A G E N D A

UTAH BOARD OF WATER RESOURCES

Crystal Inn Hotel
Cherokee Room
1450 South Hilton Drive
St. George, Utah

March 22, 2017

2:30 p.m.

1. CALL TO ORDER

2. APPROVAL OF MINUTES – February 8, 2017

3. CHAIR'S REPORT

4. COMMITTAL OF FUNDS REPORTS

		County
E375	Whiterocks Irr. Co.	Uintah
E392	Woodruff Irrigating Co.	Rich

5. DAM SAFETY FUNDING

C057	Ferron Res. & Canal Co. (Millsite)	Emery
C049	Washington Co. Flood Control Auth. (Warner)	Washington
C050	Washington Co. Flood Control Auth. (Stucki)	Washington

6. LAKE POWELL PIPELINE PROJECT REPORT

7. WATER USE & CONSERVATION REPORT

8. BEAR RIVER COMMISSION APPOINTMENTS

9. DIRECTOR'S REPORT

10. ADJOURNMENT

BRIEFING MEETING AGENDA

UTAH BOARD OF WATER RESOURCES

Crystal Inn Hotel
Garden Room
1450 South Hilton Drive
St. George, Utah

March 22, 2017

1:00 p.m.

I. WELCOME/CHAIR'S REPORT — Chairman Farrell

II. DISCUSSION OF PROJECTS

III. OPEN AND PUBLIC MEETINGS ACT TRAINING

IV. OTHER ITEMS

BOARD OF WATER RESOURCES

REVOLVING CONSTRUCTION FUND

Funding Status
March 22, 2017

	Funds Available for Projects This FY				$	12,615,000
	Projects Contracted This FY					
	1 Cluff Ward Pipeline Co	E388		$ 391,000		
	2 Daniel Irrigation Co	E370		417,115		
	3 East Wanship Irrigation Co	E379		616,000		
	4 Fremont Irrigation Co	C019a	**Grant	250,000		
	5 North Utah County WCD (Silver Lake Flat, add)	C048	**Grant	134,000		
	6 North Utah County WCD (Tibble Fork, add)	C052	**Grant	488,000		
	7 Ouray Park Irrigation Co (Cliff Lake)	C047a	**Grant	968,000		
	8 Ouray Park Irrigation Co (Cliff Lake)	C047a	**	107,000		
	Total Funds Contracted				$	3,371,000
	Funds Balance				$	9,244,000
	Projects with Funds Committed					
	1 Bear River Canal Co (Add'l Funds)	E377		$ 241,000		
*	2 Ferron Canal & Reservoir Co	C057	**Grant	8,570,000		
	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 (Battle Creek)	C053	**Grant	788,000		
	7 North Utah County WCD (Grove Creek)	C054	**Grant	638,000		
	8 Rockville Town Ditch Co	E313		145,000		
	9 Washington County Flood Contr. Auth. (Gypsum)	C051	**Grant	244,125		
*	10 Washington County Flood Contr. Auth. (Warner)	C049	**Grant	212,000		
*	11 Washington County Flood Contr. Auth. (Stucki)	C050	**Grant	88,400		
*	12 Woodruff Irrigating Co	E392	**	395,000		
	Total Funds Committed				$	12,958,000
	Funds Balance				$	(3,714,000)
	Projects Authorized					
	1 Blanding Irrigation Co	E380		$ 404,000		
	2 Echo Ditch Co	E390		467,000		
	3 Salem Pond Co	E329		93,000		
	4 Silver Creek Reservoir Co	E381		500,000		
	5 Spanish Fork South Irrigation Co	E382		583,000		
	Total Funds Authorized				$	2,047,000
	Remaining Funds Available			#	$	(5,761,000)

* 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 22, 2017

Funds Available for Projects This FY				$	9,141,000
Bonds Closed This FY					
1 Beaver City	L575	$	442,000		
Total Bonds Closed				$	442,000
Funds Balance				$	8,699,000
Projects with Funds Committed					
1 None		$	-		
Total Funds Committed				$	-
Funds Balance				$	8,699,000
Projects Authorized					
1 Duchesne County WCD	E334	$	3,000,000		
2 Powder Mountain Water & Sewer Dist	E391		1,265,000		
3 West Warren and Warren Water ID	E387		1,800,000		
Total Funds Authorized				$	6,065,000
Remaining Funds Available			#	$	2,634,000

