

# **AGENDA ARKANSAS BASIN ROUNDTABLE**

Website: [www.arkansasbasin.com](http://www.arkansasbasin.com)

Email: [arkbasinrt@gmail.com](mailto:arkbasinrt@gmail.com)

**Wednesday, January 8, 2020**

**Pueblo Convention Center**

320 Central Main St., Pueblo, CO 81003

12:30 pm – 3:30 pm

**Box Lunches** will be available at

12:00 for RSVP'd members

12:20 for guests

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- 12:30-12:40**            **WELCOME AND INTRODUCTIONS – Mark Shea [10 min]**  
Introductions  
Approval of minutes  
Public Comment
- 12:40 – 12:40**            **Reports [60 min]**  
Executive Committee – Mark Shea (10 min)  
CWCB Report – Ben Wade and Jack Goble (10 min)  
IBCC Report – Jeris Danielson and Terry Scanga (10 min)  
PEPO – Amber Weber and Jean Van Pelt (10 min)  
Needs Assessment Committee – Abby Ortega (5 min)  
Environmental and Recreational – Bob Hamel and Rena Brand (5 min)  
Arkansas River Watershed Collaborative (ARWC) – Chelsey Nutter (10 min)
- 12:40 – 12:50**            **Break [10 min]**
- 12:45 – 2:30**            **Grant Applications [75 min]**  
**WSRF Grant Applications**
- ARWC and PEPO: Engagement and BIP Project Development
  - HCWCD 1: Bruce Canyon 50% Design
  - HCWCD 2 (CWP): Maria Stevens 50% Design
  - HCWCD 3: Maria Stevens 50% Design
  - St. Charles Mesa: Cottonwood CID2 Diversion
- Water Plan Grant Applications**
- AGUA: Reservoir Purchase and Joint Loan Application
  - Lower Ark: Soil Health Demo Plots
- 2:30**            **Other matters from the membership – Mark Shea**

## **ADJOURNMENT**

### **Upcoming Meetings**

**Arkansas Basin Roundtable – February 12, 2020 – ARWC Strategic Plan Workshop**

Colorado Water Congress – January 29-31, Westin Westminster

Subcommittees

- Enviro/Rec Comm. – January 27, 2019, Canon City BLM Office



# Arkansas Basin Roundtable

PLANNING OUR  
WATER FUTURE

## ROUNDTABLE MEETING NOTES

January 8, 2020 – Pueblo Convention Center, Pueblo, CO

More information and presentations may be found at: [www.arkansasbasin.com](http://www.arkansasbasin.com)

### **Roundtable Business**

Mark Shea called the meeting to order at 12:30 pm. Members and visitors introduced themselves. Twenty-nine (29) members were present.

### **Approval of minutes of prior meeting**

*The meeting notes of the November 2019 meeting were approved by consensus.*

### **Public Comment**

Ray Shaw, Wildlife artist from Huerfano County. Mr. Shaw asked about the Orlando Reservoir, money being spent on water projects near La Veta, and about possible plans for water projects on the north side of Huerfano County. Sandy White described Huerfano County projects and offered more information later.

Russ George:

Russ George is the new IBCC director and is visiting the roundtable meeting today. Godfather of the IBCC and the Roundtable process. Russ complimented the Arkansas Basin Roundtable on its work. Mark thanked Russ for attending the meeting and welcomed him.

### **REPORTS:**

#### **Executive Committee – Mark Shea**

Jean Van Pelt has decided to wrap up her involvement with PEPO. We've been working towards this transition within the last year. Amber Weber has been working with Jean on PEPO. A special thanks to Jean.

BIP Process – Mike Weber

Mike described the timeline for hiring a local expert.

- Prior to January 28<sup>th</sup>, each RT should have a list of preferred qualifications.
- Post the RFQ request on each basin's website. Submittals will be due by Feb 28.
- March 20<sup>th</sup> selection. Interviews if we like.
- April 10<sup>th</sup> hired
- Working by end of April.

More info will be emailed to you as soon as RFQ is released. We have a small group within the Exec Comm that will review and make comments, and all of your comments are also welcome.

A lot of things are going to happen quickly. It will be important to keep our eye on the objective of the Basin Implementation Plan, which is to identify projects and methods to meet the needs of the Arkansas Basin. It is each members' responsibility to advocate for, and act as representative to their constituents. Good project list, with all info needed, so that your projects can be prioritized for funding. You are the first line of contact for your area, and you will be working with the local expert who can assist with valuing projects.



