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Date Received: July 20, 2016

Date to be presented to the WQB: October 26, 2016

WATER QUALITY BOARD
FEASIBILITY REPORT FOR WASTEWATER TREATMENT PROJECT

INTRODUCTION

APPLICANT: Summit County
60 N, Main
P.O. Box 128
Coalville, Utah 84017
435-336-3220

PRESIDING OFFICIAL: Richard Bullough, Health Officer
Summit County Health Department
650 Round Valley Drive
Park City, Utah 84060
435-333-1582

CONTACT PERSON: Richard Bullough, Health Officer

TREASURER: Corrie Forsling, Summit County

COUNTY ENGINEER: Derrick Radke, Summit County Public Works
P.O. Box 128
435-336-3978

CONSULTING ENGINEER: James Milligan, PE
Glison Engineering
12401 South 450 East, Building C, Unit 2.
Draper, Utah 84020
801-571-9414

APPLICANT'S REQUEST:

Summit County is requesting financial assistance in the amount of a \$400,000 grant for construction of a new wastewater collection system that will connect to the Snyder Basin Water Reclamation District (SBWRD) for treatment and disposal.

APPLICANT’S LOCATION

Silver Creek Subdivision Unit I (Subdivision) is located in unincorporated Summit County and is found adjacent to two watersheds, the East Canyon Creek and the Silver Creek watersheds. The proposed project area is west of the Subdivision and it is found within the East Canyon Creek watershed.

MAP OF APPLICANT’S LOCATION



BACKGROUND

This project was introduced to the Water Quality Board at its August 24, 2016 meeting. The Board requested that staff develop a range of feasible funding alternatives for the project and to consider them in the context of its available funds, account requirements, and the applicant's requirements. This analysis is presented under "Project Financing" below.

The Subdivision sits within the drainage at the headwaters of East Canyon Creek watershed. This watershed was identified as impaired by the Utah Division of Water Quality and was listed on Utah's 1998 303d list of impaired water bodies for nutrients. Currently, a Total Maximum Daily Load (TMDL) plans to restore the beneficial uses and meet water quality standards.

PROJECT NEED

The Subdivision is currently served by on-site wastewater treatment systems. The Subdivision is a high density mixed-use area and consists of businesses, homes, and undeveloped commercial and residential lots.

The Subdivision is believed to be contributing pollutants into the East Canyon Creek watershed and Silver Creek watershed. The following are some of the risks:

- The Subdivision straddles the East Canyon and Silver Creek Watersheds. Both the East Canyon Creek and Reservoir TMDL (2010) and the Rockport Reservoir and Echo Reservoir TMDL (2014) identify this subdivision as a priority area for nutrient load reductions based on septic system contributions. Both TMDLs recommend a long-term strategy to reduce nutrient loads from septic systems throughout their respective watersheds. The Echo Reservoir TMDL was for both nitrogen and phosphorus. Since even properly functioning septic systems do not treat nitrogen, the TMDL recommended sewer at the subdivision scale to address nutrient loading.
- Studies by the Summit County Health Department (SCHD) have identified the Subdivision as a source of pollutants and one of the critical primary areas is the failure of existing septic system. Site conditions do not support the high density land use of the subdivision. The Subdivision has older septic systems with a high rate failure.
- According to the 2014 TMDL, the majority of the Subdivision utilizes deep trench septic systems. However, future development with type of wastewater disposal system is not feasible due to high ground water in the area.
- On April 3, 2015, the draft document Developing an Understanding of Spatio-Temporal Bioaccumulation of Pharmaceuticals by Aquatic Life in East Canyon Creek stated that contaminants sucralose, caffeine and benzocogonine were detected in samples upstream of the East Canyon Creek. These indicators of human waste are an emerging concern.

By extending sewer to this area, protection of both surface and groundwater resources will be achieved by immediately decreasing the amount of pollutants into the groundwater and subsequently to the East Canyon Creek watershed. This will result in improved water quality in both the East Canyon Creek and Silver Creek watersheds.

Extending sewer to this area first will allow for the future expansion of sewer to the broader upper area of the Subdivision.

