vineyard City
Jaden Freeman	Student at Univ of Utah
Beau Stander	Big West Oil
Ian Muller	Big West Oil
Calah Worthen	SWCA Environmental Consult
Marian Rice	SLC Dept of Public Utilities
Dave Spence	Davis County Health Dept

OTHERS PRESENT

Randy Olson	Davis County Health Dept
Jay Clark	Davis County Health Dept
Haley Sousa	AG's Office
Sarah Guzman	
Jason Dupre	

Mr. Webb called the Meeting to order at 9:30 AM.

ROLL CALL

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

APPROVAL OF MINUTES OF MAY 25, 2022 BOARD MEETING

Motion: Mr. Havasi moved to approve the minutes of the May 25, 2022 Board meeting.

Mr. Gordon seconded the motion. The motion passed unanimously.

EXECUTIVE SECRETARY REPORT

Mr. Mackey addressed the Board regarding the following.

Water Quality Division

- Overview of Division Sections
  - General Permitting Section
    - 6 UPDES Permit issued
  - Individual Permitting Section
    - Lisbon Valley Mining Company
  - Engineering Section
    - Permit variance compliance schedules
      - Supply chain issues for larger utility projects that may affect variance schedules

- Staff Retirement
  - Chris Bittner, Standards & Technical Services Section

- Staff Introduction
  - Bailey Nusink, Info & Data Services Section

FUNDING REQUESTS

Financial Report: Ms. Carfaro updated the Water Quality Board on the Loan Funds and Hardship Grant Funds as indicated in the packet.

Request for Public Comment on the FY 2022 Intended Use Plan: Ms. Carfaro presented the Board with a request to go to public comment for feedback regarding the FY2022 Intended Use Plan.

Motion: Mr. Gordon moved to approve the request for public comment.

Mr. Havasi seconded the motion. The motion passed unanimously.

Request for Hardship Grant – Davis County, Ground Water Study: Mr. Beers presented the Water Quality Board with a request to authorize the $105,313 for a hardship planning grant to the Davis County Health Department.

Motion: Mr. Luers moved to approve the request along with the following special conditions.

1. **The Division of Water Quality must approve the engineering agreement and plan of study before the grant agreement will be executed.**
2. **Davis County Health Department must provide an informational presentation of the study results and recommendations to the Water Quality Board within one year following the project completion.**
3. **This Planning Advance is a grant and will not be repaid.**

Mr. Heaton seconded the motion. The motion passed with a majority vote, with Ms. Harris recusing herself.

Southern Utah ARPA competitive Grant Program: Mr. Hoffman presented the Water Quality Board with the Southern Utah Reuse ARPA Grant Program information.

Motion: Mr. Heaton moved to approve the following.

1. **30% minimum local contribution.**
2. **Line 2 of the boundary map (Attachment 1 in packet).**
3. **Staff recommended time line**
4. **Scoring criteria as written in the packet.**

Ms. Harris seconded the motion. The motion passed unanimously.

PUBLIC COMMENTS

There were no public comments.

MEETING ADJOURNMENT

Motion: Mr. Luers moved to adjourn the meeting.

Mr. Gordon seconded the motion. The motion passed unanimously.

To view the full recording of the Water Quality Board meeting.
https://deq.utah.gov/boards/utah-water-quality-board-meetings

Next Meeting – August 24, 2022
Meeting begins at 8:30 am

In-Person
MASOB
195 North 1950 West
Board Room 1015
Salt Lake City, UT 84116

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

James Webb, Vice Chair
Utah Water Quality Board

DWQ-2022-021291

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

MEMORANDUM

TO: Water Quality Board

THROUGH: John K. Mackey, Director, Division of Water Quality

FROM: Sandy Wingert, Watershed Protection Section

DATE: August 24, 2022

SUBJECT: Jordan River Watershed *E. coli* Total Maximum Daily Load**:** Request to Initiate Rulemaking to adopt TMDL by reference into R317-1-7

The Division of Water Quality (DWQ) has completed a Total Maximum Daily Load (TMDL) study to address *Escherichia coli (E. coli)* impairments in fourteen Assessment Units (AUs) within the Jordan River Watershed. Since the cost of implementation is below $10 million, legislative approval is not required.

Finalization Timeline

August 24, 2022:	Water Quality Board preliminary approval of TMDL/ Petition to initiate rulemaking
September 15 – October 15, 2022:	30-day Division of Administrative Rule Public Notice Period
October 26, 2022:	Petition Water Quality Board for formal adoption of TMDL into R317-1-7
November 1, 2022:	Submit TMDL to the Environmental Protection Agency (EPA) for approval

TMDL Summary

Section 303(d) of the Clean Water Act (CWA) requires states to develop TMDLs for waters that do not meet water quality standards for their designated beneficial use. The TMDL process establishes allowable loadings of pollutants or other quantifiable parameters for a waterbody. This TMDL addresses the *E. coli* impairments in fourteen AUs within the Jordan River watershed (Figure 1). These waterbodies were classified as impaired on the CWA 303(d) list of impaired waters in the

2006 through 2022 Integrated Reports. Six of the seven east-side major tributaries, two of the three west-side tributaries and several sections of the main stem Jordan River were addressed in the TMDL.

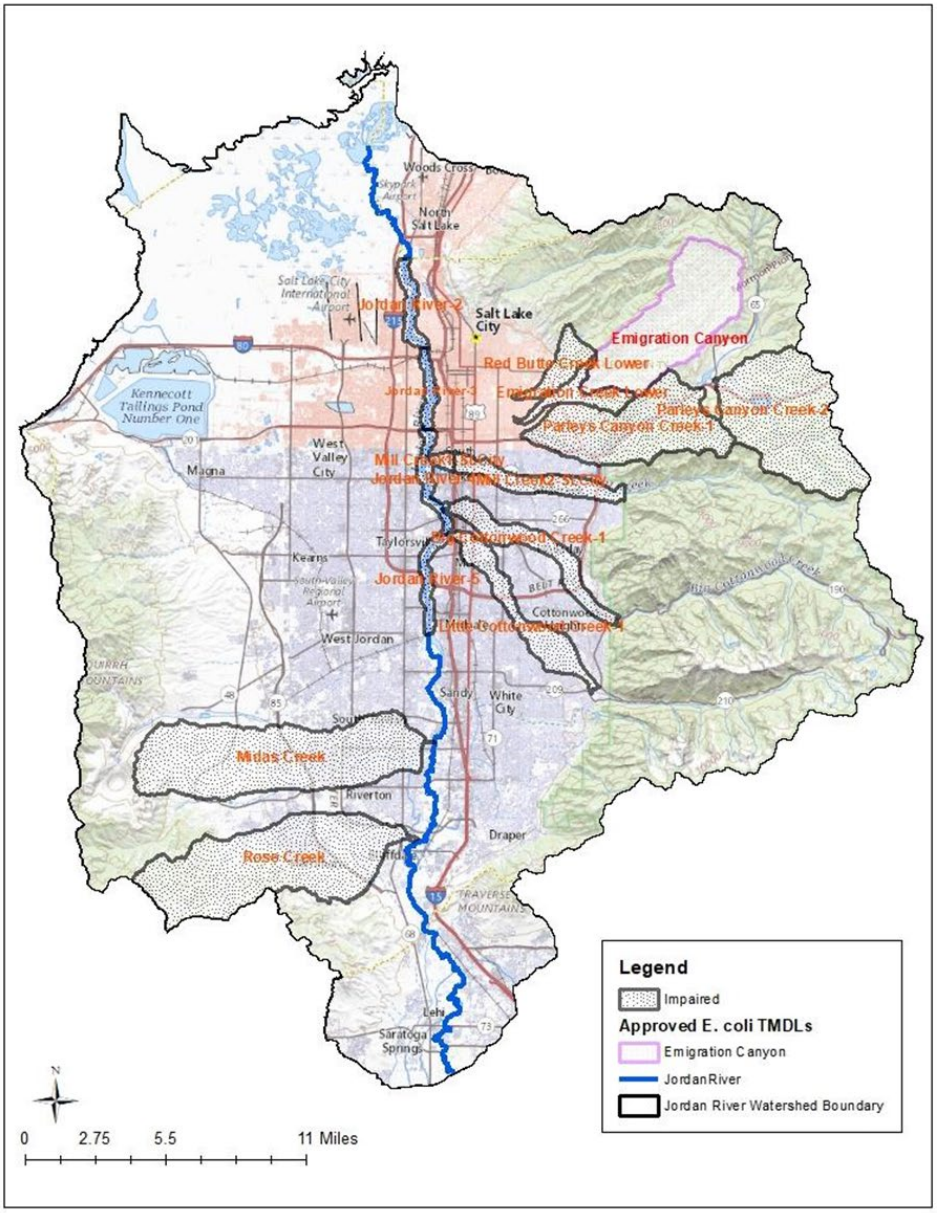

Figure 1. Location of the Jordan River watershed impaired assessment units.

Concentration Based TMDL

Typically, a TMDL is mass-based, with a calculation of the maximum amount of a pollutant that a waterbody can receive daily and still meet water quality standards. It is synonymous with the term "loading capacity" that the EPA defines as "the greatest amount of loading that a waterbody can receive without violating water quality standards" (EPA, 2007). In some cases, particularly when addressing *E. coli* impairments, a concentration based TMDL is appropriate. The concentration based TMDL uses the water quality numeric criteria as the daily TMDL target such that all sources are expected to meet the water quality criteria. This approach is easier to understand and communicate to stakeholders, does not require robust flow data or complex modeling, and is equitable in terms of assigning responsibility to reduce instream *E. coli* concentrations.

For the Jordan River Watershed *E. coli* TMDL, all sources, both point and nonpoint, within the impaired assessment units must meet the following water quality criteria:

- 206 MPN/100 mL as a 30-day geometric mean,
- 206 MPN/100 mL as a recreational season geomean, and
- 668 MPN/100 mL as a daily maximum during the recreational season

Sources

A multiple lines of evidence approach was used to identify sources of *E. coli* in each impaired AU including an analysis of land cover, load duration curves in terms of flow regimes, and microbial source tracking. As a result, a variety of point and nonpoint sources contribute to the impairments.

Potential contributors of nonpoint source *E. coli* pollution within the Jordan River watershed impaired AUs include humans, wildlife, pets, and livestock. Human sources include failing onsite septic systems, recreationists, and the unhoused populations. Animal sources include pets, and wildlife including waterfowl and livestock. Agricultural sources within this urbanized area are limited and localized primarily in the southern and western portions of the watershed. Irrigation canals delivering Utah Lake water to the local irrigators through exchange agreements with Salt Lake City could be a possible source of contamination.

Point sources include municipal wastewater treatment facilities and municipal separate stormwater sewer systems (MS4s). Central Valley and South Valley Wastewater Treatment Facilities are the only wastewater treatment facilities within the Jordan River watershed considered in this TMDL Current Utah Pollution Discharge Elimination System (UPDES) permit limits for *E.coli* are below the numeric water quality standard therefore no further reduction is needed.

Based on the multiple lines of evidence approach, stormwater was found to be a significant contributor to *E. coli* loading to surface waters in the Jordan River watershed. MS4 individual and general permits will serve as a regulatory mechanism for working toward the goals of the TMDL. After the TMDL is approved by EPA, MS4 permit language will be modified to address the TMDL and a TMDL Action Plan will be required.

Implementation Strategy and Estimated Costs

An implementation plan lays out the pathway to improving water quality and achieving TMDL endpoints. It includes recommended Best Management Practices (BMPs) in conjunction with information and education outreach to stakeholders to share information about the water quality impairment, why it matters, and what can be done to improve it. For nonpoint sources, stakeholders will employ a voluntary adaptive management approach to address all anthropogenic sources of *E. coli* loading, with a focus on improvements in agricultural, onsite septic system and stormwater management. The implementation strategy for nonpoint sources is voluntary and incentive based. DWQ will continue to coordinate with the Salt Lake Conservation District, Salt Lake County Health Department, Jordan River Commission, local stakeholders, and other partners to identify specific project locations to employ BMPs.

Implementation strategies for point sources focus on the regulated MS4 community.
All MS4s, within the watershed will be required to implement enhanced non-structural BMPs beyond the standard six minimum control measures (MCMs) currently required in the MS4 UPDES permit to reduce the discharge of *E. coli*. These MCMs include: 1) public education and outreach on stormwater impacts; 2) public involvement/participation; 3) illicit-discharge detection and elimination; 4) construction site stormwater runoff control; 5) long-term stormwater management in new development and redevelopment; and 6) pollution prevention and good housekeeping for municipal operations.

Stakeholder and Public Involvement

Stakeholder participation for the Jordan River Watershed *E. coli* TMDL was achieved through meetings, symposiums, and site visits since 2019. The initial TMDL kick-off meeting was presented at the February 5, 2019 Jordan River Watershed Council meeting. Please see Table 2 for specific details on stakeholder and public involvement during the TMDL process. Stakeholder participation included the following entities:

- Utah Department of Agriculture and Food
- Utah Department of Transportation
- Salt Lake County Watershed and Restoration
- Salt Lake County Health Department
- Salt Lake County Parks and Recreation

- Salt Lake Conservation District
- Salt Lake County Stormwater Coalition
- Local municipalities (MS4 Permittees)
- Jordan River Commission and Technical Advisory Council
- Central Valley Wastewater Reclamation Facility
- South Valley Wastewater Reclamation Facility
- Natural Resource Conservation District
- United States Forest Service
- University of Utah
- Wheeler Farm
- United States Environmental Protection Agency
- Private landowners

Table 2. Public participation timeline.

Date	Schedule
February 5, 2019	Kickoff TMDL meeting at the Jordan River Watershed Council
2020	USFS Stakeholder Engagement Quarterly Meeting: Impaired waterbodies NRCS Local Workgroup: Impaired Waterbodies Scoping project: TMDL tracking and credit tool MS4 and POTW interviews (TMDLs and tracking tool)
2021	NRCS Local Workgroup: TMDL update WQB: TMDL Introduction Salt Lake County Stormwater Coalition: TMDL and Tracking Tool Updates JRC TAC: TMDL and Technical Approach Big Cottonwood Creek Tour with Salt Lake Public Utilities Best Management Practices presentation: Emigration Canyon Salt Lake County Watershed Symposium
2022	NRCS Local Workgroup: TMDL update Salt Lake Conservation District & UDAF: TMDL, potential sources, site tour Salt Lake County Stormwater Coalition: TMDL Wheeler Farm site visit Targeted solicitation: Salt Lake County and Salt Lake City Salt Lake County MS4 meeting: TMDL report and permit modifications Jordan River Commission and TAC: TMDL report
June 7 – July 8, 2022	Stakeholder comment period (30 days)

Stakeholder Review of draft TMDL

A draft of the Jordan River Watershed *E.coli* TMDL was made available to stakeholders and the public from June 7 to July 8, 2022 by both email and DWQ's website. The official public comment period will begin on September 15, 2022 following the request to initiate rule-making at the August 24, 2022 Water Quality Board meeting. DWQ will respond to all public comments submitted during the stakeholder draft review and public comment period and all comments will become part of the public comment record.

Draft TMDL Report

The Jordan River Watershed *E.coli* TMDL report is organized into two sections. The main body of the report includes general information on the pollutant of concern (*E. coli*), applicable Utah water quality standards, the technical approach taken for this TMDL, possible pollutant sources in the watershed, and an implementation plan that serves as a guide for implementing best management practices and water quality improvement projects. In the appendices, each impaired AU is discussed and includes site specific details on the hydrology, data analysis, land use, and potential sources of *E. coli* in that area.

The draft Jordan River Watershed *E.coli* TMDL is posted online on DWQ's website at:

Main Report:
https://docs.google.com/document/d/1AZvM5PNjUdwmDWLJbNIkcjGLA0myIOaJDpHt7p5sJ0M/edit?usp=sharing

Appendices:
https://docs.google.com/document/d/1mjI0Ai7XJi7c10D30ky16CAGDnXHl8SsVx5BsdoxOyI/edit?usp=sharing

LOAN FUNDS FINANCIAL STATUS REPORT AUGUST 2022

STATE REVOLVING FUND (SRF)	State Fiscal Year 2023	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 Grants Awards (FY22)	$ 6,158,000					
Future Capitalization Grant (estimated)		$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000
State Cap Grant Match (FY22)	$ 1,231,600	$ -	$ -	$ -	$ -	
Future State Cap Grant Match (estimated)		$ 1,200,000	$ 1,200,000	$ 1,200,000	$ 1,200,000	$ 1,200,000
CAP Grant General Supplemental						
General Supplemental Grants	$ 9,378,000					
Future General Supplemental Grant (estimated)		$ 10,294,350	$ 11,234,025	$ 12,169,025	$ 12,169,025	
State General Supplemental Grants Match	$ 937,800					
Future State Gen. Sup Grants Match (estimated)		$ 1,029,435	$ 2,246,805	$ 2,433,805	$ 2,433,805	
SRF - 2nd Round						
Account Balance	$ 34,111,906	$ (4,083,804)	$ (1,317,640)	$ 18,507,144	$ 53,169,486	$ 86,914,510.93
Interest Earnings at 0.4676%	$ 132,957	$ (17,364)	$ (5,603)	$ 78,692	$ 226,077	$ 369,561
Loan Repayments (5255)	$ 16,460,234	$ 20,400,749	$ 20,164,590	$ 20,115,402	$ 18,678,941	$ 22,411,849
Total Funds Available	$ 68,410,496	$ 34,823,366	$ 39,522,178	$ 60,504,069	$ 93,877,333	$ 116,895,920
CWSRF Program Obligations						
Admin Expenses 4% of all CAP Grant Awards	$ (641,160)	$ (696,774)	$ (734,361)	$ (771,761)	$ (400,000)	$ (400,000)
Cap Grant Principal Forgiveness (PF) (FY18-22)	$ (13,534,600)					
Future Cap Grant (PF portion)		$ (600,000)	$ (600,000)	$ (600,000)	$ (600,000)	$ (600,000)
General Supplemental Grants (PF portion)	$ (4,595,220)					
Future General Supplemental Grants (PF portion)		$ (5,044,232)	$ (5,504,672)	$ (5,962,822)	$ (5,962,822)	
OSG Cost Share Balances (FY20-21)	$ (67,320)					
Project Obligations						
Central Valley Water Reclamation Facility	$ (12,100,000)	$ -	$ -	$ -	$ -	$ -
Moab City	$ (80,000)	$ -	$ -	$ -	$ -	$ -
Provo City	$ (27,045,000)	$ (16,800,000)	$ -	$ -	$ -	$ -
South Salt Lake City (A)	$ (524,000)	$ -	$ -	$ -	$ -	$ -
Millville City Loan	$ (5,146,000)	$ -	$ -	$ -	$ -	$ -
Mountain Green	$ (5,500,000)	$ (1,500,000)	$ -	$ -	$ -	$ -
Payson City	$ (2,000,000)	$ (11,500,000)	$ -	$ -	$ -	$ -
Loan Authorizations						
South Davis Sewer District (with NPS)			$ (14,176,000)	$ -	$ -	$ -
Millville Refinance Loan	$ (1,261,000)	$ -	$ -	$ -	$ -	$ -
Planned Projects						
Central Valley		$ -	$ -	$ -	$ -	$ -
Delta		$ -	$ -	$ -	$ -	$ -
Hanksville		$ -	$ -	$ -	$ -	$ -
Lewiston		$ -	$ -	$ -	$ -	$ -
Long Valley		$ -	$ -	$ -	$ -	$ -
North Logan		$ -	$ -	$ -	$ -	$ -
Springdale		$ -	$ -	$ -	$ -	$ -
CWSRF Obligations	$ (72,494,300.00)	$ (36,141,005.50)	$ (21,015,033.25)	$ (7,334,583.25)	$ (6,962,822.25)	$ (1,000,000.00)
CWSRF Remaining Loan Balance	$ (4,083,803.63)	$ (1,317,639.85)	$ 18,507,144.26	$ 53,169,485.61	$ 86,914,510.93	$ 115,895,920.43

