CACHE WATER DISTRICT BOARD OF TRUSTEES
MEETING MINUTES
May 1, 2023

The Cache Water District Board of Trustees convened for a regular meeting on May 1, 2023, at 5:30 p.m. in the Cache County Historic Courthouse Council Chambers,199 North Main Street, Logan, Utah.

MEMBERS OF THE BOARD IN ATTENDANCE:
Mark Anderson – Logan #3 Council District
Jonathan Hardman – South Council District
Beth Neilson – Southeast Council District
Jeff Ostermiller - Logan #2 Council District
Max Pierce – North Council District
Bret Randall – Northeast Council District
Brett Roper – At Large Position
Jeannie Simmonds – Logan #1 Council District
Regan Wheeler – Agricultural Representative

MEMBERS OF THE BOARD EXCUSED:
Jared Clawson – At-Large Position
Kirt Lindley – At-Large Position

ATTENDANCE:
Nathan Daugs, Chris Slater, Chad Brown, Wayne Wurtsbaugh, Kelly Kopp

CALL TO ORDER

Chairman Pierce called the meeting to order at 5:30 p.m.

The May 1, 2023 meeting agenda and the minutes from April 3, 2023, were approved.

ACTION: Motion by Mr. Hardman to approve the agenda and the minutes as submitted. Seconded by Mr. Anderson. The motion was approved unanimously (8-0).

Yea: Anderson, Hardman, Neilson, Ostermiller, Pierce, Randall, Roper, Wheeler

PUBLIC COMMENT

Chad Brown asked about the Bear River Water Rights meeting and what the latest information is and what CWD's stand is. Mr. Daugs said Cache County Council submitted a letter last week, after their Council meeting, against the proposal. He is meeting with the local legislatures and the County Council in two weeks for further discussion. The State Engineer has not closed the comment period yet. CWD has not submitted a letter or taken a final position yet. Mr. Daugs will keep the Board and the public advised. The comments that have been submitted are online and can be reviewed at the State Division of Water Rights.

Ms. Simmonds arrived at 5:51 p.m.

FINANCIAL REPORT

See -Attachment 1-

CALENDAR EVENTS

- May 7 – CWD Board Workshop Discussion 2:00-6:00 p.m. @ USU Water Lab
- May 10 - 1:30 Utah Water Task Force
- May 19 - Ag Optimization @ 10:00 a.m.
- May 15 - APO - 5:30 Secondary Water; 6:00 Cloud Seeding/Snotel
- May 18 - District Tour @ 1:00 p.m.
- May 25 - Bear River Commission Tour
- May 25 - Localscapes Class 6:00-8:00 p.m.
- June 9 - Ag Water Optimization @ 1:30 p.m.
- June 19 - APO - 5:30 Local outreach 6:00 Conservation

MANAGER'S REPORT

PL-566 PROJECT UPDATES

Logan River – The paperwork has been received, the official contract for $1.2 million has been signed and the project is ready to move forward. JUB is working with NRCS for the public noticing for public comments. Mr. Daugs has been assured that the link will be updated and working before the public comment period begins.

Wellsville/Mendon – NRCS is waiting for funds to be submitted from the State, after which the contract will be signed.

Porcupine – Has been sent to the contractor to begin the Preliminary Investigative Feasibility Report (PIFR) process.

APO REPORTS – LOCAL OUTREACH & WATER PURCHASING

CURTIS CREEK DAM

See -Attachment 3-

WATER CHECK PROGRAM – KELLY KOPP

See -Attachment 4-

ADJOURN

The meeting adjourned at 7:10 p.m.

-Attachment 1-

3:21 PM

05/01/23

ACTUAL

Cache Water District

PROFIT & LOSS BUDGET VS.

Accrual Basis — January through March 2023

	Jan - Mar 23	Budget	% of Budget
Ordinary Income/Expense Income			
Cache County Property Taxes	236,137.31	275,000.00	85.9%
PL-566 Watershed Grant	65,000.00	700,000.00	9.3%
Restricted Income			
Northern Utah Water Conference	800.00	0.00	100.0%
Restricted Income - Other	7,500.00	153,000.00	4.9%
Total Restricted Income	8,300.00	153,000.00	5.4%
Wellsville Mendon Study	104,141.53	800,000.00	13.0%
Total Income	413,578.84	1,928,000.00	21.5%
Gross Profit	413,578.84	1,928,000.00	21.5%
Expense			
Office	70.00	0.00	100.0%
Bank Charges			
Insurance and Bonding	0.00	5,000.00	0.0%
Office Supplies	347.64	2,000.00	17.4%
Publications	0.00	4,500.00	0.0%
Rent Technology	0.00	5,500.00	0.0%
Cell Phone	213.17	0.00	100.0%
Computer and printer	45.02	0.00	100.0%
Technology - Other	0.00	3,000.00	0.0%
Total Technology	258.19	3,000.00	8.6%
Vehicle			
Fuel	0.00	2,500.00	0.0%
Vehicle - Other	0.00	50,000.00	0.0%
Total Vehicle	0.00	52,500.00	0.0%
Total Office	675.83	72,500.00	0.9%
Outreach			
Conservation	0.00	30,000.00	0.0%
Dues	666.00	2,500.00	26.6%
Lobbyist	0.00	10,000.00	0.0%
Northern Utah Water Conference	725.00	0.00	100.0%
Sponsorships	200.00	2,750.00	7.3%
Training	1,119.46	6,000.00	18.7%
Website	0.00	2,000.00	0.0%
Total Outreach	2,710.46	53,250.00	5.1%
Personnel			
Salary and benefits	30,823.46	150,000.00	20.5%
Travel and Mileage	1,709.78	5,000.00	34.2%

Workers Compensation	3,073.28	0.00	100.0%
Total Personnel	35,606.52	155,000.00	23.0%
Professional Fees			
Administrative	0.00	1,500.00	0.0%
Attorney Services	0.00	30,000.00	0.0%
Audit	0.00	7,000.00	0.0%
Financial Services	346.00	10,000.00	3.5%
Total Professional Fees	346.00	48,500.00	0.7%
Project funding			
Bear River Development	35,910.00	150,000.00	23.9%
Cloud Seeding	40,991.75	63,000.00	65.1%
Logan Observatory	0.00	5,000.00	0.0%
Water Acquisition	0.00	20,000.00	0.0%

Cache Water District

PROFIT & LOSS BUDGET VS. ACTUAL

Accrual Basis — January through March 2023

	Jan - Mar 23	Budget	% of Budget
Water Studies			
PL566 Logan River	65,000.00	700,000.00	9.3%
Water Master Plan	0.00	0.00	0.0%
Wellsville/Mendon Irrigation	8,205.95	800,000.00	1.0%
Water Studies - Other	951.79	120,000.00	0.8%
Total Water Studies	74,157.74	1,620,000.00	4.6%
Total Project funding	151,059.49	1,858,000.00	8.1%
Total Expense	190,398.30	2,187,250.00	8.7%
Net Ordinary Income	223,180.54	-259,250.00	-86.1%
Net Income	**223,180.54**	**-259,250.00**	**-86.1%**

-Attachment 2-

LOCAL OUTREACH APO – April 18, 2021

Attendance: Max Pierce, Jon Hardman, Jeannie Simmonds, Scott Clark, Nate Daugs

- Jon said Mendon Mayor Buist asked if CWD wanted to meet with the Mayor's Association in September.

