

A G E N D A

UTAH BOARD OF WATER RESOURCES

Department of Natural Resources
Auditorium
1594 W. North Temple
Salt Lake City, Utah

October 13, 2016

1:00 p.m.

1. CALL TO ORDER
2. APPROVAL OF MINUTES - August 11, 2016
3. CHAIR'S REPORT
4. SPECIAL ITEM REPORTS

	<u>County</u>
E388 Cluff Ward Pipeline Co. (Auth. & Comm. of Funds)	Summit
L575 Beaver City (Add'l Funds)	Beaver
E370 Daniel Irr. Co. (Add'l Funds)	Wasatch
E344 Herriman City (Withdrawal)	Salt Lake
5. DAM SAFETY FUNDING

C051 Washington County Flood Control Auth. (Gypsum Dam)	Washington
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6. CLOUDSEEDING REPORT
Request for Funding
7. LAKE POWELL PIPELINE PROJECT REPORT
8. WATER USE & CONSERVATION REPORT
9. DIRECTOR'S REPORT
10. ADJOURNMENT

BRIEFING MEETING AGENDA

UTAH BOARD OF WATER RESOURCES

Division of Water Resources
Room 314
1594 W. North Temple
Salt Lake City, Utah

October 13, 2016

10:30 a.m.

- I. WELCOME/CHAIR'S REPORT Chairman Lemmon

- II. DISCUSSION OF PROJECTS

- III. OTHER ITEMS

BOARD OF WATER RESOURCES

REVOLVING CONSTRUCTION FUND

**Funding Status
October 13, 2016**

Funds Available for Projects This FY			\$ 12,614,000
Projects Contracted This FY			
1 Fremont Irrigation Co	C019a	**Grant	\$ 250,000
Total Funds Contracted			\$ 250,000
Funds Balance			\$ 12,364,000
Projects with Funds Committed			
* 1 Cluff Ward Pipeline Co	E388		\$ 391,000
* 2 Daniel Irrigation Co	E370		417,115
3 Lower Marion Pipeline Company	E367		986,000
4 Marion Waterworks Co	E322		247,000
5 Moon Lake Water Users Association	E362		403,000
6 North Utah County WCD (Silver Lake Flat, add)	C048	**Grant	134,000
7 North Utah County WCD (Tibble Fork, add)	C052	**Grant	488,000
8 North Utah County WCD (Battle Creek)	C053	**Grant	788,000
9 North Utah County WCD (Grove Creek)	C054	**Grant	638,000
10 Ouray Park Irrigation Co (Cliff Lake)	C047	**Grant	968,000
11 Ouray Park Irrigation Co (Cliff Lake)	C047	**	107,000
12 Rockville Town Ditch Co	E313		145,000
* 13 Washington County Flood Control Authority	C051	**Grant	244,125
Total Funds Committed			\$ 5,956,000
Funds Balance			\$ 6,408,000
Projects Authorized			
1 Blanding Irrigation Co	E380		\$ 404,000
2 East Wanship Irrigation Co	E379		616,000
3 Ephraim Irrigation Co	E361		497,000
4 Salem Pond Co	E329		93,000
5 Silver Creek Reservoir Co	E381		500,000
Total Funds Authorized			\$ 2,110,000
Remaining Funds Available			# \$ 4,298,000

* To be presented at Board Meeting
** Dam Safety Projects

End of year balance if all listed projects were fully paid

BOARD OF WATER RESOURCES

CITIES WATER LOAN FUND

Funding Status
October 13, 2016

Funds Available for Projects This FY			\$	9,141,000
Bonds Closed This FY				
1 None			\$	-
Total Bonds Closed			\$	-
Funds Balance			\$	9,141,000
Projects with Funds Committed				
* 1 Beaver City	L575		\$	442,000
Total Funds Committed			\$	442,000
Funds Balance			\$	8,699,000
Projects Authorized				
1 Duchesne County WCD	E334		\$	3,000,000
Total Funds Authorized			\$	3,000,000
Remaining Funds Available			#	\$ 5,699,000

* To be presented at Board Meeting

End of year balance if all listed projects were fully paid

BOARD OF WATER RESOURCES

CONSERVATION & DEVELOPMENT FUND

**Funding Status
October 13, 2016**

Funds Available for Projects This FY \$ 38,681,000

Projects Contracted/Bonds Closed This FY

1 None	\$ -	
Total Funds Contracted/Closed		\$ -
Funds Balance		\$ 38,681,000

Projects with Funds Committed

1 Summit Creek Irrigation and Canal Co (Phase 3) E308	\$ 502,000	
Total Funds Committed		\$ 502,000
Funds Balance		\$ 38,179,000