*WQB Agenda Items

LOAN FUNDS FINANCIAL STATUS REPORT AUGUST 2022

Add. Sub. - Principal Forgiveness						
PF Balances (max for FY18-22)	$ 13,534,600	$ 3,015,820	$ 4,660,052	$ 10,764,724	$ 17,327,546	$ 23,890,368
Future Cap Grant (PF portion)	$ -	$ 600,000	$ 600,000	$ 600,000	$ 600,000	$ 600,000
General Supplemental Balances (PF portion)	$ 4,595,220					
Future General Supplemental Grants (PF portion)		$ 5,044,232	$ 5,504,672	$ 5,962,822	$ 5,962,822	
Project Obligations						
South Salt Lake City (A)	$ (2,000,000)					
Millville City	$ (3,604,000)					
Provo City	$ (4,000,000)	$ (3,000,000)				
Payson City		$ (1,000,000)				
Add. Sub. Authorizations						
Millville City Refinance	$ (3,750,000)					
South Salt Lake Increase	$ (1,760,000)					
Planned Projects						
Principal Forgiveness Remaining Balance	$ 3,015,820	$ 4,660,052	$ 10,764,724	$ 17,327,546	$ 23,890,368	$ 24,490,368

UTAH WASTEWATER LOAN FUND (UWLF)	State Fiscal Year 2023	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027	State Fiscal Year 2028
Funds Available						
UWLF	$ 25,198,894	$ 16,991,382	$ 18,756,238	$ 19,638,167	$ 20,180,216	$ 20,337,252
Sales Tax Revenue	$ 3,587,500	$ 3,587,500	$ 3,587,500	$ 3,587,500	$ 3,587,500	$ 3,587,500
Loan Repayments (5260)	$ 2,495,988	$ 2,473,791	$ 2,808,235	$ 2,655,353	$ 2,270,341	$ 2,298,785
Total Funds Available	$ 31,282,382	$ 23,052,673	$ 25,151,972	$ 25,881,021	$ 26,038,057	$ 26,223,537
General Obligations						
State Match Transfers Base Cap Grant	$ (1,231,600)	$ (1,200,000)	$ (1,200,000)	$ (1,200,000)	$ (1,200,000)	$ (1,200,000)
State Match Transfers Gen. Supplemental Grant	$ (937,800)	$ -	$ -	$ -	$ -	
State Match Transfers Gen. Supplemental Grant (est)		$ (1,029,435)	$ (2,246,805)	$ (2,433,805)	$ (2,433,805)	
State Match Reserve for Historic Cap Grant Values		$ (368,400)	$ (368,400)	$ (368,400)	$ (368,400)	$ (368,400)
DWQ Administrative Expenses	$ (1,698,600)	$ (1,698,600)	$ (1,698,600)	$ (1,698,600)	$ (1,698,600)	$ (1,698,600)
Project Obligations						
South Salt Lake City (B)	$ (4,891,000)	$ -	$ -	$ -	$ -	$ -
Loan Authorizations						
Spanish Fork	$ (4,500,000)	$ -	$ -	$ -	$ -	$ -
South Salt Lake City	$ (1,032,000)	$ -	$ -	$ -	$ -	$ -
Planned Projects						
	$ -	$ -	$ -	$ -	$ -	$ -
Total Obligations	$ (14,291,000)	$ (4,296,435)	$ (5,513,805)	$ (5,700,805)	$ (5,700,805)	$ (3,267,000)
UWLF Remaining Loan Balance	$ 16,991,382	$ 18,756,238	$ 19,638,167	$ 20,180,216	$ 20,337,252	$ 22,956,537

TOTAL LOAN FUND BALANCE	$ 15,923,398	$ 22,098,649	$ 48,910,035	$ 90,677,247	$ 131,142,131	$ 163,342,826
PROJECT RESERVE		$ (5,000,000)	$ (10,000,000)	$ (15,000,000)	$ (20,000,000)	$ (25,000,000)
TOTAL AVAILABLE LOAN FUNDS	$ 15,923,398	$ 17,098,649	$ 38,910,035	$ 75,677,247	$ 111,142,131	$ 138,342,826

*WQB Agenda Items

HARDSHIP GRANT FUNDS FINANCIAL STATUS REPORT AUGUST 2022

HARDSHIP GRANT FUNDS (HGF)	State Fiscal Year 2023	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027	State Fiscal Year 2028
Funds Available						
Beginning Balance		$ 400,930.01	$ 698,628.01	$ 907,542.23	$ 1,024,474.69	$ 1,045,867.57
Federal HGF Beginning Balance (5250)	$ 2,993,466.35	$ -	$ -	$ -	$ -	$ -
State HGF Beginning Balance (5265)	$ 2,724,090.44	$ -	$ -	$ -	$ -	$ -
Interest Earnings at 0.4676%	$ 24,507.35	$ 1,704.75	$ 2,970.57	$ 3,858.87	$ 4,356.07	$ 4,447.03
UWLF Interest Earnings at 0.4676%	$ 108,010.86	$ 79,451.70	$ 87,704.17	$ 91,828.07	$ 94,362.69	$ 95,096.99
Hardship Grant Assessments (5255)	$ 615,833.46	$ 919,300.25	$ 842,768.58	$ 767,302.44	$ 690,077.49	$ 635,301.94
Interest Payments - (5260)	$ 318,334.08	$ 297,241.29	$ 275,470.91	$ 253,943.08	$ 232,596.63	$ 216,154.35
Advance Repayments	$ -	$ -	$ -	$ -	$ -	$ -
Total Funds Available	$ 6,784,242.54	$ 1,698,628.01	$ 1,907,542.23	$ 2,024,474.69	$ 2,045,867.57	$ 1,996,867.88
Financial Assistance Project Obligations						
Big Water Planning Grant	$ (52,500.00)					
Eagle Mountain City - Construction Grant	$ (510,000.00)	$ -	$ -	$ -	$ -	$ -
Hinckley Hardship Planning Grant	$ (15,000.00)	$ -	$ -	$ -	$ -	$ -
Lewiston City - Design and Construction	$ (274,000.00)	$ -	$ -	$ -	$ -	$ -
Millville City - Design and Construction	$ (1,000,000.00)	$ -	$ -	$ -	$ -	$ -
Mount Pleasant Planning Advance	$ (50,000.00)	$ -	$ -	$ -	$ -	$ -
Spanish Fork - Hardship Grant	$ (500,000.00)	$ -	$ -	$ -	$ -	$ -
Non-Point Source/Hardship Grant Obligations						
McKees ARDL interest-rate buy down	$ (55,261.00)	$ -	$ -	$ -	$ -	$ -
Munk Dairy ARDL interest-rate buy down	$ (16,017.00)	$ -	$ -	$ -	$ -	$ -
(FY12) Utah Department of Agriculture	$ (177,928.28)	$ -	$ -	$ -	$ -	$ -
(FY15) DEQ - Ammonia Criteria Study	$ (27,242.43)	$ -	$ -	$ -	$ -	$ -
(FY17) DEQ - Utah Lake Water Quality Study	$ (348,300.75)	$ -	$ -	$ -	$ -	$ -
(FY23) DEQ Davis County Health Department	$ (105,313.00)	$ -	$ -	$ -	$ -	$ -
USU - Historic Trophic State/Nutrient Concentrations Paleo	$ (78,070.26)	$ -	$ -	$ -	$ -	$ -
FY 2018 - Remaining Payments	$ (7,100.00)	$ -	$ -	$ -	$ -	$ -
FY 2019 - Remaining Payments	$ (88,688.36)	$ -	$ -	$ -	$ -	$ -
FY 2020 - Remaining Payments	$ (277,866.02)	$ -	$ -	$ -	$ -	$ -
FY 2021 - Remaining Payments	$ (181,035.75)	$ -	$ -	$ -	$ -	$ -
FY 2022 - Remaining Payments	$ (760,089.68)	$ -	$ -	$ -	$ -	$ -
FY2023 - Remaining Payments	$ (1,000,000.00)					
Future NPS Annual Allocations		$ (1,000,000.00)	$ (1,000,000.00)	$ (1,000,000.00)	$ (1,000,000.00)	$ (1,000,000.00)
Planned Projects						
Delta Design-HGF Loan	$ (200,000.00)					
Delta Design-Grant	$ (200,000.00)					
Dutch John-Planning	$ (95,000.00)					
Dutch John-HGF Loan	$ (60,000.00)					
Elwood-Planning	$ (18,200.00)					
Long Valley-Design	$ (103,700.00)					
Hanksville-Design	$ (162,000.00)					
Stockton-Planning	$ (20,000.00)					
Total Obligations	$ (6,383,312.53)	$ (1,000,000.00)	$ (1,000,000.00)	$ (1,000,000.00)	$ (1,000,000.00)	$ (1,000,000.00)
HGF Unobligated Funds	$ 400,930.01	$ 698,628.01	$ 907,542.23	$ 1,024,474.69	$ 1,045,867.57	$ 996,867.88

*WQB Agenda Items

State of Utah
Wastewater Project Assistance Program
Project Priority List

As of August 10, 2022

Rank	Project Name	Funding Authorized	Total Points	Point Categories			
				Project Need	Potential Improvement	Population Affected	Special Consideration
1	South Salt Lake City (CVWRF)	X	143	50	23	10	60
	Central Valley (CVWRF)	R	143	50	23	10	60
2	South Davis Sewer District	X	138	50	18	10	60
3	Springdale		119	40	18	1	60
4	Spanish Fork Water Reclamation Facility	X	117	50	19	8	40
5	North Logan		86	25	14	7	40
6	Hanksville		76	50	5	1	20
7	Lewiston City	R	66	10	14	2	40
8	Dutch John (Dagget County)		28	10	17	1	0
9	Delta		24	0	0	4	20
10	Long Valley SID		11	10	0	1	0

X - funding authorized; R - Additional Funding Requested; 0 - Funding Not Yet Authorized

State of Utah
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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

WATER QUALITY BOARD
REQUEST FOR HARDSHIP PLANNING ADVANCE FOR
WASTEWATER CAPITAL FACILITIES PLAN

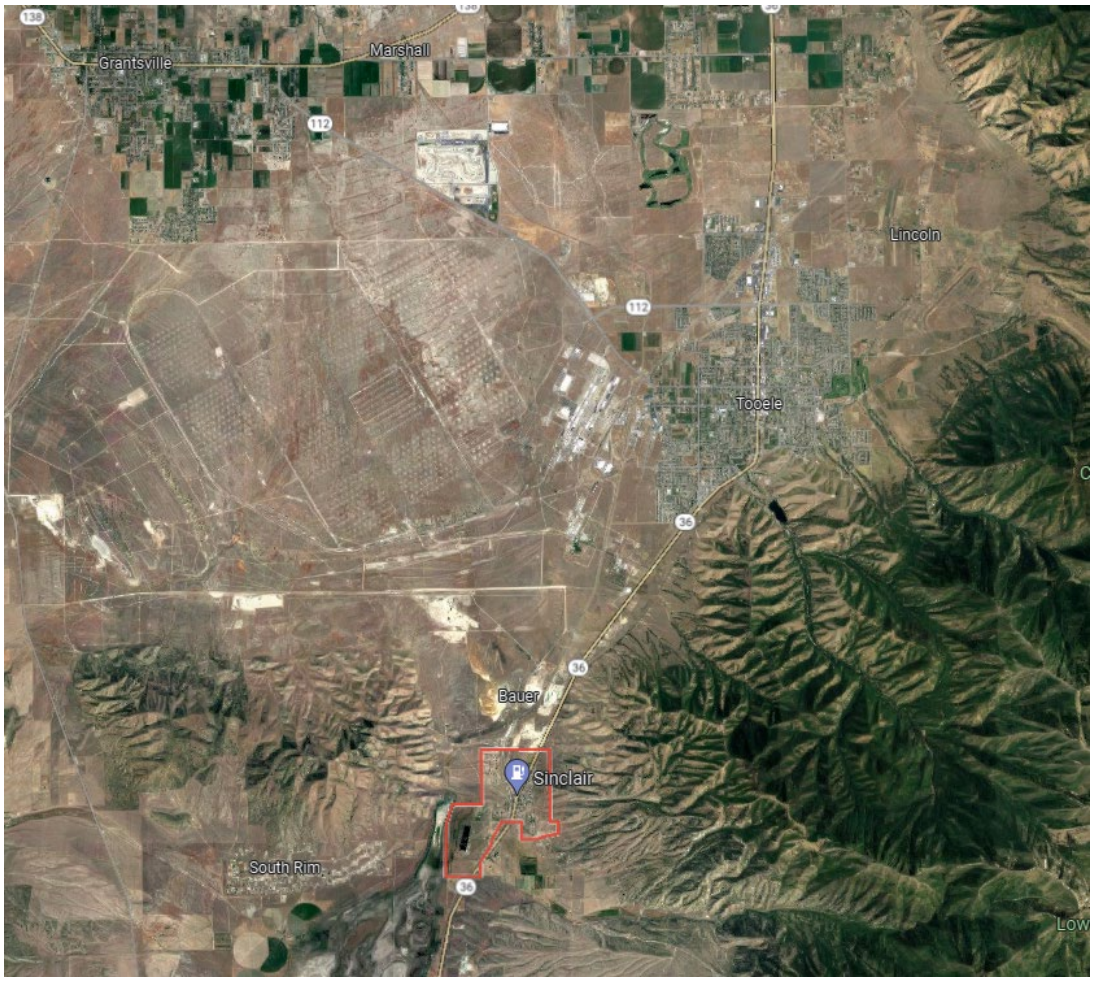
APPLICANT:	Town of Stockton 18 North Johnson Street Stockton, UT 84071 (435)-882-3877
PRESIDING OFFICIAL:	Mayor Nando Meli 18 North Johnson Street Stockton, UT 84071 (435)-882-3877
CONTACT:	Nando Meli
TREASURER/RECORDER:	Laura Mott
CONSULTING ENGINEER:	Ted Mickelson- Jones and DeMille Engineering 775 West 1200 North, Suite 200 Springville, UT 84663 (435)-692-0219
CITY ATTORNEY:	Brett Coombs Grantsville City, UT 84029 (435)-884-3411

APPLICANT'S REQUEST

The Town of Stockton is requesting a **hardship planning advance** in the amount of **$20,000** to pay for a Capital Facilities Plan which will review the existing sewer collection and treatment facilities and the impact of future growth on these facilities.

APPLICANT'S LOCATION

The Town of Stockton is about 7 miles south of Tooele, and is in Tooele County.



PROJECT NEED

The town is experiencing pressures of development, which requires the expansion and/or upgrades to the sewer system. Currently, the town does not have a Sewer Capital Facilities Plan and does not charge an Impact Fee. The city has limited funds due to the city's low revenue. The sewer was constructed in 2012 and is due for inspection and possibly upgrades.

PROJECT DESCRIPTION

The Town of Stockton is requesting funding to review the existing sewer collection and treatment facilities. This review will help the town determine how to maintain their lagoons, and help develop a plan on increasing connections to the sewer lagoons. The Capital Facilities Plan will conduct an Impact Fee Analysis to determine if an impact fee will be necessary to fund upgrades to the sewer system. The Sewer Capital Facilities Plan will be completed in conjunction with a Culinary Water System Capital Facilities Plan, which is being funded by the Division of Drinking Water.

IMPLEMENTATION SCHEDULE

The estimated Capital Facilities Plan completion date is December 31, 2022.

COST ESTIMATE

The Town of Stockton is requesting $20,000 from the Water Quality Board.

STAFF COMMENTS AND RECOMMENDATION

This is a small rural community with limited capital reserves. The planning advance would allow the Town to perform the necessary assessment to determine system deficiencies and the best corrective actions, as well as determine a reasonable impact fee, if necessary. Staff recommends the Board authorize a hardship planning grant of $20,000 to the Town of Stockton under the following special conditions:

1. The Division of Water Quality must approve the engineering agreement and plan of study before the advance will be executed.