* 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 22, 2017

Funds Available for Projects This FY				$	40,873,000
Projects Contracted/Bonds Closed This FY					
1 Ephraim Irrigation Co	E361	$	1,144,000		
2 Manti City Creek Water Users Mutal Assoc.	E342		1,606,000		
3 Summit Creek Irrigation and Canal Co (Phase 3)	E308		502,000		
Total Funds Contracted/Closed				$	3,252,000
Funds Balance				$	37,621,000
Projects with Funds Committed					
* 1 Whiterocks Irrigation Co	E375	$	1,785,000		
Total Funds Committed				$	1,785,000
Funds Balance				$	35,836,000
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 Rock Point Canal Co	E368		615,000		
6 Scipio Irrigation Co	E384		1,700,000		
7 Settlement Canyon Irrigation Co (Phase 2)	E240R2		552,500		
8 Summit Creek Irrigation and Canal Co (Phase 4)	E308		1,198,000		
9 Uintah WCD	E316		36,550,000		
10 Weber Basin WCD (Phase 5+)	E225		7,000,000		
11 Woodruff Irrigating Co	E365		3,200,000		
Total Funds Authorized				$	62,077,000
Remaining Funds Available			#	$	(26,241,000)

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

\# End of year balance if all listed projects were fully paid

BOARD OF WATER RESOURCES

March 22, 2017

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	Highline Canal Co	E372	C&D	3,087,000	13,942,000
18	Ashley Upper Irrigation Co	E373	C&D	5,255,000	13,942,000
19	Mosby Irrigation Co	E374	RCF	331,000	4,379,000
20	Silver Creek Reservoir Co	E381	RCF	500,000	1,090,000
21	O.T. Hicken Ditch Co	E383	RCF	430,000	990,000
22	Woodruff Irrigating Co	E385	C&D	5,000,000	6,885,000
23	North Elwood Ditch Co	E386	RCF	170,000	200,000
24	Alpine City	E393	RCF	1,700,000	3,000,000
	Subtotal			$174,819,000	$233,558,000

* 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

Committal of Funds

Conservation and Development Fund

Appl. No.: ***E-375***
Received: 7/30/15
Approved: 8/13/15
Authorized: 3/16/16

To be Presented at the March 22, 2017 Board Meeting
(Prepared by Tom Cox)

SPONSOR: ***WHITEROCKS IRRIGATION COMPANY***

President: Tyson Murray
P.O. Box 433
Lapoint, UT 84039
Phone: 435-790-2025

LOCATION: The proposed project is located north and east of Lapoint in Uintah County.

PROJECT SUMMARY: In March 2016 the board authorized funds towards a Colorado River salinity control project consisting of installation of nearly ten miles of pipeline to replace over ten miles of the Whiterocks Canal and about 3.5 miles of the Mosby Canal.

It is anticipated the project will be constructed in the late summer and fall of this year; however, the sponsor has obtained material bids for pipe and has contracted with a supplier in order to take advantage of low prices. Pipe is starting to be produced and will be delivered to the project area in a couple of months.

COST ESTIMATE & SHARING: The project cost estimate and sharing remain the same as authorized:

Agency	Cost Sharing	% of Total
BWRe	$1,785,000	39.7%
Salinity Grant	2,400,000	53.3
Sponsor	315,000	7.0
TOTAL	$4,500,000	100%

PURCHASE AGREEMENT:	The purchase terms have not changed since authorization. Staff recommends the board commit 39.7% of the project cost up to $1,785,000 to the sponsor, and the project be purchased at 1% interest over 20 years with annual payments of approximately $99,000.

BOARD OF WATER RESOURCES

Committal of Funds

Revolving Construction Fund

Appl. No.: ***E-392***
Received: 1/6/17
Approved: 2/8/17
Authorized: 2/8/17

To be Presented at the March 22, 2017 Board Meeting
(Prepared by Tom Cox)

SPONSOR: ***WOODRUFF IRRIGATING COMPANY***

President: Wes Tingey
P.O. Box 520
Woodruff, UT 84086
Phone: 801-556-5116

LOCATION: The proposed project is located approximately seven miles west of Woodruff in Rich County.