The Summit County Council (SCC) and SCHD have identified water quality as a strategic priority and plan to execute projects through local government financing with low interest rates. SCHD and SCC have proposed forming a voluntary special assessment district to the project area to secure funding for the project.

PROJECT DESCRIPTION:

The SCC is proposing to construct approximately 3,600 linear feet of 10-inch and 8-inch gravity sewer lines and manholes for sewage collection and transfer to the SBWRF for treatment system. The proposed project will extend sewer to the mixed-use Subdivision. This is the region of highest density and most intensive use in Silver Creek, and is the area believed to contribute the most pollutants into East Canyon Creek. Completion of this project will allow for the future expansion of sewer to that upper reaches of Silver Creek. This proposed sewer extension will allow the County to address failing septic systems throughout Silver Creek in the future. Extending sewer to this high-density and high-use zone is an essential first step toward achieving long-term protection of both surface and ground waters in the greater East Canyon Creek drainage.

ALTERNATIVES EVALUATED

The County evaluated the following alternatives:

1. No action.
2. Construction of a new sewer extension that can serve the Subdivision and upper reaches of Silver Creek in the future.

POSITION ON PROJECT PRIORITY LIST:

The District is ranked **No. 5 out of 8** projects on the FY 2016 Wastewater Treatment Project Priority List.

POPULATION GROWTH:

	<u>Year</u>	<u>ERC¹</u>
Current	2016	20
Design	2035	30+

¹ERC = Equivalent Residential Connections

PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT:

In 2014, the SCHD began meeting with property owners in the proposed expansion area to discuss sewer extension and the possible formation of a voluntary special assessment area. Upon judging that there was significant interest in the proposed project, the option of bonding for the project was investigated. Because of the mixed-use and variable risk within the project area, however, a bond interest rate of nearly 12% was proposed by potential lenders. This interest rate would make the repayment amount an unreasonable burden for the property owners. *Therefore, Summit County Treasurer, with the support of Summit County Council and the Summit County Manager, agreed to finance the project, and agreed to an interest rate of 3.25%.* This commitment on behalf of Summit County reflects the priority they place on this project.

During 2015, Summit County Health Department continued to work with property owners to secure signed and notarized waivers indicating the property owners are committed to the project and formation of the voluntary assessment area. Over 50% (16 of 30 parcels) have signed the waivers to date. Due to state law, it is almost impossible to form a non-voluntary assessment area. Therefore, it is not possible to force all property owners into this assessment area, only those who volunteer to participate.

IMPLEMENTATION SCHEDULE:

WQB Funding Introduction:	August 24, 2016
WQB Funding Authorization:	October 26, 2016
Issue Construction Permit	December 2017
Loan Closing	February 2017
Commence Construction	March 2017
Complete Construction	October 2017

COST ESTIMATE:

Abandonment & New Connection Fee	\$120,000
Engineering (Design)	\$32,300
Engineering (CMS)	-
Construction	\$1,134,980
Contingency	\$12,720
Rights of Way, Easements, Misc.	-
Total	\$1,300,000

COST SHARING:

<u>Funding Source</u>	<u>Cost Sharing</u>
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*Other Funding (3.25%, 0, 20 years)	\$600,000
WQB Grant	\$400,000
Local Contribution	\$300,000
Total	1,300,000

PROJECT FINANCING:

The proposed project will serve 20 existing structures: 11 residential and 9 commercial connections. There are 11 undeveloped (mostly commercial) lots that could be served when developed. The project was originally estimated to have a total cost of \$600,000. The SCC proposed to finance the project under a special assessment area with terms of 3.25% interest for 20 years. Bids were opened in June 2016 and the low bid was \$1,300,000.

Summit County Public Works identified two bid items that they can provide to reduce the contract price by about \$300,000. With this local contribution the amount to be financed is \$1,000,000; \$600,000 from SCC and the \$400,000 balance requested from WQB.