# Arkansas Basin Roundtable

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## **CWCB Report – Jack Goble, Ben Wade**

Jack – The CWCB's last meeting was in November. Water Plan grant applications were approved at that time. The deadline for the last round for this fiscal year is in February.

Projects included \$100 million: for the Arkansas Valley Conduit. The final piece of the Fry-Ark project. 10 million grant, 90 million loan. Hopefully will be the catalyst for federal funding that will allow this project to be constructed.

Ben Wade – A workshop on Colorado River Demand Management will be held during Water Congress, on January 29. The next workshop will be held in Salida on February 10<sup>th</sup>. More info can be found on the CWCB website, water management tab. The public is invited and welcome to attend and participate.

## **Water Supply Reserve Fund & Colorado Water Plan Grant Fund – Jack Goble (presentation)**

Total WSRF Funds Received = \$101,648,419

Distribution:

State Account: \$67,273,864 (66%)

Basin Accounts: \$34,374,555 (34%) - \$3,819,395 to each basin

Colorado Water Plan Grant Approvals:

- Environment & Recreation
- Engagement & Innovation
- Conservation & Land Use
- Water Storage & Supply
- Agriculture

We're second only to South Platte/Metro Basins in CO Water Plan funding to-date.

## **IBCC Report**

Jeris Danielson: The IBCC has not met since our last RT meeting. We will next meet on March 4 and 5, which will be a joint meeting with CWCB. The meeting will likely focus on CO River Demand Management.

Russ George: It's worth commenting on the relationship between the IBCC and CWCB. They intertwine and overlap. IBCC has not been officially engaged in the work groups, which are informal. CWCB provides staffing for IBCC. The IBCC has no budget itself. The demand management workgroup is separate from IBCC, but we're all from the same place. We recognize that conversation on demand management affects all of us in Colorado, especially during drought. We're all in this together. What is the key piece, while the workgroups are doing their job? We decided it's the part that talks about that no economic or geographical area should have more or less weight. The Equity conversation.

## **PEPO – Amber Weber**

Amber thanked Jean.

\$10k remains from the grant that was used to build the new RT website. The grant requires tracking of the results of the funding. The Exec Comm has agreed to allow funding of social media. There will be a trial period of about a year. We see this as a valuable way to reach out to the public.

## **Needs Assessment – Abby Ortega**

When the committee met on December 8, we had 8 requests, more than there was money for. We tweaked some of the projects, and one applicant has chosen to wait until the next round. More info after the break.



# Arkansas Basin Roundtable

PLANNING OUR WATER FUTURE

## Environment/Recreation Committee – Bob Hamel, Rena Brand

The committee did not meet in December. The next meeting will be held January 27<sup>th</sup> at 10:00 am, at the BLM offices Canon City.

## Arkansas River Watershed Collaborative – Chelsey Nutter

Next month’s roundtable meeting will be an ARWC workshop rather than a regular roundtable meeting. The workshop subject will be strategic planning. Please attend that workshop if you are interested.

- Grant app revisions are being made regarding the Spring Creek Fire. Updated, new budgets, new SOW. A little more modeling and engineering up front. Phase 3 application. A 2020 application will be guided by that engineering and modeling.
- Chelsey is assisting where she can for Fremont County post-fire recovery projects.
- Monarch – Cut to Length fuels mitigation project. They are meeting with preferred contractor in January.
- Chelsey is working a lot with the water forum this year. She will have several presentations, including one for the VIP dinner.

## BREAK

**PROGRAM** - Please check out full presentations at [www.arkansasbasin.com](http://www.arkansasbasin.com).

## WSRF GRANT APPLICATIONS – Abby Ortega

### **ARWC and PEPO Engagement and BIP Project Development – Chelsey Nutter**

- Basin Funds \$ 89,892
- Statewide Funds \$ 255,182
- Matching (cash & in-kind) \$ 39,000

1. Forest Health - Fuels Mitigation Projects
2. Post Fire Recovery – Deckers Fire
3. Basin Support – ABRT, BIP, Sub-Committees & Member Support