2. The City must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

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

State of Utah
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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
REQUEST FOR HARDSHIP PLANNING ADVANCE FOR WASTEWATER CAPITAL FACILITIES PLAN

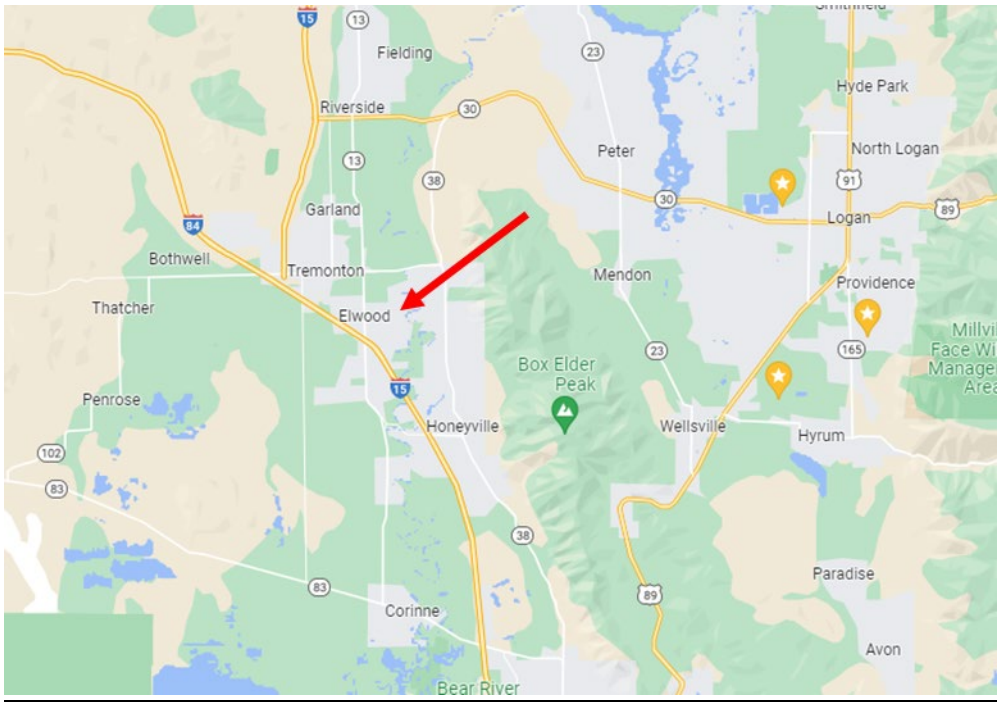
APPLICANT:	Elwood Town 5235 West 8800 North Elwood, UT 84337
PRESIDING OFFICIAL:	Mayor Keenan Nelson (435)-257-5518
CONTACT:	Lynn Hardy, Town Councilmember
TREASURER/RECORDER:	Lindsi Florence, Treasurer
CONSULTING ENGINEER:	Shane Taggart, P.E.- Jones & Associates 6080 Fashion Point Drive South Ogden, UT 84404 (801)-476-9767
CITY ATTORNEY:	Amy Hugie 9 West Forest Street #208 Brigham City, UT 84302 (435)-734-0655

APPLICANT'S REQUEST

Elwood Town is requesting a **hardship planning advance** in the amount of $18,200 to evaluate expanding the sewer system to provide service to the part of town on the south side of Interstate 15.

APPLICANT'S LOCATION

Elwood Town is located in Box Elder County.



PROJECT NEED

Elwood is a rural agricultural city that is experiencing rapid growth. Due to the fact that there is a highway dividing Elwood into two sections, there is need to extend the sewer system to the south side of town.

PROJECT DESCRIPTION

Elwood is seeking to expand its existing sewer system to provide service to the south side. The purpose of this study will be to identify the ideal locations for crossing the highway, making sewer available to the whole City. The study will be implemented by investigating the immediate needs of Elwood preparing action plan for providing sewer to the entire City.

IMPLEMENTATION SCHEDULE

The estimated plan completion date is October 2023.

COST ESTIMATE

Elwood Town is requesting $18,200 from the Water Quality Board. The proposed scope of work will not result in a complete capital facilities plan.

STAFF COMMENTS AND RECOMMENDATION

The planning advance would allow the Town to perform the necessary assessment to determine potential expansion alternatives. This is a small rural community with limited capital reserves. Also, if a future construction project is funded by a partner funding agency, that agency would likely not

be able to repay a Board Planning Advance. Therefore, staff believes a planning grant is more appropriate than an advance.

Staff recommends the Board **authorize a hardship planning grant of $18,200** to Elwood Town under the following special conditions:

1. The Division of Water Quality must approve the engineering agreement and plan of study before the advance will be executed.

2. The City must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

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

DWQ-2022-026052

State of Utah

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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
REQUEST FOR HARDSHIP PLANNING ADVANCE AND PROJECT FUNDING

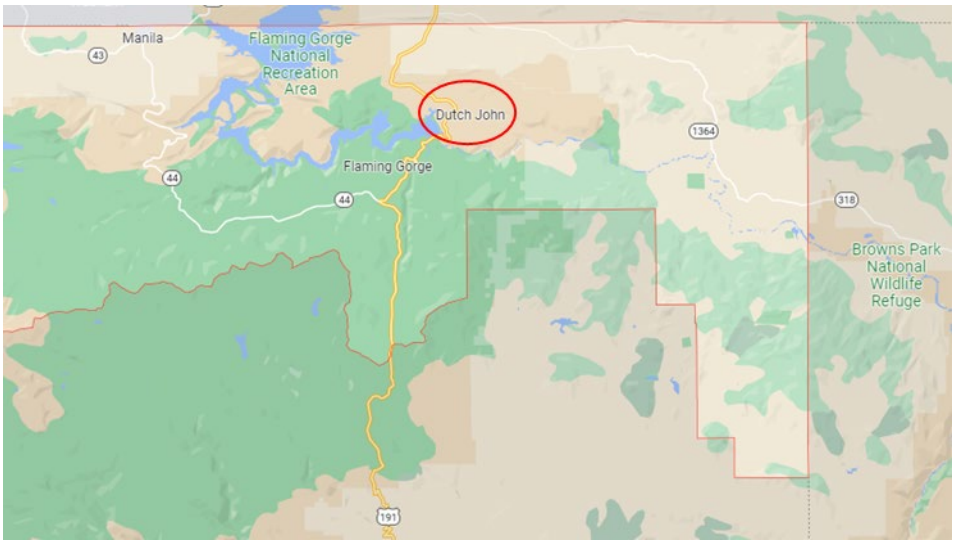
APPLICANT:	Daggett County Municipal Building Authority 95 N 1st West PO Box 400 Manila, UT 84046 Telephone: 435-784-3154
PRESIDING OFFICIAL:	Matt Tippets, Commissioner 95 N 1st West PO Box 400 Manila, UT 84046 Telephone: 435-784-3154
CONTACT:	Trevor Brooksby
TREASURER/RECORDER:	Brianne Carter
CONSULTING ENGINEER:	Aaron Averett Sunrise Engineering 363 East Main St Vernal, UT 84078 Telephone: 435-789-7364
CITY ATTORNEY:	Kent Snider 95 N 1st West PO Box 219 Manila, UT 84046 Telephone: 435-784-3218

APPLICANT'S REQUEST

Daggett County is requesting a planning advance in the amount of **$95,000** to develop a capital facilities plan. They are also requesting project funding in the amount of **$60,000** for essential maintenance for their treatment facility.

APPLICANT'S LOCATION

Dutch John is located in Daggett County in Northeast Utah, near Flaming Gorge.



PROJECT NEED

Planning
The Dutch John sewer system was constructed in the 1950s to service the workers during the construction of the Flaming Gorge Dam. In 1998, the town was privatized and Daggett County became the owner of the sewer system. There has been little maintenance and few upgrades performed since the system's construction, and the state of the system is largely unknown. A new study is necessary to determine the current status of the sewer system and what maintenance and/or upgrades are needed. Dutch John is a small community with approximately 120 connections to the sewer system. Though the system is governed by Daggett County, it is financially independent and funded entirely from sewer rates and funding sources. In addition, Dutch John is facing a large potential residential development which it will be critical to have appropriate planning and fees set.

Treatment Facility
Finally, Dutch John has immediate need of repairs to their treatment facility that they do not have the funds to implement. These are repairs necessary for the operation of a mechanical treatment facility, which include replacement of several key components that are past their useful life.

PROJECT DESCRIPTION

Planning
The proposed project covered under the hardship planning advance request would include an analysis of the existing sewer collection system and the production of a capital facilities plan. The

completion of this plan will be put out to competitive bid. The scope of capital facilities plan would include:

- Evaluation of existing sewer collection system, including sewer cleaning and the use of cameras and GPS to identify infrastructure condition and locate potential unknown manholes and sewer lines.
- Alternatives analysis for upgrades and maintenance, including total replacement, repair, or trenchless slip lining
- Develop an asset management plan for the utility
- Perform an impact fee evaluation

Treatment Facility
The proposed repairs covered under the project funding request would include replacement of the wheel sprockets, drive sprocket, drive chain, and gear motor for one train of the facility. The Department has the personnel and know-how to replace these parts once received.

IMPLEMENTATION SCHEDULE

Planning
The estimated completion of the study is December 31, 2023,

Treatment Facility
The repairs are estimated to be completed on March 1, 2023.

COST ESTIMATE

Planning
The estimated cost for the capital improvement plan is $95,000. This includes $40,000 for the development of the plan itself, and an additional $55,000 for onsite analysis by use of cleaning and cameras.

Treatment Facility
The estimated cost of essential maintenance to the mechanical plant is $60,000.

STAFF COMMENTS

Planning
The development of a capital improvement plan is necessary for the future performance of the treatment facility and sewer system. While the additional cleaning and camera work increase the cost of the project by an additional $55,000, the lack of historical knowledge of basic information regarding the sewer system indicates that this is an integral part of the study. Initially, Dutch John brought in the request without completion of an asset management plan or impact fee study. At the request of staff Dutch John added these two components to their request.

Treatment Facility
The essential maintenance to be performed is challenging for a small community like Dutch John with limited reserves. Dutch John's current sewer rates are about $40/connection, which is lower than the State Affordability criteria of 1.4% of MAGI. The Board does not typically fund maintenance issues like this project. Thus, staff recommends this only be considered for funding as a short-term loan. In addition, staff believes approval should be dependent on the implementation of a financial plan for the sewer system that includes a rate increase to cover future regular maintenance.

STAFF RECOMMENDATION

Planning
Staff recommends the Board **authorize a hardship planning grant of $95,000** to Daggett County under the following special conditions that.

1. The Division of Water Quality must approve the engineering agreement and plan of study before the advance will be executed.

2. Dutch John shall develop an asset management plan and implement appropriate planning and rates based on that plan.

3. The City must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

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

Treatment Facility
Staff recommends the Water Quality Board **authorize a short-term loan in the amount of $60,000 at an interest rate of 0% repayable over 5 years** to Daggett County under the following special conditions:

1. The loan will be repaid in five annual installments beginning one year from the date the loan is fully disbursed or the project is otherwise completed.

2. Daggett County shall commit to adopt a capital asset management plan.

3. The City must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

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

ATTACHMENT 1

Attachment 1
Dutch John (Daggett County) - Water Quality Board
5 Year Loan Static Cost Model

Project Costs

Legal/Bonding		$ -
DWQ Loan Origination Fee		$ -
Engineering - Design & CMS		$ 95,000
Collections		
Lift station		
Headworks		
Treatment	$ 60,000	
Construction subtotal		**$ 60,000**
Contingency (30%)		$ -
Total Project Cost:		**$ 155,000**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	120
MAGI for Dutch John (2020):	$53,300
Affordable Monthly Rate at 1.4%	$62.18
Impact Fee (per ERU):	$0
Current Monthly Fee (per ERU)	$40.00
Debt Service	$0
Annual O&M expense	$65,000

Project Funding

Local Contribution	$ -
Amount to be Funded	**$ 155,000**
WQB Grant	**$ -**
Total Project Cost:	**$ 155,000**

Funding Conditions

Loan Repayment Term:	5
Reserve Funding Period:	5

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	155,000		3.50%	$ -	$ -	$ 34,330	$ 65,000	$ -	$ 99,330	$ 68.98	1.55%	**MEDIUM**
-	155,000	0	0.00%	3.50%	$ 31,000	$ 9,300	$ -	$ 65,000	$ -	$ 105,300	$ 73.13	1.65%	**MEDIUM**
40,000	115,000	0	0.00%	3.50%	$ 23,000	$ 6,900	$ -	$ 65,000	$ -	$ 94,900	$ 65.90	1.48%	**MEDIUM**
95,000	**60,000**	**0**	**0.00%**	**3.50%**	**$ 12,000**	**$ 3,600**	**$ -**	**$ 65,000**	**$ -**	**$ 80,600**	**$ 55.97**	**1.26%**	**LOW**

*Staff Estimate

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	0.0%	3.6%	1.00	4	4.00	S2301
Poverty Rate	0.0%	9.1%	1.00	2.5	2.50	S1701
Threshold LQI	$ 36,357	$ 35,445	1.00	2.5	2.50	B19080
Population Growth Rate	-47.7%	18.6%	3.00	1	3.00	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**1.20**	

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
FEASIBILTY REPORT FOR WASTEWATER TREATMENT PROJECT
INTRODUCTION

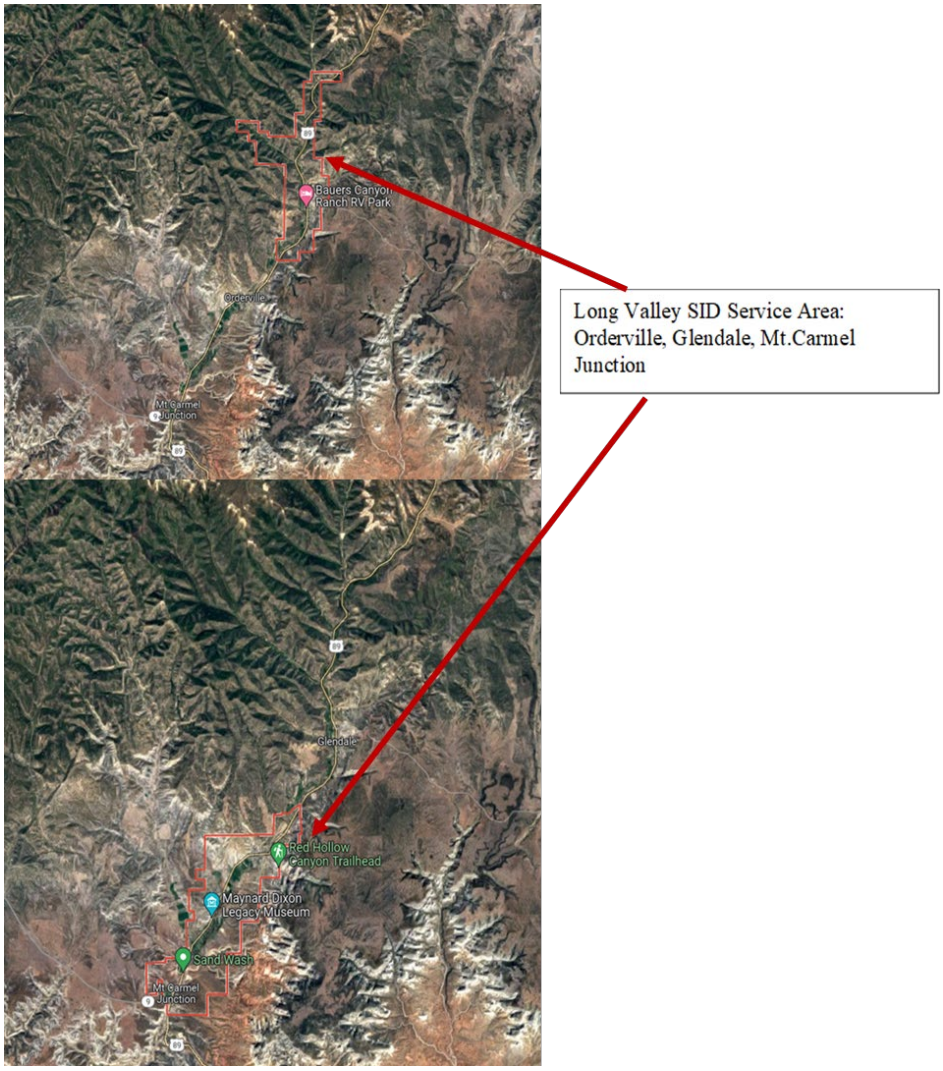
APPLICANT:	Long Valley SID PO Box 218 Glendale, Utah 84729 Telephone: 435-691-2760
PRESIDING OFFICIAL	JD Maxwell, President PO Box 218 Glendale, Utah 84729 Telephone: 435-691-2760
CONTACT:	Ray Spencer, Secretary PO Box 218 Glendale, Utah 84729 Telephone: 435-691-2760
TREASURER:	Ray Spencer
CONSULTING ENGINEER:	James Saunders Jones and DeMille Engineering 1535 South 100 West Richfield, Utah 84701 Phone: 435-896-8266
BOND COUNSEL:	Richard Chamberlain Chamberlain Associates 225 North 100 East Richfield, Utah 84701 435-896-4461

APPLICANT'S REQUEST

Long Valley SID is requesting funding from the Water Quality Board in the amount of **$1,358,500** for the modification of their wastewater treatment system and an expansion of their sewer system and lift station wet well. In addition, Long Valley SID is requesting a **design advance in the amount of $84,300** that is included within the funding application.

APPLICANT'S LOCATION

Long Valley SID is located in Kane County, approximately 81 miles east of St. George, Utah.



FACILITY BACKGROUND

The treatment facility was built around 1979. In 2015, Long Valley SID completed major upgrades to their facility. During the project, improvements were made to the influent flowmeter and lift station. In addition, they relined their non-discharging lagoon to meet compliance with R317-3. During relining, gravel sinkholes underneath the lagoon were fixed. Further, the project added a secondary cell, a tertiary cell, and an additional primary cell for redundancy.

The monthly average flow into the lagoons is 56,000 gallons per day. The projected remaining lifespan of the lagoons is 14 years until upgrades are needed. The treatment facility is currently at 60% capacity.

PROJECT NEED

Long Valley SID is expanding the sewer system in Mt. Carmel Junction and Glendale. To do this, the sewer line needs to be installed underneath Highway 89 in both Glendale and Mt. Carmel Junction. Use of a boring machine is necessary, which will increase the cost of expanding the sewer system. In addition, the last camera inspection of the sewer system was in 2011 and another inspection is necessary to determine where the pipes need repair.

Long Valley SID's non-discharging treatment lagoon facility is in a very remote part of Utah and struggles with staffing certified operators. Due to the remote location, they have no full-time employees so responding to emergencies in a timely manner is very challenging. Also, the facility is prone to power outages so a bigger wet well for more equalization in this event is necessary to prevent overflows. In addition, there needs to be an automated grit removal method, as the current bar screen relies on a worker to manually clean the screens.

PROJECT DESCRIPTION

Long Valley SID is proposing the four following upgrades to increase the resiliency and automation of their system:

1. Replacing the old manual bar screen with an automatic screen auger to eliminate the need for manual service of the bar screens and remove non-organic solids to extend the lifespan of the lagoons.

2. Increase the volume of the lift station wet well to increase the holding capacity in the case of a power failure as well as handle higher flows during tourist season.

3. Extend the sewer line further into Mt. Carmel Junction and Glendale to hookup more buildings to the sanitary sewer.

4. Map and inspect the sewer system and conduct repairs to prevent Infiltration and Inflow.

POSITION ON PROJECT PRIORITY LIST

Long Valley SID is currently ranked No. **10** of 10 on the FY 2023 Wastewater Treatment Project Priority List (PPL).

POPULATION GROWTH

Based on data from the United States Census Website, the 2020 population was estimated at 910. Using Jones and DeMille's estimates for population growth from 1980 to 2021, Orderville has an average growth rate of 0.75 % and Glendale has an average growth rate of 1.16 %. Using those growth rates, the combined build out population in 2042 is estimated to be 1,108 people.