As requested by the Board, staff prepared a cost model that evaluates a range of project financing alternatives. The cost model is provided in Attachment 1. The cost model is based on \$1,000,000 in needed financing. The principal alternatives considered are:

- An “affordable” financing package, based on a sewer bill equal to 1.4% of the MAGI. Loan terms of 20- and 30-years are included;
- A joint funding package wherein Water Quality Board funds (grant or loan) would supplement the proposed \$600,000, 20-year, 3.25% County loan; and
- Alternative loan scenarios (no grant) using a range of interest rates and both 20- and 30year terms. These loans could be provided by either the County or the Water Quality Board.

The affordable loan package analysis was based on a local MAGI (Park City) of \$54,580 and the resulting monthly sewer bill of \$63.68/month/ERC. In spite of this high sewer rate, the affordable loans are quite small, ranging from \$89,000 (20-year, 0%) to \$133,000 (30-year, 0%), with correspondingly high grant components (about \$900,000 +/-). This situation results from the extremely small sewer user based that is available to service the loan.

Staff believes that the Water Quality Board’s affordability criteria are not applicable to the commercial component in the proposed service area and given the size of this component, it may be acceptable to exceed the criteria. The County and many of the area residents appear ready to accept higher sewer charges to protect water quality and for the growth and betterment of the community. Nonetheless, the high (not “affordable”) sewer rates that are considered in the remainder of the cost model and this analysis, are extreme when measures by the 1.4% MAGI standard.

The affordable financing package, should the Board decide to authorize one, could be drawn from either State Loan / Grant funds or from Federal SRF funds using principal forgiveness for

the grant component. State funds are preferable because they can be accessed more quickly and the costs of meeting program requirements are lower. State grant funds would need to be drawn from the Perry-Willard escrow repayment. Because of the size of the grant component in these scenarios, the Board could quickly become limited in its ability to fund future planning and design advances, non-point-source projects, and other discretionary needs. For this reason, the affordable financing package should be funded through the Federal SRF. See discussion below on the cost of Federal SRF funding.

In the remaining funding scenarios, we use the applicant’s proposed financing package as the metric for comparison, i.e., can we come up with a better deal than that. The proposed financing package results in the following:

Summit County Loan Amount	\$600,000
Loan Term	20-years
Loan Interest Rate	3.25%
Water Quality Board Grant / PF	\$400,000
Monthly Sewer Cost per ERC	\$255.44
Sewer Bill as a % of MAGI	5.62%

In all cases where the County proposed loan and conditions remain the same (as above), additional loan simply increases the cost of sewer to the users and the “unaffordability” of the package. In cases where the County loan interest rate is reduced, the Water Quality Board grant component can be reduced. The cost model shows highlighted rows in which produce about the same sewer fee as the County’s proposed financing package. Note that to fully fund the \$1,000,000 project solely with a loan and hold the sewer bill constant, the term must be extended to 30-years. The Water Quality Board could finance the project under one of these reduced interest rate scenarios if it elects to do so and the County agrees.

Should the Board elect to fund the project solely or jointly with the County under one of the reduced interest rate scenarios, use of State funds is preferable when the grant component can be limited to \$250,000, which is 15 to 20 percent of the Hardship Grant annual income.

At the bottom of the cost model, we have included calculations for several “burdened” loan scenarios. Here, we have increased the loan amount by \$150,000 to account for additional project costs that will be incurred should Federal funds be applied. These additional costs would result from program requirement such as American Iron and Steel, Davis Bacon Wages, closing costs, as well as the impacts that addition time for meeting requirements can have on construction costs.

STAFF COMMENTS AND RECOMMENDATION:

Staff strongly supports the County’s efforts to implement a lasting solution to a significant water quality problem and we appreciate the extraordinary commitment of the County, the Health Department, and community to support this solution.

Financially, the project is challenging because of its break from the affordability criteria that the Board normally adheres to and because of the additional risk that this break could impose on the loan's health. It is in the Board's favor that the proposed sewer extension will be operated and maintained by an effective, well managed utility in SBWRD. The Board can further minimize its risk by minimizing the cost of the project to the user and Staff believes the best way to do this is by minimizing the monthly sewer bill. Therefore, **staff recommends that the Water Quality Board authorize a loan not to exceed \$1,030,000 with an interest rate of 0 percent for a term of 30 years, for construction of the proposed Silver Creek Subdivision sewer extension, with the following special conditions.**

SPECIAL CONDITIONS:

1. The County must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).
2. The County must demonstrate that the remainder of the project funding has been secured.
3. The County must create or establish a bonding entity and bonding instrument suitable for purchase by the Board and that is acceptable to its bond attorney.