Projects Authorized

1 Benson Irrigation Co E378	\$ 1,424,000	
2 Box Elder Cnty & Perry City Flood Control Dist E223	660,000	
3 Brooklyn Canal Co E223	1,000,000	
4 Fremont Irrigation Co E279	8,177,000	
5 Manti City Creek Water Users Mutal Assoc. E342	1,606,000	
6 Rock Point Canal Co E368	615,000	
7 Scipio Irrigation Co E384	1,700,000	
8 Settlement Canyon Irrigation Co (Phase 2) E240R2	552,500	
9 Summit Creek Irrigation and Canal Co (Phase 4) E308	1,200,000	
10 Uintah WCD E316	36,550,000	
11 Weber Basin WCD (Phase 5+) E225	7,000,000	
12 Whiterocks Irrigation Co E375	1,785,000	
13 Woodruff Irrigating Co E365	3,200,000	
Total Funds Authorized		\$ 65,470,000
Remaining Funds Available		# \$ (27,291,000)

* To be presented at Board Meeting
** Dam Safety Projects

End of year balance if all listed projects were fully paid

BOARD OF WATER RESOURCES

October 13, 2016

ADDITIONAL FUTURE FUNDING NEEDS

Sponsor	No.	Fund	Est. Board Cost	Total Cost
1 Sanpete WCD (Narrows Dam)	D377	C&D	\$29,325,000	\$ 34,500,000
2 Kane County WCD	D828	C&D	1,500,000	2,000,000
3 Weber Basin WCD (Secondary, Ph 3-5)	E029R3+	C&D	21,639,000	25,816,000
4 Hooper Irrigation Co (Press Irr, Ph 3+)	E060R3+	C&D	11,033,000	12,980,000
5 East Juab County WCD	E071	C&D	425,000	500,000
6 Parowan City (Bond Ins Grant)	E121	C&D	34,000	2,034,000
7 Fremont Irrigation Co	E131	C&D	1,500,000	2,000,000
8 Fountain Green Irrigation Co (Flow Augment)	E186	RCF	75,000	100,000
9 Corinne City	E216	C&D	80,000	100,000
10 Weber Basin WCD	E312	C&D	85,000,000	100,000,000
11 South Willard Water Co	E317	C&D	1,700,000	2,000,000
12 Ferron Canal & Reservoir Co	E320	C&D	2,720,000	3,200,000
13 Fountain Green Co-op Well	E328	RCF	255,000	300,000
14 La Sal Irrigation Co	E354	C&D	1,530,000	1,800,000
15 New Fayette Irrigation Co	E360	C&D	850,000	1,000,000
16 Wellsville-Mendon Conservation District	E364	C&D	680,000	800,000
17 Washington County Flood Control Authority	C049	RCF	970,000	3,077,000
18 Washington County Flood Control Authority	C050	RCF	582,000	1,847,000
19 Washington County Flood Control Authority	C051	RCF	473,000	1,500,000
20 Highline Canal Co	E372	C&D	3,087,000	13,942,000
21 Ashley Upper Irrigation Co	E373	C&D	5,255,000	13,942,000
22 Mosby Irrigation Co	E374	RCF	331,000	4,379,000
23 Silver Creek Reservoir Co	E381	RCF	500,000	1,090,000
24 Spanish Fork South Irrigation Co	E382	RCF	885,000	1,185,000
25 O.T. Hicken Ditch Co	E383	RCF	430,000	990,000
26 Woodruff Irrigation Co	E385	C&D	5,000,000	6,885,000
27 North Elwood Ditch Co	E386	RCF	170,000	200,000
28 West Warren and Warren Water ID	E387	C&D	2,975,000	3,500,000
* 29 Echo Ditch Co	E390	RCF	658,750	775,000
* 30 Powder Mountain Water & Sewer ID	E391	C&D	1,275,000	1,500,000
Subtotal			\$180,938,000	\$ 243,942,000

* New Application

INACTIVE PROJECTS

Long Term Large Water Conservation Projects

1 Wayne County WCD	D494
2 Cedar City Valley Water Users	D584
3 Bear River WCD	D738
4 Central Utah WCD (Prepay FY98,99,00)	D960
5 Woodruff Irr Co (Woodruff Cr Dam Enlargement)	E059

BOARD OF WATER RESOURCES

Special Item

Feasibility Report & Committal of Funds

Revolving Construction Fund

Appl. No.: **E-388**
Received: 8/1/16
Approved: 10/13/16

To be Presented at the October 13, 2016 Board Meeting

SPONSOR: **CLUFF WARD PIPELINE COMPANY**

President: Doug Moore

LOCATION: The proposed project is located about one mile east of Coalville in Summit County.

