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A G E N D A

UTAH BOARD OF WATER RESOURCES

Desert Garden Inn
Cherokee Room
1450 S. Hilton Drive
St. George, Utah

March 20, 2019

2:00 p.m.

1. CALL TO ORDER
2. APPROVAL OF MINUTES – January 31, 2019
3. WATER SUPPLY REPORT Troy Brosten
4. FEASIBILITY REPORTS County
 - RL584 Monroe City Sanpete
 - RL585 Powder Mountain Water & Sewer ID Weber
 - RE418 Mapleton Irr. Co. Utah
5. SPECIAL ITEM REPORTS Utah
 - RE414 Spanish Fork South Irr. Co. (Additional Funds) Wayne
 - RE279 Fremont Irr. Co. (Security Agreement) Uintah
 - RE372 Highline Canal Co. (Withdrawal) Duchesne
 - RE383 O.T. Hicken Ditch Co. (Withdrawal)
6. LAKE POWELL PIPELINE REPORT
 - BLM Contract Amendment
 - Committal of Additional Funds
7. PLANNING REPORT
8. DIRECTOR’S REPORT
9. ADJOURNMENT

BRIEFING MEETING AGENDA

UTAH BOARD OF WATER RESOURCES

Desert Garden Inn
Garden Room
1450 S. Hilton Drive
St. George, Utah

March 20, 2019

1:00 p.m.

- | | | |
|------|--------------------------|------------------|
| I. | WELCOME/CHAIR'S REPORT | Chairman Johnson |
| II. | DISCUSSION OF PROJECTS | |
| III. | INFORMATION TO THE BOARD | |
| IV. | OTHER ITEMS | |

BOARD OF WATER RESOURCES

REVOLVING CONSTRUCTION FUND

**Funding Status
March 20, 2019**

Funds Available for Projects This FY \$ 16,753,000

Projects Contracted This FY

1 Center Creek Irrigation Co	RC055	**Grant	\$ 246,000	(Additional amt.)
2 Center Creek Irrigation Co	RC055	**Loan	27,000	(Additional amt.)
3 Davis & Weber Counties Canal Co. (Canal)	RE410		995,000	
4 Deseret Irrigation Co	RE406		999,000	
5 Fremont Irrigation Co (Mill Meadow)	RC019	**Grant	1,505,000	(Additional amt.)
6 Fremont Irrigation Co (Mill Meadow)	RC019	**Loan	195,000	(Additional amt.)
7 Ivins City (Debris Basins 1-6)	RC061	**Grant	661,000	
8 Howell Blue Creek Irrigation Co (Blue Creek)	RC063	**Grant	570,000	
9 Koosharem Irrig Co (Koorsharem Dam)	RC058	**Grant	2,130,000	
10 Koosharem Irrig Co (Koorsharem Dam)	RC058	**Loan	270,000	
11 Little Cottonwood Brown Ditch Company	RE413		374,000	
12 Moon Lake WUA (Twin Pots)	RC059	**Grant	207,000	
13 North Utah County WCD (Dry Creek)	RC060	**Grant	1,600,000	
14 North Utah County WCD (Grove Creek)	RC054	**Grant	47,000	(Additional amt.)
15 Pioneer Canal Co	RE403		240,000	
16 Spanish Fork South Irrigation Co	RE414		472,600	
17 Uintah Basin Irrigation Co	RE402		271,000	
18 Washington County WCD (Ivins Bench)	RC062	**Grant	321,000	
19 Woodruff Irrigating Co	RE392		<u>319,000</u>	(Additional amt.)

Total Funds Contracted \$ 11,450,000
 Funds Balance \$ 5,303,000

Projects with Funds Committed

1 Bear River Canal Co	RE420		\$ 379,000	
2 Echo Ditch Co	RE390		51,000	(Additional amt.)
3 Marion Waterworks Co	RE322		395,000	
4 Muddy Creek Irrigation Co (Moore)	RE407		1,000,000	
* 5 Spanish Fork South Irrigation Co	RE414		135,150	(Additional amt.)
6 Washington County Flood Contr. Auth. (Gypsum)	RC051	**Grant	244,125	
7 Washington County Flood Contr. Auth. (Warner)	RC049	**Grant	212,000	
8 Washington County Flood Contr. Auth. (Stucki)	RC050	**Grant	88,400	
9 West Porterville Irrigation Co	RE401		<u>996,000</u>	

Total Funds Committed \$ 3,501,000
 Funds Balance \$ 1,802,000

Projects Authorized

1 Burns Bench Irrigation Co	RE395		\$ 504,900	
* 2 Mapleton Irrigation District & Canal Co	RE418		961,350	
3 Peoa South Bench Canal & Irrigation Co	RE417		1,000,000	
4 Silver Creek Reservoir Co	RE381		<u>500,000</u>	

Total Funds Authorized \$ 2,966,000
 Remaining Funds Available # \$ (1,164,000)