Year	Glendale	Orderville +Carmel	Total
2020	312	598	910
2042	403	705	1,108
2062	508	819	1,327

(Source: Long Valley Sewer Improvement District Sanitary Sewer Master Plan – Jones and DeMille – 2022)

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT:

Long Valley SID had a meeting on June 9, 2022 to discuss and agree to move forward on the project. This meeting was open to the public.

IMPLEMENTATION SCHEDULE

Apply to WQB for Funding:	July 2022
WQB Funding Authorization:	October 2022
Submit Information for Engineering Report Approval:	January 2023
Issue Construction Permit:	March 2023
Advertise for Bids:	March 2023
Bid Opening:	March 2023
Loan Closing:	April 2023
Commence Construction:	April 2023
Complete Construction:	August 2023

APPLICANT'S CURRENT USER CHARGE

Currently, Long Valley SID charges approximately $34.00 per month per ERC. According to the Utah Water Quality Board's affordability criteria of 1.4% of MAGI ($37,029 for Long Valley SID service areas), the monthly rate for wastewater services should exceed $43.20 per month for grant fund consideration. There is no impact fee and the hookup fee is $150.

COST ESTIMATE

The total cost of the project is estimated to be $1,422,700. A breakdown of these costs follows.

Legal/Bonding	$20,000
DWQ Loan Origination Fee	$15,000
Engineering - Design	$84,300
Engineering - Design & CMS	$126,400
Construction	$985,000
Contingency	$192,000
Total Project Cost:	**$1,422,700**

COST SHARING

Funding Source	Cost Sharing	Percent of Project
Local Contribution	$64,200	3.1%
WQB Funding	$1,358,500	96.9%
Total Amount:	$1,422,700	100%

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.

STAFF COMMENTS

This is a project introduction, and staff recommendations will be provided at the request for funding authorization. This project will allow Long Valley SID to provide resiliency to the treatment facility by increasing capacity at the lift station and in the treatment lagoons. The increased capacity of the system will decrease the chance of an overflow in the event of a power outage and extend the lifespan of the lagoons. Staff supports the project.

STAFF COMMENTS DESIGN ADVANCE

Staff supports the design advance to keep this project proceeding in a timely manner and funding of the design would cause a hardship on the community. Staff believes this should be funded as an Advance at this time and not a grant. During project funding it may be appropriate to apply the loan portion of a funding package to repay design services.

STAFF RECOMMENDATION

Staff recommends the Water Quality Board authorize a **hardship design advance in the amount $84,300** to the Long Valley SID under following the special conditions:

1. The Division of Water Quality must approve the engineering agreement and plan of design before the advance will be executed.

2. The Design Advance must be expeditiously repaid to the Board once long-term project financing has been secured.

3. Long Valley must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

4. As part of the facility planning, Long Valley must complete a Water Conservation and Management Plan.

ATTACHMENT 1

Attachment 1
Long Valley SID - Water Quality Board
20 Year Loan Static Cost Model

Project Costs

Legal/Bonding		$ 20,000
DWQ Loan Origination Fee		$ 15,000
Engineering - Design		$ 84,300
Engineering - CMS		$ 126,400
WWTP	$ 269,000	
Lift Station	$ 234,000	
Collection System	$ 262,000	
Other	$ 220,000	
Construction subtotal		**$ 985,000**
Contingency (~20%)		$ 192,000
Total Project Cost:		**$ 1,422,700**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	690
MAGI for Long Valley SID (2020):	$37,029
Affordable Monthly Rate at 1.4%	$43.20
Impact Fee/Hookup Fee (per ERU):	$150
Current Monthly Fee (per ERU)	$34.00
Debt Service	$73,000
Annual O&M expense	$36,000

Project Funding

Local Contribution	$ 64,200
Amount to be Funded	**$ 1,358,500**
WQB Grant	**$ -**
Total Project Cost:	**$ 1,422,700**

Funding Conditions

Loan Repayment Term:	20
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

Principal Forgiveness	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	1,358,500		2.60%	0	0	65,774	36,000	73000	174,774	21.11	0.68%	**LOW**
	1,358,500	0	3.00%		91,313	22,828	0	36,000	73000	223,141	26.95	0.87%	**LOW**
	1,358,500	0	2.50%		87,144	21,786	0	36,000	73000	217,930	26.32	0.85%	**LOW**
	1,358,500	0	2.00%		83,081	20,770	0	36,000	73000	212,852	25.71	0.83%	**LOW**
	1,358,500	0	1.50%		79,127	19,782	0	36,000	73000	207,909	25.11	0.81%	**LOW**
	1,358,500	0	1.00%		75,282	18,820	0	36,000	73000	203,102	24.53	0.79%	**LOW**
	1,358,500	0	0.50%		71,547	17,887	0	36,000	73000	198,434	23.97	0.78%	**LOW**

*Staff Estimate

**Estimated 30 year term

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	2.9%	3.6%	1.65	4	6.60	S2301
Poverty Rate	19.7%	9.1%	3.00	2.5	7.50	S1701
Threshold LQI	$ 25,336	$ 35,445	2.14	2.5	5.35	B19080
Population Growth Rate	-5.7%	18.6%	3.00	1	3.00	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**2.25**	

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

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

M E M O R A N D U M

TO: Utah Water Quality Board

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

FROM: Beth Wondimu, P.E. and Ken Hoffman, P.E.

DATE: August 24, 2022

SUBJECT: Lewiston City – Sewage and Treatment System Improvement
$2,144,000 Additional Supplemental Funding Request Re-Introduction

The Water Quality Board (Board) authorized a design advance of $186,000 at the February 26, 2020 Board meeting. On March 25, 2020 the Water Quality Board authorized a hardship grant of $500,000.00 in construction assistance, which included a $40,000 planning advance and the $186,000 design advance. The U.S. Department of Agriculture - Rural Development (USDA- RD) also authorized loan and grant funding in support of the project. USDA- RD authorized an assistance package for the balance needed in the form of 81:19 loan-to-grant proportions: $2,052,000 loan with an interest rate of 1.875% and a 40-year term and a grant of $483,000 for the project. In addition, Lewiston self-funded an anticipated share at $144,000. The previous Board Authorization dated on March 25, 2020 is attached to this memo.

BID OVERRUN

In March 2021, the city bid the project and the lowest bid came in over the original construction estimate. With the higher than estimated construction bid, the project cost increased from $3.06 million for construction work to a project total of $5.3 million. Due to the increase in cost, the funding was not sufficient to complete the project. This cost increase is due to the current bidding environment, supply chain issues, tight labor market, and remote project location. The cost of PVC sewer pipes have increased significantly with limited availability. In addtion to the current bidding environment, the city saw cost increases dues to some project changes to accommodate unanticipated railroad right of way and re-routing of sewer pipes associated with an industrial site. Because this cost escalation, the city needs additional funding to continue with the project.

APPLICANT'S REQUEST

Lewiston City is requesting that the Board authorize additional funding of $2,144,000 to pay for cost growth on their construction project. This will be bringing its total financing for the project to $5.3 million.

PROJECT DESCRIPTION

The proposed project consists of the following improvements and upgrades. These improvements are needed to replace aging infrastructure, eliminate capacity limitations, improve wastewater treatment performance and enhance the overall system maintainability, flexibility, reliability, and customer service.

- Abandon existing lift station and associated 10" sewer line. Replace with 9200 LF of new/upgraded 18" gravity sewer line. Eliminating the aging and problematic lift station will reduce O&M requirements and the new sewer line will increase the overall capacity of the systems
- A new mechanical screen will be installed at the headworks area to remove rags and reduce downstream maintenance. A new metering manhole will also be installed at the headworks to accurately record flow rates to the lagoons.
- Floating mechanical aerators are proposed to increase treatment capacity and improve treatment performance.
- Chlorination and dechlorination facilities will be modernized and fitted with code compliant safety and control equipment. The new equipment will be located in separate buildings to reduce corrosion associated with high humidity from open tankage.
- The City is proposing to construct an effluent reaeration system to ensure compliance with its dissolved oxygen limit.
- 3-phase power will be provided to the headworks area and aerators to improve reliability and longevity of the new equipment.
- The City intends to provide for future Type 2 reuse water pumping in conjunction with the reaeration structure proposed above. This feature of the reaeration system will simplify future implementation of reuse (land application) and phosphorus compliance.

POSITION ON PROJECT PRIORITY LIST

Lewiston City is currently ranked No. 7 of 10 on the FY 2022 Wastewater Treatment Project Priority List (PPL).

PROJECT COST ESTIMATE

The total cost of the project is estimated to be $5.3 million. Over the past year, construction costs have increase rapidly and Lewiston's original cost estimate of $3.06 million for the entire project, has risen to $5.3 million. A comparison of the original cost, additional cost estimate with today's cost estimate is given in Table 1. J.U.B. Engineering has reviewed costs.

Table 1 – TOTAL PROJECT COST			
Item	**Description**	**Original Cost March 2020**	**Revise Cost July 2022**
1	Engineering - Planning	$41,000	$41,000
2	Engineering - Design	$165,000	$165,000
2	Engineering – other	$41,000	$22,000
3	Engineering – CMS	$186,000	$186,000
4	Construction	$2,067,500	$4,390,000[1]
5	Contingency	$414,000	$439,000[2]
6	DWQ Loan Origination Fee	$20,500	$21,000
7	Environmental NEPA	$41,000	$40,000
8	Legal/Bonding	$88,000	$40,000
	Total Project Costs:	**$3,064,000**	**$5,323,000**

1. The revised construction cost is based on the actual hard bid on July 15, 2021.
2. The estimated $439,000 is to cover cost escalation and construction contingency.

UPDATED IMPLEMENTATION SCHEDULE

Advertise for Re-Bids:	November 2022
Re-Bid Opening:	December 2022
Commence Construction:	February 2023
Complete Construction:	June 2024

APPLICANT'S CURRENT USER CHARGE

Currently, the City charges approximately $48 per month per ERC. According to the Utah Water Quality Board's affordability criteria of 1.4% of MAGI ($47,000 for Lewiston City), the monthly rate for wastewater services should exceed $54.83 per month for grant fund consideration. The impact fee is $2,278 and the hookup fee is $350.

COST SHARING

The total cost of the project is $5,323,000.

Funding Source	Cost Sharing	Percent of Project
Local Contribution	$ 144,000	2.7%
Amount to be WQB Funded	$ 2,144,000	40%
WQB Existing Design Grant	$ 186,000	3.5%
WQB Existing Construction Grant	$ 314,000	5.8%
USDA-RD Existing Grant	$ 483,000	9.1%
USDA-RD Existing Loan	$ 2,052,000	38.5%
Total Project Cost:	$ 5,323,000	100%

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 2.82 which is the upper-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. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of High.

ESTIMATED ANNUAL COST FOR SEWER SERVICE

Staff developed static cost models (Attachment 1) to evaluate for additional funding by the Board. 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.

This static model shows that in all cases, the sewer rates with current funding will exceed $48 per month of the 2020 MAGI. That is, without additional grant funding (principal forgiveness), the sewer rate will exceed Board affordability criteria. Funding alternatives that include various mixtures of loan and grant are provided in Attachment 1. In 2021, the community discussed additional funding with USDA-RD. USDA-RD indicated support for additional and a funding package in the form of 80:20 loan-to-grant proportions. Staff has used this alternative funding option in the cost model. Staff estimates this funding option would result in a $86.28 user rate (2.2% of MAGI).

STAFF COMMENTS

This is a project re-introduction, and staff recommendations will be provided at the request for funding authorization. Staff believes that this is an important project. The total cost is $5.3 million. This increase in cost is due to the recent market fluctuations that have hit the construction industry particularly hard. Of the entire $5.3 million total project cost, Lewiston is short by $2,144,000. Based on the cost model and the evident hardship, the Board could best assist the community by bringing additional funds in the form of principal forgiveness. If the Board elected, $274,000 of the previously authorized hardship grant funds could be re-obligated as principal forgiveness and return those balances as available in the fund. The authorization of principal forgiveness funds would add disadvantaged business enterprises and Davis Bacon Wages to the bid package. However, American Iron Steel (AIS) and Build America, Buy America (BABA) will already be required by USDA-RD. Finally, the Board could consider issuing an Utah Wastewater Loan Fund authorization for design services and further recover $274,000 into the Hardship Grant Fund.

ATTACHMENT 1

ATTACHMENT 1
Lewstion City - Water Quality Board
20 Year Loan Static Cost Model

Project Costs		
Legal/Bonding - Eniveromental		$ 40,000
DWQ Loan Origination Fee		$ 21,000
Engineering - Design & CMS		$ 433,000
Collections	$ -	
Lift station	$ -	
Headworks	$ -	
Treatment	$ 4,390,000	
Construction subtotal		**$ 4,390,000**
Contingency (10%)		$ 439,000
Total Project Cost:		**$ 5,323,000**

Project Funding	
Local Contribution	$ 144,000
Amount to be WQB Funded	**$ 2,144,000**
WQB Existing Design Grant	$ 186,000
WQB Existing Construction Grant	$ 314,000
USDA-RD Existing Grant	$ 483,000
USDA-RD Existing Loan	$ 2,052,000
Total Project Cost:	**$ 5,323,000**

Current Customer Base & User Charges	
Initial Total Customer (ERU's)	280
MAGI for Lewston City (2021):	$47,000
Affordable Monthly Rate at 1.4%	$54.83
Impact Fee (per ERU):	$2,278
Current Monthly Fee (per ERU)	$48.00
Debt Service	$0
Annual O&M expense	$121,500

Funding Conditions	
Loan Repayment Term:	20
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 + Existing Hardship Grant	WQB Loan	RD Grant including existing	Existing & Possible RD Loan	WQB Loan Interest Rate	Current RD Loan Interest Rate	WQB Loan Debt Service	WQB Loan Reserve	Market Loan Debt Service	Annual Sewer	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Sewer Cost as % of MAGI	Financial Burden
500,000	0	911,800	3,767,200	0.00%	1.875%	0	0	168,390	121,500	0	289,890	86.28	2.20%	**HIGH**
500,000	2,144,000	483,000	2,052,000	0.00%	1.875%	107,200	26,800	91,722	121,500	0	347,222	103.34	2.64%	**HIGH**
1,000,000	1,644,000	483,000	2,052,000	0.00%	1.875%	82,200	20,550	91,722	121,500	0	315,972	94.04	2.40%	**HIGH**
1,500,000	1,144,000	483,000	2,052,000	0.00%	1.875%	57,200	14,300	91,722	121,500	0	284,722	84.74	2.16%	**HIGH**
2,000,000	644,000	483,000	2,052,000	0.00%	1.875%	32,200	8,050	91,722	121,500	0	253,472	75.44	1.93%	**HIGH**
1,000,000	226,000	766,600	3,186,400	0.00%	1.875%	11,300	2,825	142,429	121,500	0	278,054	82.75	2.11%	**HIGH**
1,500,000	226,000	666,600	2,786,400	0.00%	1.875%	11,300	2,825	124,549	121,500	0	260,174	77.43	1.98%	**HIGH**
2,000,000	226,000	566,600	2,386,400	0.00%	1.875%	11,300	2,825	106,669	121,500	0	242,294	72.11	1.84%	**Medium**
2,458,000	226,000	475,000	2,020,000	0.00%	1.875%	11,300	2,825	90,292	121,500	0	225,917	67.24	1.72%	**Medium**

-Final Rows represent principal forgiveness less $226,000 for planning and design as Utah Wastewater Loan Fund Loan in order to meet procurement requirements

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	5.3%	3.6%	2.85	4	11.40	S2301
Poverty Rate	16.6%	9.1%	2.50	2.5	6.25	S1701
Threshold LQI	$ 17,075	$ 35,445	3.00	2.5	7.50	B19080
Population Growth Rate	-1.4%	18.6%	3.00	1	3.00	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**2.82**	

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

State of Utah

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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

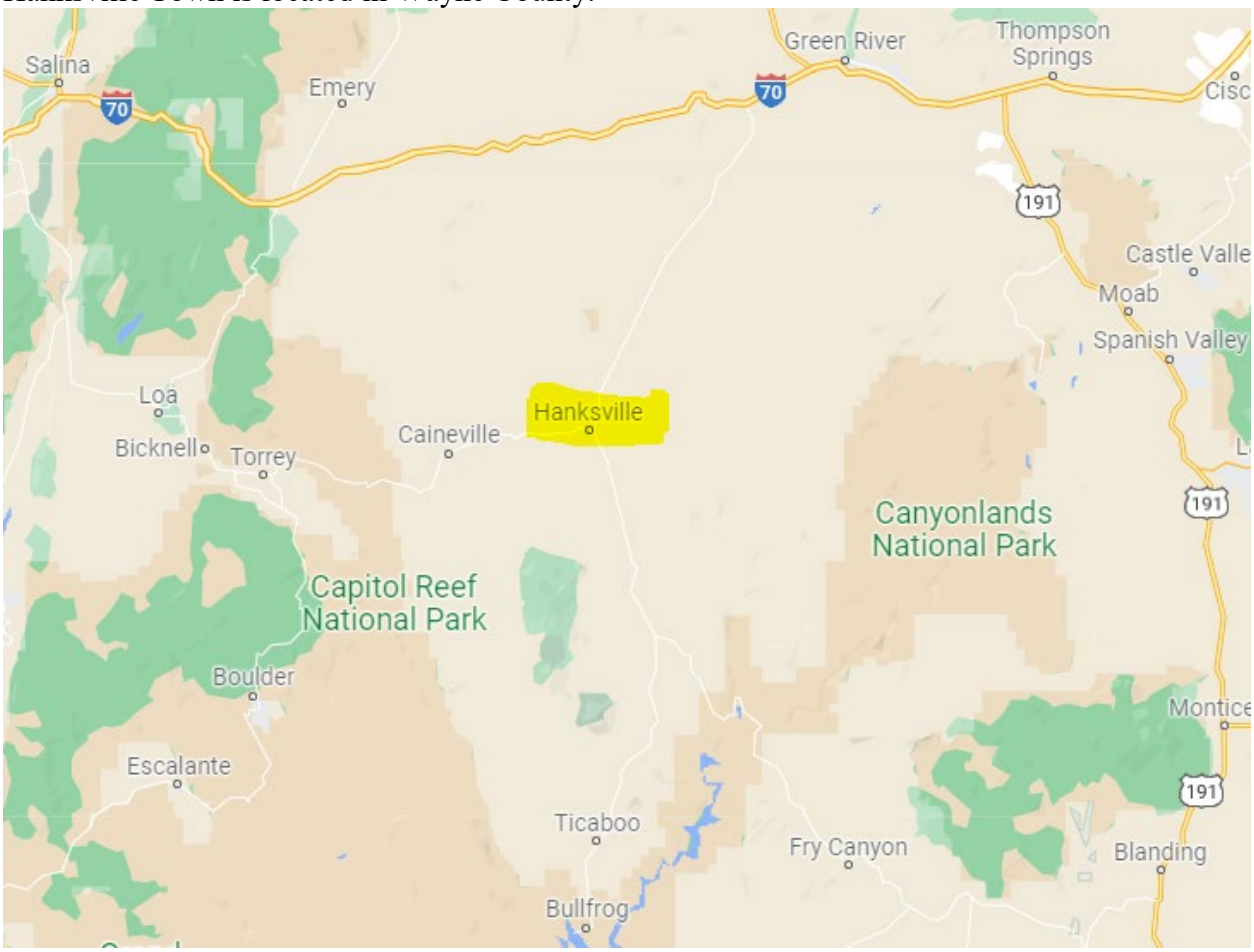
APPLICANT:	Hanksville Town 30 South Highway 95, PO Box 127 Hanksville, UT 84734 Telephone: (435) 542-3451
PRESIDING OFFICIAL	Mayor Jefren Pei
CONTACT:	Lisa Wells, Clerk
TREASURER:	Jessica Alvey
CONSULTING ENGINEER:	Daniel Hawley, Project Manager Jones & DeMille Engineering 1535 South 100 West Richfield, UT 84701 (435) 896-8266
BOND COUNSEL:	Chamberlain Associates 225 North 100 East Richfield, UT 84701 (435) 896-4461
FINANCIAL ADVISOR	None

APPLICANT'S REQUEST

Hanksville Town is requesting project construction financial assistance in the amount of $2,007,600 to repair damaged lagoon embankments and protect them from future flood events. In addition, Hanksville Town is requesting a **design advance in the amount of $162,000** that is included within the funding application.