Attachment 1 - Silver Creek Sewer Project

Project Costs

Engineering - Planning	120,000
Engineering - Design	32,300
Engineering - CMS	0
*DWQ Administrative Fees	
*Legal/Bonding	0
Construction	1,134,980
Contingency	12,720
Total Project Cost:	1,300,000

*Closing costs applied as applicable below

Project Funding

Other Funding Sources (3.25%, 20 yr.)	600,000
Local contribution	300,000
WQB Grant	400,000
Total	1,300,000

Current Customer Base & User Charges

Residential Connections:	11
Commercial/Industrial Connections:	9
Total Customers (ERU):	20
MAGI for Park City (2014)	\$54,580
Current Impact & Connect Fee (ERU):	\$8,000
Current Average SBWRD Monthly Sewer	\$40.51
Max. Affordable Monthly Sewer @ 1.4% MAGI	\$63.68

Funding Conditions

Loan Repayment Term:	20 or 30 years
Reserve Funding Period:	6 or 10 years

Existing Debt/Bond Debt for proposed project

Summit County Debt	\$41,267
Existing Debt	\$0

ESTIMATED COST OF SEWER SERVICE

	WQB Grant	Summit Co.			WQB			Loan Reserve	Annual SBWRD O&M	Total Annual Sewer Cost	Monthly Sewer Cost/Connection	Sewer Cost as % of MAGI
		Loan	Interest Rate	Debt Service	Loan	Interest Rate	Debt Service					
Summit Co. Loan / 20 Yr.	400,000	600,000	3.25%	41,267				10,317	9,722	61,307	255.44	5.62%
Affordable Loan / 20 Yrs.	911,000				89,000	0.00%	4,450	1,113	9,722	15,285	63.69	1.40%
WQB & County Loans / 20 Yr.	--	600,000	3.25%	41,267	400,000	0.00%	20,000	15,317	9,722	86,306	359.61	7.91%
		600,000	3.25%	41,267	400,000	1.00%	22,166	15,858	9,722	89,014	370.89	8.15%
		600,000	3.25%	41,267	400,000	2.00%	24,463	16,432	9,722	91,885	382.85	8.42%
		600,000	3.25%	41,267	400,000	3.25%	27,512	17,195	9,722	95,696	398.73	8.77%
Alternative Loan / 20 Yr.	400,000	600,000	0.00%	30,000				7,500	9,722	47,222	196.76	4.33%
	400,000	600,000	1.00%	33,249				8,312	9,722	51,284	213.68	4.70%
	400,000	600,000	2.00%	36,694				9,174	9,722	55,590	231.62	5.09%
	400,000	600,000	3.25%	41,267				10,317	9,722	61,307	255.44	5.62%
	200,000	800,000	0.00%	40,000				10,000	9,722	59,722	248.84	5.47%
	250,000	750,000	1.00%	41,561				10,390	9,722	61,674	256.98	5.65%
	170,000	830,000	0.00%	41,500				10,375	9,722	61,597	256.66	5.64%
	100,000	900,000	0.00%	45,000				11,250	9,722	65,972	274.89	6.04%
		1,000,000	0.00%	50,000				12,500	9,722	72,222	300.93	6.62%
		1,000,000	1.00%	55,415				13,854	9,722	78,992	329.13	7.24%
Affordable Loan / 30 Yrs.	867,000				133,000	0.00%	4,433	1,108	9,722	15,264	63.60	1.40%
WQB Loan / 30 Yr. + closing costs					1,030,000	0.00%	34,333	5,150	9,722	49,206	205.02	4.51%
					1,030,000	1.00%	39,911	5,987	9,722	55,620	231.75	5.10%
WQB Loan Burdened / 30 Yr.					1,150,000	0.00%	38,333	5,750	9,722	53,806	224.19	4.93%
(w/ SRF red-tape)					1,150,000	0.75%	42,950	6,443	9,722	59,115	246.31	5.42%