- Nate fielded a call from Cache Valley Daily questioning secondary metering.

- Outreach has included: The Home & Garden Show, Utah Water Users Conference, Fall Conference, Summer Water Checks and doing a tour in a few weeks.

- Jon said we need to take a good look at Slow the Flow. Nate said we may phase out after the current contract. Jon asked if they have indicated any interest in targeting Cache County. Nate said they consider it broadly (statewide) however, campaigns like billboards do not help with Cache Valley.

- The "flip your strip" program is still being worked out. Jon asked if it should be promoted through CWD. Nate suggested working with cities about getting the word out.

- Nate said the new website platform has a link to set up for water alerts/notices; people can sign up for notifications through phone or email. The new site will be reviewed at the May meeting.

- Summer audits – have funds from last year that can be used to hire more people if necessary. Would like to have 2-3 teams to work through the summer.

- The outreach program continues to grow, members feel pleased with what is happening at this point. Nate says more people are reaching out with questions.

- Briefly discussed possibility of District helping with secondary metering. What role could be and future growth.

- Talked about the logistics for upcoming tour sites.

APO: WATER PURCHASING – April 17, 2023

Chair: Jeannie Simmonds

Attendance: Jeannie Simmonds, Brett Roper, Beth Neilson, Jeff Ostermiller, Nate Daugs

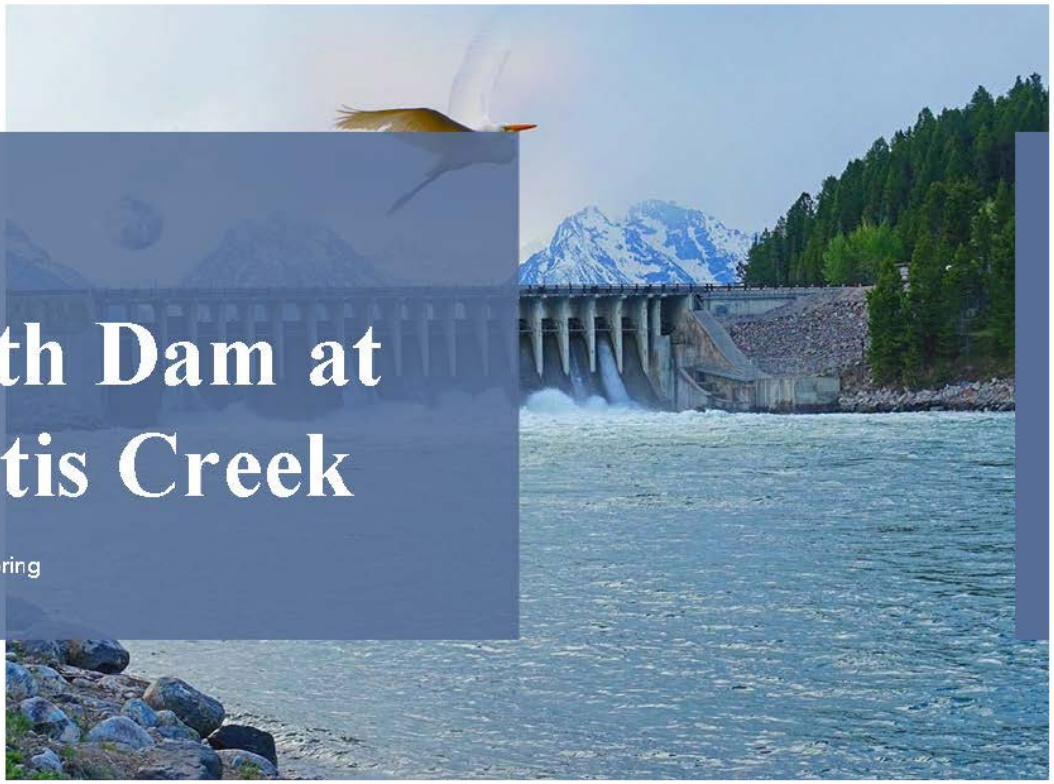
- Discussed when/if/how the District should/will acquire water rights – what opportunities/direction should be explored. The current budget will not allow for it, but it needs to be considered.

- Discussed the understanding of why water districts may purchase water rights. Nate explained that Weber Basin needed someone local to manage resources, over time they have purchased more as they have grown. It creates a centralized system. Beth asked if the objective is to purchase rights to control the water and whether a publicly-elected entity should do so. Water will not be taken away, smaller cities/canal companies may want help in the future. One of the goals of CWD is to preserve and protect local water, buying shares might seem reasonable for someone who wanted to sell/purchase shares. Nate explained that this is a long time in the future, however, if canal companies ever need to liquidate shares and/or help operate their systems, it might be smart for CWD to acquire them over time.

- It makes sense that as canal companies grow, the District could help provide services and manage/maintain canals better. Jeannie noted that the aging management system should be considered and this might be a role where CWD could help.

- Jeannie would like to have a line item in the budget for future consideration. Nate said more discussion about this can be had at the May 3 Board Workshop. Consideration will need to be that this would require a tax increase and need more personnel to implement; it will be important to discuss future needs and when/where growth should be focused.