APPLICANT'S LOCATION

Hanksville Town is located in Wayne County.



PROJECT BACKGROUND

The Town of Hanksville installed their total containment sewer lagoons and sewer collection system in the late 1980's. The existing lagoons are located along the banks of the Fremont River. The lagoons consist of two cells which are equal in size at about 3.4 acres each. The Town developed a sewer master plan on May 31, 2022 detailing water balance and necessary improvements for the lagoons.

PROJECT NEED

On September 2, 2021 a major flash flooding event along the Fremont River basin caused the water in the river to over top the existing sewer lagoons embankments and eroded out dikes, headworks structures, transfer structures, and silted in portions of the ponds before spilling back over the dikes into the river. Therefore, there is a need to repair the current lagoons to ensure proper operation. Along with lagoon repairs the lagoons have trouble maintaining 3 feet of water during the winter

months when tourism is low. To maintain water depth, canal water is pumped into the lagoons. Therefore, the Town would like to divide the secondary cell to help maintain a consistent depth in the lagoons.

PROJECT DESCRIPTION

To balance the seasonal flow variations more efficiently and maintain healthy lagoon depth it is proposed that the secondary cell be divided by one dike into two cells for a total of three cells. It is recommended that the clay liner in all the ponds be reconstructed. By dividing the secondary cell such that the downstream cell from the primary cell is 1.0 acre, a better balance between the primary and secondary can be struck to maintain 3 feet in each cell with little supplemental canal water addition. Based on the water balance, some canal water will still be needed to be used to increase the water depth slightly to maintain 3-foot depth in both cells through the winter months. If growth projections are correct, supplemental canal water will only be needed until 2031. Where canal water currently comes at little to no cost to the town this option is recommended. Attachment 2 shows the proposed improvements.

In addition to maintaining minimum water depth, other improvements are recommended. These include lowering the first cell to allow for more hydraulic head between the flume and water surface of the primary cell, routing a section of pipe directly from the flume to the secondary cell for operational maintenance, and increasing the exterior dike height to prevent future flood events from damaging the cells again. The recommended increase in height is based on high water marks at the site along with accounts from town personnel of reported floodwater depths. With this information a hydraulic analysis of the lagoon site was performed to determine a new proposed outer dike elevation that would provide three feet of freeboard between a design flood event and the top of the dike.

The hydraulic conductivity of the existing clay liner of the primary and secondary ponds will be evaluated to ensure it is near 8x10-7 cm/s. If the hydraulic conductivity of the clay liner is higher or lower than this value, the clay liner must be rehabilitated or modified to match the target value. For cost estimating purposes it was assumed that the liner is not in good condition and will need to be replaced.

ALTERNATIVES EVALUATED

Other than the water balance analysis, other factors that influence the preliminary design include: minimize the amount of earthwork needed to rehabilitate the existing lagoons; mitigate the hazards posed by future flood events such as additional bank armoring; use existing facilities and equipment where possible; and maintain the same relative footprint of the lagoons/facility area. A design that follows these parameters will provide a safe cost-effective solution for the wastewater treatment problems in Hanksville. In addition to these improvements, the flume structure should be replaced, and new equipment installed to better monitor and measure inflows. It may also be beneficial to video and clean some of the sewer pipe upstream from the flume structure.

POSITION ON PROJECT PRIORITY LIST

Hanksville Town is currently ranked No. 6 of 10 on the FY 2023 Wastewater Treatment Project Priority List (PPL).

POPULATION GROWTH

Based on the 2010 US Census data the 2020 population was 281. According to the State's projections the Town of Hanksville has a growth rate of 18% from 2010 to 2020. This results in a build out population of 462 people in 2050.

Year	Population
2020	281
2040	391
2050	462

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT

The Town of Hanksville has held several public town council meetings where the repairs of the lagoons was discussed.

EFFORTS TO SECURE FINANCING FROM OTHER SOURCES

The Town of Hanksville applied for ARPA funds and is applying $26,000 of local ARPA funds to Design costs.

IMPLEMENTATION SCHEDULE

The estimated completion date for lagoon rehabilitation and improvements is early 2024.

APPLICANT'S CURRENT USER CHARGE

Currently, Hanksville Town charges approximately $15.50 per ERU. According to the Utah Water Quality Board's criteria of 1.4% MAGI ($25,400 for Hanksville), a rate of $29.63 per month for wastewater service should be exceeded for grant consideration. The impact fee is $0 and the hookup fee is $1,000.

COST ESTIMATE

The total cost of the design advance is estimated to be $188,000. A breakdown of these costs follows.

Consulting Engineer	$120,000
Legal	$15,000
Survey	$13,000
Environmental	$10,000
Geotechnical Report	$30,000
Total Design Advance Cost	**$188,000**

The total cost of the project is estimated to be $2,055,600. A breakdown of these costs follows:

Admin (Legal Fees and Financial)	$15,000
Planning	$36,600
Design	$188,000
CMS	$135,000
Loan Origination Fee	$25,000
Wastewater Treatment Plant	$1,671,000 ($188,000 Contingency)
Total Project Costs	**$2,070,600**

COST SHARING

The total cost of project funding is $2,070,600.

Funding Source	**Cost Sharing**	**Percent of Project**
ARPA Funds (Advanced for Master Plan)	$26,000	1%
WQB Funding	$2,044,600	99%

ESTIMATED ANNUAL COST FOR SEWER SERVICE

Different funding options result in different annual sewer costs. A 30-year loan 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.

STAFF COMMENTS CONSTRUCTION FUNDING

Looking at the cost model, Hanksville can afford a loan of approximately $225,000 to $750,000 and be in the Low to Medium affordability range (1.4% to 2.45% respectively). In addition, to achieve an affordable project a substantial amount of grant money must be brought to this project. Typically, the Board does not require funding of a reserve payment or funding of an emergency repair and replacement fund. Staff believes it may be appropriate to require funding the emergency repair and replacement fund for the full value of the project. The applicant's construction funding request is only a project introduction. Staff believes that this is an important project.

STAFF COMMENTS DESIGN ADVANCE

Staff supports the design advance to keep this project proceeding in a timely manner and funding of the design would cause a hardship on the community. Staff believes this should be funded as an Advance at this time and not a grant. During project funding it may be appropriate to apply the loan portion of a funding package to repay design services.

STAFF RECOMMENDATION

Staff recommends the Water Quality Board authorize a hardship design advance in the amount **$162,000** to the Town of Hanksville under following the special conditions:

1. The Division of Water Quality must approve the engineering agreement and plan of design before the advance will be executed.

2. The Design Advance must be expeditiously repaid to the Board once long-term project financing has been secured.

3. The City must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

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

ATTACHMENT 1

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

Project Costs

Legal/Bonding	$	15,000
Loan Origination Fee	$	25,000
Planning Advance	$	36,600
Engineering - Design	$	188,000
Engineering - CMS	$	135,000
Wastewater Treatment Plant	$	1,483,000
Contingency (13%)	$	188,000
Total Project Cost:	**$**	**2,070,600**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	81
MAGI for Hanksville Town (2020):	$25,400
Affordable Monthly Rate at 1.4%	$29.63
Impact Fee (per ERU):	$0
Current Monthly Fee (per ERU)	$15.50
Debt Service	$3,228
Annual O&M expense	$13,250

Project Funding

Local Contribution	**$**	**26,000**
Amount to be Funded	**$**	**2,044,600**
WQB Grant	**$**	**-**
Total Project Cost:	**$**	**2,070,600**

Funding Conditions

Loan Repayment Term:	30
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

Principal Forgiveness	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	2,044,600	0.00%	3.50%	0	0	111,168	13,250	3228	127,646	131.32	6.20%	**HIGH**
	2,044,600	0	0.00%	3.50%	68,153	17,038	0	13,250	3228	101,670	104.60	4.94%	**HIGH**
1,300,000	744,600	0	0.50%	3.50%	26,790	6,697	0	13,250	3228	49,965	51.40	2.43%	**MEDIUM**
1,400,000	644,600	0	1.00%	3.50%	24,977	6,244	0	13,250	3228	47,699	49.07	2.32%	**MEDIUM**
1,500,000	544,600	0	1.50%	3.50%	22,677	5,669	0	13,250	3228	44,824	46.12	2.18%	**MEDIUM**
1,600,000	444,600	0	2.00%	3.50%	19,851	4,963	0	13,250	3228	41,292	42.48	2.01%	**MEDIUM**
1,650,000	394,600	0	0.00%	3.50%	13,153	3,288	0	13,250	3228	32,920	33.87	1.60%	**LOW**
1,700,000	344,600	0	1.50%	3.50%	14,349	3,587	0	13,250	3228	34,414	35.41	1.67%	**LOW**
1,750,000	294,600	0	1.50%	3.50%	12,267	3,067	0	13,250	3228	31,812	32.73	1.55%	**LOW**
1,800,000	244,600	0	2.00%	3.50%	10,921	2,730	0	13,250	3228	30,130	31.00	1.46%	**LOW**

*Staff Estimate

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	0.0%	3.6%	1.00	4	4.00	S2301
Poverty Rate	5.7%	9.1%	1.90	2.5	2.50	S1701
Threshold LQI	$ 19,700	$ 35,445	2.78	2.5	6.95	B19080
Population Growth Rate	17.6%	18.6%	1.11	1	1.11	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**1.46**	

2020 5 year ACS Table

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

Financial Burden Matrix

FNI	Modified MAGI: 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

195 North 1950 West • Salt Lake City, UT
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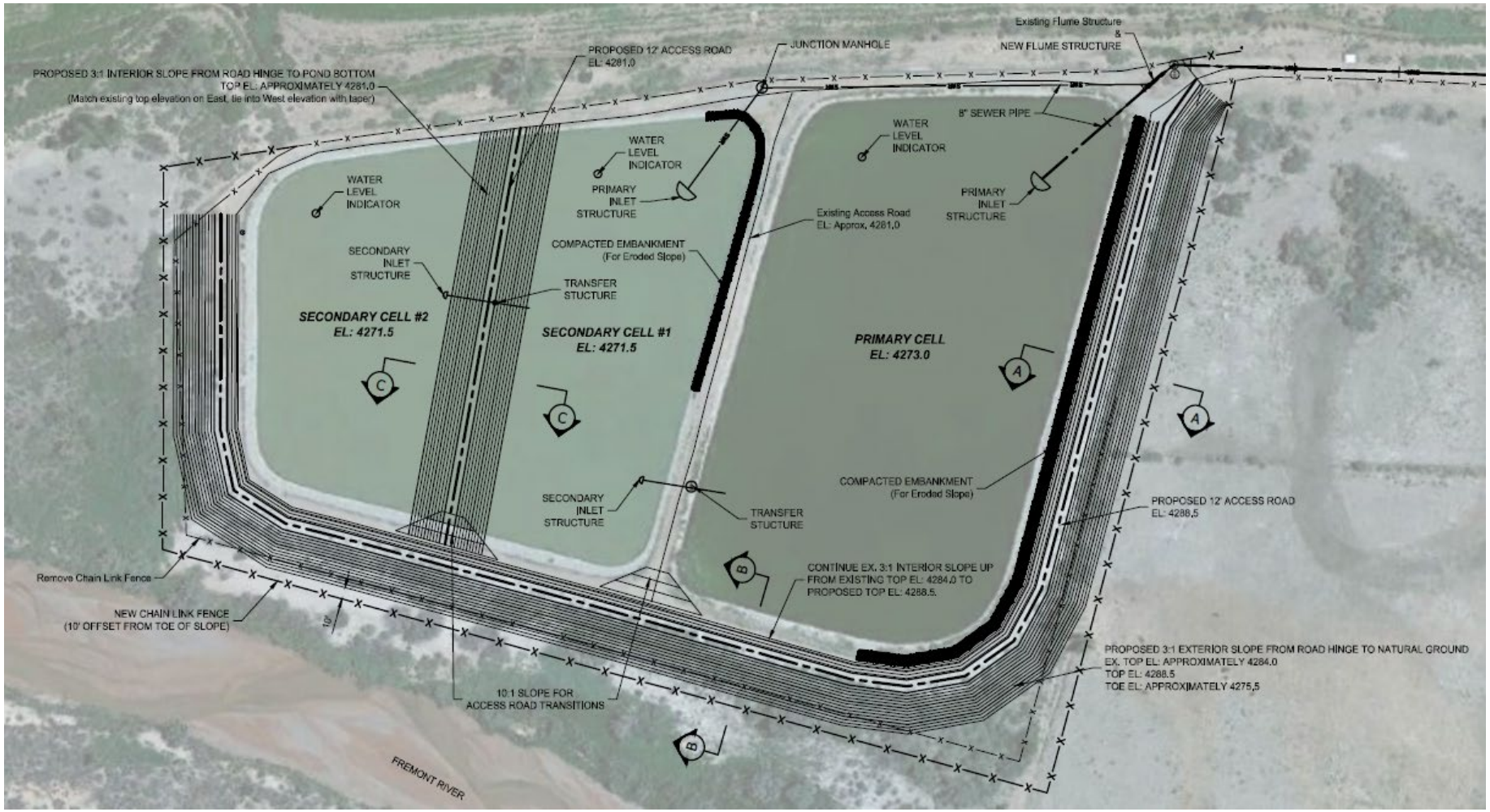
Telephone (801) 536-4300 • Fax (801) 536-4301 • TDD (801) 536-4284
www.deq.utah.gov

ATTACHMENT 2



WATER QUALITY BOARD
FEASIBILTY REPORT FOR WASTEWATER COLLECTION & TREATMENT PROJECT

INTRODUCTION

APPLICANT:	Town of Springdale 118 Lion Blvd, PO Box 187 Springdale Utah 84767 Phone: (435) 772-3434
PRESIDING OFFICIAL	Barbara Bruno, Mayor 118 Lion Blvd, PO Box 187 Springdale Utah 84767 Phone: (435) 772-3434
CONTACT:	Rick Wixom, Town Manager 118 Lion Blvd, PO Box 187 Springdale Utah 84767 Phone: (435) 772-3434
TREASURER:	Dawn Brecke, Town Treasurer 118 Lion Blvd, PO Box 187 Springdale Utah 84767 Phone: (435) 772-3434
CONSULTING ENGINEER:	Dustyn Shaffer, PE Sunrise Engineering 11 North 300 West Washington Utah 84780 Phone: (435) 652-8450

APPLICANT'S REQUEST

Springdale City is requesting financial assistance in the amount of a $3,978,000 for lagoon treatment system improvement of a wastewater lagoon treatment facility plant.

APPLICANT'S LOCATION

Springdale is located in eastern Washington County, Utah on Highway 9 next to Zion National Park.

PROJECT BACKGROUND

The Town's wastewater system is used by the neighboring community of Rockville as well as Zion National Park. Springdale's collection system flows to treatment lagoons to the west of Rockville. Currently the Town's wastewater is treated with a wastewater lagoon treatment facility which periodically discharges effluent water into the Virgin River. The facility has two large ponds (3 cells) used for treating the influent wastewater. The first pond is separated into two parts, or cells, by a baffle wall and are used to provide aeration for BOD_5 and ammonia removal. The second pond (3rd cell) is used for sedimentation and clarification. The facility is currently equipped with three 20 HP blowers and oxygen diffusers. The facility also contains a UV building and reaeration structure. The UV equipment is used to disinfect effluent that is released from the facility. Effluent then passes through a re-aeration structure, which entrains the effluent with dissolved oxygen by physical means before being discharged into the Virgin River.

The Town has a discharge permit that was renewed on May 1, 2019, allowing the Town to discharge the treated water from the lagoon to the Virgin River. The current permit limits for total suspended solids (TSS) and *E. coli* levels in the effluent, along with other metrics such as phosphorus loading.

On May 6, 2021, Springdale received a Notice of Violation and Compliance Order (NOV/CO) from the Division of Water Quality (DWQ). The NOV/CO was a result of elevated TSS and *E.*

coli levels in exceedance with their wastewater discharge permit. In 2020, a third-party engineering firm H&S Environmental LLC performed a study on the treatment system to determine what the cause of the high TSS were and how the Town could bring their TSS levels down to within the limits of their discharge permit. After the H&S study was completed Sunrise Engineering completed a wastewater master plan update May 2021. The master plan incorporated the study performed by H&S and provided the town with recommended improvements projects that would keep the wastewater system in compliance with the Utah State Code R317 and the Town's discharge permit.

The City's plan for compliance incorporates findings and recommendations from both the H&S study and the wastewater master plan update, along with additional analysis of specific treatment improvements such as intake screening and effluent filtration.

PROJECT NEED

The City identified possible improvements needed to help reduce the levels of TSS as well as reduce the levels of phosphorus in the treatment effluent. The Town is proposing the following:

The existing headwork will be replaced with the new headworks including powered screen. A powered screen is capable of removing large amounts of non-volatile solids such as rags and hygiene products that are often found in lagoons. This will help reduce the overall percentage of solids coming into the lagoon. Less solids entering the lagoons should reduce the rate of sludge build up in the lagoons and result in helping with TSS levels.

