



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
Steven K. Earley, Chair
James Webb, Vice Chair
Carly Castle
Michela Harris
Joseph Havasi
Trevor Heaton
Michael D. Luers
Kimberly D. Shelley
John K. Mackey
Executive Secretary

Utah Water Quality Board Meeting
MASOB
195 North 1950 West
Wasatch Room 4124 & Via Zoom
Salt Lake City, UT 84116

April 26, 2023
Board Meeting Begins at 8:30 am

AGENDA

Water Quality Board Meeting – Roll Call

A. Minutes:

Approval of Minutes – March 22, 2023 Water Quality Board Meeting.....Steven Earley

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

C. Other

- 1. Financial Status Report.....Emily Cantón
2. Grantsville City – Design Advance.....Glen Lischeske
3. Spring City – Design Advance.....Ken Hoffman & Beth Wondimu

D. Public Comment Period

E. Meeting Adjournment

Next Meeting
May 24, 2023 at 8:30 am
DEQ Board Room 1015 & Via Zoom
195 North 1950 West
Salt Lake City, UT 84116

Revised 4/21/2023
DWQ-2023-005888

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.



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MINUTES

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
UTAH WATER QUALITY BOARD
MASOB
and
Via Zoom**

March 22, 2023
8:30 am Meeting

UTAH WATER QUALITY BOARD MEMBERS PRESENT

Steven Earley
James Webb
Carly Castle
Joe Havasi
Trevor Heaton
Mike Luers

Excused

Michela Harris
Kim Shelley

DIVISION OF WATER QUALITY STAFF MEMBERS PRESENT

John Mackey
Emily Cantón
Ken Hoffman
Leanna Littler-Woolf
Robert Beers

OTHERS PRESENT

Haley Sousa
Julianna Slurzberg
Utah Attorney General's Office
Utah Attorney General's Office

Mr. Earley called the Meeting to order at 8:30 AM.

ROLL CALL

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

APPROVAL OF MINUTES OF FEBRUARY 22, 2023 BOARD MEETING

Motion: Mr. Webb moved to approve the minutes of the February 22, 2023 Board meeting.

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

EXECUTIVE SECRETARY REPORT

Mr. Mackey addressed the Board regarding the following.

- EPA standard to protect communities from PFAS in drinking water
- National enforcement & compliance initiative
- HB349 - Water Reuse Projects Amendments

OTHER

Request to initiate rulemaking for Utah Administrative Code, Rule 317-4. Onsite Wastewater Systems: Mr. Beers presented the Board with a request to initiate rulemaking for R317-4.

Motion: Mr. Leurs moved to the request to initiate rulemaking for R317-4. Onsite Wastewater Systems.

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

Introduction to Grand County *E.coli* Total Maximum Daily Load Study: Ms. Parham presented the Board with a preliminary briefing of the Grand and San Juan Counties *E.coli* Total Maximum Daily Load study.

PUBLIC COMMENTS

There were no public comments.

MEETING ADJOURNMENT

Motion: Mr. Webb moved to adjourn the meeting.

Mr. Heaton 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 – April 26, 2023

Page 3
March 22, 2023
Water Quality Board
Minutes

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>

Steven Earley, Chair
Utah Water Quality Board

LOAN FUNDS FINANCIAL STATUS REPORT APRIL 2023

| 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 | \$ 28,127,176 | \$ 13,767,422 | \$ 15,952,278 | \$ 18,034,207 | \$ 19,776,256 | \$ 21,133,292 |
| Sales Tax Revenue | | \$ 3,587,500 | \$ 3,587,500 | \$ 3,587,500 | \$ 3,587,500 | \$ 3,587,500 |
| Loan Repayments (5260) | \$ 764,896 | \$ 2,473,791 | \$ 2,808,235 | \$ 2,655,353 | \$ 2,270,341 | \$ 2,298,785 |
| Total Funds Available | \$ 28,892,072 | \$ 19,828,713 | \$ 22,348,012 | \$ 24,277,061 | \$ 25,634,097 | \$ 27,019,577 |
| General Obligations | | | | | | |
| State Match Transfers Base Cap Grant | \$ (1,219,200) | \$ (780,000) | \$ - | \$ - | \$ - | \$ - |
| 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 | \$ (424,650) | \$ (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) | \$ - | \$ - | \$ - | \$ - | \$ - |
| South Salt Lake City (C) | \$ (982,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Loan Authorizations | | | | | | |
| Spanish Fork | \$ (4,500,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Delta | \$ (200,000) | | | | | |
| Hanksville | \$ (350,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Long Valley | \$ (220,000) | | | | | |
| Lewiston | \$ (400,000) | | | | | |
| Planned Projects | | | | | | |
| *Grantsville Design | \$ (1,000,000) | | | | | |
| Total Obligations | \$ (15,124,650) | \$ (3,876,435) | \$ (4,313,805) | \$ (4,500,805) | \$ (4,500,805) | \$ (2,067,000) |
| UWLF Remaining Loan Balance | \$ 13,767,422 | \$ 15,952,278 | \$ 18,034,207 | \$ 19,776,256 | \$ 21,133,292 | \$ 24,952,577 |