-Attachment 3-

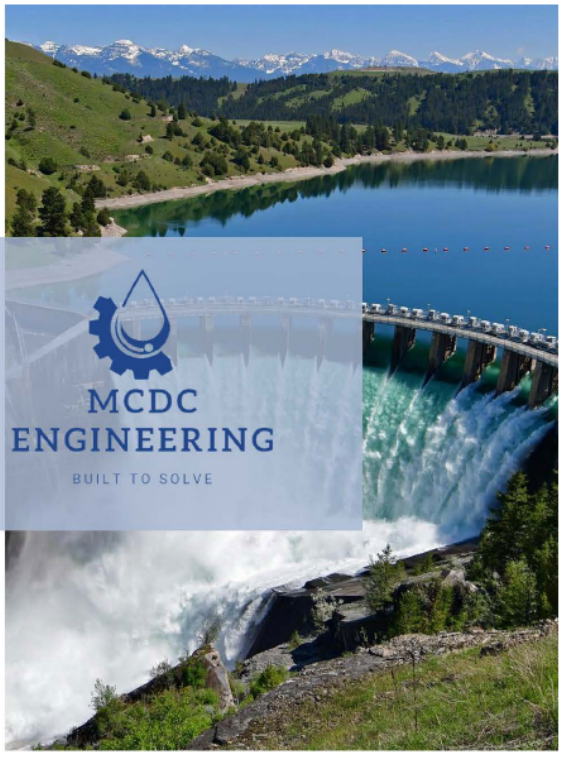


Earth Dam at Curtis Creek

MCDC Engineering

OUR COMPANY

MCDCEngineering is comprised of four engineers: Max Johnson, Camren Todd, Dalton Gaither, and Cat Kime.



01

02

03

04

ABOUT THE PROJECT

Introduction and Background

ALTERNATIVES

Earth Dam, Concrete Dam, Rubber Dam, Location, and Do Nothing

COST, DESIGN, EVALUATIONS

The process of evaluation, cost estimates, and recommendation

CONCLUSION

ABOUT THE PROJECT

Curtis Creek Dam

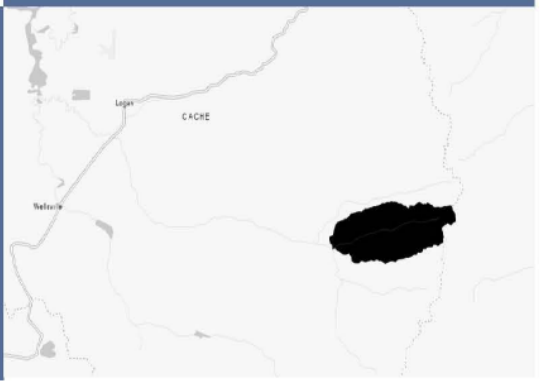
Curtis Creek Dam is located in Blacksmith Fork Canyon.

Background Information

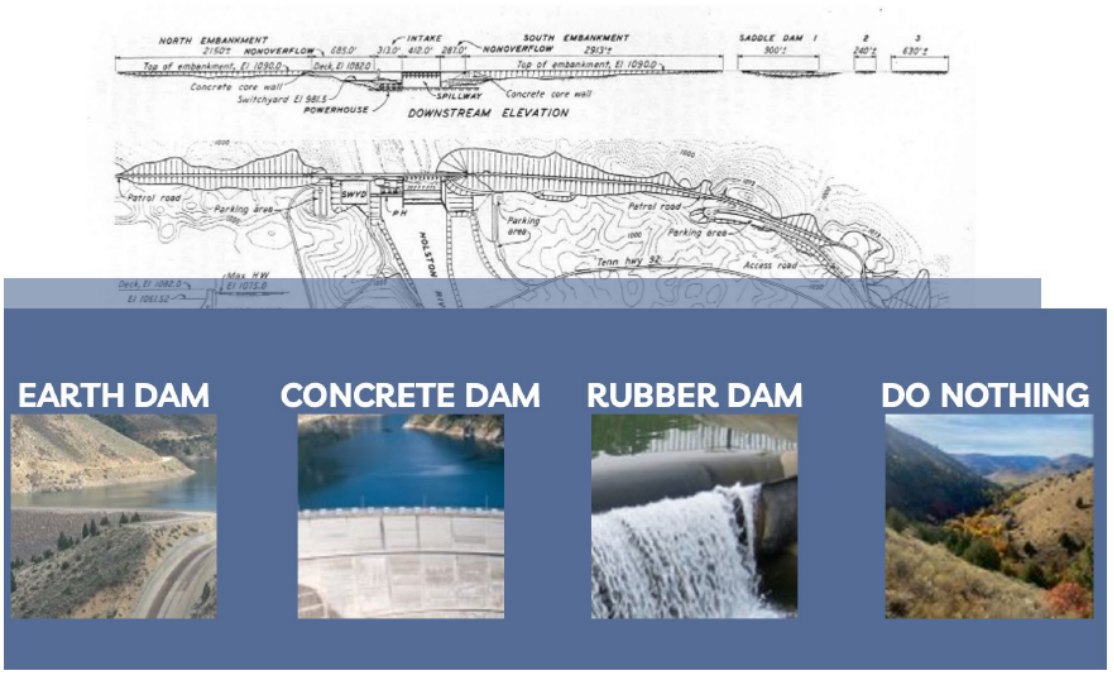
The purpose of the dam is create water storage in the Cache Valley for the growing population.

Client

Our client is Nathan Daugs from the Cache Water District. He envisions an earth dam that holds 5,000 acre ft of water.



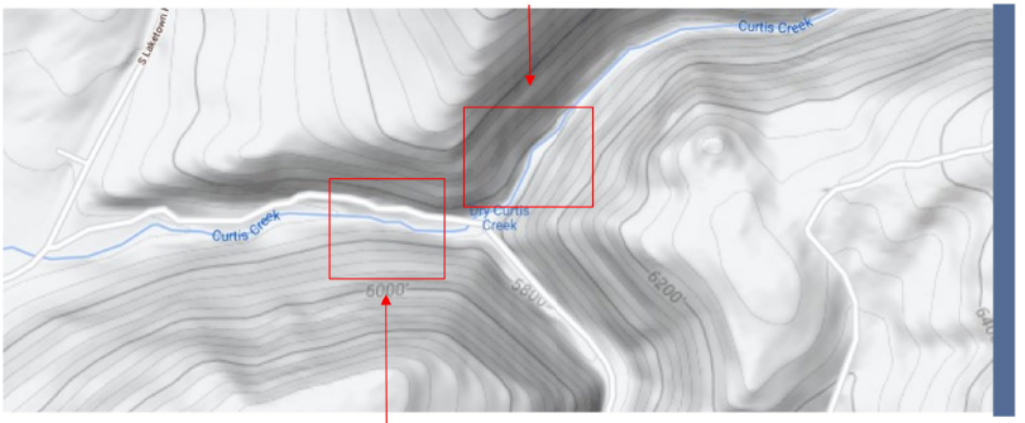
ALTERNATIVES



Pugh Evaluation Matrix

		Dam Type	Storage Capacity	Cost	Longevity	Environmental Impact	Maintenance	
Location	**Weight**	3	3	2	1	1	1	**Totals:**
1	Earthen	3	3	3	2	2	2	30
2	Earthen	3	3	2	2	2	2	28
1	Concrete	2	3	2	3	1	3	26
2	Concrete	2	3	1	3	1	3	24
1	Rubber	1	2	1	1	1	1	14
2	Rubber	1	2	1	1	1	1	14
	Do Nothing	0	1	3	1	3	3	16