***This application moved forward to CWCB by consensus.***

### **Huerfano County Water Conservancy District 1: Bruce Canyon 50% Design – Sandy White**

- Basin Funds \$ 17,643
- Statewide Funds \$ 35,286
- Matching (cash) \$ 17,643

***This application moved forward to CWCB by consensus.***

### **HCWCD2 (CWP): Maria Stevens 50% Design**

- Basin Match (see below) \$ 17,500
- CO Water Plan Grant \$ 35,286
- Matching (cash) \$ 17,786





# Arkansas Basin Roundtable

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*This application was approved for a letter of support from the Arkansas Basin Roundtable.*

## **HCWCD3: Maria Stevens 50% Design**

- Basin Funds \$ 17,500
- Matching (cash) \$ 4,375

*This application moved forward to CWCB by consensus.*

## **St Charles Mesa: Cottonwood CID2 Diversion – Gracy Goodwin**

- Basin Funds \$ 10,040
- Statewide Funds \$ 100,400
- Matching (cash & in-kind) \$ 73,560

*This application moved forward to CWCB by consensus.*

## **WATER PLAN GRANT APPLICATIONS**

### **AGUA: Reservoir Purchase and Joint Loan Application – Kevin Niles**

- CO Water Plan Grant \$ 500,000
- CWCB Loan \$ 3,000,000

*This application was approved for a letter of support from the Arkansas Basin Roundtable.*

### **Lower Arkansas Valley Water Conservancy District (LAVWCD): Soil Health Demonstration Plots – Amber Weber**

- CO Water Plan Grant \$ 200,000
- Matching \$ 200,000

*This application was approved for a letter of support from the Arkansas Basin Roundtable.*

**Admin Email: ARKBASINRT@GMAIL.COM**

### **MEETINGS/LINKS:**

- Next Meeting – February 12, Pueblo Community College
- Env/Rec Committee – January 27, 10 am, Canon City
- Arkansas Basin Roundtable: [www.arkansasbasin.com](http://www.arkansasbasin.com)
- PEPO: [www.pepoarkbasin.com](http://www.pepoarkbasin.com)
- Arkansas River Basin Water Forum: <http://www.arbwf.org/>
- CWCB: <http://cwcb.state.co.us/Pages/CWCBHome.aspx>
- Colorado Water Plan: <http://coloradowaterplan.com/>
- Colorado Flood Threat Bulletin: [www.coloradofloodthreat.com](http://www.coloradofloodthreat.com)
- Stream Management Plan Resource Library: <https://coloradosmp.org/>

# ARKANSAS BASIN ROUNDTABLE

## EXECUTIVE COMMITTEE

### Agenda

**Wednesday, January 8, 2019**

**Start Time: 10:30 am**

**Pueblo Convention Center**

**320 Central Main St., Pueblo, CO 81003**

Greetings and necessary introductions

Minutes/Notes of the previous meeting

Reoccurring matters:

- Chair Comments – Mark Shea
  - Oral Histories with Colorado Water Leaders
- Other Outstanding Reports – Any executive member

New Business

- ABRT BIP Update/Local Expert
  - Follow Up from December

Work Session

- None

Old Business

- None

Needs Assessment Meeting

- None

ARWC Board Meeting

- Chelsey Nutter

Roundtable Business:

- Today's Roundtable Agenda - review and revise as necessary

Upcoming Meetings

- Arkansas Basin Roundtable – February 12, 2020 – ARWC Strat Plan Workshop
- Subcommittees
  - Enviro/Rec Comm. – January 27, 2019, Canon City BLM Office
  - Colorado Water Congress – January 29-31, Westin Westminster

### **Adjourn to lunch**

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Committee membership: Mark Shea (Ch), Bob Hamel (VCh-NonC), Mike Weber (VCh-Cons), Mike Fink (R), Sandy White (Past-Ch), Jack Goble (CWCB), Jeris Danielson (IBCC), Terry Scanga (IBCC), Tim Canterbury (IBCC Alternate), Amber Shanklin (Environmental), Abby Ortega (Needs Assessment), Amber Weber (PEPO)

Additional distribution: Ben Wade (CWCB staff), Jean Van Pelt (PEPO), Carol Ekarius (ARWC Coord), Chelsey Nutter (ARWC Coord.), Elise Bergsten (Secy).