HARDSHIP GRANT FUNDS FINANCIAL STATUS REPORT APRIL 2023

| 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 | | \$ 1,834,338 | \$ 2,175,780 | \$ 2,431,049 | \$ 2,600,544 | \$ 2,680,395 |
| Federal HGF Beginning Balance (5250) | \$ 3,436,811 | \$ - | \$ - | \$ - | \$ - | \$ - |
| State HGF Beginning Balance (5265) | \$ 3,538,707 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Interest Earnings at 4.8008% | \$ 83,720 | \$ 8,806 | \$ 10,445 | \$ 11,671 | \$ 12,485 | \$ 12,868 |
| UWLF Interest Earnings at 4.8008% | \$ 337,582 | \$ 66,095 | \$ 76,584 | \$ 86,579 | \$ 94,942 | \$ 101,457 |
| Hardship Grant Assessments (5255) | \$ 177,701 | \$ 969,300 | \$ 892,769 | \$ 817,302 | \$ 739,827 | \$ 684,802 |
| Interest Payments - (5260) | \$ 83,099 | \$ 297,241 | \$ 275,471 | \$ 253,943 | \$ 232,597 | \$ 216,154 |
| Advance Repayments | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Funds Available | \$ 7,657,620 | \$ 3,175,780 | \$ 3,431,049 | \$ 3,600,544 | \$ 3,680,395 | \$ 3,695,676 |
| Financial Assistance Project Obligations | | | | | | |
| Big Water Planning Grant | \$ (52,500) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Delta Design-Grant | \$ (200,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Dutch John-Planning | \$ (95,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Dutch John-HGF Loan | \$ (60,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Eagle Mountain City - Construction Grant | \$ (510,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Elwood-Planning | \$ (18,200) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Hanksville-Design | \$ (162,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Hinckley Hardship Planning Grant | \$ (15,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Kanab City Planning Advance | \$ (29,800) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Lewiston City - Design and Construction | \$ (460,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Lewiston De-Obligation | \$ 460,000 | | | | | |
| Long Valley-Design | \$ (103,700) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Millville City - Construction | \$ (1,000,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Spanish Fork - Hardship Grant | \$ (500,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Stockton-Planning | \$ (20,000) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Non-Point Source/Hardship Grant Obligations | | | | | | |
| McKees ARDL interest-rate buy down | \$ (55,261) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Munk Dairy ARDL interest-rate buy down | \$ (16,017) | \$ - | \$ - | \$ - | \$ - | \$ - |
| (FY12) Utah Department of Agriculture | \$ (172,270) | \$ - | \$ - | \$ - | \$ - | \$ - |
| (FY15) DEQ - Ammonia Criteria Study | \$ (27,242) | \$ - | \$ - | \$ - | \$ - | \$ - |
| (FY17) DEQ - Utah Lake Water Quality Study | \$ (348,301) | \$ - | \$ - | \$ - | \$ - | \$ - |
| (FY23) DEQ Davis County Health Department | \$ (105,313) | \$ - | \$ - | \$ - | \$ - | \$ - |
| USU - Historic Trophic State/Nutrient Concentrations Paleo | \$ (25,141) | \$ - | \$ - | \$ - | \$ - | \$ - |
| FY 2018 - Remaining Payments | \$ (7,100) | \$ - | \$ - | \$ - | \$ - | \$ - |
| FY 2019 - Remaining Payments | \$ (88,688) | \$ - | \$ - | \$ - | \$ - | \$ - |
| FY 2020 - Remaining Payments | \$ (205,915) | \$ - | \$ - | \$ - | \$ - | \$ - |
| FY 2021 - Remaining Payments | \$ (258,193) | \$ - | \$ - | \$ - | \$ - | \$ - |
| FY 2022 - Remaining Payments | \$ (647,718) | \$ - | \$ - | \$ - | \$ - | \$ - |
| FY2023 - Remaining Payments | \$ (810,922) | | | | | |
| Future NPS Annual Allocations | | \$ (1,000,000) | \$ (1,000,000) | \$ (1,000,000) | \$ (1,000,000) | \$ (1,000,000) |
| Planned Projects | | | | | | |
| Spring City Design Advance | \$ (289,000) | | | | | |
| Total Obligations | \$ (5,823,282) | \$ (1,000,000) | \$ (1,000,000) | \$ (1,000,000) | \$ (1,000,000) | \$ (1,000,000) |
| HGF Unobligated Funds | \$ 1,834,338 | \$ 2,175,780 | \$ 2,431,049 | \$ 2,600,544 | \$ 2,680,395 | \$ 2,695,676 |



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**WATER QUALITY BOARD
FEASIBILITY REPORT FOR DESIGN ADVANCE
INTRODUCTION**

APPLICANT: Grantsville City
429 East Main Street
Grantsville, UT 84029

PRESIDING OFFICIAL: Neil A. Critchlow, Mayor

CONTACT: Sherrie Broadbent, Finance Director
429 East Main Street
Grantsville, UT 84029
Telephone: 435-884-4619

TREASURER/RECORDER: Crystal Oldwage, Treasurer

CONSULTING ENGINEER: Ted Mickelsen
Jones & DeMille Engineering
775 W 1200 N, Suite 200A
Springville, UT 84663
Telephone: 801-692-0219

CITY ATTORNEY: Brett M. Coombs
429 East Main Street
Grantsville, UT 84029
435-884-4635

FINANCIAL ADVISOR: Alex Buxton
Zions Public Finance

APPLICANT'S REQUEST

Grantsville City (City) is requesting a **design advance** in the amount of **\$1,000,000** to design a new treatment system capable of meeting phosphorus requirements and 20-year projected flows.