Location 2



LOCATION OF THE DAM

Location 1

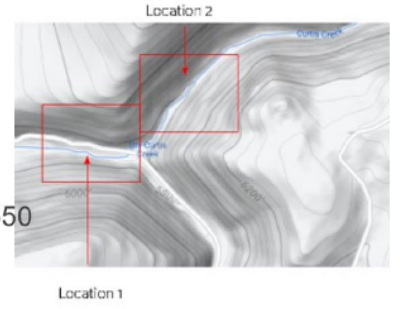
EVALUATIONS

LOCATION 1

EARTH DAM	CONCRETE DAM	RUBBER DAM
$8,022,822	$27,135,556	$24,736,006

LOCATION 2

EARTH DAM	CONCRETE DAM	RUBBER DAM
$10,590,796	$42,001,601	$32,473,550



COST EVALUATIONS

Earthen Location 1

Item	Unit	Quantity	Unit Cost ($)	Amount
Mobilizaiton		1	$30,000.00	$30,000.00
Site Clearing	ft^2	1500000	$1.00	$1,500,000.00
Temporary Infrastructure	ft^2	1500000	$0.10	$150,000.00
Clay Core	yd^3	88889	$35.00	$3,111,115.00
Gravel (Riprap)	yd^3	23704	$25.00	$592,593.33
Soil	yd^3	177778	$6.00	$1,066,668.00
Concrete Aggregate	yd^3	23704	$15.00	$355,556.00
Sand	yd^3	23704	$15.00	$355,556.00
Granite	yd^3	17778	$38.00	$675,556.40
Water	yd^3	18963	$6.00	$113,777.92
Geotechnical Survey of Location				$2,000.00
Concrete for Spillway	ft^3	14000	$5.00	$70,000.00
			Total:	**$8,022,822.65**

Concrete Location 1

Item	Unit	Quantity	Unit Cost	Amount
Mobilizaiton		1	$30,000.00	$30,000.00
Site Clearing	ft^2	1500000	$1.00	$1,500,000.00
Temporary Infrastructure	ft^2	1500000	$0.10	$150,000.00
Concrete	yd^3	148148	$100.00	$14,814,815.00
Steel bars (reinforced)	ton	12519	$850.00	$10,640,740.87
Geotechnical Survey of Location				$2,000.00
Concrete for Spillway	ft^3	14000	$5.00	$70,000.00
			Total:	**$27,207,555.87**

Rubber Location 1

Item	Unit	Quantity	Unit Cost	Amount
Mobilizaiton		1	$30,000.00	$30,000.00
Site Clearing	ft^2	1500000	$1.00	$1,500,000.00
Temporary Infrastructure	ft^2	1500000	$0.10	$150,000.00
Concrete	yd^3	133333	$100.00	$13,333,333.00
Steel bars (reinforced)	ton	11267	$850.00	$9,576,666.43
Rubber	kilogram	82026	$1.78	$146,006.28
Geotechnical Survey of Location				$2,000.00
Concrete for Spillway	ft^3	14000	$5.00	$70,000.00
			Total:	**$24,808,005.71**

Earthen Location 2

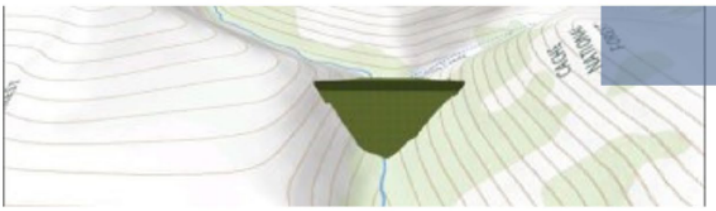
Item	Unit	Quantity	Unit Cost	Amount
Mobilizaiton		1	$30,000.00	$30,000.00
Site Clearing	ft^2	1500000	$1.00	$1,500,000.00
Temporary Infrastructure	ft^2	1500000	$0.10	$150,000.00
Impervious clay	yd^3	130370	$35.00	$4,562,962.96
Gravel (Riprap)	yd^3	34765	$25.00	$869,135.80
Soil	yd^3	260741	$6.00	$1,564,444.44
Concrete Aggregate	yd^3	23704	$15.00	$355,556.00
Sand	yd^3	23704	$15.00	$355,556.00
Granite	yd^3	26074	$38.00	$990,814.81
Water	yd^3	23388	$6.00	$140,326.00
Geotechnical Survey of Location				$2,000.00
Concrete for Spillway	ft^3	14000	$5.00	$70,000.00
			Total:	**$10,590,796.02**

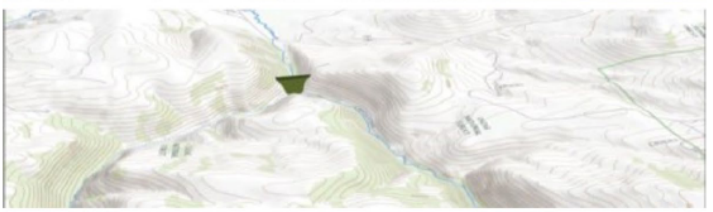
Concrete Location 2

Item	Unit	Quantity	Unit Cost	Amount
Mobilizaiton		1	$30,000.00	$30,000.00
Site Clearing	ft^2	1500000	$1.00	$1,500,000.00
Temporary Infrastructure	ft^2	1500000	$0.10	$150,000.00
Concrete	yd^3	234667	$100.00	$23,466,667.00
Steel bars (reinforced)	ton	19829	$850.00	$16,854,933.57
Geotechnical Survey of Location				$2,000.00
Concrete for Spillway	ft^3	14000	$5.00	$70,000.00
			Total:	**$42,073,600.57**