# Arkansas Basin Roundtable

PLANNING OUR  
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Executive Committee Meeting Notes  
January 8, 2020 – Pueblo Convention Center, Pueblo

[www.arkansasbasin.com](http://www.arkansasbasin.com)

## **Executive Committee Present:**

Mark Shea – Chair; Mike Weber – Vice-Chair Consumptive; Bob Hamel – Vice-Chair Enviro/Rec; Jeris Danielson, Terry Scanga & Tim Canterbury - IBCC; Abby Ortega – Needs Assessment Committee; Amber Weber – PEPO; Sandy White – Past Chair; Jack Goble & Ben Wade - CWCB; Chelsey Nutter – ARWC; Paul Fanning – Legislative Appointee

## **Executive Committee Absent and Excused:**

Amber Shanklin, Vice Chair Enviro/Rec Committee; Mike Fink – Recorder

## **Guests Present:**

Al Tucker, Alan Ward, Gracy Goodwin - Upper Ark, Russ George – IBCC; Elise Bergsten – RT Secretary

**Call to Order:** Chairman Mark Shea called the meeting to order at 10:30. Greetings and introductions were performed.

**Minutes:** Consensus approval of the December 11, 2019 minutes.

## **Chair Comments – Mark Shea**

- Jean Van Pelt is retiring from her PEPO duties. Mark expressed our deep gratitude for her work in the Arkansas Basin. Members agreed that they'd like to present a symbol of recognition to Jean.
- Mark would like the Exec Committee to discuss the RT relationship with the Arkansas River Basin Water Forum.
- Oral Histories with CO Water Leaders – have received some suggestions by email. More now?
  - Gary Barber
  - Ken Baker – upper basin
  - Sandy White
  - Jeris Danielson
  - Terry Scanga
  - Jay Winner
  - Alan Hamel
- Members agreed to choose two by emailing a survey to the membership and interested parties. It will include the above-listed candidates, others that have been emailed in and will also include a write-in opportunity.

## **ABRT BIP Update/Local Expert**

Mike had a conversation with Russ Sands & Greg Johnson. They are putting together a packet of support materials, including a sample RFQ.

Packet of support materials will be available by the end of this week. It will include core values and a scoring guide. We can add to it.



# Arkansas Basin Roundtable

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## Timeline:

- Prior to January 28<sup>th</sup>, each RT should have a list of preferred qualifications.
- Post the RFQ request on each basin's website. Submittals will be due by Feb 28.
- March 20<sup>th</sup> selection. Interviews if we like.
- April 10<sup>th</sup> hired
- Working by end of April.

## Discussion Points Made:

- We're a little ahead of the game with Sandy's Scope of Work.
- Who wants to work on the RFQ preferred qualifications by January 28?
- Needs are quite varied in small communities, which will likely need more assistance in determining needs and identifying projects.
- There will be a lot of driving involved. Will need to reach out across the basin.
- What are the projects that will meet the current and future needs of the basin?
- How do we use what we have to meet our current and future needs?
- How do we take into consideration population growth?
- We need someone who can get out quite a bit and get that information from our constituents.
- How can we put it together as effectively as we can? Can we use resources available within the basin so that we're not paying someone to drive from Denver each time outreach is happening?
- \$290,000 over 2 years.
- Plan A – discuss with RT members first! Outreach is Plan B. Roundtable members must gather as much information as possible themselves.
- Need to have a pretty rigid winnowing process in order to include projects that can really be done.
- Need yield and cost information, which will be challenging for small communities.
- There is a grant app today that will support the BIP process, with Chelsey focusing on the upper basin and Amber focusing on the lower basin.
- Enviro/Rec: work has begun on ranking of projects.
- On the Ag side, we've looked at economic output in the past. We promised ourselves that we would update this information.
- Re Enviro/Rec – all the money could go to fire mitigation, and the cost varies. Everything changes every time there is a fire.
- The metrics for measuring success for projects that don't have a yield do exist already in the Colorado Water Plan.
- Pre vs Post-Event planning. How can we get out ahead and not just be reacting to circumstances? Fire, flood, water quality, population growth
- Is there an opportunity to work with CSU-Pueblo? Perry Cabot example.
- We will need to address the Scoring Matrix, which is designed for large municipal projects.

A sub-committee was formed to finalize the RFQ once the materials are received by the end of this week. Analysis of RFQ and suggested edits. They will provide input to CWCB regarding the RFQ.

Mark Shea, Mike Weber, Bob Hamel, Sandy White, Terry Scanga, Amber Weber.

Will send the draft to the Exec Comm once we've received the RFQ packet. Input back to CWCB by the 15<sup>th</sup>.