* 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
March 20, 2019

Funds Available for Projects This FY \$ 9,474,000

Bonds Closed This FY

1 West Warren and Warren Water ID RE387 \$ 1,800,000

Total Bonds Closed \$ 1,800,000

Funds Balance \$ 7,674,000

Projects with Funds Committed

1 None

Total Funds Committed \$ -

Funds Balance \$ 7,674,000

Projects Authorized

* 1 Monroe City RL584 187,000

* 2 Powder Mtn. Water & Sewer ID RL585 1,068,000

Total Funds Authorized \$ 1,255,000

Remaining Funds Available # \$ 6,419,000

* 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
March 20, 2019**

Funds Available for Projects This FY \$ 70,537,000

Projects Contracted/Bonds Closed This FY

1 Benson Irrigation Co	RE378	\$ 1,845,000	
2 Davis & Weber Counties Canal Co. (Secondary)	RE409	2,500,000	
3 Fremont Irrigation Co	RE279	8,415,000	
4 Summit Creek Irrigation and Canal Co	RE308	<u>84,500</u>	(Additional amt.)

Total Funds Contracted/Closed \$ 12,845,000
 Funds Balance \$ 57,692,000

Projects with Funds Committed

1 Draper Irrigation Co	RE419	\$ 3,000,000	
2 Muddy Creek Irrigation Co (Emery)	RE405	1,671,000	
3 Murray City	RL581	8,054,000	
4 Payson City	RL582	<u>8,985,000</u>	

Total Funds Committed \$ 21,710,000
 Funds Balance \$ 35,982,000

Projects Authorized

1 Ashley Upper Irrigation Co	RE373	\$ 5,045,000	
2 Blanding City	RE415	1,359,000	
3 Box Elder Cnty & Perry City Flood Control Dist	RE369	660,000	
4 Brooklyn Canal Co	RE223	1,000,000	
5 Davis & Weber Counties Canal Co	RE416	3,400,000	
6 Settlement Canyon Irrigation Co (Phase 2)	RE240R2	552,500	
7 Summit Creek Irrigation and Canal Co (Phase 4)	RE308	1,198,000	
8 Uintah WCD	RE316	36,550,000	
9 Weber Basin WCD (Phase 5+)	RE225R5	7,000,000	
10 Weber-Box Elder Cons Dist	RE400	1,687,000	
11 West Cache Irrigation Co	RE421	2,125,000	
12 Woodruff Irrigating Co	RE365	<u>3,200,000</u>	

Total Funds Authorized \$ 63,777,000
 Remaining Funds Available # \$ (27,795,000)

* To be presented at Board Meeting

End of year balance if all listed projects were fully paid

BOARD OF WATER RESOURCES

March 20, 2019

ADDITIONAL FUTURE FUNDING NEEDS

Sponsor	No.	Fund	Est. Board Cost	Total Cost
1 Sanpete WCD (Narrows Dam)	RD377	C&D	\$ 29,325,000	\$ 34,500,000
2 Kane County WCD	RD828	C&D	1,500,000	2,000,000
3 Hooper Irrigation Co (Press Irr, Ph 3+)	RE060R3	C&D	11,033,000	12,980,000
4 Weber Basin WCD	RE312	C&D	85,000,000	100,000,000
5 Ferron Canal & Reservoir Co	RE320	C&D	2,720,000	3,200,000
6 Wellsville-Mendon Conservation District	RE364	C&D	680,000	800,000
7 Highline Canal Co	RE372	C&D	3,087,000	13,942,000
8 Mosby Irrigation Co	RE374	RCF	331,000	4,379,000
9 O.T. Hicken Ditch Co	RE383	RCF	430,000	990,000
10 Woodruff Irrigating Co	RE385	C&D	5,000,000	6,885,000
11 Glendale Irrigation Co	RE408	C&D	196,000	1,109,000
12 Glenwood Town (NRCS Dam Safety Grant)	RC056	RCF	969,000	3,568,000
13 Daniel Town	RL580	CWL	1,505,000	2,021,000
14 Coyote & East Fork Irrigation Company	RE411	RCF	722,500	1,700,000
15 Rockville Pipeline Company	RE412	RCF	60,000	80,000
16 Trenton Town	RL583	CWL	50,000	300,000
Subtotal			\$142,609,000	\$188,454,000

* New Application

INACTIVE PROJECTS

Long Term Large Water Conservation Projects

1 Wayne County WCD	RD494
2 Cedar City Valley Water Users	RD584
3 Bear River WCD	RD738
4 Central Utah WCD (Prepay FY98,99,00)	RD960

Applicant: **Monroe City**

Project Number: RL584
Fund: Cities Water Loan Fund
Cost Estimate: \$220,000

Application Received: 1/14/2019

Board Meeting Date: 3/20/2019

Board Member: Blaine Ipson
Project Manager: Ben Marett

Project Summary: The purpose of the project is to replace approximately 585 culinary water meters throughout the city, which represents approximately 2/3 of the meters. This is necessary due to a higher than anticipated failure rate of existing meters.

Recommendation: Staff recommends the board authorize 85% of the project cost up to \$187,000, and that the bonded indebtedness be returned at 3.07% interest over 15 years with annual payments of approximately \$17,000 (includes reserves).

Project Contacts:

Mayor:
Johnny Parsons
10 N. Main St.
Monroe, UT 84754
435-527-4621

Secretary:
Allison Leavitt
10 N. Main St.
Monroe, UT 84754
435-527-4621



Location

The proposed project is located in Monroe City in Sevier County.