Rubber Location 2

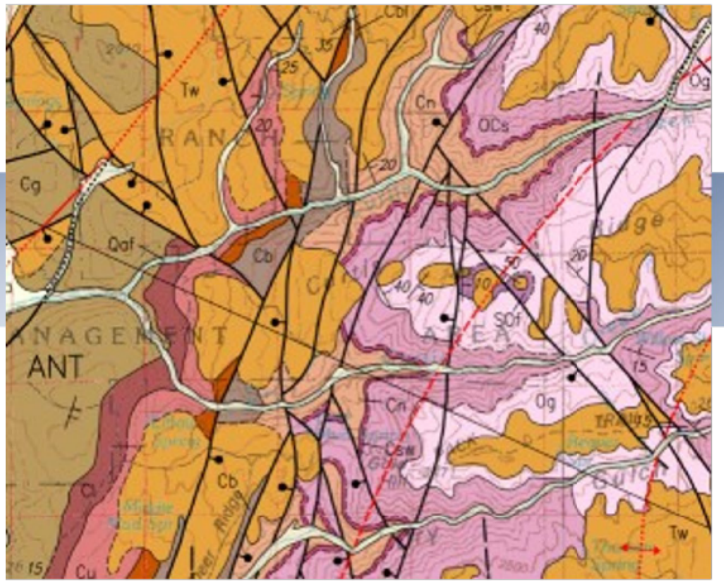
Item	Unit	Quantity	Unit Cost	Amount
Mobilizaiton		1	$30,000.00	$30,000.00
Site Clearing	ft^2	1500000	$1.00	$1,500,000.00
Temporary Infrastructure	ft^2	1500000	$0.10	$150,000.00
Concrete	yd^3	177778	$100.00	$17,777,778.00
Steel bars (reinforced)	ton	15022	$850.00	$12,768,889.05
Rubber	kilogram	98249	$1.78	$174,883.22
Geotechnical Survey of Location				$2,000.00
Concrete for spillway	ft^3	14000	$5.00	$70,000.00
			Total:	**$32,473,550.27**



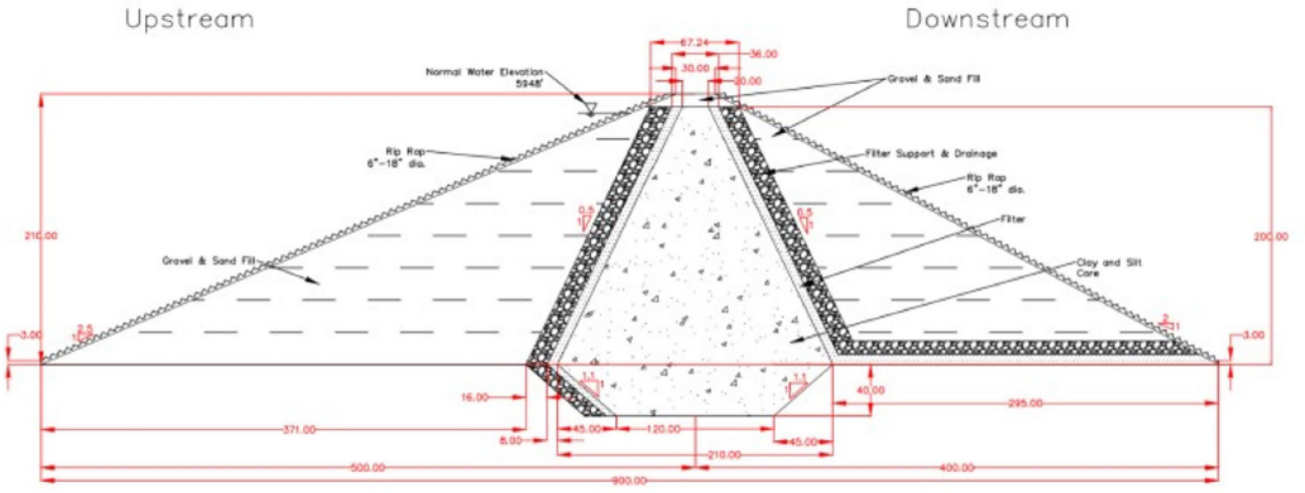


Recommended Alternative

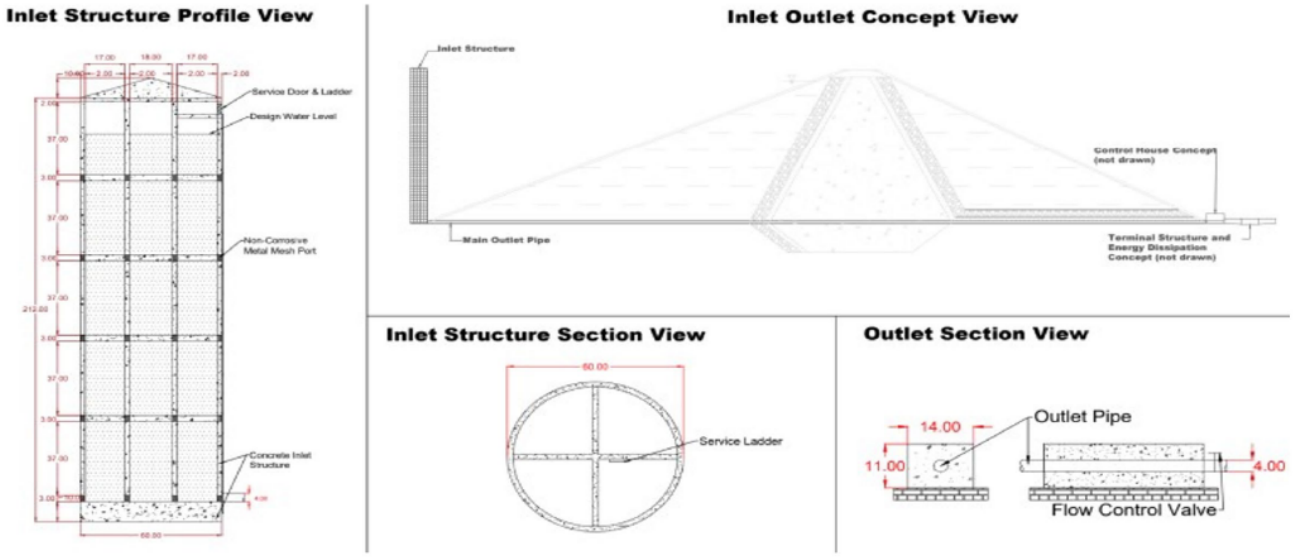
The earth dam is the recommended alternative. Due to the remote location and the available material at the location, the earthen dam alternative is both the cheapest and highest scoring alternative MCDC considered for this project.



Geologic Survey
The basic foundation will be made out of quartzite with dolomite further up the canyon.