APPLICANT'S LOCATION

Grantsville is located in Tooele County, Northwest of Tooele and West of Salt Lake City.



PROJECT NEED

Grantsville City is a community with a current population of approximately 13,547. While the City is still considered a small town, it is experiencing substantial growth and is estimated to have a population of over 45,000 in the next 20 years. The City owns and operates its own wastewater system, including wastewater treatment.

The current Grantsville City wastewater treatment plant (WWTP) consists of a pump station, headworks building (screening and grit removal), aerated and storage lagoons, and disinfection. Though the existing WWTP is designed to treat up to 1.5 Million Gallons per Day (MGD) it is limited in its actual capacity due to its limited ability to meet the more stringent effluent nutrient requirements (phosphorus) implemented in the 2019 permit. The average daily flows to the WWTP are 0.86 MGD with peak day flows at 0.95 MGD and have been as high as 1.39 MGD. WWTP improvements and expansion is necessary to meet the nutrient requirements and accommodate future growth.

ALTERNATIVES EVALUATED

In 2022, the City conducted a Wastewater Treatment Plant Study to evaluate options for upgrading and expanding the City's WWTP. While several options were discussed, the City narrowed it down to four alternatives:

- Oxidation Ditch - \$27.7 million
- Fine Bubble Diffuser Activated Sludge - \$25.7 million
- Membrane Bioreactor (MBR) - \$29.5 million
- Parallel Lagoon and Fine Bubble Diffusers System. - \$26.2 million

All of these alternatives include headworks, secondary biological processes, tertiary filtration and disinfection, solids handling, effluent storage and potential reuse.

PROJECT DESCRIPTION

The City’s preferred alternative is to upgrade to a new 3 MGD (average daily flow), 7 MGD (peak hourly flows), fine bubble diffuser activated sludge plant. This is expected to successfully, and most cost effectively, meet the treatment performance objective for the next 20 years. The design will also include future expansion capabilities. It is anticipated that the treatment facilities will include a new headworks building, anaerobic basins, anoxic basins, fine bubble diffuser aeration basins, blower equipment building, secondary clarifiers, and tertiary equipment to meet Type I reuse requirements. While a few locations were considered in the study, the preferred location for the new treatment facility is near the existing WWTP on City owned property which better accommodates connection to the existing infrastructure and future use of existing facilities for reuse storage.

IMPLEMENTATION SCHEDULE

The estimated plan completion date is in the 4th quarter of 2024. The estimated construction completion date is in the 4th quarter of 2026.

ALTERNATIVE FUNDING SOURCES

The community has been setting aside funding for the project, but to align with the timing of the permit requirements for phosphorus, the need to begin design for the project is immediate and cannot be completely covered by collected funds at this time. Funding that has been set aside will be used during the engineering phase and is listed below in the Cost Estimate.

The City is also conducting a sewer rate and impact fee study, which includes the cost for the new treatment plant. This should be completed by the time construction funding is needed which will allow them to repay the debt service.

POPULATION GROWTH

“Growth projections for the next 10-20 years have been analyzed and discussed by multiple parties, and range from 9-10% (Ensign, 2022), to 2.9% by the Governor's Office, to less than 2.4% (K.C. Gardner, 2022). Actual growth based on measured wastewater influent flow for the past 3 years has averaged 5.1 %.”¹ Staff used a conservative 3.4% growth rate for impact fee modeling.

| Year | Population | ERC | New Connections per year | Estimated Impact fees |
|------|------------|-------|--------------------------|-----------------------|
| 2023 | 13,547 | 4,516 | | |
| 2024 | 14,008 | 4,670 | 154 | \$501,578 |
| 2032 | 18,302 | 6,104 | 201 | \$654,657 |
| 2042 | 25,566 | 8,527 | 280 | \$911,960 |

¹(Source: Grantsville Wastewater Treatment Plant Study in November 2022, prepared by AQUA Engineering
ERC = Equivalent Residential Connections

COST ESTIMATE

The estimated cost for design services is **\$1,485,000**, including \$1,450,000 for consulting services and \$35,000 additional for Administration and Legal services. The City will provide a local contribution of \$485,000, bringing the total amount requested from the board to \$1,000,000.

ESTIMATED ANNUAL COST FOR SEWER SERVICE:

The static model of financing alternatives considered is given in Attachment 1. If the City is able to obtain its requested funding entirely from other sources, the City will likely have to raise its sewer rates above \$73 per month to afford of this project. Staff attempted to model impact fees which based on conservative growth numbers is approximately \$500,000/year and still results in a greater than \$60 per month.

FINANCIAL BURDEN EVALUATION:

The cost for sewer service shows the City will likely 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 1.58 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.**

STAFF COMMENTS

Staff is supportive of Grantsville's efforts to increase the capacity of their facility to meet anticipated demand due to growth, as well as updating their treatment system to meet phosphorus effluent requirements. The results of this design plan should provide a basis for the construction of a new facility that meets both of these goals. The City is also developing a sewer rate and impact fee study which will aid in repaying any construction funding granted in the future.