Introduction & Background

The City of Monroe installed automated mechanical water meters on its culinary water system in 2000. These meters began to fail shortly after the warranty on them expired. Because these meters did not last as long as expected, the applicant began replacing the old meters with iPearl electromagnetic meters as the old ones failed, and has replaced 365 of the failed meters. The applicant budgets \$15,000 per year to replace the old meters as they fail. Unfortunately, the old meters are beginning to fail at a faster rate than they can be replaced, given the applicant's budget allotment. Approximately 585 more meters need to be replaced to finish out the system-wide upgrade to electromagnetic meters.

Existing Conditions & Problems

The applicant budgets \$15,000 per year to replace the old meters as they fail. At this rate of replacement, it will take the applicant about 40 years to replace all of the failed meters. The applicant will therefore be unable to uniformly and consistently bill customers for water use.

Proposed Project

The purpose of the project is to replace approximately 585 culinary water meters throughout the city, which represents approximately 2/3 of the city's connections.

Benefits

The proposed project will make it possible for the applicant to charge each connection according to actual water use. Currently some connections have meters that are tracking water use and others do not. Installing each connection with a working meter will give the applicant the capability to charge all connections equally.

Metering connections also has the potential to encourage water conservation by charging for actual water use and implementing tiered usage rates.

Cost Estimate

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



Item	Description	Quantity	Unit	Unit Price	Total
1	Sensit Water Meters	585	EA	\$305	\$178,200
2	Labor	585	EA	28	16,400
Construction Cost:					\$195,000
Contingency:					10,000
Design & Construction Engineering:					0
Legal & Administrative:					\$15,000
TOTAL:					\$220,000

Cost Sharing & Repayment

The recommended cost sharing and repayment are:

Agency	Cost Sharing	% of Total
Board Share	\$187,000	85%
Sponsor Share	33,000	15
Total	\$220,000	100%

Staff recommends the board authorize 85% of the project cost up to \$187,000, and that the bonded indebtedness be returned at 3.07% interest over 15 years with annual payments of approximately \$17,000 (includes reserves).

Economic Feasibility

It is in the best interests of the state to require all water to be metered. No alternative to the proposed project will obtain this goal; therefore, the benefit/cost ratio for the metering project is assumed to be 1.0.

Financial Feasibility

Based on the board's guidelines, the residents of Monroe City can afford to pay approximately \$51.12 per month for all water. Residents of Monroe currently pay an average of \$36.05 per month for potable and secondary water. An annual bond payment to the board of \$17,000 will result in a cost increase of \$1.59 per month per connection. These expenses bring the total monthly water cost per connection to approximately \$37.59.

Water Cost	Annual Cost	Cost/Conn/Mo
Average Water Bill	\$310,068	\$29.00
Average Secondary Water Bill	74,844	7.00
Proposed Board of Water Resources Loan	17,000	1.59
TOTAL	\$401,912	\$37.59



Water Rights & Supply

Water rights related to this project are as follows:

Water Right Number	Flow / Volume (cfs / ac-ft)
63-2508	1 cfs
63-2243	1.12 cfs
63-2785	3 cfs

Easements

No additional easements will be needed for the project

Environmental

Having water meters and billing according to actual water use encourages water conservation. It is likely that the proposed project will result in reduced water usage.

No adverse environmental impacts are expected to occur as a result of the proposed project.

Water Conservation

Because the applicant is unable to measure water use for many of its connections, it is difficult to estimate how much water will be conserved by installing meters. However, installing water meters and billing according to use is a proven way to effectively encourage water conservation. It is expected that the proposed project will result in reduced water usage.

Applicant's Responsibilities

The applicant will be required to make all arrangements to sell the board a non-voted revenue bond, as well as verify it has adequate water rights and rights-of-way to construct the project. If the project is authorized, a full list of requirements and procedures necessary to close the bond will be furnished to the applicant.

Applicant: **Powder Mountain Water & Sewer
Improvement District**

Project Number: RL585
Fund: Cities Water Loan Fund
Cost Estimate: \$1,256,000

Application Received: 1/18/2019

Board Meeting Date: 3/20/2019

Board Member: Kyle Stephens
Project Manager: Ben Marett

Project Summary: The purpose of the project is to install approximately 4,600 feet of 6-inch PVC pipe, construct a booster pump station, and rehabilitate another booster pump station.

Recommendation: Staff recommends the board authorize 85% of the project cost up to \$1,068,000, and that the bonded indebtedness be returned at 1.0% interest over 30 years with annual payments of approximately \$43,000 (includes reserves).

Project Contacts:

Primary Contact:
Roy Watts
298 24th St, Ste 150
Ogden, UT 84401
801-510-2093

Secretary:
Carrie Zenger
298 24th St, Ste 150
Ogden, UT 84401
801-983-2727

Engineer:
Paul Hirst - CRS Engineers
160 S Main Ste. 200
Farmington, UT 84025
801-580-7828



Location

The proposed project is located five miles north of Eden in Weber County.

