



State of Utah

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Date Received: July 20, 2016

Date to be presented to the WQB: August 24, 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, PhD Director & Health Officer Summit County Health Department 650 Round Valley Drive Park City, Utah 84060 435-333-1582
CONTACT PERSON:	Richard Bullough, PhD, Director
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

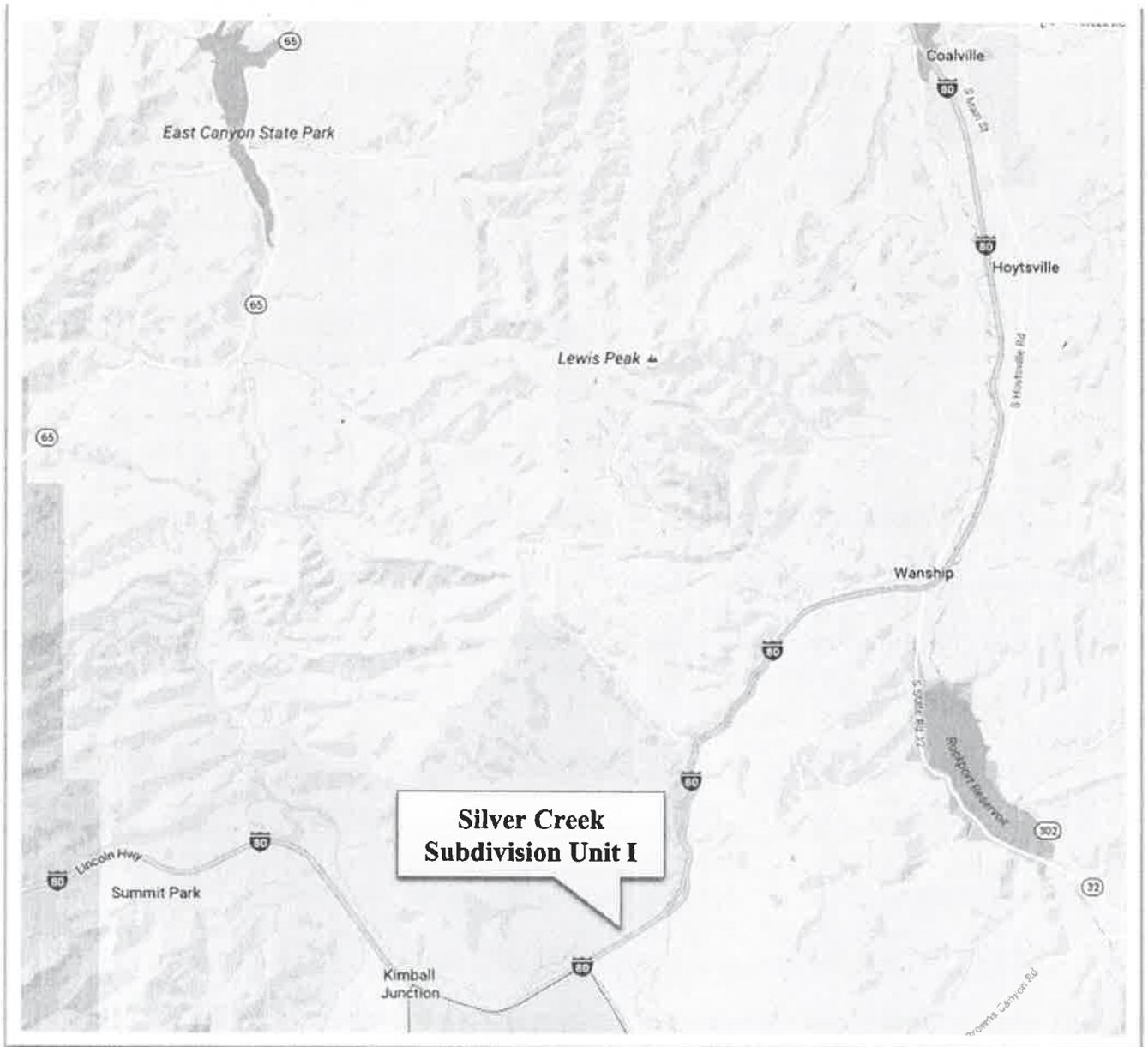
APPLICANT'S REQUEST:

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 within 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

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 benzococgonine 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 SCHED have identified water quality as a strategic priority and plan to execute projects through local government financing with low interest rates. SCHED 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 10-inch and 8-inch gravity sewer lines and manholes for sewage collection and transfer to the SBWRF for treatment system.