Since Grantsville is over 10,000 in population and not in a producing county it is anticipated Grantsville will not qualify for funding from USDA-RD or CIB. Thus, it is anticipated the Board will be the primary option to fund this project outside of the private market. Grantsville is preparing to submit an application for project funding in June 2023.

Utah rule requires "once the long-term project financing has been secured, the Project Design Advance must be expeditiously repaid to the Board." Staff believes this allows the Board four options: 1) require the City to return to the Board to fund part of the construction funding, 2) provide all or part of the advance as a loan which would require a loan closing, 3) provide terms for the design advance to be repaid to the Hardship Grant Fund (HGF), or 4) provide the design advance as all or part grant funding.

Due to limited balances in the HGF, staff cannot recommend this Design Advance be fully authorized from the HGF. Staff recommends the request be partially funded from the HGF or fully funded as a loan. If the Board authorizes a loan then the Board might consider including \$30,000 for legal fees and \$10,000 in loan origination fees.

STAFF RECOMMENDATION

To aid the Board in making a motion, staff has laid out the three options including the special conditions.

Option 2: Staff recommends that the Board **authorize funding in the amount of \$X,XX0,000 as a loan at an interest rate of 0% repayable over 20 years** to Grantsville City under the following special conditions:

1. The Division of Water Quality must approve the engineering agreement and plan of design before the Design 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.

Option 3: Staff recommends that the Board **authorize a short-term loan of \$XX0,000 at an interest rate of 0%** to Grantsville City under the following special conditions:

1. The Division of Water Quality must approve the engineering agreement and plan of design before the Design Advance will be executed.
2. The short-term loan will be repaid in five annual installments beginning one year from the date the loan is fully disbursed or the design is 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.

Option 4: Staff recommends that the Board **authorize a Design Grant of \$XX0,000** to Grantsville City under the following special conditions:

1. The Division of Water Quality must approve the engineering agreement and plan of design before the Design 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.

**Grantsville – Water Quality Board
Static Cost Model**

Project Costs

| | |
|-------------------------------|----------------------|
| Legal/Bonding | \$ 30,000 |
| DWQ Loan Origination Fee | \$ 349,613 |
| Engineering – Design & CMS | \$ 1,485,000 |
| <i>Construction:</i> | |
| <i>Construction subtotal:</i> | \$ 25,727,917 |
| Contingency (30%) | \$ 7,718,375 |
| Total Project Cost: | \$ 34,961,292 |

Project Funding

| | |
|-------------------------------|----------------------|
| Local Contribution | \$ 485,000 |
| WQB Design Advance | \$ 1,000,000 |
| Remaining amount to be funded | \$ 33,476,292 |
| Total Project Cost: | \$ 34,961,292 |

ESTIMATED COST OF SEWER SERVICE

| WQB Grant | Design Advance Short term Loan | Design Advance Interest Rate | WQB Loan Debt Service | WQB Loan | WQB Loan Interest Rate | WQB Loan Debt Service | WQB Loan Reserve | Annual Sewer | Existing Debt Service | Total Annual Sewer Cost | Monthly Sewer Cost/ ERU | Sewer Cost as % of MAGI | Financial Burden |
|--|--------------------------------|------------------------------|-----------------------|------------|------------------------|-----------------------|------------------|--------------|-----------------------|-------------------------|-------------------------|-------------------------|------------------|
| - | 0 | 0.00% | 0 | 34,476,292 | 0.00% | 1,723,815 | 646,430 | 1,400,000 | 210000 | 3,980,245 | 73.45 | 1.54% | MEDIUM |
| 300,000 | 1,000,000 | 0.00% | 200,000 | 33,476,292 | 1.00% | 1,855,099 | 695,662 | 1,400,000 | 210000 | 4,360,761 | 80.47 | 1.69% | MEDIUM |
| 1,000,000 | 1,000,000 | 0.00% | 200,000 | 33,476,292 | 2.00% | 2,047,300 | 767,738 | 1,400,000 | 210000 | 4,625,038 | 85.35 | 1.79% | MEDIUM |
| 1,000,000 | 1,000,000 | 0.00% | 200,000 | 33,476,292 | 3.00% | 2,250,133 | 843,800 | 1,400,000 | 210000 | 4,903,932 | 90.49 | 1.90% | MEDIUM |
| 1,000,000 | 1,000,000 | 0.00% | 200,000 | 33,476,292 | 3.90% | 2,441,482 | 915,556 | 1,400,000 | 210000 | 5,167,037 | 95.35 | 2.00% | MEDIUM |
| Cost Model with \$500,000 in impact fees per year | | | | | | | | | | | | | |
| - | 0 | 0.00% | 0 | 34,476,292 | 0.00% | 1,223,815 | 458,930 | 1,400,000 | 210000 | 3,292,745 | 60.76 | 1.28% | LOW |
| 300,000 | 0 | 0.00% | 0 | 34,176,292 | 0.00% | 1,208,815 | 453,305 | 1,400,000 | 210000 | 3,272,120 | 60.38 | 1.27% | LOW |
| 1,000,000 | 0 | 0.00% | 0 | 33,476,292 | 0.00% | 1,173,815 | 440,180 | 1,400,000 | 210000 | 3,223,995 | 59.49 | 1.25% | LOW |
| 1,000,000 | 1,000,000 | 0.00% | 200,000 | 33,476,292 | 1.00% | 1,355,099 | 508,162 | 1,400,000 | 210000 | 3,673,261 | 67.78 | 1.42% | MEDIUM |
| 1,000,000 | 1,000,000 | 0.00% | 200,000 | 33,476,292 | 2.00% | 1,547,300 | 580,238 | 1,400,000 | 210000 | 3,937,538 | 72.66 | 1.53% | MEDIUM |
| 1,000,000 | 1,000,000 | 0.00% | 200,000 | 33,476,292 | 3.00% | 1,750,133 | 656,300 | 1,400,000 | 210000 | 4,216,432 | 77.81 | 1.64% | MEDIUM |
| 1,000,000 | 1,000,000 | 0.00% | 200,000 | 33,476,292 | 3.90% | 1,941,482 | 728,056 | 1,400,000 | 210000 | 4,479,537 | 82.66 | 1.74% | MEDIUM |