PROJECT SUMMARY: In February 2017 the board authorized a project to breach Birch Creek Dam #1 and install a toe drain at Birch Creek Dam #2 to address pressing dam safety seepage issues. Due to the potential high spring run-off, the sponsor is pursuing the breach as soon as possible and planning to do the work on Birch Creek #2 in the late summer when the water level in the reservoir is down.

The proposed work on Birch Creek #2 falls under Dam Safety Minimum Standards Upgrade work funded by dam safety grants; however, those funds are not available at this time. Slope stability and spillway capacity issues also need to be addressed under Dam Safety Minimum Standards upgrades. When the remainder of the upgrade work is completed in the coming years, it is recommended the cost of this project be considered as part of the overall upgrade project.

COST ESTIMATE & SHARING: The project cost estimate and sharing remain the same as authorized:

Agency	Cost Sharing	% of Total
BWRe	$395,000	85%
Sponsor	70,000	15
TOTAL	$465,000	100%

PURCHASE AGREEMENT: The purchase terms have not changed since authorization.

Staff recommends the board commit 85% of the project cost up to $395,000 to the sponsor, and the project be purchased at 0% interest over 30 years with annual payments of approximately $13,200.

BOARD OF WATER RESOURCES

Dam Safety Report

Dam Safety Construction Funding

Appl. No.: ***C-057***
Received: 1/25/17

To be Presented at the March 22, 2017 Board Meeting
(Prepared by Tom Cox)

SPONSOR: ***FERRON CANAL AND RESERVOIR COMPANY***

President: Tracy Behling

LOCATION: The proposed project is located about three miles west of Ferron in Emery County.

SUMMARY: The Ferron Canal and Reservoir Company was organized in 1878 and owns and operates Millsite Dam, which is rated High Hazard because of its location upstream of the community of Ferron.

The zoned earthfill dam was completed in 1971, is 115 feet high, has a 4,150-foot crest length, and impounds 16,230 acre-feet. Although the dam was constructed to meet the standards at the time, it does not meet current dam safety minimum standards. The deficiencies include downstream slope instability due to liquefiable foundation materials, an internal drain system that does not meet filter criteria, and a spillway that does not have the capacity to pass the required design flood event.

Rehabilitation of Millsite Dam will include excavation of loose sands and gravels in the downstream toe foundation and replacement with compacted material, flattening of the downstream slope and placement of a stability berm, installation of a chimney drain on the downstream slope, extension of the outlet works, replacement of the spillway, and installation of monitoring instrumentation. It is anticipated construction will start this summer and wrap up by the end of 2018.

Engineering services are being provided by the Division of Water Resources under the direction of the Natural Resources Conservation Service (NRCS).

COST SHARING: The recommended cost sharing is:

Agency	Cost Sharing	% of Total
NRCS - Grant	$17,680,000	65.0%
BWRe – Grant	8,570,000	31.5
Sponsor	950,000	3.5
TOTAL	$27,200,000	100%

Staff recommends the board commit 31.5% of the project cost up to $8,570,000 to the sponsor in the form of a dam safety grant.

PROJECT CONTACT PEOPLE:

President:
Tracy Behling
P.O. Box 256
Ferron, UT 84523
Phone: 435-384-2990

Secretary:
John Crawford
P.O. Box 963
Ferron, UT 84523
Phone: 435-384-2457

Engineer:
Division of Water Resources
1594 West North Temple
Salt Lake City, UT 84116
Phone: 801-538-7270

BOARD OF WATER RESOURCES

Dam Safety Report

Dam Safety Construction Fund

Appl. No.: ***C-049***
Received: 4/6/15
Approved: 5/7/15

To be Presented at the March 22, 2017 Board Meeting
(Prepared by Marisa Egbert)

SPONSOR: ***WASHINGTON COUNTY FLOOD CONTROL AUTHORITY (WARNER DRAW DEBRIS BASIN)***

Chairman: Jonathan Pike

LOCATION: The proposed project is located about eight miles southeast 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 NRCS (Natural Resources Conservation Service) 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 state's priority list.