Post lagoon filtration would be an effective addition to improve the quality of effluent water from the lagoons. Sunrise Engineering and The Town of Springdale evaluated multiple options for post lagoon filtration and determined that a sand filter would be the preferable alternative. The project will include multiple improvements to the area around the UV building. The filter would be installed in a building located adjacent to the second lagoon and UV building. The building would house the sand filters as well as a booster pump, an air pump, and chemical pump. The booster pump will be used to add enough head to the lagoon effluent to send the water through the filters. The air pump will be used for the cleaning process of the sand filters. The chemical pump will add a polymer to be used as part of the filtration process.

The existing transfer structure currently operates by taking water from pond 1 at roughly the surface level and transfers it to pond 2 through a pipe. This setup allows for algae that is in pond 1 to get into pond 2. As stated above, the algae levels are a component of the TSS issues in the pond effluent.

During the improvements mentioned above for installing a new headworks and post lagoon filtration, the Town also intends to reconstruct the transfer structure. The modifications to the transfer structure would allow water going to pond 2 to be pulled from a lower level in pond 1 that is beneath the algae. It is anticipated that this would reduce the amount of algae getting into pond 2 via pond 1.

PROJECT DESCRIPTION

The Town is proposing to construct or upgrade the sewer systems & lagoon treatment facility. The Town proposal as follows:

- Replacing the existing headworks with a powered screen
- Modify transfer structure
- Installation of sand filter
- Purchase and install backup generator for UV building and filter station
- Install erosion control on River Bank

ALTERNATIVES EVALUATED

The Master Plan, May 2021 and Compliance Plan, dated in January 2022 evaluated the following alternatives:

- Investigate possible additions to the influent flow
- Install a headworks structure
- Remove sludge from cell 1 and 2
- Preform diagnostics BOD, TSS, and ammonia tests on each cell in the system
- Multiple level effluent draw-off structure and transfer structure between cells
- Construct a Mechanical Treatment Plant
- Install a filtration system
- Discharge to agricultural land
- UV system upgrades
- Erosion protection of the discharge to the river

The recommended alternative is construct new headwork, transfer structure, sand filter, generator and improve river bank erosion control.

POSITION ON PROJECT PRIORITY LIST

Springdale City is currently ranked No. 3 of 10 on the FY 2022 Wastewater Treatment Project Priority List (PPL).

POPULATION GROWTH:

The following Table 1 shows the current and project populations for the entirety of Town of Springdale (Source of Estimates: Governor's Office of Planning and Budget, GOMB):

Table 1

Year	Residents*
2010	529
2020	650
2021	754

*Total City population, including sewer customers served outside of Springdale

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT:

Springdale has not conducted a public meeting yet, as required by the Utah Wastewater State Revolving Fund (SRF) program. The Town will have held a final public hearing upon securing funding from the Water Quality Board.

IMPLEMENTATION SCHEDULE

Funding Authorization:	October 2022
Public Hearing:	November 2022
Advertise for Bids:	February 2023
Commence Construction:	April 2023
Complete Construction:	November 2023

APPLICANT'S CURRENT USER CHARGE

Currently, Springdale charges approximately $24.65 per month per ERC systemwide. Typical, sewer user rates for residents is $14 per month and $21 per month for Springdale and Rockville, respectively. Springdale's service area is approximately 25% residential, 40% Zion National Park, and 35% Industry (tourism). According to the Utah Water Quality Board's affordability criteria of 1.4% of MAGI ($34,900 for Springdale and $32,100 for Rockville), the monthly rate for wastewater should exceed $39.67 per month for grant fund consideration. The impact fee is $1,823 and the hookup fee is $170.

COST ESTIMATE

The total cost of the project is estimated to be $4,151,600. A breakdown of these costs follows.

Legal/Bonding	$20,000
DWQ Loan Origination Fee	$40,000
Engineering - Design & CMS	$411,500
Construction	$2,830,700
Contingency	$849,400
Total Project Cost:	**$4,151,600**

COST SHARING

The total cost of the project is $4,151,600.

Funding Source	Cost Sharing	Percent of Project
Local Contribution	$211,100	5%
WQB Funding	$3,940,500	95%
Total Amount:	$4,151,600	100%

ESTIMATED ANNUAL COST FOR SEWER SERVICE:

Staff developed static cost models (Attachment 1) to evaluate for supplemental funding by the Board. In the cost model, staff further evaluated the impact of the project just on the residential citizens. As noted systemwide residents comprise approximately 25% of the flow and would thus likely be responsible for approximately $1,000,000 of the upgrades. This evaluation was run as the Board might want to consider a funding package focusing on residential user rates. 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.

EFFORTS TO SECURE FINANCING FROM OTHER SOURCES:

The City is currently pursuing funding from the Community Impact Board (CIB) and is on the funding list for the October 2022 CIB meeting. CIB staff have indicated support for the project with potential funding from loan at 2.5% for a 30-year term.

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 **1.65** which is the mid-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. Based on the Financial Burden Evaluation Policy for the Utah Wastewater Project Assistance Program, the community has a Financial Burden of Medium or Low.

STAFF COMMENTS

This project will allow Springdale City to maintain compliance with Division of Water Quality Discharge requirements, specifically it will make it possible for the plant to improvements that are predicted to help reduce the levels of TSS as well as reduce the levels of phosphorus in the treatment effluent. If this project is co-funded with CIB then most likely a funding package from Utah Wastewater Loan Fund and/or Hardship Grant Fund would be appropriate. A package from

these sources could easily be blended with a CIB loan package. Finally, if a funding package is targeted at residential user rates, special conditions addressing rate subsidies or differential rates may be needed or appropriate.

This is a project introduction, and staff recommendations will be provided at the request for funding authorization. Staff believes that this is an important project.

DWQ-2022-025977

ATTACHMENT 1

ATTACHMENT 1
Town of Springdale - Water Quality Board
20 Year Loan Static Cost Model

Project Costs		
Legal/Bonding		$ 20,000
DWQ Loan Origination Fee		$ 40,000
Engineering - Design & CMS		$ 411,500
General Construction	$ 235,000	
Filters	$ 1,540,000	
Headworks	$ 603,000	
Transfer Structure	$ 165,000	
Other	$ 287,700	
Construction subtotal		$2,830,700
Contingency (30%)		$849,400
Total Project Cost:		**$4,151,600**

Project Funding	
Local Contribution	$ 211,100
Amount to be Funded	**$ 3,940,500**
WQB Grant	**$ -**
Total Project Cost:	**$ 4,151,600**

Current Customer Base & User Charges	
Initial Total Customer (ERU's)	1,291
MAGI for Springdale/Rockville (2020):	$34,000
Affordable Monthly Rate at 1.4%	$39.67
Impact Fee (per ERU):	$1,000
Current Monthly Fee (per ERU)	$24.65
Debt Service	$0
Annual O&M expense	$500,000

CIB Funding Conditions	
Loan Repayment Term:	20
Reserve Funding Period:	NA

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

ERUs Breakdown

	Percent Flow	ERUs	To be funded by ERU Percent
Zion NP	40%	581	$ 1,660,640
Hotels	35%	387	$ 1,453,060
Residential	25%	323	$ 1,037,900

ESTIMATED COST OF SEWER SERVICE ***SYSTEMWIDE CONNECTION (RESIDENTIAL AND INDUSTRY)***

Principal Forgiveness	WQB Loan	Market Loan Amount	WQB Loan Interest Rate	CIB Loan Interest Rate*	WQB Loan Debt Service	WQB Loan Reserve	Market Loan Debt Service	Annual Sewer	Existing Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ ERU	Sewer Cost as % of MAGI	Financial Burden
	0	3,940,500		2.50%	0	0	252,772	500,000	0	752,772	48.59	1.71%	**MEDIUM**
	3,940,500	0	0.00%	2.50%	197,025	49,256	0	500,000	0	746,281	48.17	1.70%	**MEDIUM**
750,000	287,900	2,902,600	0.00%	2.50%	14,395	3,599	186,193	500,000	0	704,187	45.45	1.60%	**MEDIUM**
ESTIMATED COST OF SEWER SERVICE				***RESIDENTIAL CONNECTIONS ONLY***									
	0	1,037,900		2.50%	0	0	66,578	125,000	0	191,578	49.43	1.74%	**MEDIUM**
	1,037,900	0	0.00%	2.50%	51,895	12,974	0	125,000	0	189,869	48.99	1.73%	**MEDIUM**
250,000	787,900	0	0.00%	2.50%	39,395	9,849	0	125,000	0	174,244	44.95	1.59%	**MEDIUM**
500,000	537,900	0	0.00%	2.50%	26,895	6,724	0	125,000	0	158,619	40.92	1.44%	**MEDIUM**
750,000	287,900	0	0.00%	2.50%	14,395	3,599	0	125,000	0	142,994	36.89	1.30%	**LOW**

NI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	1.9%	3.6%	1.15	4	4.60	S2301
Poverty Rate	2.0%	9.1%	1.00	2.5	2.50	S1701
Threshold LQI	$ 21,500	$ 35,445	2.57	2.5	6.43	B19080
Population Growth Rate	-4.7%	18.6%	3.00	1	3.00	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**1.65**	

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

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

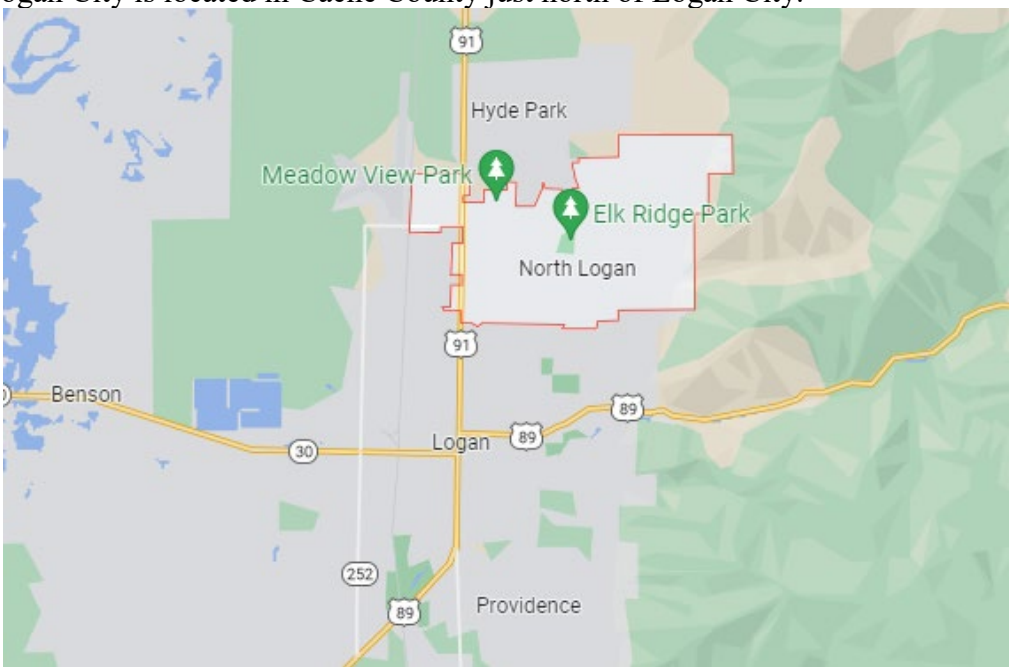
APPLICANT:	North Logan City 2076 N 1200 E North Logan, UT 84341 Telephone: 435-753-1310
PRESIDING OFFICIAL	Lyndsay Peterson, Mayor
CONTACT:	Alan Luce, City Administrator
TREASURER:	Scott Bennett, Recorder
CONSULTING ENGINEER:	Lance Anderson, City Engineer Cache Landmark 95 Golf Course Road #101 Logan, UT 84321 Telephone: 435-713-0099
BOND COUNSEL:	Gilmore & Bell 15 West South Temple, #1450 Salt Lake, Utah 84101 801-258-2722
FINANCIAL ADVISOR	Brain Baker, Financial Advisor Zion Bank Public Finance, Suite 309 Provo, Utah 84601 801-369-4093

APPLICANT'S REQUEST

North Logan City is requesting funding from the Water Quality Board in the amount **$10,550,000** for the construction of a new gravity sewer trunk line leading to Logan City. Construction is currently underway, with Phase 1 completed and Phases 2 and 3 currently under construction. The final phases 4 and 5 are anticipated to begin as soon as funding is available. The total cost of the remaining project is estimated to be $10,550,000.

APPLICANT'S LOCATION

North Logan City is located in Cache County just north of Logan City.



PROJECT BACKGROUND

In 2011, Logan City started working with North Logan City, Hyde Park City, and Smithfield City to develop options to upgrade their main trunk lines that eventually go to the Logan wastewater facultative lagoons. Logan City hired Sunrise Engineering to complete the study that looked at wastewater treatment, along with all of the various options for each of the participating cities to upgrade their main sewer trunk lines. The study indicated that the shared trunk line for Smithfield and Hyde Park would require a lift station. North Logan City had the opportunity to tie into this lift station and size it accordingly. However, the previous administration and staff of North Logan City were hesitant about tying into a lift station, so North Logan City chose a future option to replace the main gravity trunk line with a larger shared gravity trunk line that Logan would tie into with some of their needs. At that time the estimated cost from Sunrise Engineering to replace/upsize the main North Logan City gravity trunk line was approximately $1,000,000. North Logan City started to put together plans for the replacement of that trunk line at a future date. Fast forward 10 year and North Logan City has started working with Logan City to install this major trunk line. The current estimate for the cost of the entire project is over $10,500,000.

PROJECT NEED

The current sewer system is not adequate for increased flows due to anticipated development in North Logan. The current project includes scheduled development and allows for future development by increasing the capacity of conveyance of sewage to Logan City.

ALTERNATIVES EVALUATED

The new North Logan City Administration, Engineer (Cache Landmark), and Staff have inherited the option to reinstall the gravity trunk line. Upon learning that the trunk line would cost $10,000,000 as opposed to $1,000,000, North Logan looked into other options. A study was completed to analyze the option to install a new tri-city wastewater mechanical treatment plant with Hyde Park and Smithfield that would be located just west of the Logan Airport. This option did not seem feasible at the time. They also met with Logan City, Hyde Park, and Smithfield to discuss the option of upgrading the sewer lift station that is shared by Smithfield and Hyde Park City to include North Logan City. The lift station and the associated trunk lines were not built to handle North Logan's sewage so this was not a viable alternative.

All impact fees, fund balance, and facility fees have been exhausted up to this point. Funding options have been looked at through US Department of Agriculture Rural Development (USDA-RD), Community Impact Board (CIB), CDBG, Rural Water, Division of Water Resources, Cares Act, and ARPA. North Logan's population now exceeds the 10,000-threshold utilized by USDA-RD.

PROJECT DESCRIPTION

North Logan is currently constructing a replacement for the existing main gravity trunk line taking all of North Logan's sewer flows to the Logan City Treatment Plant. This trunk line will connect to existing infrastructure as well as new developments planned in the area – these developments are a major factor in the subsequent phases of the project. The upgrades are driven by growth and a capital improvement plan.

The trunk line project is divided into six phases. The first Phase is completed with Phases 2 and 3 currently under construction. The remaining Phases have been prioritized based on development pressure and avoiding additional costs caused by delays. See Implementation Schedule for additional details.

POPULATION GROWTH

Based on the 2020 US Census data, the population was estimated at 10,978. According to the State's projections, the City of North Logan had a growth rate of 2.9 % from 2010 to 2020, and is projected to continue to grow at a rate of 2.1% through 2040.

Year	Population
2020	10,978
2040	16,708 (projected)
2050	18,597 (projected)

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT:

North Logan has discussed the project in City Council meetings relating to the capital improvements plan, impact fees, and user fee increases. The project was also noticed in a newsletter to the public. Public hearings at the City Council received positive feedback.

IMPLEMENTATION SCHEDULE

PHASE	ESTIMATE	DATES
1		Completed
2		Under Construction
3 – Priority	$1,950,000	To be completed Fall 2022
4 – 1500 N to 1800 N	$3,200,000	Development Pressure 2023 – construction needed to avoid higher costs
4 – 1200 N to 1400 N	$1,200,000	Construction Begins 2023 – Leg that connects previous legs to have operational sewer
5 – Residential Development	$4,200,000	Development Pressure 2023-2025

APPLICANT'S CURRENT USER CHARGE

Currently, North Logan charges approximately $60.69 per month per ERC. According to the Utah Water Quality Board's affordability criteria of 1.4% of MAGI ($51,900 for North Logan), the monthly rate for wastewater should exceed $60.55 per month for grant fund consideration.

COST ESTIMATE

The total cost of the project is estimated to be $10,550,000. A breakdown of these costs follows.

Total Project

Phase 1 & 2	Funded
Legal/Bonding	$50,000
DWQ Loan Origination Fee	$129,376
Phase 3	$1,950,000
Phase 4.1	$3,200,000
Phase 4.2	$1,200,000
Phase 5	$4,200,000
Contingency (20%)	$2,110,000
Total Project Cost:	**$12,937,600**

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. Full funding packages at 0% interest to private market funding result in projected rates from $68.09 to $72.49.

STAFF COMMENTS AND RECOMMENDATION

Staff is supportive of this project, but recognizes due to fund balances the entire cost is unlikely to be covered at this time. It appears that Phase 3 is already under construction, making it difficult to provide funds through our programs for the $1,950,000 for this phase. Staff believes it would be appropriate for the Board to evaluate funding the full Phase 4 construction in the amount of $4,400,000 or part of

Phase 4 at $3,200,000 or $1,200,000. It is staff's understanding North Logan City is looking for project funding in any amount as securing funding has been very challenging. This is an introduction and a recommendation will not be made at this time.