EXISTING CONDITIONS & PROBLEMS: The sponsor serves culinary water for indoor use to 84 active connections. There are another 15 existing connections that are not in use. Build-out for the service area is 119 connections. All but seven connections use secondary water for outdoor use.

The sponsor's system consists of two springs and 75,000- and 17,000-gallon tanks, for a total of 92,000 gallons of storage. The sponsor's drinking water storage requirement is 150,000 gallons at present and will be 167,000 gallons at build-out.

PROPOSED PROJECT: The sponsor is requesting financial assistance from the board to build a 100,000 gallon storage tank and associated piping to upgrade its storage capacity. The project will help the sponsor provide adequate infrastructure to serve all current and future connections to the system and meet fire code requirements.

Technical assistance will be provided by J-U-B Engineers, Inc.

The project fits in Prioritization Category 2
(municipal project required to meet existing or
impending need).

COST ESTIMATE: The following cost estimate is based on the engineer's
preliminary design and has been reviewed by staff:

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u> <u>Price</u>	<u>Amount</u>
1.	Mobilization	LS	\$26,000	\$ 26,000
2.	Concrete Tank	LS	250,000	250,000
3.	Pipes/Fittings	LS	42,000	42,000
4.	Earth Work	LS	32,000	<u>32,000</u>
	Construction Cost			\$350,000
	Contingencies			40,000
	Legal and Administrative			10,000
	Design and Construction Engineering			<u>60,000</u>
	TOTAL			\$460,000

COST SHARING
& REPAYMENT: The recommended cost sharing and repayment are:

<u>Agency</u>	<u>Cost Sharing</u>	<u>% of Total</u>
Board of Water Resources	\$391,000	85%
Sponsor	<u>69,000</u>	<u>15</u>
TOTAL	\$460,000	100%

If the board authorizes the project, it is suggested
it be purchased at 0% interest over approximately 10
years with annual payments of \$39,100.

FINANCIAL
FEASIBILITY: Based on the board's water service affordability
guideline, area residents could pay about \$57.69
monthly for water. The estimated cost of all water
with the proposed project:

	<u>Annual Cost</u>	<u>Cost/Conn/Mo</u>
Culinary Water Cost/O&M (based on 84 connections)	\$17,650	\$17.51
Average Secondary Water Assessment	2,016	2.00
Proposed BWR e Loan (based on 99 connections)	<u>39,100</u>	<u>32.91</u>
TOTAL	\$58,766	\$52.42

BENEFITS: The proposed project will provide adequate pressure to all present and future connections, and fire flow demands as required.

PROJECT SPONSOR: The Cluff Ward Pipeline Company was first incorporated in 1906. The water system was constructed in 1924. The sponsor received financial assistance from the board in 1987 for construction of the 75,000 gallon tank, installation of a booster pumping station, and the replacement of under-sized transmission piping. This assistance has been repaid.

WATER RIGHTS & SUPPLY: The sponsor's water right associated with this project is 35-5400.

EASEMENTS: The sponsor will purchase the necessary easements required to construct the project from private landowners.

ENVIRONMENTAL: The proposed project is not expected to have any detrimental effects on the environment beyond the usual dust and noise of the construction phase.

WATER CONSERVATION: All but seven of the existing connections use secondary water from a separate irrigation system for outdoor use. The sponsor cannot pass an ordinance restricting the outdoor use.

SPONSOR'S RESPONSIBILITIES: If the board authorizes the proposed project, the sponsor must do the following before construction can begin:

1. Be registered in good standing with the state Department of Commerce.
2. Obtain all easements, rights-of-way, and permits required to construct, operate, and maintain the project.
3. Pass a resolution by the appropriate (as defined in the company's Articles of Incorporation and Bylaws) majority of company stock authorizing its officers to do the following:

- a. Assign properties, easements, and water rights required for the project to the Board of Water Resources.
 - b. Enter into a contract with the Board of Water Resources for construction of the project and subsequent purchase from the board.
4. Have an attorney give the Board of Water Resources a written legal opinion that:
- a. The company is legally incorporated for at least the term of the purchase contract and is in good standing with the state Department of Commerce.
 - b. The company has legally passed the above resolution in accordance with the requirements of state law and the company's Articles of Incorporation and Bylaws.
 - c. The company has obtained all permits required for the project.
 - d. The company owns all easements and rights-of-way for the project, as well as the land on which the project is located, and that title to these easements, rights-of-way, and the project itself can be legally transferred to the board.
 - e. The company's water rights applicable to the project are unencumbered and legally transferable to the Board of Water Resources.
5. Obtain approval of final plans and specifications from the Division of Water Resources and Division of Drinking Water.
6. Prepare a Water Management and Conservation Plan for its service area, and obtain approval of it from the Division of Water Resources.