Introduction & Background

The Powder Mountain Water & Sewer Improvement District (PMWSID) provides water year-round to 140 residential and 64 commercial connections. Because there are more than 100 connections, the applicant is required to have a minimum of two water sources. Until recently, the applicant met this requirement using a well and a nearby spring. A determination made by the Division of Drinking Water in June of 2016 indicated the spring was under the direct influence of surface water and, because of this, it is not suitable for potable use without treatment.

To replace the condemned spring, the applicant is currently drilling a well that will provide the required redundant water source. The applicant is working with the Board of Water Resources on this project.

The applicant currently has one well that is in operation. Another well, drilled and owned by a developer, is being used by the applicant to supplement its well and assist it in meeting demand. Ownership of this well will be transferred to the applicant, along with the connections currently being serviced by this well and others that are under development.

The service area is essentially divided by geography. The mountain reaches an apex with some connections located downhill to the west and other connections located downhill to the east. Both the applicant's existing operational well and the well currently owned by the developer are located at the top of the mountain near the main lodge of the Powder Mountain Ski Resort.

Existing Conditions & Problems

Because the two operational wells are located at the top of the mountain, they are capable of providing water to connections on both the east and west. With the current system, the new well under development with the board's assistance will be capable of providing water only to connections on the western side of the service area due to elevation.

The two operational wells at the peak of the mountain use a 40-year old pipe to convey water to connections on the western half of the service area. There is a water tank connected to this line that would drain and depressurize the system in the event of a failure. The line needs to be replaced due to its age and condition. Additionally, this pipe is located directly below a primary ski run connecting two lodges of the Powder Mountain Ski Resort. Due to the location of the pipe, a leak in the winter would be extremely difficult to repair.

Proposed Project

The proposed project includes installing approximately 4,600 feet of 6-inch PVC pipe, constructing a booster pump station, and renovating a separate, defunct booster pump station. This new pipe will replace the 40-year old transmission line and reduce the risk of catastrophic



failure. The new booster pump and the renovated booster pump stations will allow the applicant to move water from the western pressure zone to the eastern pressure zone.

Construction is expected to begin soon after funding is obtained. The project will likely proceed in mid- to late 2019. CRS Engineers is providing engineering services for the project.

Benefits

The proposed project will better protect the applicants' water system from pressure loss and subsequent contamination. It will enable the applicant to deliver water from any of its sources to any connection within the distribution system. The risk of catastrophic failure will be decreased. The risk of pressure loss due to excessive demand and limited production will be decreased.

Cost Estimate

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

Item	Description	Quantity	Unit	Unit Price	Total
1	Mobilization	1	LS	\$ 37,500	\$ 37,500
2	Traffic Control	1	LS	10,000	10,000
3	Furnish and Install 6-inch C-900 PVC	4,600	LF	95	437,000
4	6-inch Gate Valves	6	EA	2,000	12,000
5	6-inch bends	8	EA	800	6,400
6	6-inch Tee	1	EA	1,200	1,200
7	Connect to Existing Waterline	4	EA	1,225	4,900
8	Booster Station 2 Structural Upgrades	1	LS	50,000	50,000
9	Booster Station 2 Mechanical	1	LS	130,000	130,000
10	Booster Station 2 Electrical	1	LS	50,000	50,000
11	Booster Station 3 Structural (and site)	1	LS	24,000	24,000
12	Booster Station 3 (pumps & controls)	1	LS	125,000	125,000
13	Booster Station 3 Electrical	1	LS	70,000	70,000
14	Timberline Booster Recommission	1	LS	30,000	30,000
Construction Cost:					\$988,000
Contingency:					99,000
Design & Construction Engineering:					149,000
Legal & Administrative:					20,000



RL585 - Powder Mountain Water & Sewer ID
Feasibility Report
3/20/2019

TOTAL:	\$1,256,000
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Cost Sharing & Repayment

The recommended cost sharing and repayment are:

Agency	Cost Sharing	% of Total
Board Share	\$1,068,000	85.0%
Sponsor Share	188,000	15.0
Total	\$1,256,000	100%

Staff recommends the board authorize 85% of the project cost up to \$1,068,000, and that the bonded indebtedness be returned at 1.0% interest over 30 years with annual payments of approximately \$43,000 (includes reserves).

Economic Feasibility

Because the project is necessary to prevent catastrophic failure of the water system and because the applicant will receive no direct economic benefit from the replacement of the pipeline, the benefit-to-cost ratio is assumed to be 1.0. However, rerouting the pipeline to avoid intersecting the Powder Mountain ski run adds a potential benefit, which remains unevaluated for purposes of this analysis and may increase the benefit-to-cost ratio.

Financial Feasibility

The board’s affordability guidelines indicate that the community can afford to pay \$88.51 per month for water. The current average water bill is \$63.86 per month. The applicant and the Weber Basin Water Conservancy District assess an annual property tax totaling approximately \$6.14 per connection per month. An annual bond payment of \$43,000 for the proposed project represents an increase of \$17.57 per connection per month. Pumping costs associated with the two proposed booster pump stations will result in a monthly increase of approximately \$2.04 per connection. These expenses add up to approximately \$89.61 per month per connection for all water.