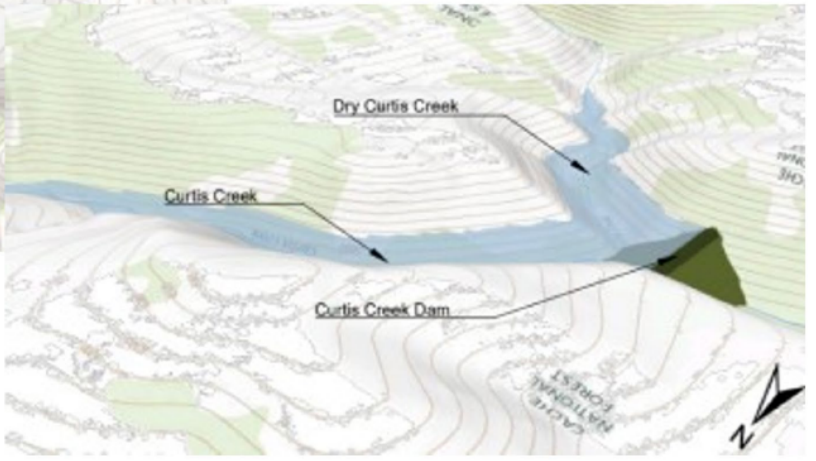
Cross section of Earthen Dam



Cross section of Outlet Works

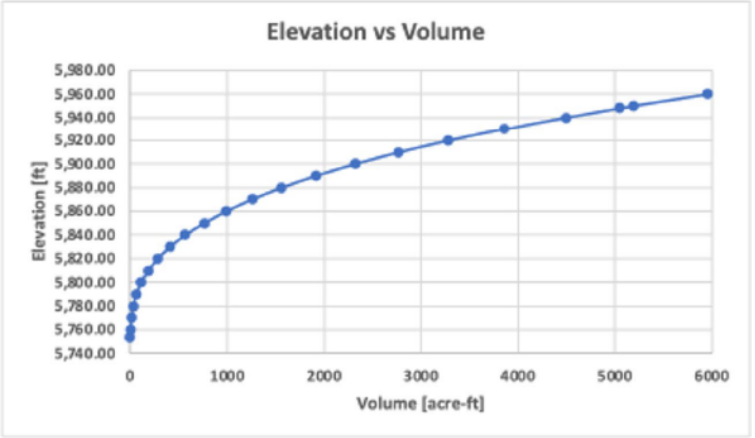
Reservoir Full Capacity

This elevation allows us to maximize water volume and stay clear of the highly soluble rock layers



Reservoir will fill to the 5980' elevation mark

Reservoir Full Capacity



Mean Annual Flow: 19.3 cfs
Fill Rate: 10 cfs
March 80% Duration: 8.43 cfs
Time to fill 5000 acre-ft: approx 250 days

THANK YOU

Does anyone have any questions?

-Attachment 4-

Cache Water District Water Check Report - 2022

Kelly Kopp, Ph.D.
Extension Water Conservation Specialist

CENTER FOR WATER-EFFICIENT LANDSCAPING

EXTENSION UtahStateUniversity | EXTENSION.USU.EDU

Water Check Logistics

- 1 team + scheduler + administrator
- Began mid-May, ended late August
- 2021 backlog prioritized in early season
  - Scheduling began in March
  - 3 contact minimum
- Some reschedules/no shows held over
- Late 2022 requests held over

CENTER FOR WATER-EFFICIENT LANDSCAPING

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Water Check Process

- Introduction
- Assessment of current irrigation schedule
- Property walk-through and evaluation
- Test of representative irrigation zones
- Develop customized schedule, discuss programming
- Leave/email irrigation schedule and report

CENTER FOR WATER-EFFICIENT LANDSCAPING

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Program Value to Participants

- Customized irrigation schedule
- Landscape/irrigation system characteristics
  - Soil type
  - Water pressure
  - Grass rooting depth
  - Distribution uniformity
  - Precipitation rate
- Identification of landscape/irrigation problems specific to property
- Supplemental information (self-selected)

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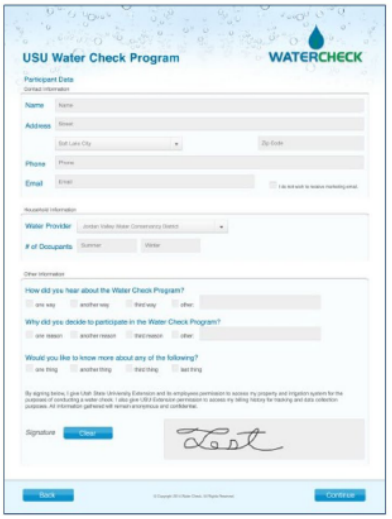