PROJECT
CONTACT
PEOPLE:

President:

Doug Moore
501 E. Chalk Creek Road
Coalville, UT 84017
Phone: 435-901-2264

Secretary:

Tamara Moore
501 E. Chalk Creek Road
Coalville, UT 84017
Phone: 435-901-2264

Engineer:

Tracy Allen
J-U-B Engineers, Inc.
466 North Kays Drive
Kaysville, UT 84037
Phone: 801-547-0393

Cluff Ward Pipeline Company Proposed Pipeline & Water Tank Project

Summit County

Project Location

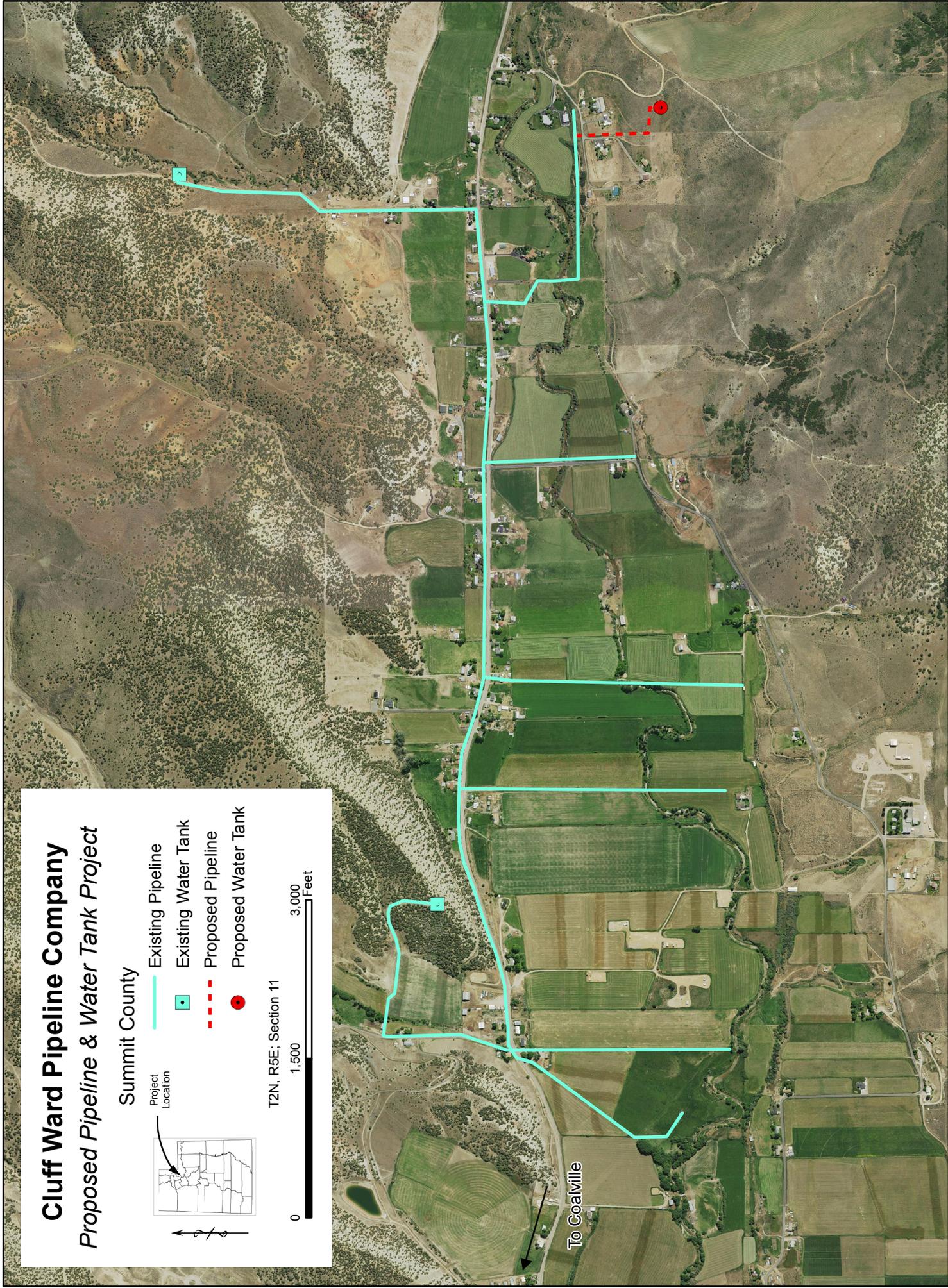


- Existing Pipeline
- Existing Water Tank
- Proposed Pipeline
- Proposed Water Tank