# Arkansas Basin Roundtable

PLANNING OUR  
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## Other RT Business

IBCC - Russ George

Always ask yourself why this use of the public's money is justified. Keep an eye out for the legislation that makes rules for Sports Gambling, because money could still be taken away from water.

All blessings to the lovely folks that are RT members, and all those who attend the meetings, stay involved and interested, and keep the roundtable process dynamic.

PEPO – Amber Weber

The WSRA Grant for website improvements has about \$10k remaining. She would like to spend that money to hire someone to work 10 hours per week to make social media posts. This would be supervised posts, especially when questions are asked. This would tie in well to the Education to Action plan currently being formed. Exec Comm members were in consensus to approve this proposal.

Dwayne McFall will take over as Fremont County rep from Tim Payne as of next month.

Note: The ARWC board meeting that is included within the Exec Comm meeting will be moved to the beginning of the Exec Comm meeting as of next month.

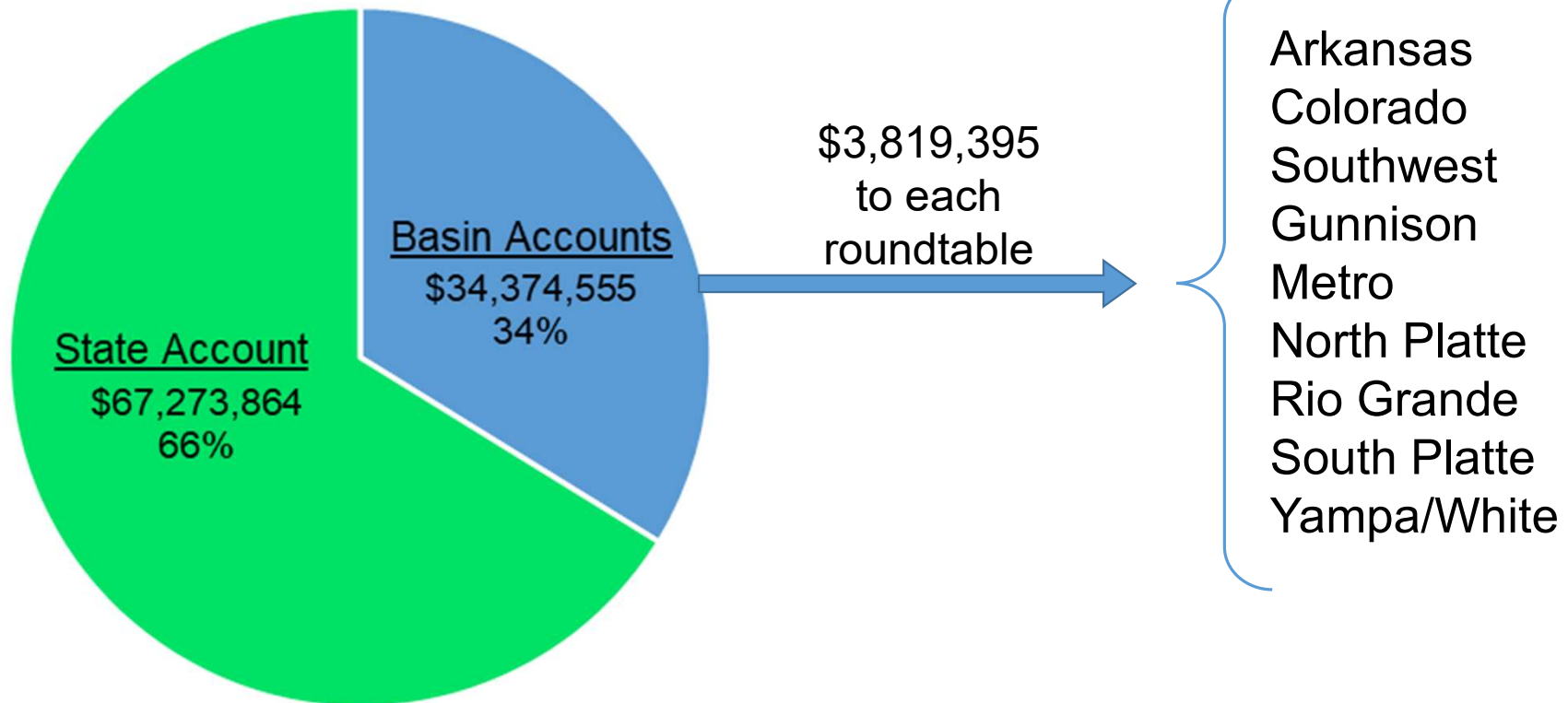
Meeting adjourned at ~ 12:00 pm.