DWQ-2022-026592

ATTACHMENT 1

Attachment 1
North Logan - Water Quality Board
30 Year Loan Static Cost Model

Project Costs

Legal/Bonding		$ 50,000
DWQ Loan Origination Fee		$ 129,376
Engineering - Design & CMS		$ 100,000
Phase 3 - Priority (Fall 2022)	$ 1,950,000	
Phase 4.1 - 1500 N to 1800 N (2023)	$ 3,200,000	
Phase 4.2 - 1200 N to 1400 N (2023)	$ 1,200,000	
Phase 5 - Residential Development (2023-2025)	$ 4,200,000	
Construction subtotal		**$ 10,550,000**
Contingency (20%)		$ 2,110,000
Total Project Cost:		**$ 12,937,600**

Current Customer Base & User Charges

Initial Total Customer (ERU's)	3,231
MAGI for North Logan (2020):	$51,900
Affordable Monthly Rate at 1.4%	$60.55
Impact Fee (per ERU):	$3,300
Current Monthly Fee (per ERU)	$60.69
Debt Service	$0
Annual O&M expense	$2,101,000

Project Funding

Local Contribution	$ -
Amount to be Funded	**$ 12,937,600**
WQB Grant	**$ -**
Total Project Cost:	**$ 12,937,600**

Funding Conditions

Loan Repayment Term:	30
Reserve Funding Period:	6

ESTIMATED COST OF SEWER SERVICE

Principal Forgiveness	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	12,937,600	0.00%	3.50%	0	0	703,435	2,101,000	0	2,804,435	72.33	1.67%	MEDIUM
-	12,937,600	0	0.00%	3.50%	431,253	107,813	0	2,101,000	0	2,640,067	68.09	1.57%	MEDIUM
-	12,937,600	0	1.00%	3.50%	501,308	125,327	0	2,101,000	0	2,727,634	70.35	1.63%	MEDIUM
-	12,937,600	0	2.00%	3.50%	577,663	144,416	0	2,101,000	0	2,823,079	72.81	1.68%	MEDIUM
-	12,937,600	0	3.00%	3.50%	660,067	165,017	0	2,101,000	0	2,926,083	75.47	1.74%	MEDIUM
-	4,400,000	8,537,600	1.00%	3.50%	170,492	42,623	464,201	2,101,000	0	2,778,315	71.66	1.66%	MEDIUM
-	4,400,000	8,537,600	1.50%	3.50%	183,212	45,803	464,201	2,101,000	0	2,794,216	72.07	1.67%	MEDIUM
-	4,400,000	8,537,600	2.00%	3.50%	196,460	49,115	464,201	2,101,000	0	2,810,775	72.49	1.68%	MEDIUM

*Staff Estimate

FNI Calculation

	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	3.0%	3.6%	1.70	4	6.80	S2301
Poverty Rate	13.9%	9.1%	1.96	2.5	4.90	S1701
Threshold LQI	$ 31,298	$ 35,445	1.47	2.5	3.68	B19080
Population Growth Rate	41.4%	18.6%	1.00	1	1.00	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**1.64**	

2020 5 year ACS Table

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

Financial Burden Matrix

FNI	Modified MAGI: 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

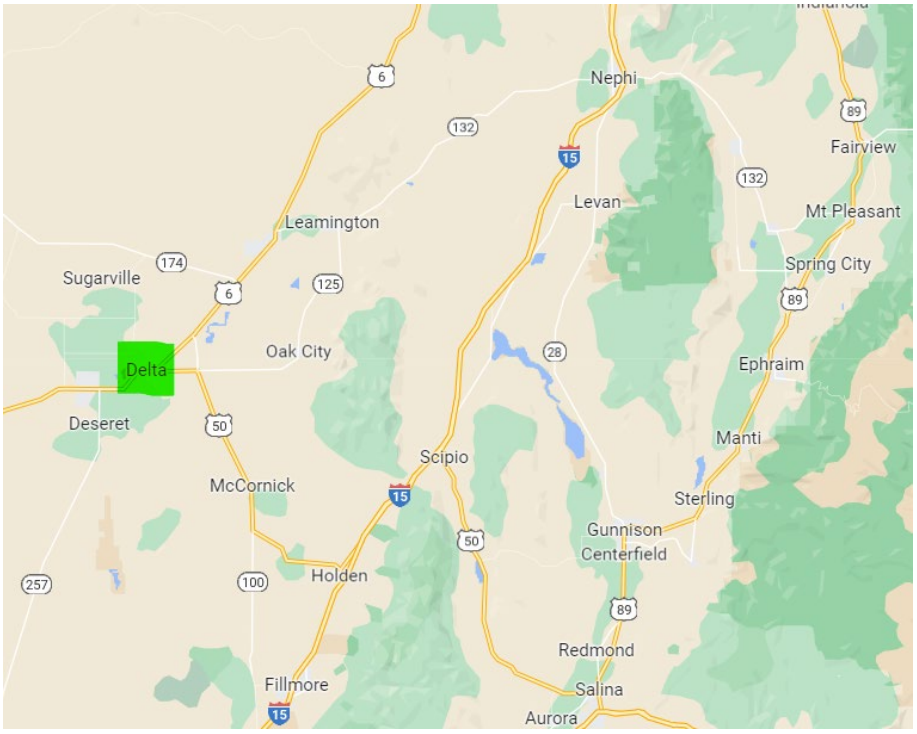
APPLICANT:	Delta City 76 North 200 West Delta, UT 84624 Telephone: (435) 864-2759
PRESIDING OFFICIAL	Mayor John Niles
CONTACT:	Dent Kirkland, Public Works Director 76 North 200 West Delta, UT 84624 Telephone: (435) 864-2759
TREASURER/RECORDER:	Sherri Westbrook
CONSULTING ENGINEER:	Robert Worley, Project Manager Sunrise Engineering 25 East 500 North Filmore, UT 84631 (435) 743-6151
BOND COUNSEL:	Chamberlain Associates 225 North 100 East Richfield, UT 84701 (435) 896-4461

APPLICANT'S REQUEST

Delta City is requesting funding from the Water Quality Board in the amount of **$16,852,000** to upgrade a sewer lift station and piping by slip line and open cut installation. In addition, Delta City is requesting a **design advance in the amount of $400,000** that is included within the funding application.

APPLICANT'S LOCATION

Delta City is located in Millard County.



PROJECT BACKGROUND

Delta City's sewer system provides service to approximately 3,500 residents and is comprised of 143,088 feet of sewer pipe. It is estimated that the original parts of the sewer system, primarily comprised of clay and asbestos cement pipe are between 60 and 100 years old. The wastewater treatment system is comprised of a series of nine lagoon cells that provide a total of 100 acres and over 144,000,000 gallons of lagoon capacity. The estimated lagoon area to support the 20-year projected systems flows is approximately 47 acres. The city updated their master plan in 2019, and during that update the entire system was video inspected. This video inspection showed deficiencies and system failure that need to be addressed.

PROJECT NEED

Delta City would like to upgrade a lift station, replace approximately 77,600 linear feet of pipeline by both slip lining and open cut installation methods, replace manholes, set new manholes, replace service connections in the areas of open cut pipeline installation, and surface restoration.

PROJECT DESCRIPTION

Delta City's sewer system consists of six zones. Improvements to Zone A include bypassing Lift Station A and replacing approximately 43,200 feet of clay pipe, asbestos cement pipe, and concrete pipes and manholes. Zone B and C improvements include replacing the force main line between Lift Station B and the lagoons, upgrading Lift Station C, and include replacing approximately 17,860 feet of clay pipe and asbestos cement pipe and associated manholes with these zones. Improvements to Zones D and E consist of replacing approximately 16,725 feet of concrete pipe and associated manholes. Zone F improvements include upgrading Lift Station F and installing a new force main line from Lift Station F to connect to the new force main interceptor from Lift Station B. Actual quantities and prioritization of pipe replacement will be determined based on the results of the next sewer video inspection.

ALTERNATIVES EVALUATED

In addition to the project description, there are alternatives available to the City that they may choose to pursue in the future.

1. Bypass Lift Station B. Lift Station B currently serves approximately two-thirds of the city; however, if the City chooses to eliminate Lift Station A and bypass the flows to Zone F, the demand at Lift Station B would decrease considerably. With that in consideration, a redesign of approximately 7,100 linear feet of sanitary pipeline to the south of Lift Station B and then east to Lift Station E would enable the bypass of Station B. The flow from Zone B would be redirected to Zone E, then pumped through Lift Station E to the treatment lagoons. If the City chooses to eliminate Lift Station B and redirect Zone B to Lift Station E, Station E will need to be upgraded to accommodate the additional flows. It is also recommended that the force main from Station E to the lagoons be replaced at the same time.

2. Bypass Lift Station C and D. It may also be possible to eliminate Station C and Station D by installing deep interceptor lines to carry the flow to Station B or Station E. A threshold survey would be required in these zones to determine the actual required depth of the deep interceptors and possible reconfiguration of the collection zones. The wet wells at Station B and Station E would also need to be lowered to accommodate the deeper lines.

POSITION ON PROJECT PRIORITY LIST

Delta City is currently ranked No. **9** of 10 on the FY 2020 Wastewater Treatment Project Priority List (PPL).

POPULATION GROWTH

Based on the 2020 US Census data, the 2020 population was 3,604. According to the State's projections, the City of Delta has a growth rate of 8%.

Year	Population
2020	3,604
2040	3,892
2050	4,539

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT

Public participation will be solicited through public meetings/hearings, information/fact sheets, and social media.

IMPLEMENTATION SCHEDULE

The estimated completion date for the upgrade of the sewer system is 2024.

APPLICANT'S CURRENT USER CHARGE

Currently, Delta City charges approximately $28.00 per month per ERU. According to the Water Quality Board's criteria of 1.4% of MAGI ($44,200 for Delta), a rate of $51.57 per month for wastewater service should be exceeded for grant consideration. The impact fee is $0 and the hookup fee is $800.00.

COST ESTIMATE

The total cost of the project is estimated to be $16,852,000. A breakdown of these cost follows.

Pump Stations	$1,376,400
Collection Sewers	$9,195,196
Mobilization	$800,000
General Project Items	$1,322,500
Legal/Bonding	$30,000
Engineering – Planning	$35,000
Engineering - Design	$613,000
Engineering- CMS	$600,000
Engineering – Other	$31,000
Funding Admin	$20,000
Environmental Services	$35,000
UDOT Coordination	$8,000
Loan Origination Fee	170,000
Contingency	$2,615,904
Construction Total	**$15,169,000**
Total Project Cost:	**16,852,000**

COST SHARING

The total cost of the project is $16,750,000.

Funding Source	Cost Sharing	Percent of Project
American Rescue Plan – Local Appropriation	$213,000	1.3%
WQB Funding	$16,639,000	98.7%
Total Amount:	$16,852,000	100%

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.

EFFORTS TO SECURE FINANCING FROM OTHER SOURCES

In the 2019 Master Plan the City evaluated the potential of going to USDA-RD for funding the project. The Master Plan encourages to City to apply to USDA-RD.

STAFF COMMENTS CONSTRUCTION FUNDING

Staff encouraged Delta City to apply to the Water Quality Board for consideration. This project will allow Delta City to maintain their sewer system along with updating necessary lift stations for an improved flow. The project, if completed under the current scope without grant assistance, will result in a High Financial Burden for the community. Based on discussions with the City and projected rates, the project scope may be re-evaluated to address the most critical needs of the system if substantial grant funding cannot be obtained. This is a project introduction, and staff recommendations will be provided at the request for funding authorization. Staff believes that this is an important project.

STAFF RECOMMENDATION DESIGN ADVANCE

Staff supports the design advance to keep this project proceeding in a timely manner and funding of the design would cause a hardship on the community. However, due to Hardship Grant Fund balances and the sizable amount of the advance request staff is concerned if full funding is feasible. Staff believes this should be funded as 50% Grant and 50% Advance to be repaid as a short-term loan.

STAFF RECOMMENDATION

Staff recommends the **Water Quality Board authorize a hardship design grant in the amount $200,000 and a short-term loan in the amount of $200,000 at an interest rate of 0% repayable over 5 years** to the Delta City under following the special conditions:

1. The Division of Water Quality must approve the engineering agreement and plan of design before the advance will be executed.

2. The loan will be repaid in five annual installments beginning one year from the date the loan is fully disbursed or the project is otherwise completed.

3. The City must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).

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

ATTACHMENT 1

ATTACHMENT 1
Delta - Water Quality Board
20 Year Loan Static Cost Model

Project Costs		
Legal/Bonding		$ 30,000
DWQ Loan Origination Fee		$ 170,000
Funding Admin		$ 20,000
Environmental Services		$ 35,000
UDOT Coordination		$ 8,000
Engineering - Planning, Design, & CMS		$ 1,279,000
Collections	$ 9,195,196	
Lift station	$ 1,376,400	
Mobilization	$ 800,000	
General Project Items	$ 1,322,500	
Construction subtotal		**$ 12,694,096**
Contingency		$ 2,615,904
Total Project Cost:		**$ 16,852,000**

Current Customer Base & User Charges	
Initial Total Customer (ERU's)	1,108
MAGI for Delta City (2020):	$44,200
Affordable Monthly Rate at 1.4%	$51.57
Impact Fee (per ERU):	$0
Current Monthly Fee (per ERU)	$28.00
Debt Service	$0
Annual O&M expense	$265,396

Project Funding	
ARPA Funds	$ 213,000
Amount to be Funded	**$ 16,639,000**
WQB Grant	**$ -**
Total Project Cost:	**$ 16,852,000**

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

ESTIMATED COST OF SEWER SERVICE

Principal Forgiveness	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	16,639,000	0.00%	4.00%	0	0	1,224,327	265,396	0	1,489,723	112.04	3.04%	**HIGH**
	16,639,000	0	0.00%	4.00%	831,950	207,988	0	265,396	0	1,305,334	98.17	2.67%	**HIGH**
	16,639,000	0	0.50%	4.00%	876,317	219,079	0	265,396	0	1,360,792	102.35	2.78%	**HIGH**
	16,639,000	0	1.00%	4.00%	922,055	230,514	0	265,396	0	1,417,965	106.65	2.90%	**HIGH**
	16,639,000	0	1.50%	4.00%	969,151	242,288	0	265,396	0	1,476,834	111.07	3.02%	**HIGH**
	16,639,000	0	2.00%	4.00%	1,017,587	254,397	0	265,396	0	1,537,379	115.63	3.14%	**HIGH**
500,000	16,139,000	0	0.00%	4.00%	806,950	201,738	0	265,396	0	1,274,084	95.82	2.60%	**HIGH**
1,000,000	15,639,000	0	0.00%	4.00%	781,950	195,488	0	265,396	0	1,242,834	93.47	2.54%	**HIGH**
1,500,000	15,139,000	0	0.00%	4.00%	756,950	189,238	0	265,396	0	1,211,584	91.12	2.47%	**HIGH**
2,000,000	14,639,000	0	0.00%	4.00%	731,950	182,988	0	265,396	0	1,180,334	88.77	2.41%	**HIGH**

*Staff Estimate

FNI Calculation						
	Local Value	State Value	Score	Weighting Factor	Weighting Score	Table **
Unemployment Rate	3.2%	3.6%	1.80	4	7.20	S2301
Poverty Rate	24.6%	9.1%	3.00	2.5	7.50	S1701
Threshold LQI	$ 24,413	$ 35,445	2.24	2.5	5.60	B19080
Population Growth Rate	8.2%	18.6%	2.11	1	2.11	B01003
Financial Need Indicator (Sum of weighted Scores/10)					**2.24**	

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.
Interim Director

WATER QUALITY BOARD
FEASIBILITY REPORT FOR WASTEWATER TREATMENT PROJECT

INTRODUCTION

APPLICANT:	Central Valley Water Reclamation Facility 800 Central Valley Road Salt Lake City, Utah 84119
PRESIDING OFFICIAL:	Phillip Heck, P.E. – General Manager
CONSULTING ENGINEER:	Trevor Lindley, P.E. Brown & Caldwell 6975 Union Park Center #490 Salt Lake City, UT 84047 Telephone: (801) 316-9802
BOND COUNSEL:	Chapman and Cutler LLP 215 S State Street Salt Lake City, UT 84111 Telephone (801) 533-0066
FINANCIAL ADVISOR:	David Robertson Lewis Young, Robertson & Burningham, Inc. 41 North Rio Grande Street, Ste. 101 Salt Lake City, UT 84101 Telephone (801) 596-0700

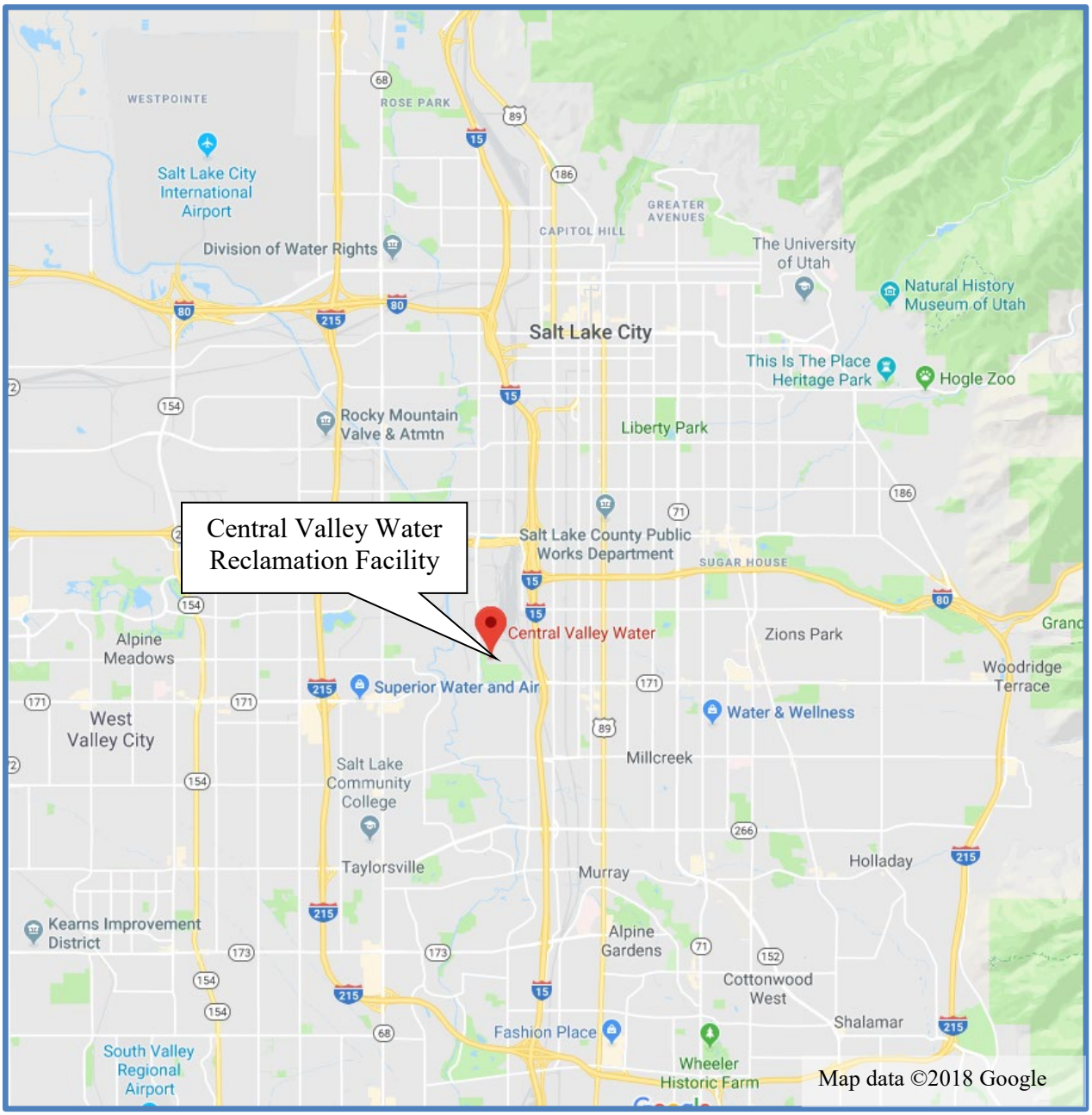
APPLICANT'S REQUEST:

The Central Valley Water Reclamation Facility (Central Valley) is requesting additional financial assistance in the amount of a $33,200,000 loan for the upgrade of its Water Reclamation Facility.