T2N, R5E, Section 11



To Coalville



BOARD OF WATER RESOURCES

Special Item

Additional Funds

Cities Water Loan Fund

Appl. No.: **L-575**
Received: 5/26/16
Approved: 6/23/16
Authorized: 6/23/16
Committed: 8/11/16

To be Presented at the October 13, 2016 Board Meeting

SPONSOR: **BEAVER CITY**

Mayor: Craig Wright
Box 271
Beaver, UT 84713
Phone: 435-438-2451

LOCATION: The proposed project is located in Beaver City in Beaver County.

PROJECT SUMMARY: The sponsor's secondary lawn and garden system is supplied by the Mammoth Canal located above the city. There are numerous safety concerns about the canal diversion structure, which will be remedied by construction of the project to install an improved diversion structure, sluicing structure, and make improvements to the canal overflow system.

The project was bid in September and bids for the project came in higher than estimated.

COST ESTIMATE & SHARING: The project cost estimate has increased by \$150,000, from \$370,000 to \$520,000, primarily due to difficulty in working on the hillside. The committed and proposed cost estimate and sharing are:

<u>Agency</u>	<u>Committed Cost Sharing</u>	<u>% of Total</u>	<u>Proposed Cost Sharing</u>	<u>% of Total</u>
BWRe	\$315,000	85%	\$442,000	85%
Sponsor	55,000	15	78,000	15
TOTAL	\$370,000	100%	\$520,000	100%

PURCHASE
AGREEMENT:

The committed bond terms with the board are for the project to be repaid at 0% interest over 15 years with annual payments of approximately \$23,000 (includes reserves).

The sponsor would like to keep the repayment term at 15 years.

If the board commits an additional \$127,000 to the project, it is proposed the bonded indebtedness of \$442,000 be returned over 15 years at 0% interest with payments of approximately \$32,000 (includes reserves).

BOARD OF WATER RESOURCES

Special Item

Additional Funds

Revolving Construction Fund

Appl. No.: **E-370**
Received: 4/8/15
Approved: 5/7/15
Authorized: 6/18/15
Committed: 6/18/15

To be Presented at the October 13, 2016 Board Meeting

SPONSOR: **DANIEL IRRIGATION COMPANY**

President: Hugh Barker
80 East Little Sweden Road
Heber City, UT 84032
Phone: 435-654-0520

LOCATION: The proposed project is located approximately 4.5 miles southeast of Heber City in Wasatch County.

PROJECT SUMMARY: In June 2015 the board authorized and committed funds to pipe 1.3 miles of canal to prevent water loss and alleviate safety concerns. This segment is the last remaining open canal owned by the sponsor. The sponsor received word in September 2015 that it would be receiving a WaterSMART grant to assist with the project. The NEPA study and the subsequent mitigation measures required for approval and use of federal funds caused the project to be delayed until the present time. Due to increases in material costs and consulting fees associated with the NEPA study, the sponsor is requesting additional funds from the board.

COST ESTIMATE & SHARING: The cost estimate and sharing for the project are as follows:

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Amount</u>
1.	30" HDPE Corr. Pipe	6,864 LF	\$43	\$ 295,152
2.	Pipe Bedding	3,328 CY	20	66,560

3. Pipe Installation	6,864 LF	20	137,280
4. Grading & Seeding	96,096 SF	0.25	<u>24,024</u>
Construction Cost			\$ 524,000
Contingencies			53,000
Legal and Administrative			17,000
Design and Construction Engineering			<u>110,000</u>
TOTAL			\$ 704,000

COST ESTIMATE
& SHARING:

The committed and proposed cost estimate and sharing are:

<u>Agency</u>	<u>Committed Cost Sharing</u>	<u>% of Total</u>	<u>Proposed Cost Sharing</u>	<u>% of Total</u>
BWRe	\$240,000	45.7%	\$417,115	59.2%
WaterSMART	224,318	42.7	224,318	31.9
Sponsor	<u>60,682</u>	<u>11.6</u>	<u>62,567</u>	<u>8.9</u>
TOTAL	\$525,000	100%	\$704,000	100%

PURCHASE
AGREEMENT:

The board previously committed \$240,000 at 0% interest over approximately 15 years with payments of approximately \$16,000. If the board commits an additional \$177,115 to the project (for a total of \$417,115), it is suggested it be purchased at 0% interest over 25 years with payments of approximately \$16,700.