Water Cost	Annual Cost	Cost/Conn/Mo
Average Water Bill	\$156,329	\$63.86
Prop. Taxes (Powder Mtn. WSID & Weber Basin WCD)	15,031	6.14
Proposed Board of Water Resources Loan	43,000	17.57
Increased O&M Costs (Pumping Costs)	5,000	2.04
TOTAL	\$219,360	\$89.61

Water Rights & Supply

The water rights associated with the project are already held by the board for the project currently under construction involving the new well. Water rights related to this project are as follows:



Water Right Number	Flow / Volume (cfs / ac-ft)
35-6124	4 ac-ft
35-6712	30 ac-ft
35-4514	13.55 ac-ft
35-4515	13.55 ac-ft
35-4516	13.55 ac-ft

Easements

The applicant will need to procure an easement from Weber County to move the pipeline from its current location under the ski run to a location near the county road.

Environmental

The proposed project is not expected to have any significant, long-term impacts on the environment.

Water Conservation

The proposed project is not expected to conserve water.

Applicant's Responsibilities

The applicant will be required to make all arrangements to sell the board a non-voted revenue bond, as well as verify it has adequate water rights and rights-of-way to construct the project. If the project is authorized, a full list of requirements and procedures necessary to close the bond will be furnished to the applicant.

Applicant: **Mapleton Irrigation Company**

Project Number: RE418

Fund: Revolving Construction Fund

Cost Estimate: \$1,421,000

Application Received: 10/24/2018

Board Meeting Date: 3/20/2019

Board Member: Wayne Andersen

Project Manager: Marisa Egbert

Project Summary: The purpose of the project is to replace approximately three miles of existing canal, box culvert, and pipeline with 24-inch, non-pressurized HDPE pipe. Some of the existing pipes will be slip-lined. The project will include new inlet and outlet structures, as well as turnouts and a traveling screen.

Recommendation: Staff recommends the board authorize 67.2% of the project cost up to \$961,350, and that the project be purchased at 0% interest over 21 years with annual payments of approximately \$45,700.

Project Contacts:

President:
Mike Miner
1290 West 1600 South
Mapleton, UT 84664
801-376-1454

Secretary:
Patti Andreasen
PO Box 924
Springville, UT 84663
801-491-6264

Engineer:
Barry Prettyman
Franson Civil Engineers
1276 South 820 East, Suite 100
American Fork, UT 84003
801-756-0309



Location

The proposed project is located on the east side of Mapleton in Utah County.

Introduction & Background

Mapleton Irrigation Company was formed in 1914 and serves about 8,000 acres with more than 30 miles of ditches, laterals, and pipelines. The company receives water from the Strawberry Reservoir via the Strawberry Valley Project; it also has several water rights and diverts water from both Maple Creek and Hobble Creek and serves both agricultural land and Mapleton City's secondary irrigation system.

The applicant received funding from the board in 1960 to line canals with concrete and to construct a regulating pond. That funding has been returned.

This project will only affect the 2,330 shares in the Hobble Creek System. The current assessment is \$22/share.

Existing Conditions & Problems

The Hobble Creek system diverts water out of Hobble Creek (in Hobble Creek Canyon about three miles east of Mapleton) and irrigates approximately 2,300 acres. The water is delivered through about 6,600 feet of open, concrete-lined ditch and through another 9,400 feet of buried reinforced concrete pipe (RCP) and box culverts.

Some of the buried conduit is undersized and restricts the flow that the applicant can divert. It has been calculated that about 30% of the diverted water is lost to seepage. The concrete-lined ditch is damaged beyond repair in places and the RCP is exposed in other areas along hillsides. Both the inlet and outlet structures need to be replaced.

Continued residential growth in the area has increased the safety concerns, as the alignment goes past houses and through the community.

Proposed Project

The applicant is requesting funding to replace nearly three miles of existing canal, pipe, and box culverts with 24-inch, non-pressurized HDPE pipe. Where possible, existing pipes will be slip-lined. The project will also include new inlet and outlet structures, as well as several turnouts and a traveling screen.

Franson Civil Engineers is providing design and construction engineering. Construction is expected to begin in the fall of 2019.

Benefits

The project is expected to conserve more than 1,600 acre-feet annually from reduced evaporation and seepage losses. It will also allow the applicant to better manage its water supply. Maintenance costs will be reduced and safety will be increased by enclosing the canal in a pipeline.



Cost Estimate

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

Item	Description	Quantity	Unit	Unit Price	Total
1	Mobilization	1	LS	\$60,000	\$ 60,000
2	Furnish and Install 24" HDPE Pipe	11,700	LF	52	608,400
3	Slip Line HDPE Pipe	1,100	LF	80	88,000
4	Install Pipe Under Earthen Ditch	1,100	LF	65	71,500
5	Fittings/Air Valves/Flow Meters	1	LS	44,000	44,000
6	Turnouts	10	EA	6,500	65,000
7	Intake Structure	1	LS	60,000	60,000
8	Traveling Screen	1	LS	45,000	45,000
9	Outlet Structure	1	LS	100,000	100,000
Construction Cost					\$1,141,900
Contingency					114,100
Design & Construction Engineering					130,000
Legal and Administrative					15,000
Environmental Compliance					30,000
TOTAL					\$1,431,000

Cost Sharing & Repayment

The recommended cost sharing and repayment are:

Agency	Cost Sharing	% of Total
Board of Water Resources	\$ 961,350	67.2%
WaterSMART Grant	300,000	21.0
Applicant	169,650	11.8
TOTAL	\$1,431,000	100%

The project is approved for the WaterSMART grant from the Bureau of Reclamation.