*Staff Estimate

Current Customer Base & User Charges

| | |
|---------------------------------|-------------|
| Initial Total Customer (ERU)'s) | 4,516 |
| MAGI for Grantsville (2020): | \$57,100 |
| Affordable Monthly Rate at 1.4% | \$66.62 |
| Impact Fee (per ERU): | \$3,257 |
| Current Monthly Fee (per ERU) | \$30.00 |
| Debt Service | \$210,000 |
| Annual O&M expense | \$1,400,000 |

Funding Conditions

| | |
|--------------------------------|----|
| Design Advance Repayment Term: | 5 |
| Loan Repayment Term: | 20 |
| Reserve Funding Period: | 4 |

ATTACHMENT 1

| FNI Calculation | | | | | | |
|--|-------------|-------------|-------|------------------|-----------------|----------|
| | Local Value | State Value | Score | Weighting Factor | Weighting Score | Table ** |
| Unemployment Rate | 4.5% | 3.6% | 2.45 | 4 | 9.80 | S2301 |
| Poverty Rate | 5.0% | 9.1% | 1.00 | 2.5 | 2.50 | S1701 |
| Threshold LOI | \$ 47,762 | \$ 35,445 | 1.00 | 2.5 | 2.50 | B19080 |
| Population Growth Rate | 27.0% | 18.6% | 1.00 | 1 | 1.00 | B01003 |
| Financial Need Indicator (Sum of weighted Scores/10) | | | | | 1.58 | |

2020 5 year ACS Table

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

| Financial Burden Matrix | | | | | |
|-------------------------|---------------|---------------|---------------|--------------|------------|
| | Modified MAGI | | | | |
| FNI | Below 1.4% | 1.4% to 1.73% | 1.75% to 2.1% | 2.1% to 2.45 | Above 2.45 |
| Below 1.5 | Low | Low | Medium | High | 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
Steven K. Earley, Chair
James Webb, Vice Chair
Carly Castle
Michela Harris
Joseph Havasi
Trevor Heaton
Michael D. Luers
Kimberly D. Shelley
John K. Mackey
Executive Secretary

**WATER QUALITY BOARD
FEASIBILITY REPORT FOR DESIGN ADVANCE
AUTHORIZATION**

APPLICANT: Spring City
P.O. Box 189, 45 South 100 East
Spring City, Utah 84662
Telephone: 435-462-2244

PRESIDING OFFICIAL: Chris Anderson, Mayor

TREASURER: White Allred

RECORDER: Ruth McCain

CONSULTING ENGINEER: Mario Gonzalez
Sunrise Engineering, Inc.
Address: 635 North Main, Ste. 675
City: Richfield Zip Code: 84701
Phone: 435-201-6688

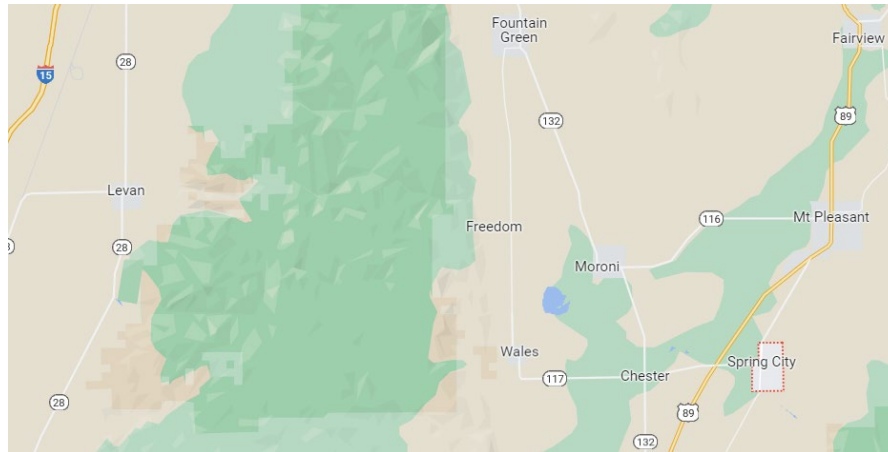
BOND COUNSEL: Chamberlain & Associates
Address: 225 100 East
City: Richfield Zip Code: 84701
Phone: 435-896-4461

APPLICANT'S REQUEST:

Spring City (the City) is requesting a **\$289,000** design advance to cover pre-construction costs related to extension of the sewer collection system project.