BOARD OF WATER RESOURCES

Special Item

Withdrawal

Cities Water Loan Fund

Appl. No.: **E-344**
Received: 11/4/13
Approved: 12/6/13
Authorized: 2/13/14

To be Presented at the October 13, 2016 Board Meeting

SPONSOR: **HERRIMAN CITY**

Mayor: Carmen Freeman
13011 South Pioneer Street
Herriman, UT 84096
Phone: 801-446-5323

LOCATION: The proposed project is located in Herriman City in Salt Lake County.

SUMMARY: In 2014 the board authorized a loan to improve the sponsor's secondary lawn and garden system by constructing an additional booster pump station, head pond, and appurtenant piping. The sponsor proposed a "Special Assessment Bond" to the board, which caused some concerns concerning undeveloped and unrelated property being assessed for repayment. The sponsor has since built the project with alternate financing. Staff therefore suggest the project be withdrawn from further consideration by the board.

BOARD OF WATER RESOURCES

Dam Safety Report

Dam Safety Construction Funding

Appl. No.: **C-051**

Received: 4/6/15

To be Presented at the October 13, 2016 Board Meeting

SPONSOR: **WASHINGTON COUNTY FLOOD CONTROL AUTHORITY**

President: Jonathan Pike

LOCATION: The proposed project is located about six miles east of St. George in Washington County.

SUMMARY: The sponsor was formed in 2011 by Washington County, Washington City, St. George City, and Santa Clara City to provide funding from all four entities for flood control measures along rivers and for regional flood control facilities.

The sponsor maintains three flood control debris basins: Gypsum, Warner Draw, and Stucki. Plans are currently underway to rehabilitate all three dams with help from the Natural Resources Conservation Service (NRCS) to bring them up to dam safety standards. The NRCS has committed to funding 65% of the costs to repair these dams and for this reason the dams have been moved up on the priority list.

Gypsum Debris Basin is scheduled for construction in January 2017. It was constructed in 1975 for flood prevention and sediment retention, and was originally rated a "moderate-hazard" dam as it was built to protect farmland. However, due to recent development downstream of the dam it is now rated "high-hazard". Additionally, two residential developments are anticipated adjacent to the dam.

The dam crest is approximately 14 feet wide and 3,160 feet long, and the basin has a capacity of 647 acre-feet. Water is released via two outlet riser structures that feed into outlet pipes (30-inch and

24-inch). There is also a 120-foot wide, 300-foot long auxiliary spillway.

To bring the dam up to state dam safety standards, rehabilitation will include replacing the dam toe drain, slip-lining the 24-inch outlet pipe, and excavating accumulated sediment near the outlet riser structures.

The total cost of the repairs is estimated to be \$775,000. The NRCS will pay 65% of the project costs, as well as 100% of the engineering costs. Engineering services are being provided by the NRCS.

COST SHARING
& REPAYMENT:

The recommended cost sharing and repayment are:

<u>Agency</u>	<u>Cost Sharing</u>	<u>% of Total</u>
NRCS - Grant	\$503,750	65.0%
BWRe - Grant	244,125	31.5
Sponsor	<u>27,125</u>	<u>3.5</u>
TOTAL	\$775,000	100%

If the board commits dam safety funds to the project, it is proposed it extend a grant of \$244,125 to the sponsor.

PROJECT
CONTACT
PEOPLE:

Chairman: Jonathan Pike
197 East Tabernacle Street
St. George, UT 84770
Phone: 435-627-4001

Project Manager: Lester Dalton
1305 E. Washington Dam Road
Washington, UT 84780
Phone: 435-656-6318

Engineer: Lance Smith
NRCS
125 S. State Street, Rm 4010
Salt Lake City, UT 84138
Phone: 435-704-4861