Staff recommends the board authorize 67.2% of the project cost up to \$961,350, and that the project be purchased at 0% interest over 21 years with annual payments of approximately \$45,700.

Economic Feasibility

The results of the Economic Feasibility indicate the piping project has a benefit/cost ratio of 1.23. The project will result in increased water availability due to savings from evaporation and seepage, and improved capacity from a properly sized pipeline. The increased benefit from the net crop income is estimated to be approximately \$48,000. The result of a



benefit/cost ratio that is greater than 1.0 appears to be highly dependent on increased water availability and the ability to implement irrigation earlier in the season. The water rights associated with this project have a use period of April 1st to October 31st. To the extent that the applicant can utilize water earlier in the year while also increasing efficiency throughout the year, this project will have a positive benefit/cost ratio.

Financial Feasibility

The financial benefits from the project are from increased crop yields due to a longer irrigating season and reduced maintenance costs. The annual net benefit is as follows:

Benefit	Amount
Estimated Annual Net Increased Crop Income	\$48,000
Reduced Operation & Maintenance Costs	20,000
NET ANNUAL BENEFIT	\$68,000

The board’s share of the total cost for this project is 67.2%. Staff therefore recommends the annual payment be 67.2% of the increased benefit of \$68,000, or \$45,700.

Water Rights & Supply

The applicant has several water rights and receives water from the Strawberry Valley Project. The water rights related to this project are for the Hobble Creek system and are as follows:

Water Right Number	Flow / Volume (cfs / ac-ft)
51-5218	42.5 cfs or 12,267.13 ac-ft
51-5601	22.1 cfs
51-5602	34.7 cfs

Easements

The majority of the installed pipeline will be within the existing canal alignment.

Environmental

An environmental survey will be conducted and clearance is required for this project because of the WaterSMART Grant funding.

Water Conservation

The project is expected to conserve over 1,600 acre-feet annually that is currently lost to seepage and evaporation.

Applicant’s Responsibilities

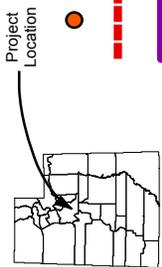
If the board authorizes the proposed project, the applicant must do the following before a purchase agreement can be executed:



1. Obtain all easements, rights-of-way, and permits required to construct, operate, and maintain the project.
2. Pass a resolution by the appropriate majority (as defined in the company's Articles of Incorporation and Bylaws) 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.
3. 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, and that they cover the land to be irrigated by the project.
 - f. The company is in compliance with Sections 73-10-33, 10-9a-211, and 17-27a-211 of the Utah Code governing management plans for water conveyance facilities.
4. Submit a Water Conservation Plan for its service area, and obtain approval of it from the Division of Water Resources.
5. Obtain approval of final plans and specifications from the Division of Water Resources.
6. Obtain letters from all outside financing agencies establishing their commitment of funds to the project.