APPLICANT’S LOCATION

Spring City is located in Sanpete County, approximately 10 miles north of Ephraim, Utah along Highway 89.



BACKGROUND:

The City has approximately 438 sewer connections on the collection system. This includes 426 residential, 4 commercial, 7 institutional, and 1 City connection. The City sewer collection system was installed in the 1990’s, when most of the homes were located in the western two thirds of the City limits. Since the 1990’s nearly all of the growth in the city has extended to the east and to the north parts of the City. The planning growth rate is 1.5%, which would result in 6 to 7 new homes per year for the next 5 years.

Most homes that have been built since that time were more than 300 feet away from existing sewer line. The number of homes is estimated to be approximately 30 to 40. These homes have installed septic tanks but they are currently existing in an area that would benefit from sewer connection. The City is concerned about the increasing number of septic tanks and their potential impact on the City’s groundwater source. Spring City intends to extend the existing sewer collection system in order to service all homes within the city limits. Existing homes that are currently on septic tanks will be encouraged to connect to sewer, and all new homes within city limits will be required to connect to the sewer collection system.

The project will extend the sewer collection system to 700 East and 950 North. A new interceptor pipeline will connect the extensions on the north end of the system to the lagoons. This interceptor line will include a creek crossing, highway crossing, and will likely involve the construction of deep sewer (greater than or equal to 12 feet of depth) for a portion of the alignment west of the highway. A new interceptor line will run from 950 N to the sewer lagoons. The interceptor line will take the sewage from the extended area to the lagoons for treatment. The improvements will consist of approximately 25,200 feet of new sewer pipe and new manholes.

The City has completed a Wastewater Improvements Preliminary Engineering Report (PER) in November 2022, prepared by Sunrise Engineering. The PER provided an overview of the system and options for extending the collection system. This report provides the more detailed evaluation of the system and the feasibility of the collection system improvements.

PROJECT DESCRIPTION

The City is proposing to construct an extension of the sewer collection system. The City proposes the following items:

- Install approximately 21,000 liner feet of 8-inch pvc sewer lines
- Install approximately 4,165 liner feet of 10-inch pvc sewer lines
- Install 63 manhole of 48-inch
- Install new interceptor sewer

ALTERNATIVES EVALUATED

The City has evaluated alternatives and are included here:

Alternative 1: No action

Alternative 2: The extension of the system to 700 E and 950 N will allow most buildable properties within city limits to be within 300 feet of the system and a new interceptor route will run west on 950 North to Highway 117.

Alternative 3: The extension of the sewer collection system to 700 E and 950 N, providing connectivity within 300 feet of properties within City limits. A new interceptor line will be constructed from 950 N to the lagoons.

Alternative 4: The extension of the system to 700 E and 950 N will allow most buildable properties within city limits to be within 300 feet of the system. The new interceptor route will connect the new extended sewer system to the lagoons for treatment.

Alternative 5: The extension of the system to 700 E and 950 N will allow most properties within city limits to be within 300 feet of the system but would exclude service to any property to the north and to the west of 300 East. The new interceptor route will connect the new extended sewer system to the lagoons for treatment.

Alternative 6: Construct extending the sewer collection system to 950 North and 700 East and replacing cleanouts on dead ends with new manholes throughout the system.

The recommended alternative is No. 3, which is the sewer collection system to 950 North and 700 East providing connectivity within 300 feet of properties within City limit and constructing a new interceptor line from 950 N to the lagoons.

POPULATION

Based on the 2021 US Census data, the population was estimated at 1,069.

After comparing the growth projections provided by the Gardener Institute and Spring City, an annual growth rate of 1.50% was selected for this project.

| Year | Population | ERC |
|------|------------|-----|
| 2022 | 1,130 | 438 |

(Source: Spring City Wastewater Improvements Preliminary Engineering Report (PER) in November 2022, prepared by Sunrise Engineering and the Kem C. Gardner Policy Institute at University of Utah)
¹ERC = Equivalent Residential Connections

APPLICANT’S CURRENT USER CHARGE

Currently, Spring City charges approximately \$31.50 per month per ERC. According to the Utah Water Quality Board’s affordability criteria of 1.4% of MAGI (\$40,400 for Spring City and \$46,500 for Statewide) an affordable monthly rate for wastewater should exceed \$47.37 per month for grant consideration as part of a funding package.

The City doesn’t currently have an impact fee but is planning to do an impact fee analysis and institute an impact fee as soon as the funding for the project is authorized.

IMPLEMENTATION SCHEDULE

| | |
|--|-------------------------------------|
| Apply to USDA-RD for Funding | November 2022-March 2023 (complete) |
| WQB for Design Advance Funding | March 20, 2023 |
| WQB Funding Authorization – | April 26, 2023 |
| Anticipated USDA-RD Funding Authorization: | June 2023 |
| Design & Permitting Phase | June 2023–December 2023 |
| DWQ Plan Review: | January 2024 |
| Bid Phase: | February 2024–March 2024 |
| Construction Phase | April 2023–October 2024 |

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT:

The City held a public meeting on June 4, 2020 to discuss the sewer improvement including growth projection as required by the Utah Wastewater State Revolving Fund (SRF) program. The City will hold a final public hearing as required by United States Department of Agriculture – Rural Development (USDA-RD).