Washington County FCA Gypsum Wash Debris Basin

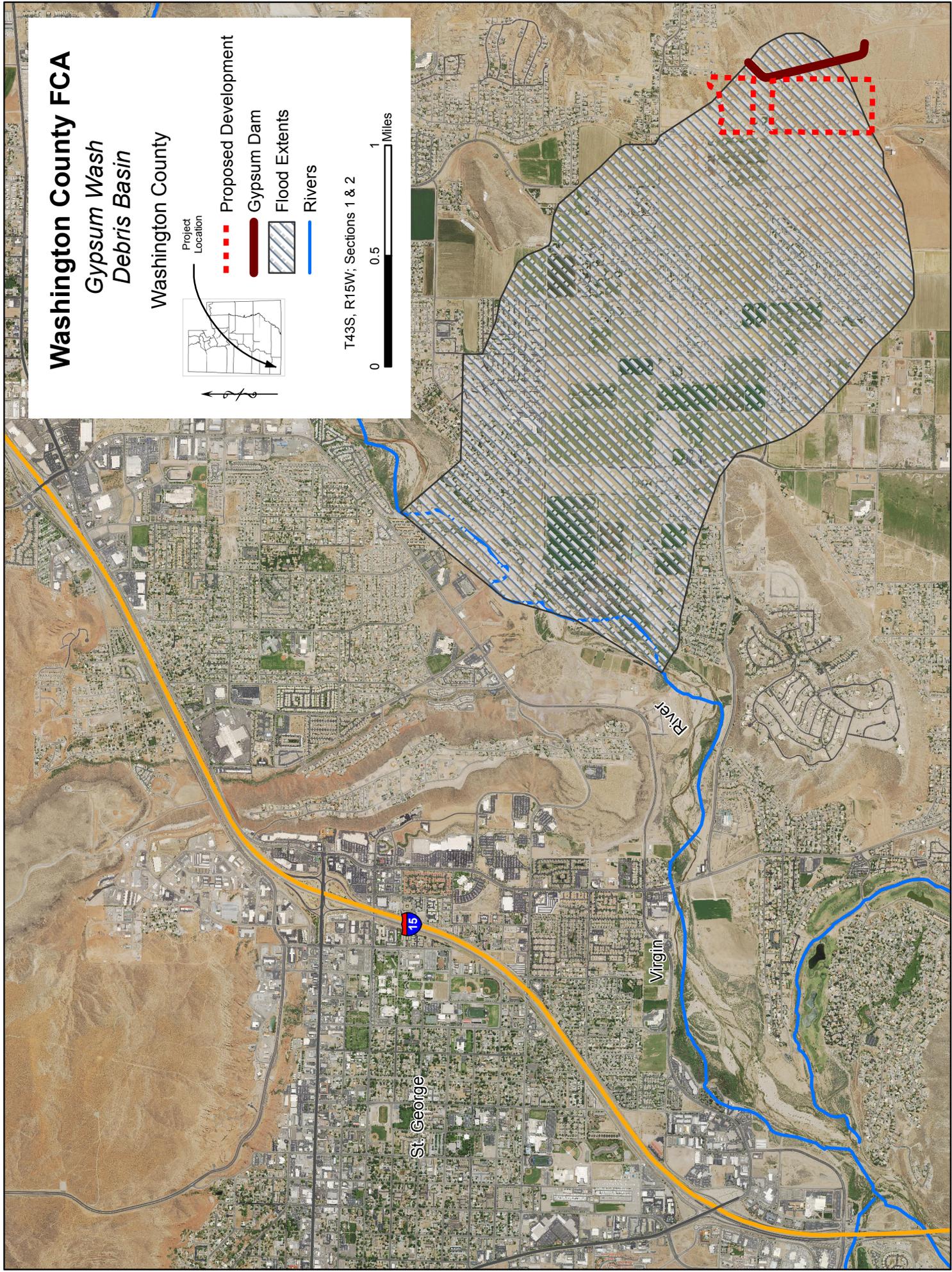
Washington County



Project
Location

- Proposed Development
- Gypsum Dam
- Flood Extents
- Rivers

T43S, R15W; Sections 1 & 2



BOARD OF WATER RESOURCES

Application Summary

Appl. No. **E-390**
Received: 9/14/16

SPONSOR: **ECHO DITCH COMPANY**

President: Richard Richins
P.O. Box 60
Echo, UT 84024
Phone: 760-408-2556

LOCATION: The proposed project is located six miles north of Coalville in Summit County.

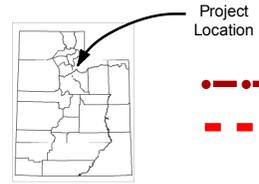
PROPOSED PROJECT: The sponsor is requesting financial assistance from the board to slip-line 5,800 feet of existing pipe and replace 11,550 feet of open ditch with pipe.