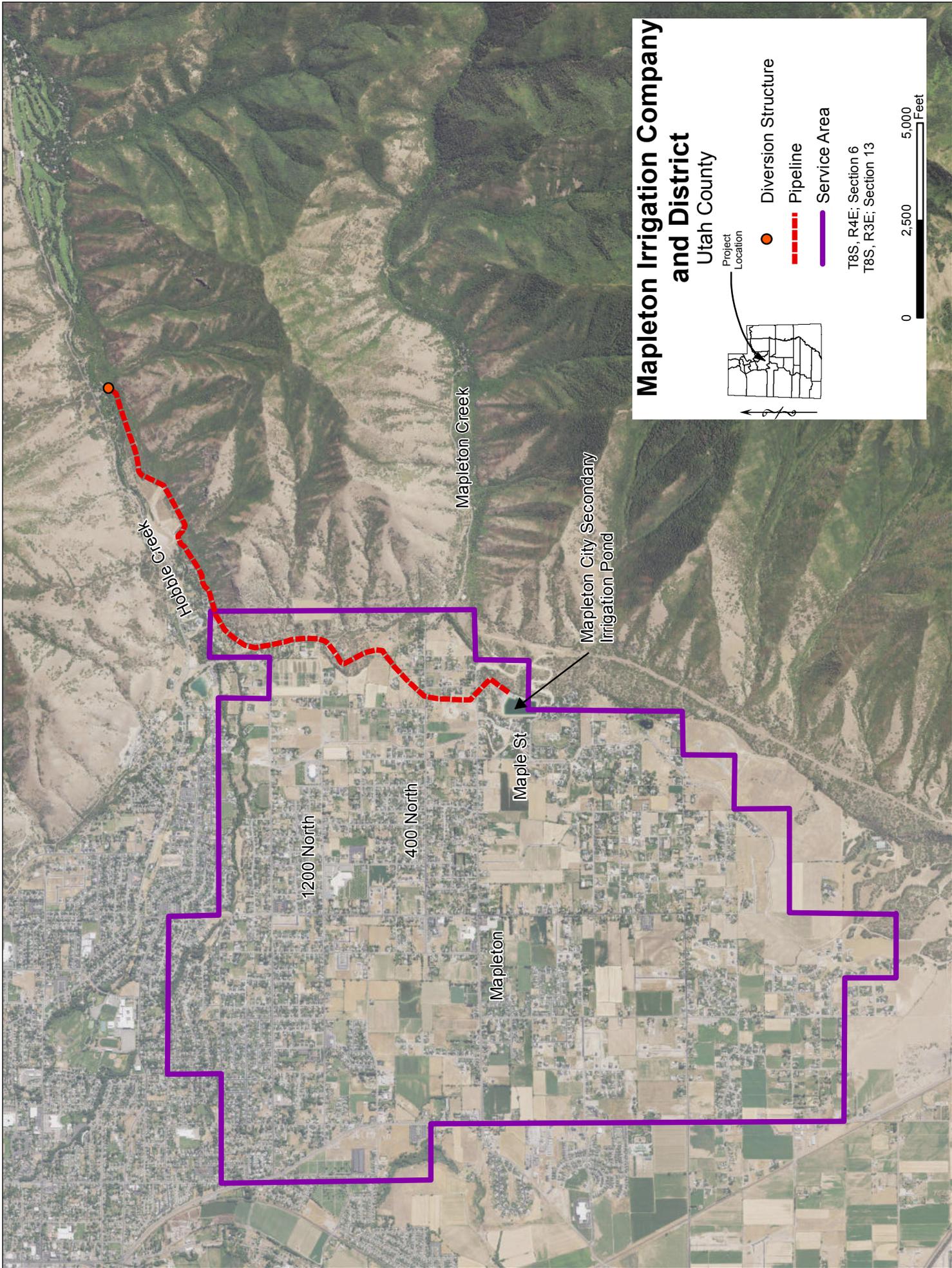
Mapleton Irrigation Company and District