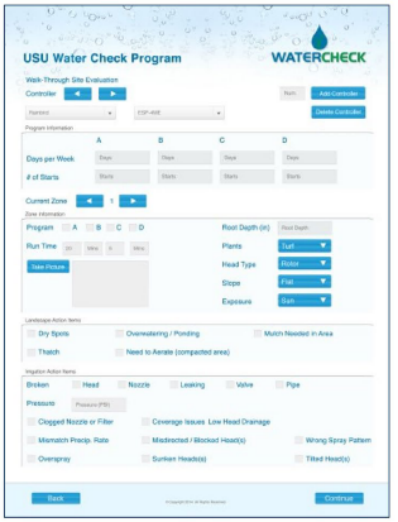

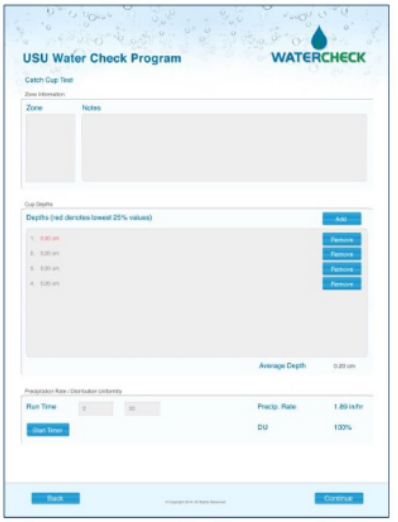

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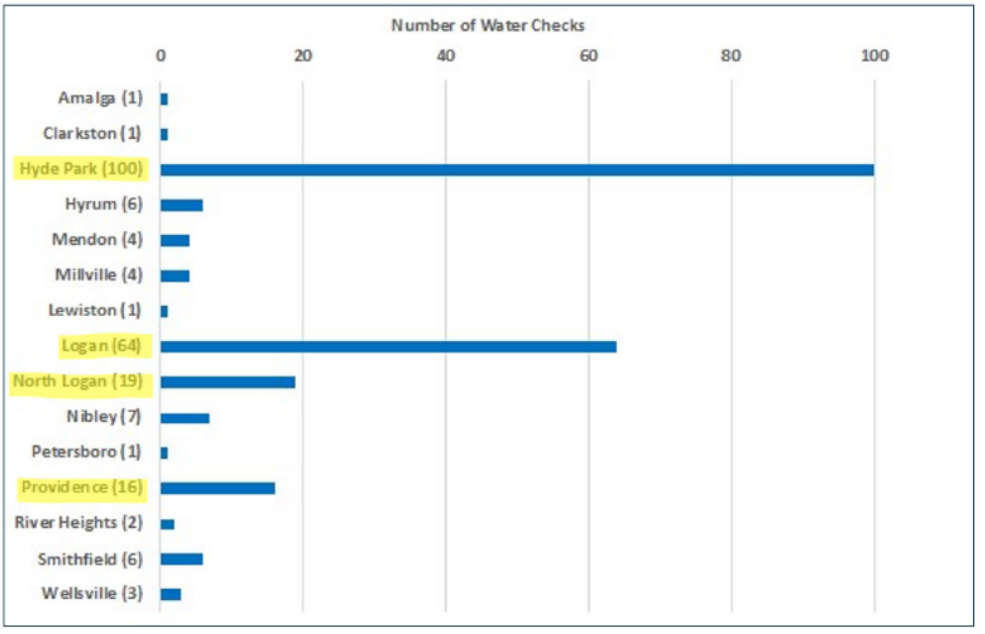
EXTENSION
UtahStateUniversity

DAYS PER WEEK–SANDY LOAM/LOAM/CLAY LOAM							
Plant Type	Apr	May	Jun	Jul	Aug	Sep	Oct
Lawns and Annuals	*	1	2	3	2	1	*
Shrubs/Perennials	*	*	1	2	1	*	*

* As needed

TEST RESULTS						
Zone	Head Type	Precipitation Rate	Distribution Uniformity	Dynamic Pressure	Soil Type	Root Depth
1, 2	rotor, spray	0.58 in/hr	56%	50 PSI	loam	3"

WATER CONSERVATION ACTION ITEMS		
Controller/Zone	Sprinkler System Items	Landscape Items
#1	coverage issues, blocked head(s), overspray, tilted head(s)	-
#2	coverage issues, mismatched heads, tilted head(s)	-
#3	broken nozzle	-
#4	-	-
#5	mismatched heads, blocked head(s)	mismatched plant types
#6	blocked head(s)	-
#7	-	-
#8	broken nozzle, broken pipe	-



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Hyde Park (100)			CWD (236)	
SINGLE FAMILY RESIDENTIAL	ft^2	% of Parcel	ft^2	% of Parcel
Parcel Area	23,059		20,736	
Hardscape Area	5218	23%	4988	24%
Turfgrass Area	8251	36%	7389	36%
Other Irrigated Area	4063	18%	3333	16%
Total Irrigated Area	12,314	53%	10,722	52%

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Logan (64)			CWD (236)	
SINGLE FAMILY RESIDENTIAL	ft^2	% of Parcel	ft^2	% of Parcel
Parcel Area	11,608		20,736	
Hardscape Area	4132	36%	4988	24%
Turfgrass Area	4304	37%	7389	36%
Other Irrigated Area	1938	17%	3333	16%
Total Irrigated Area	6243	54%	10,722	52%

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North Logan (19)			CWD (236)	
SINGLE FAMILY RESIDENTIAL	ft^2	% of Parcel	ft^2	% of Parcel
Parcel Area	25,153		20,736	
Hardscape Area	7193	29%	4988	24%
Turfgrass Area	10,438	41%	7389	36%
Other Irrigated Area	3643	14%	3333	16%
Total Irrigated Area	14,081	56%	10,722	52%

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Providence (16)			CWD (236)	
SINGLE FAMILY RESIDENTIAL	ft^2	% of Parcel	ft^2	% of Parcel
Parcel Area	19,900		20,736	
Hardscape Area	4501	23%	4988	24%
Turfgrass Area	5470	27%	7389	36%
Other Irrigated Area	5399	27%	3333	16%
Total Irrigated Area	10,870	55%	10,722	52%

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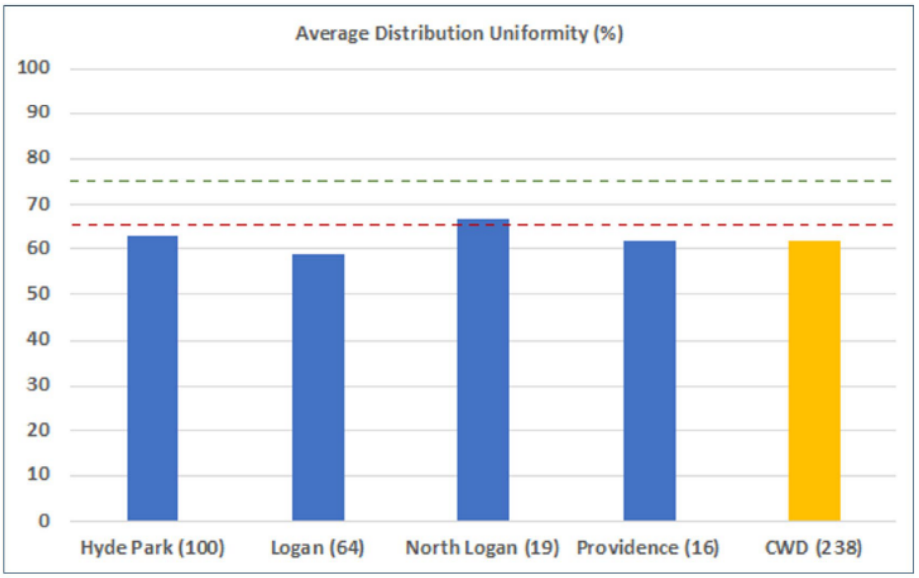

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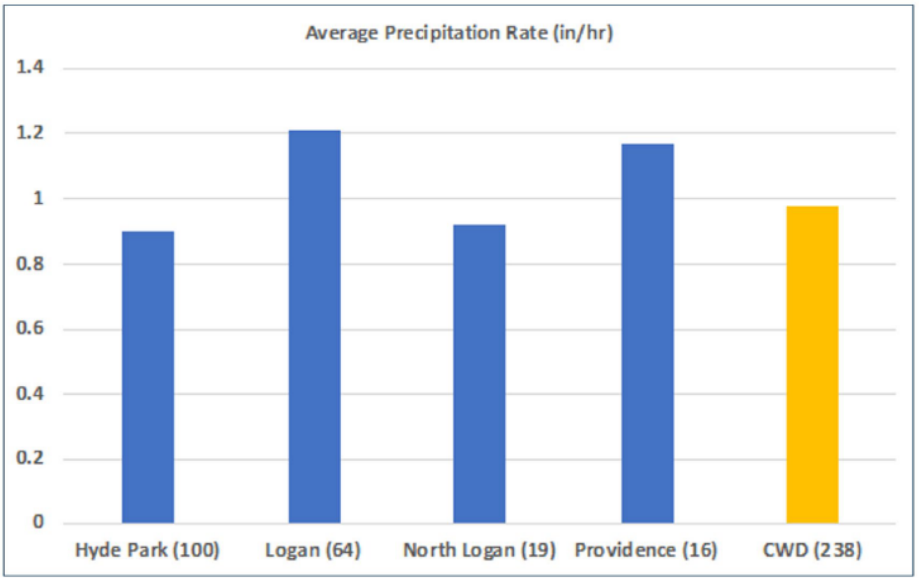