WATER RIGHTS: 35-9015, 5909

COST ESTIMATE: \$755,000

Echo Ditch Company Proposed Pipeline Project

Summit County

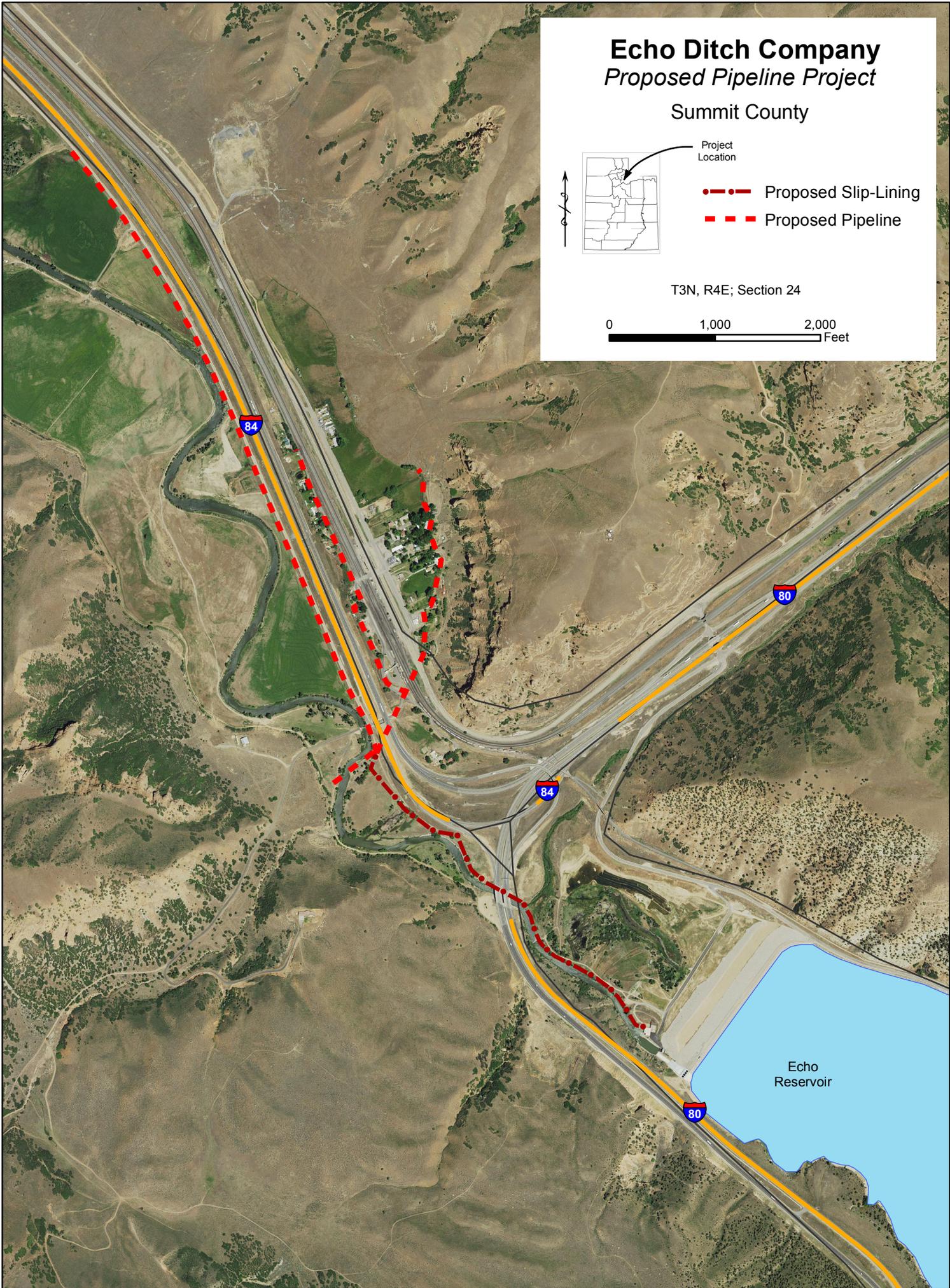


Project
Location

- Proposed Slip-Lining
- Proposed Pipeline

T3N, R4E; Section 24

0 1,000 2,000 Feet



BOARD OF WATER RESOURCES

Application Summary

Appl. No. **E-391**
Received: 9/23/16

SPONSOR: **POWDER MOUNTAIN WATER & SEWER IMPROVEMENT
DISTRICT**

Manager: Paul Hirst
P.O. Box 440
Farmington, UT 84025
Phone: 801-939-5565

LOCATION: The proposed project is located approximately four miles northeast of the unincorporated town of Eden in Weber County.

PROPOSED PROJECT: The sponsor is requesting financial assistance from the board to drill and equip a culinary production well.

WATER RIGHTS: 35-6124, 35-6712, 35-12099, 35-4514, 35-4515, 25-4516

COST ESTIMATE: \$1,500,000

Powder Mountain W&SID Proposed Well Project

Weber County



- Proposed Well
- Existing Pipeline
- Counties

T7N, R1E; Section 1



Powder Mountain

CACHE

WEBER