Warner Draw Debris Basin 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". There are currently about 600 homes, 50 commercial buildings, and numerous roads and highways within the breach inundation area.

The dam crest is approximately 14 feet wide and 1,250 feet long, and the basin has a capacity of 2,039 acre-feet. Water is released via an outlet riser

structure (principal spillway) that feeds into a 30-inch outlet pipe. There is also a 50-foot wide, 250-foot long auxiliary spillway.

To bring the dam up to state dam safety standards several items will need to be addressed, which include:

Dam Embankment: Changes to the dam height and placing riprap along the upstream groin.

Principal Spillway/Tower: Modifications to upgrade the structure; removal of sediment; placement of grouted riprap in the outlet channel.

Auxiliary/Emergency Spillway: Widening of the spillway and adjustment of the height to meet freeboard requirements; upgrades to meet Inflow Design Flood (IDF) erosion concerns.

The total cost of the repairs is estimated to be $673,000. The NRCS will pay 65% of the project costs, as well as 100% of the engineering costs. Construction is scheduled for winter 2017. Engineering services are being provided by the NRCS.

COST SHARING: The recommended cost sharing is:

Agency	Cost Sharing	% of Total
NRCS Grant	$437,450	65.0%
BWRe Grant	212,000	31.5
Sponsor	23,550	3.5
TOTAL	$673,000	100%

Staff recommends the board commit 31.5% of the project cost up to $212,000 to the sponsor in the form of a dam safety grant.

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

BOARD OF WATER RESOURCES

Dam Safety Report

Dam Safety Construction Fund

Appl. No.: ***C-050***
Received: 4/6/15
Approved: 5/7/15

To be Presented at the March 22, 2017 Board Meeting
(Prepared by Marisa Egbert)

SPONSOR: ***WASHINGTON COUNTY FLOOD CONTROL AUTHORITY (STUCKI DEBRIS BASIN)***

Chairman: Jonathan Pike

LOCATION: The proposed project is located about seven miles southeast 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 NRCS (Natural Resources Conservation Service) 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 state's priority list.

Stucki Debris Basin 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". There are now approximately 275 homes, 40 businesses, and numerous roads and highways within the breach inundation area.

The dam crest is approximately 13-14 feet wide and about 1,350 feet long, and the basin has a capacity

of about 622 acre-feet. Water is released via an outlet riser structure (principal spillway) that feeds into a 30-inch outlet pipe. There is also a 50 to 110-foot wide, 275-foot long auxiliary spillway. To bring the dam up to state dam safety standards, rehabilitation will include filling in portions of the dam embankment for freeboard requirements and upgrading the riser tower structure. Dam Safety requirements would have also included costs to upgrade the auxiliary/emergency spillway and to remove sediment. However, this work was completed by UDOT, at its cost, when the Southern Parkway was constructed through this area.

COST SHARING: The recommended minimum standards and total project cost sharing is as follows:

Agency	Minimum Standards	% of Total	Total Project	% of Total
NRCS Grant	$182,400	65.0%	$638,300	65.0%
BWRe Grant	88,400	31.5	88,400	9.0
Sponsor	9,800	3.5	255,300	26.0
TOTAL	$280,600	100%	$982,000	100%

Staff recommends the board commit 31.5% of the project cost (dam safety minimum standards) up to $88,400 to the sponsor in the form of a dam safety grant.

The total project cost includes the replacement of the last 4,200 feet of the disposal pipeline, which is in disrepair and needs to be replaced, at a cost of $701,400. Although the entire cost of the pipeline is part of the Stucki project, the pipeline is necessary for the proper functioning of all three debris basins (Stucki, Warner Draw, and Gypsum). While the replacement of this portion of the pipeline is not necessary to meet NRCS or state minimum dam safety requirements, the NRCS has agreed to include this in its funding. The sponsor will be required to pay 35% of the local cost share not covered by the NRCS. It is anticipated the sponsor’s two other debris basin dams will undergo rehabilitation this year as well. The sponsor is therefore requesting the board also include the cost of replacing the disposal pipeline in its grant funding.

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