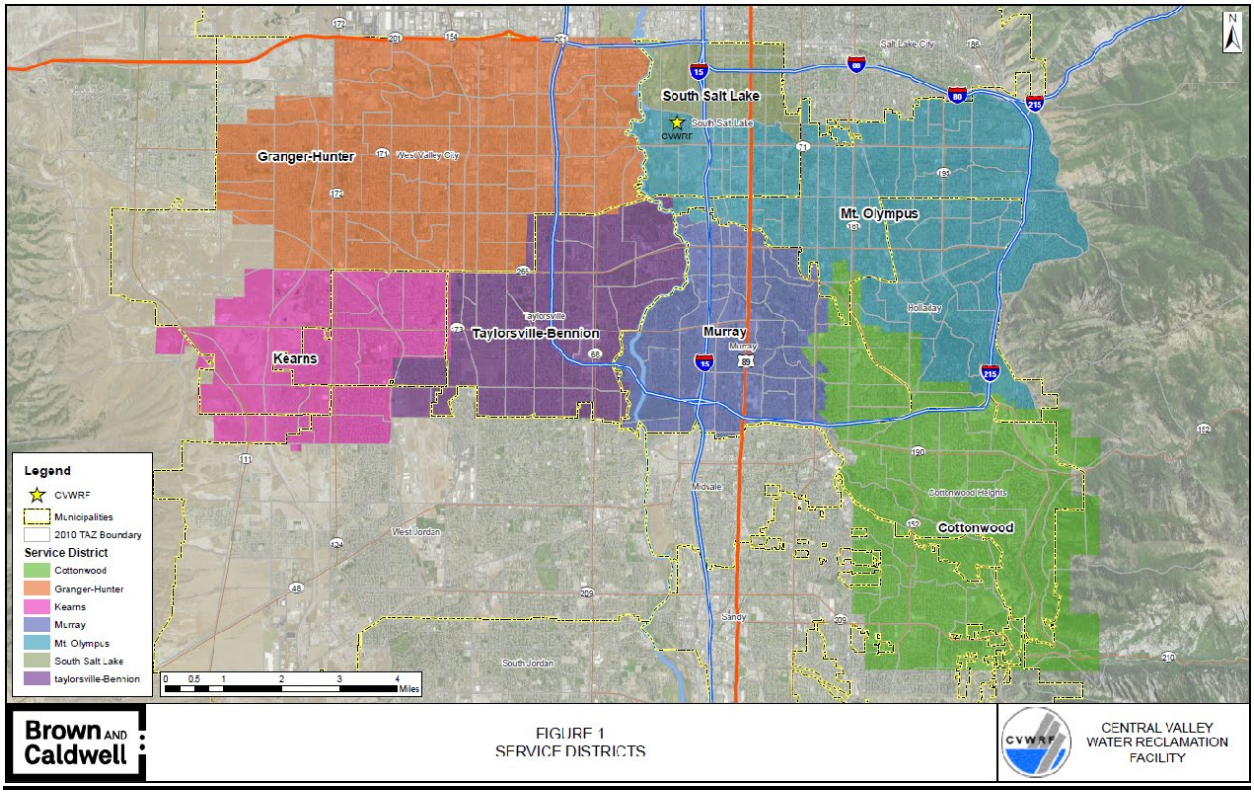
APPLICANT'S LOCATION:

The Central Valley Water Reclamation Facility is located at 800 Central Valley Rd, Salt Lake City, UT. Maps showing this location and Central Valley's service area follow:

MAP OF APPLICANT'S LOCATION



MAP OF APPLICANT'S SERVICE AREA



BACKGROUND:

In 1978, the Central Valley Water Reclamation Facility Board was organized as an Inter-Local Agreement Agency. Members of the Board represent five special service districts and two cities that previously owned and operated wastewater collection systems and five small treatment plants. The Central Valley Water Reclamation Facility was constructed between 1981 and 1987, replacing the five treatment facilities with a regional treatment plant. Central Valley's member agencies are listed below:

- Cottonwood Improvement District
- Granger-Hunter Improvement District
- Kearns Improvement District
- Mt. Olympus Improvement District
- Murray City
- South Salt Lake City
- Taylorsville-Bennion Improvement District

The facility was constructed with a combination of U.S. EPA Construction Grants and local funds. The facility underwent major expansion and improvement projects in 1994, 2001, and 2005 to add both liquid and solids treatment capacity. In 2010, the facility made a major process change to eliminate the use of liquefied chlorine gas for effluent disinfection. With this project, the original

chlorine contact process was replaced with the safer ultraviolet light (UV) disinfection process.

On December 3, 2018 the Water Quality Board authorized a loan of $65,100,000 at a 1.5% interest rate with a term of 20 years.

Central Valley Water Reclamation Facility is located at 800 West Central Valley Road (3190 South) in South Salt Lake City. The facility is designed and built to treat 75 million gallons of wastewater each day. Central Valley serves over 500,000 people in Salt Lake County.

PROJECT NEED:

Currently, major process changes and facility improvements are being designed and constructed that will be in service by 2025. These improvements are in response to aging infrastructure issues of the original plant, which is now 30 years old, and a new rule from the State of Utah Division of Water Quality (DWQ) governing discharges of phosphorus. Central Valley's treatment process is being upgraded to a state-of-the-art biological nutrient removal (BNR) process and all major mechanical and electrical systems will be rehabilitated or replaced, so that the facility can successfully serve the public for the next 30 years. In the next few years, Central Valley expects to invest over $400 million in capital improvement projects that will upgrade, replace, and renew its wastewater infrastructure.

Central Valley has seen an increase in costs throughout this project and is looking to mitigate the impact this will have on its customers. Central Valley is well under construction of the upgrades and has secured the majority of contracts necessary to complete construction. However, due to the increases in costs, Central Valley is seeking additional bonds in both the public and private market. They are seeking funding from the Water Quality Board for the remainder of the BNR basin project and the blower building project that are already encumbered by federal requirements such as AIS and Davis Bacon Wages. They would then divert other funds that were for these projects to the projects that do not already have the federal funding requirements but are still needed for the full upgrade. Central Valley has so far obtained $386 Million for the multiple projects that are in various stages of development.

Central Valley discharges wastewater into the Jordan River, which has been identified as impaired for Dissolved Oxygen (DO) and Total Dissolved Solids (TDS) based on the 2004-303(d) assessment process as defined in the Clean Water Act. This Project will reduce phosphorus to lessen the impact this plant has on the Jordan River.

POSITION ON PROJECT PRIORITY LIST:

This project is ranked 1st of 10 projects on the Wastewater Treatment Project Priority List.

POPULATION GROWTH:

Population and Connection Projections

Year	Residents
2014	473,734
2040	543,126
Build Out	586,376

(Source: Technical Memorandum No. 2 –Design Criteria Prepared May 8, 2015)

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT:

Public participation and support for this project has been demonstrated in the following ways:

1. Respective entity boards have held public meetings regarding the rate increase. The respective boards/councils have generally received few comments regarding the anticipated rate increases.
2. In general member entities with higher existing rates or higher ongoing collection system commitments have expressed more concern about overall rate impacts but have stated their support for the project.
3. Central Valley's Board made a motion in August of 2016 to a) support the nutrient projects as envisioned in the 2015 Nutrient Feasibility Study b) support the 20-year CIP plans.
4. In October of 2016, Central Valley's Board approved the 2017 budget on a vote of 6-1; this budget included a number of 2017 expenditures related to the cogeneration system and nutrient project. Central Valley's Board adopted its 2018 budget 7-0 in favor, including $44 million of capital improvements funded by member entity cash and bond proceeds.
5. Central Valley continues to have Board Meetings open to the public in which they update the Central Valley Board with the current status of the various projects. They also post video updates on their website.

IMPLEMENTATION SCHEDULE:

Apply to WQB for Funding:	June 2022
WQB Introduction	August 2022
WQB Funding Authorization:	October 2022
Facility Plan Approval:	Complete
Issue Construction Permit	Complete
Bid Opening	Complete
Complete Construction	December 2024
Complete Commissioning	May 2025

APPLICANT'S CURRENT USER CHARGE:

Central Valley serves seven (7) entities, each with their own rate structure; some charge a monthly base rate, some charge by winter water usage, and some use taxes to supplement their sewer budget, or a combination of these. Staff estimated that the weighted average combined user charge for Central Valley customers is about $28 per ERU per month.

APPLICANT'S ALTERNATIVES EVALUATE:

Central Valley completed a report in 2015 titled "Evaluating the Technical and Economic Feasibility of Modifying the Central Valley to Achieve Nutrient Removal". This document is the summary report of an extensive evaluation of chemical and biological nutrient removal alternatives for the water reclamation facility conducted by Brown and Caldwell and a technical advisory team of national and international experts on wastewater nutrient removal. This report utilized several technical memoranda that evaluated alternatives, and solicited outside peer review of the treatment alternatives from a Technical Advisory Committee.

The following alternatives were evaluated to determine the preferred alternative for Central Valley:

Alternative 1a:	chemical phosphorus (P) removal
Alternative 1b:	chemical P removal and tertiary denitrification filters
Alternative 2a:	full biological nutrient removal (BNR) activated sludge
Alternative 2b:	BNR activated sludge and chemical P removal
Alternative 3:	BNR activated sludge preceded with trickling filters (similar to OWASA)

The do nothing alternative would result in non-compliance with the TBPEL phosphorus rule.

Alternative 2a was selected as the preferred alternative. The report recommends a phased biological treatment approach starting with an anaerobic/oxic (A/O) process mode, for meeting an effluent phosphorus limit of 1 mg/L. In addition, side stream nutrient removal would be provided on the biosolids dewatering process filtrate to minimize nutrient recycling and reduce the overall size of the mainstream treatment process. This process could be expanded into a five stage Bardenpho process in the future to achieve lower levels of Total Inorganic Nitrogen.

COST ESTIMATE:

Central Valley is moving forward with several phases of construction at this time. Two of those phases include the Blower Building and BNR Basins which have already been bid out with AIS, DBE, and Davis-Bacon Wage requirements included. The total cost of these two phases is $177,200,000 of which Central Valley has so far received $65,100,000 in financial assistance from the Water Quality Board. While this is close to the estimated cost of these phases at the time the project originally came before the Board, other phases of the project have continued to cost much more than anticipated. Central Valley has employed value engineering and modified time frames where possible but additional financing is necessary to complete the phases of the project required to meet phosphorus requirements.

COST SHARING:

Central Valley is proposing the following cost sharing for the identified projects. Central Valley intends to self-fund the remainder of its 20-year, $400 million investment through member contributions and public market financing.

Funding Source	Cost Sharing	Percent of Project
Central Valley Portion	$ 79,000,000	44%
Existing WQB Loan	$ 65,000,000	37%
WQB Loan	$ 33,200,000	19%
Total	$ 177,200,000	100%

ADDITIONAL DISCUSSION POINTS:

Central Valley Water Reclamation Facility serves seven separate entities. South Salt Lake City exceeded the 1.4% MAGI and has been given separate funding. Other entities still have some capacity to increase rates within this affordability criterion. Central Valley expects to request additional subsidy from the Board in the form of a reduced interest rate to assist those entities with a demonstrated hardship. The table below shows the current average combined rate for each member utility as well as the percent of MAGI that the current rate represents. As is shown in the table below, South Salt Lake City and Murray City exceed 1.4% of MAGI at their current user rates. User rates will increase further due to these projects.

	Average Monthly Current Sewer Bill	% MAGI
Cottonwood Improvement District	$ 20.00	0.48%
Granger-Hunter Improvement District	$ 29.50	0.97%
Kearns Improvement District	$ 39.99	1.29%
Murray City	$ 56.28	1.49%
Mt. Olympus Improvement District	$ 21.00	0.56%
South Salt Lake City	$ 45.00	1.57%
Taylorsville-Bennion Improvement District	$ 28.86	0.84%
Weighted Average w/o SSL	$ 27.65	0.80%

STAFF RECOMMENDATIONS:

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

DWQ-2022-025759
File: Central Valley Water Reclamation Facility, Admin, Section 1

Central Valley - Water Quality Board

20 Year Loan Static Cost Model Additional Funding Request

Project Costs	
BNR Process Basins	$ 126,200,000
Blower Building	$ 51,000,000
Total Project Cost:	**$ 177,200,000**

Project Funding	
Cash from member entities	$ 21,095,665
*South Salt Lake Funding	$ 11,146,000
Publicly issued bonds@3.5%	$ 46,658,335
WQB Loan Existing	$ 65,100,000
WQB Loan Requested	$ 33,200,000
Total Project Cost:	**$ 177,200,000**

*SSL Obtained Separate Financing Through the WQB for their portion of the project

Current Customer Base & User Charges	
Total ERU's (Projected 2020)	$ 175,630
Weighted Average MAGI (2021):	$ 42,801
Affordable Monthly Rate at 1.4%	$ 49.93
Current Impact Fee	Varies
Current Average Monthly Fee (per ERU)	$ 27.65
Existing O&M expenses Treatment & Collection	Varies
New O&M expenses Treatment	$ 28,798,976
Existing Sewer Debt Service	Varies
Existing Treatment Debt Service	$ 20,375,081
Weighted Average Current Sewer Bill:	$ 27.02

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

ESTIMATED COST OF SEWER SERVICE

WQB Loan Amount	WQB Loan Interest Rate	Annual WQB Loan Debt Service	Existing WQB Debt Service	Required other new Debt Service Payments*	Weighted Interest Rate for Project	Annual Sewer O&M Cost	Total Annual Sewer Cost	Monthly Treatment Cost/ERU	Increase in Cost Per ERU/Month Treatment Only	Average Per ERU/Month Cost	Weighted Average MAGI	Weighted Average Burden
						$ 28,798,976	$ 49,174,057	$ 23.33		$ 27.02	0.76%	Low
$ 33,200,000	0.00%	$ 1,660,000	$ 3,791,797	$ 3,282,931	1.97%	$ 28,798,976	$ 57,908,785	$ 27.48	$ 4.14	$ 31.17	0.87%	Low
$ 33,200,000	1.00%	$ 1,839,788	$ 3,791,797	$ 3,282,931	2.13%	$ 28,798,976	$ 58,088,573	$ 27.56	$ 4.23	$ 31.25	0.88%	Low
$ 33,200,000	1.10%	$ 1,858,367	$ 3,791,797	$ 3,282,931	2.15%	$ 28,798,976	$ 58,107,152	$ 27.57	$ 4.24	$ 31.26	0.88%	Low
$ 33,200,000	1.30%	$ 1,895,848	$ 3,791,797	$ 3,282,931	2.19%	$ 28,798,976	$ 58,144,632	$ 27.59	$ 4.26	$ 31.28	0.88%	Low
$ 33,200,000	1.35%	$ 1,905,285	$ 3,791,797	$ 3,282,931	2.20%	$ 28,798,976	$ 58,154,070	$ 27.59	$ 4.26	$ 31.28	0.88%	Low
$ 33,200,000	**1.50%**	**$ 1,933,758**	**$ 3,791,797**	**$ 3,282,931**	**2.23%**	**$ 28,798,976**	**$ 58,182,543**	**$ 27.61**	**$ 4.27**	**$ 31.30**	**0.88%**	**Low**
$ 33,200,000	1.78%	$ 1,987,552	$ 3,791,797	$ 3,282,931	2.29%	$ 28,798,976	$ 58,236,337	$ 27.63	$ 4.30	$ 31.32	0.88%	Low
$ 33,200,000	2.00%	$ 2,030,403	$ 3,791,797	$ 3,282,931	2.33%	$ 28,798,976	$ 58,279,188	$ 27.65	$ 4.32	$ 31.34	0.88%	Low
$ 33,200,000	3.50%	$ 2,335,988	$ 3,791,797	$ 3,282,931	2.69%	$ 28,798,976	$ 58,584,772	$ 27.80	$ 4.47	$ 31.49	0.88%	Low

*3.5% interest rate used for estimating other new debt service

Central Valley - Water Quality Board

20 Year Loan Static Cost Model Additional Funding Request

CENTRAL VALLEY CURRENT WEIGHTED AVERAGE MAGI CALCULATION

Member Entity	MAGI	current monthly Average Bill	current % MAGI	Current ERUs
Cottonwood I.D.	$ 50,400.00	$ 20.00	0.48%	36,329
Granger-Hunter I.D.	$ 36,400.00	$ 29.50	0.97%	27,000
Kearns I.D.	$ 37,300.00	$ 39.99	1.29%	20,000
Murray City	$ 45,200.00	$ 56.28	1.49%	9,663
Mt. Olympus I.D.	$ 45,200.00	$ 21.00	0.56%	54,688
Taylorsville-Bennion I.D.	$ 41,400.00	$ 28.86	0.84%	25,329
Weighted Average	$42,800.59	$27.02	0.77%	

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

CENTRAL VALLEY FINANCIAL NEED INDICATOR CALCULATION

Member Entity	Unemployment Rate	Poverty Rate	Threshold LQI	Population Growth Rate
Cottonwood I.D.	3.58%	7.43%	$ 39,447.50	31.28%
Granger-Hunter I.D.	4.20%	11.70%	$ 34,429.00	8.49%
Kearns I.D.	4.60%	8.60%	$ 40,896.00	4.98%
Murray City	4.20%	6.30%	$ 33,595.00	5.83%
Mt. Olympus I.D.	4.20%	6.30%	$ 33,595.00	5.83%
Taylorsville-Bennion I.D.	4.50%	9.80%	$ 37,209.00	2.72%
Weighted Average	4.10%	8.04%	$ 35,785.06	10.87%
State Values	3.60%	9.10%	$ 35,445.00	18.60%
Score	2.25	1.00	1.00	3.00
Weight	4.00	2.50	2.50	1.00
Weighted Score	9	2.5	2.5	3
Financial Need Indicator (Sum of weighted Scores/10)				**1.7**