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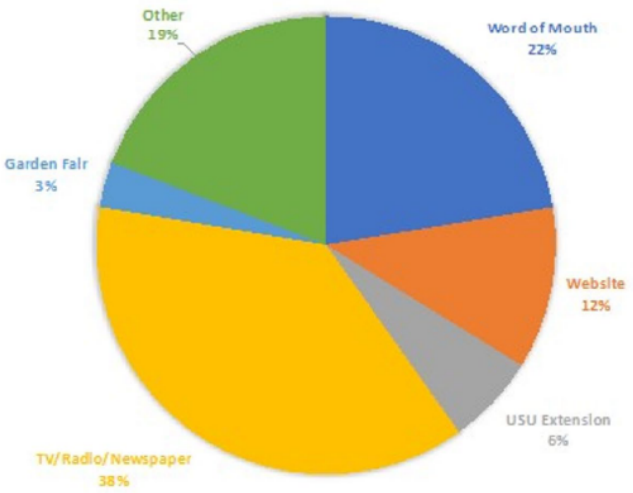
How Participants Heard about Program



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Reasons for Participation

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Program Developments/Recommendations

- Continued COVID-19 protocols
- Coordination with Slow the Flow and Utah Water Savers
- Online sign-ups through CWEL website
- Budgeting
  - 1 team ($10,000)
- Supplemental funding
  - Flume project in Cache Valley ($150,000)

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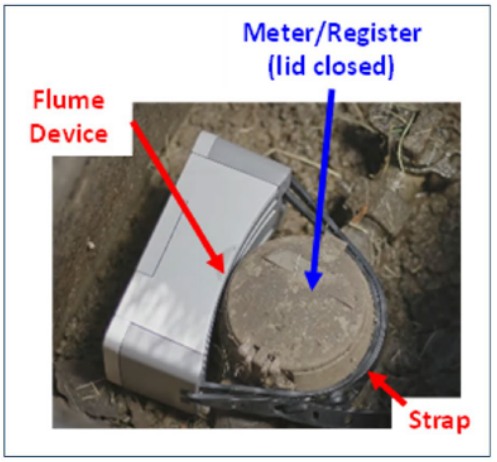
Flume Project

- Grant to evaluate efficacy of Water Check Program
- Tested Flume™ Smart Home Water Monitoring devices
- Collected 5-second water use data
- Utilizes phone-based application
- Alerts high water use and/or leaks



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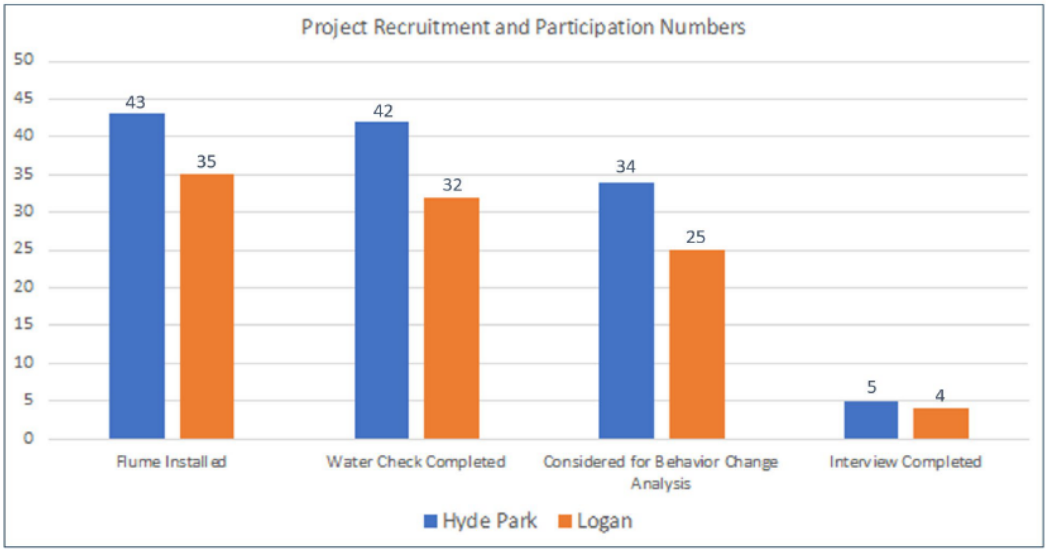
Flume Project



Change in Water Use	Households	
Decreased	**23**	**39%**
Ended at or below water budget	7	12%
Ended above budget	16	27%
No Change	**32**	**54%**
Started and finished above water budget	6	10%
Started and finished at water budget	12	20%
Started and finished below water budget	14	24%
Increased	**4**	**7%**
Started and finished above water budget	2	3%
Started at and finished above water budget	1	2%
Started below and finished below water budget	1	2%
Total	**59**	**100%**

Planning for 2023 Season

- Continue online sign -ups to CWEL website
- Link online sign -ups to Slow the Flow, Utah Water Savers
- Continue offering Checks to volunteer participants, focus on higher water use properties
- Survey participants
- Develop/include companion videos

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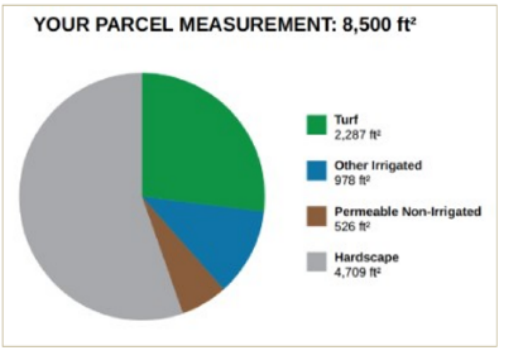
Program Value to Participating Cities

- Intensive customer support program
- Detailed property characteristics
  - Turfgrass percentage, i.e.
- Identification of prevalent landscape/irrigation systems in service area
  - Informing new programs
- Water savings



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Thank you!

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