COST ESTIMATE

| Project Description | |
|----------------------------|--------------------|
| Land & Easements | \$25,000 |
| Legal/Bonding | \$70,000 |
| Engineering - Special | \$49,000 |
| Engineering – Design | \$289,000 |
| Engineering - CMS | \$351,000 |
| Construction | \$3,721,000 |
| Contingency | \$558,200 |
| Total Project Cost: | \$5,063,200 |

EFFORTS TO SECURE FINANCING FROM OTHER SOURCES:

The total cost of the project is estimated at **\$5,063,200**. Spring City has applied to USDA-RD requesting \$4,674,200 in construction funding to complete the project. The City is requesting \$289,000 from the Water Quality Board to fund design work. In addition, a local share of \$100,000 will be for design phase to have sufficient funds to cover the full extent of the preconstruction costs.

COST SHARING:

The following is the summary of cost sharing proposed for this project:

| Funding Source | Cost Sharing | Percent of Project |
|---------------------------------------|---------------------|---------------------------|
| Local Contribution for Design Advance | \$100,000 | 2% |
| WQB – Design Advance | \$289,000 | 6% |
| USDA-RD Fund | \$4,674,200 | 92% |
| Total: | \$5,063,200 | 100% |

ESTIMATED ANNUAL COST FOR SEWER SERVICE:

The static model of financing alternatives considered is given in Attachment 1. If the City is able to obtain its requested funding from all other sources, the City will likely have to raise its sewer rates above \$50 per month to afford of this project.

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 1.76 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 High.**

STAFF COMMENTS:

Staff supports the City’s request for funding as it believes that the project is essential to extend the sewer collection system. The City’s plan will protect a valuable groundwater and contribute to orderly growth in the area. Spring City has a priority in protecting the City’s groundwater and limiting septic systems within proximity to the City.

USDA-RD cannot repay a Board Planning or Design Advance as part of a construction funding package. Funding this design advance will demonstrate support from the Water Quality Board and allow design to be expedited while providing a relevantly small percentage of the overall project funding. Utah rule requires “once the long-term project financing has been secured, the Project Design Advance must be expeditiously repaid to the Board.” Staff believes this allows the Board four options; 1) require the City to return to the Board to fund part of the construction funding, 2) provide all or part of the advance as a loan which would require a loan closing, 3) provide terms for the design advance to be repaid to the hardship grant fund, or 4) provide the design advance as 100% grant funding.

Board loan funds continue to be limited so staff appreciates Spring City exploring USDA-RD as the primary source of funding. As the Board can see from the cost model, small amounts of grant funds are impactful on affordability. Staff is recommending that the design advance be authorized as an advance to be repaid expeditiously and Spring City be invited back at a later date once they have secured project funding.

STAFF RECOMMENDATION:

Staff recommends the **Water Quality Board authorize a hardship design advance in the amount \$289,000** to the Spring 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 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.

Spring City
 (Attachment 1) - Static Cost Model

| Project Descriptions | | Amount |
|----------------------------|--|--------------------|
| Land & Easements | | \$25,000 |
| Legal/Bonding | | \$70,000 |
| Engineering - Special | | \$49,000 |
| Engineering - Design | | \$289,000 |
| Engineering - CIMS | | \$351,000 |
| Construction | | \$3,721,000 |
| Contingency | | \$558,200 |
| Total Project Cost: | | \$5,063,200 |

| Project Funding | | Amount |
|----------------------------|--|------------------|
| Local Contribution | | 100,000 |
| WQB Design Advance | | 289,000 |
| RD Funding | | 4,674,200 |
| Total Project Cost: | | 5,063,200 |

| Current Customer Base & User Charges | | Amount |
|--|--|----------|
| Initial Total Customer (ERUs) | | 438 |
| MAGI for Salina City (2020): | | \$40,600 |
| Affordable Monthly Rate at 1.4% | | \$47.37 |
| Impact Fee (per ERU): | | \$0 |
| Current Monthly Fee (per ERU) | | \$31.50 |
| Existing Sewer Debt Service | | \$17,000 |
| Annual O&M expense incling propose prc | | \$86,600 |
| Financial Need Indicator | | 1.91 |

| Funding Conditions | | Term |
|------------------------------|--|------|
| DWQ Loan Repayment Term: | | 20 |
| DWQ Advance Repayment Term: | | 5 |
| Reserve Funding Period: | | - |
| USDA-RD Loan Repayment Term: | | 40 |
| Reserve Funding Period: | | 6 |