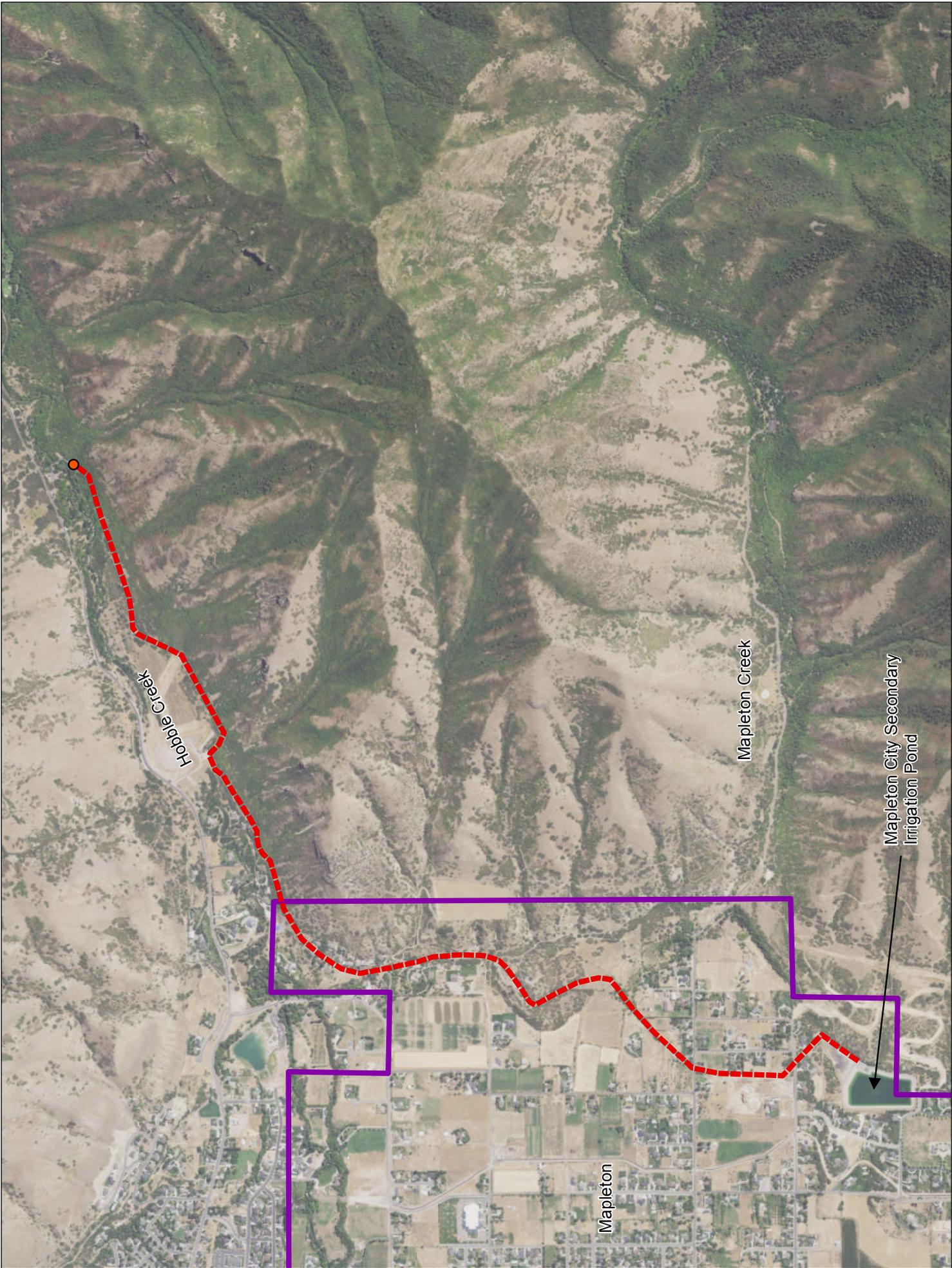
Utah County



- Diversion Structure
- Pipeline
- Service Area

T8S, R4E; Section 6
T8S, R3E; Section 13





Hobbs Creek

Mapleton Creek

Mapleton

Mapleton City Secondary
Irrigation Pond

Applicant: **Spanish Fork South Irrigation Company**

Project Number: RE414
Fund: Revolving Construction Fund
Total Cost: \$847,000

Application Received: 8/28/2018
Authorized: 10/11/2018
Committed: 12/6/2018

Board Meeting Date: 3/20/2019

Board Member: Wayne Andersen
Project Manager: Marisa Egbert

Project Summary: The purpose of the project is to enclose 3,000 feet of the South Field Canal with HDPE pipe to increase efficiency and safety, and to reduce seepage that affects a nearby landowner. Project costs have exceeded what was anticipated; therefore, the applicant is requesting additional funds.

Recommendation: Staff recommends the board commit an additional \$135,150 to the project and amend the purchase agreement to state the board will provide 85.0% of the project cost up to \$607,750, and that the project be purchased at 0% interest over 20 years with annual payments of approximately \$30,387.

Project Contacts:

President:
Neil Anderson
6278 South 4000 West
Spanish Fork, UT 84660
801-592-4648

Secretary:
Greg Price
6278 South 4000 West
Spanish Fork, UT 84660
801-376-4295

Engineer:
Barry Prettyman
Franson Civil Engineers
1276 South 820 East, Suite 100
American Fork, UT 84003
801-756-0309



Location

The proposed project is located two miles southeast of Spanish Fork in Utah County.

Project Summary

After construction began, the equipment the contractor had planned to use could not move the pipe after it was fused together. Larger equipment had to be rented, increasing the cost to install 3,050 feet of pipe by about \$45/lineal foot. Additional contingencies were also added to the updated construction cost estimate. Additionally, the administrative cost for the Division was left out of the updated cost estimate for the Committal of Funds report. This has been added to the most recent cost estimate.

Cost Estimate & Sharing

The project cost estimate has increased by \$159,000, from \$556,000 to \$715,000. The contracted and proposed cost sharing are:

Agency	Contracted Cost Sharing	% of Total	Proposed Cost Sharing	% of Total
Board of Water Resources	\$472,600	85.0%	\$607,750	85.0%
Applicant	83,400	15.0	107,250	15.0
TOTAL	\$556,000	100%	\$715,000	100%

Purchase Agreement

Funds were originally committed to the project in the amount of \$472,600 to be returned at 0% interest over 20 years with annual payments of approximately \$23,630.

The applicant is requesting the board commit an additional \$135,150 to the project.

Staff recommends the board commit an additional \$135,150 to the project, and amend the purchase agreement to state the board will provide 85.0% of the project cost up to \$607,750 and that the project be purchased at 0% interest over 20 years with annual payments of approximately \$30,387.

Applicant: **Highline Canal Company**

Project Number: RE372

Fund: Conservation and Development Fund

Application Received: 7/30/2015

Authorized:

Board Meeting Date: 3/20/2019

Project Manager: Ben Marett/Marisa Egbert

Project Contacts:

President:
Curt Smuin
4762 S. Vernal Ave.
Vernal, UT 84078
435-790-7653

Location

The proposed project is located west of Vernal in Uintah County.

Summary

In July 2015 the applicant requested financial assistance from the board to pipe its canal. The applicant will enter into a joint project with Ashley Upper Irrigation Company and will proceed with the project under project number RE373.

Staff therefore recommends this project be withdrawn from further consideration by the board.

Applicant: **O. T. Hicken Ditch Company**

Project Number: RE383

Fund: Revolving Construction Fund

Application Received: 2/22/2016

Authorized:

Board Meeting Date: 3/20/2019

Project Manager: Ben Marett

Project Contacts:

President:
Craig Thomas
34882 W. Hwy. 35
Tabiona, UT 84072
435-823-5428

Location

The proposed project is located in and around Tabiona in Duchesne County.

Summary

In February 2016 the applicant requested financial assistance from the board to pipe its main service canal. The project was dependent upon grant funds from an outside agency to become financially feasible. The applicant has applied for grant funds multiple times without success. At this time, the applicant is not actively seeking outside funding for the project.

Staff therefore recommends the project be withdrawn from further consideration by the board.