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

**Financing assistance will be paid by the property owner under a special assessment.*

PROJECT FINANCING:

The proposed project makes 30 connections: 7 residential and 23 commercial connections. The project was originally estimated to have a total cost of \$600,000. The SCC agreed to finance the project under a special assessment district 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.

IMPLEMENTATION SCHEDULE:

WQB Funding Introduction:	August 24, 2016
WQB Funding Authorization:	September, 2016
Issue Construction Permit	April 2016
Bid Re-Opening	January 2017
Commence Construction	December 2017
Complete Construction	July 2017

STAFF COMMENTS AND RECOMMENDATION:

This is a project introduction. Staff comments and recommendations will be provided at the request for funding authorization. A cost model showing sever financing alternatives is attached.

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File: Summit County Health Department /Planning/Section 1

Sliver Creek Sewer Project

Project Costs

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

* The DWQ Administrative Fee is not include in this introduction report.

Current Customer Base & User Charges

Residential Connections:	14
Comma/Indust Connections:	22
Total Customers (ERU):	36
MAGI for Park City (2014)	\$54,580
Current Impact& Connect Fee	\$8,000
Proposed Monthly User Fee:	\$63.68

Project Funding

Other Funding Sources (3.2	600,000
Local contribution	300,000
WQB Grant	400,000
Total	1,300,000

Funding Conditions

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

Existing Debt/Bond Debt for proposed project

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

ESTIMATED COST OF SEWER SERVICE

	Grant Amount	Loan Amount	WQB Loan Interest Rate	WQB Debt	Summit Co. Debt Service	Reserve	Annual SBWRD User & O&M Fee	Total Annual Sewer Cost	Monthly Sewer Cost/Connection	Sewer Cost as a % of MAGI
WQB Grant and County Loan (20 Year Loan)- Requested	400,000	600,000	3.25%	41,267		10,317	17,000	68,584	158.76	3.49%
WQB \$400K for 30 Year Loan/ County \$600k Loan		400,000	0.00%	13,333	41,267	2,000	17,000	73,600	170.37	3.75%
		400,000	1.00%	15,499	41,267	2,325	17,000	76,091	176.14	3.87%
		400,000	2.00%	17,860	41,267	2,679	17,000	78,806	182.42	4.01%
		400,000	3.25%	21,073	41,267	3,161	17,000	82,501	190.97	4.20%
Total - WQB Grant / Loan (30 Year Loan)	400,000	600,000	0.00%	20,000		3,000	17,000	40,000	92.59	2.04%
	400,000	600,000	1.00%	23,249		3,487	17,000	43,736	101.24	2.23%
	400,000	600,000	2.00%	26,790		4,018	17,000	47,808	110.67	2.43%
	400,000	600,000	3.25%	31,609		4,741	17,000	53,350	123.50	2.72%
	200,000	800,000	0.00%	26,667		4,000	17,000	47,667	110.34	2.43%
	200,000	800,000	1.00%	30,998		4,650	17,000	52,648	121.87	2.68%
	200,000	800,000	2.00%	35,720		5,358	17,000	58,078	134.44	2.96%
	200,000	800,000	3.25%	42,145		6,322	17,000	65,467	151.54	3.33%
	100,000	900,000	0.00%	30,000		4,500	17,000	51,500	119.21	2.62%
	100,000	900,000	1.00%	34,873		5,231	17,000	57,104	132.19	2.91%
	100,000	900,000	2.00%	40,185		6,028	17,000	63,213	146.33	3.22%
	100,000	900,000	3.25%	47,414		7,112	17,000	71,526	165.57	3.64%
		1,000,000	0.00%	33,333		5,000	17,000	55,333	128.09	2.82%
		1,000,000	1.00%	38,748		5,812	17,000	61,560	142.50	3.13%
		1,000,000	2.00%	44,650		6,697	17,000	68,347	158.21	3.48%
		1,000,000	3.25%	52,682		7,902	17,000	77,584	179.59	3.95%