| ESTIMATED COST OF SEWER SERVICE | | RD Grant Amount | RD Loan Amount | RD Interest Rate | RD Debt Service | WQB Grant Amount | WQB Loan Amount | WQB Interest Rate | WQB Debt Service | Annual Sewer O&M Cost | Existing Debt Service | Total Annual Sewer Cost as a % of MAGI | Financial Burden |
|---------------------------------|-----------|-----------------|----------------|------------------|-----------------|------------------|-----------------|-------------------|------------------|-----------------------|-----------------------|--|------------------|
| - | - | 0 | 0 | 0.00% | 0 | 0 | 5,063,200 | 0% | 233,160 | 86,600 | \$17,000 | 2.01% | Medium |
| 935,000 | 4,674,200 | 2.00% | 199,917 | 2.00% | 159,926 | 0 | 289,000 | 0% | 57,800 | 86,600 | \$17,000 | 2.03% | Medium |
| 935,000 | 3,739,200 | 2.00% | 159,926 | 2.00% | 159,926 | 0 | 289,000 | 0% | 57,800 | 86,600 | \$17,000 | 1.73% | Medium |
| 935,000 | 3,739,200 | 2.00% | 159,926 | 2.00% | 159,926 | 72,250 | 216,750 | 0% | 0 | 86,600 | \$17,000 | 1.56% | Medium |
| 935,000 | 3,739,200 | 2.00% | 159,926 | 2.00% | 159,926 | 144,500 | 144,500 | 0% | 0 | 86,600 | \$17,000 | 1.48% | Medium |
| 935,000 | 3,739,200 | 3.91% | 272,614 | 3.91% | 218,082 | 0 | 289,000 | 0% | 57,800 | 86,600 | 17,000 | 2.44% | High |
| 935,000 | 3,739,200 | 3.91% | 218,082 | 3.91% | 218,082 | 72,250 | 216,750 | 0% | 57,800 | 86,600 | 17,000 | 2.13% | High |
| 935,000 | 3,739,200 | 3.91% | 218,082 | 3.91% | 218,082 | 144,500 | 144,500 | 0% | 28,900 | 86,600 | 17,000 | 1.97% | Medium |
| 935,000 | 3,739,200 | 3.91% | 218,082 | 3.91% | 218,082 | 216,750 | 72,250 | 0% | 14,450 | 86,600 | 17,000 | 1.89% | Medium |
| 935,000 | 3,739,200 | 3.91% | 218,082 | 3.91% | 218,082 | 289,000 | 0 | 0% | 0 | 86,600 | 17,000 | 1.81% | Medium |

| FNI Calculation for Spring City | | Local Value | State Value | Score | Weighting Factor | Weighting Score |
|---|-----------|-------------|-------------|-------|------------------|-----------------|
| Unemployment Rate | 4.3% | 3.5% | 2.40 | 4 | 9.60 | |
| Poverty Rate | 2.4% | 8.8% | 1.00 | 2.5 | 2.50 | |
| Threshold LOI | \$ 32,148 | \$ 37,685 | 1.59 | 2.5 | 3.98 | |
| Population Growth Rate | -12.3% | 19.0% | 3.00 | 1 | 3.00 | |
| Financial Need Indicator (Sum of weighted Scores/10) | | | | | 1.91 | |

| Financial Burden Matrix | | Modified MAGI | | |
|-------------------------|------------|---------------|---------------|------------|
| FNI | Below 1.4% | 1.4% to 1.75% | 1.75% to 2.1% | Above 2.1% |
| Below 1.5 | Low | Medium | Medium | High |
| 1.5 to 2.5 | Medium | Medium | High | High |
| Above 2.5 | High | High | High | High |

| FNI Calculation for Spring City | | Local Value | State Value | Score | Weighting Factor | Weighting Score |
|---|-----------|-------------|-------------|-------|------------------|-----------------|
| Unemployment Rate | 4.3% | 3.5% | 2.40 | 4 | 9.60 | |
| Poverty Rate | 2.4% | 8.8% | 1.00 | 2.5 | 2.50 | |
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| Population Growth Rate | -12.3% | 19.0% | 3.00 | 1 | 3.00 | |
| Financial Need Indicator (Sum of weighted Scores/10) | | | | | 1.91 | |

| FNI Calculation for Spring City | | Local Value | State Value | Score | Weighting Factor | Weighting Score |
|---|-----------|-------------|-------------|-------|------------------|-----------------|
| Unemployment Rate | 4.3% | 3.5% | 2.40 | 4 | 9.60 | |
| Poverty Rate | 2.4% | 8.8% | 1.00 | 2.5 | 2.50 | |
| Threshold LOI | \$ 32,148 | \$ 37,685 | 1.59 | 2.5 | 3.98 | |
| Population Growth Rate | -12.3% | 19.0% | 3.00 | 1 | 3.00 | |
| Financial Need Indicator (Sum of weighted Scores/10) | | | | | 1.91 | |

| FNI Calculation for Spring City | | Local Value | State Value | Score | Weighting Factor | Weighting Score |
|---|-----------|-------------|-------------|-------|------------------|-----------------|
| Unemployment Rate | 4.3% | 3.5% | 2.40 | 4 | 9.60 | |
| Poverty Rate | 2.4% | 8.8% | 1.00 | 2.5 | 2.50 | |
| Threshold LOI | \$ 32,148 | \$ 37,685 | 1.59 | 2.5 | 3.98 | |
| Population Growth Rate | -12.3% | 19.0% | 3.00 | 1 | 3.00 | |
| Financial Need Indicator (Sum of weighted Scores/10) | | | | | 1.91 | |

2021.5 year ACS Table [** https://data.census.gov/cedst/](https://data.census.gov/cedst/)