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Water Supply Reserve Fund  
&  
Colorado Water Plan Grant Fund

Total WSRF Funds Received = \$101,648,419

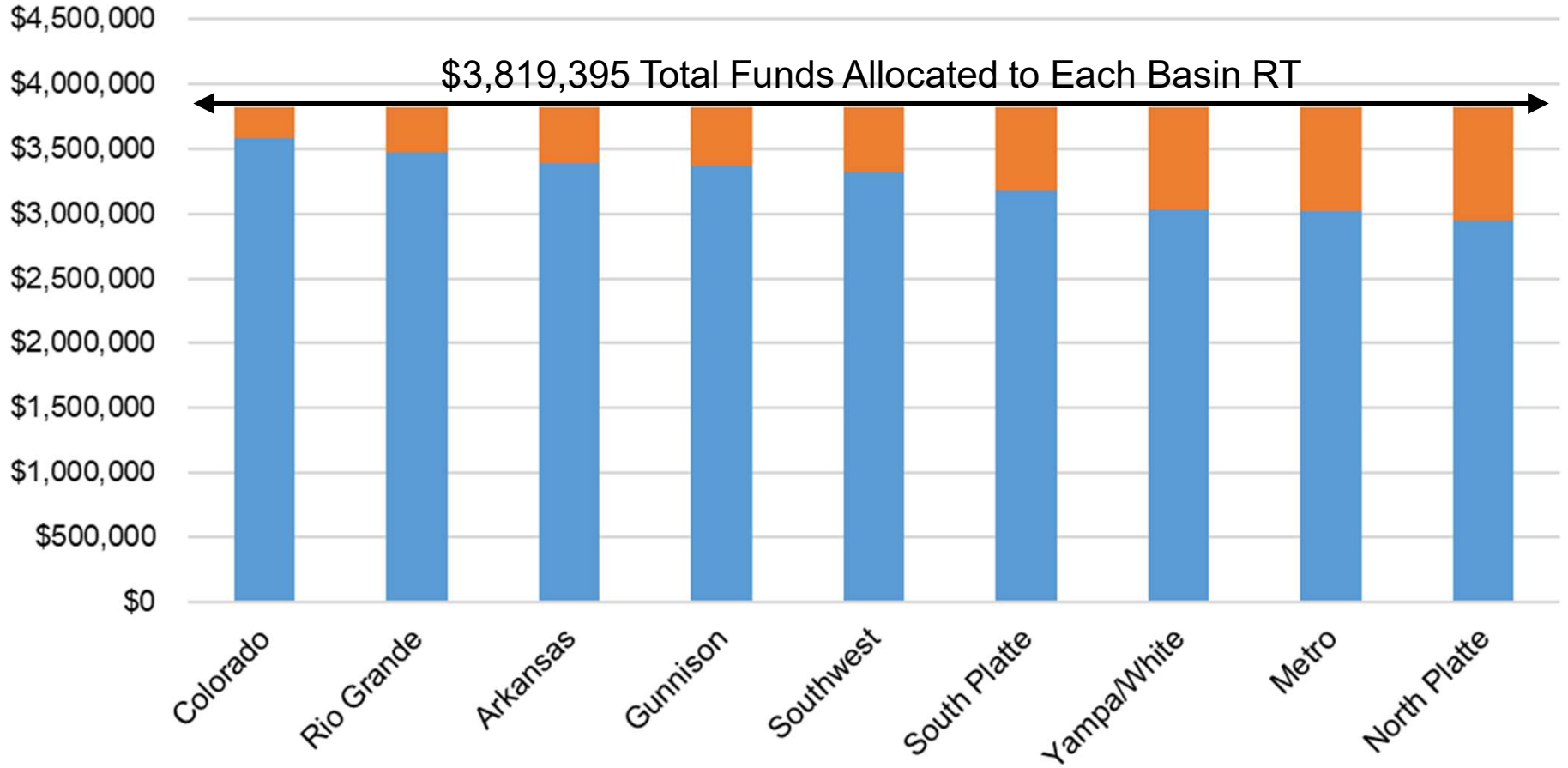
WSRF Fund Distribution





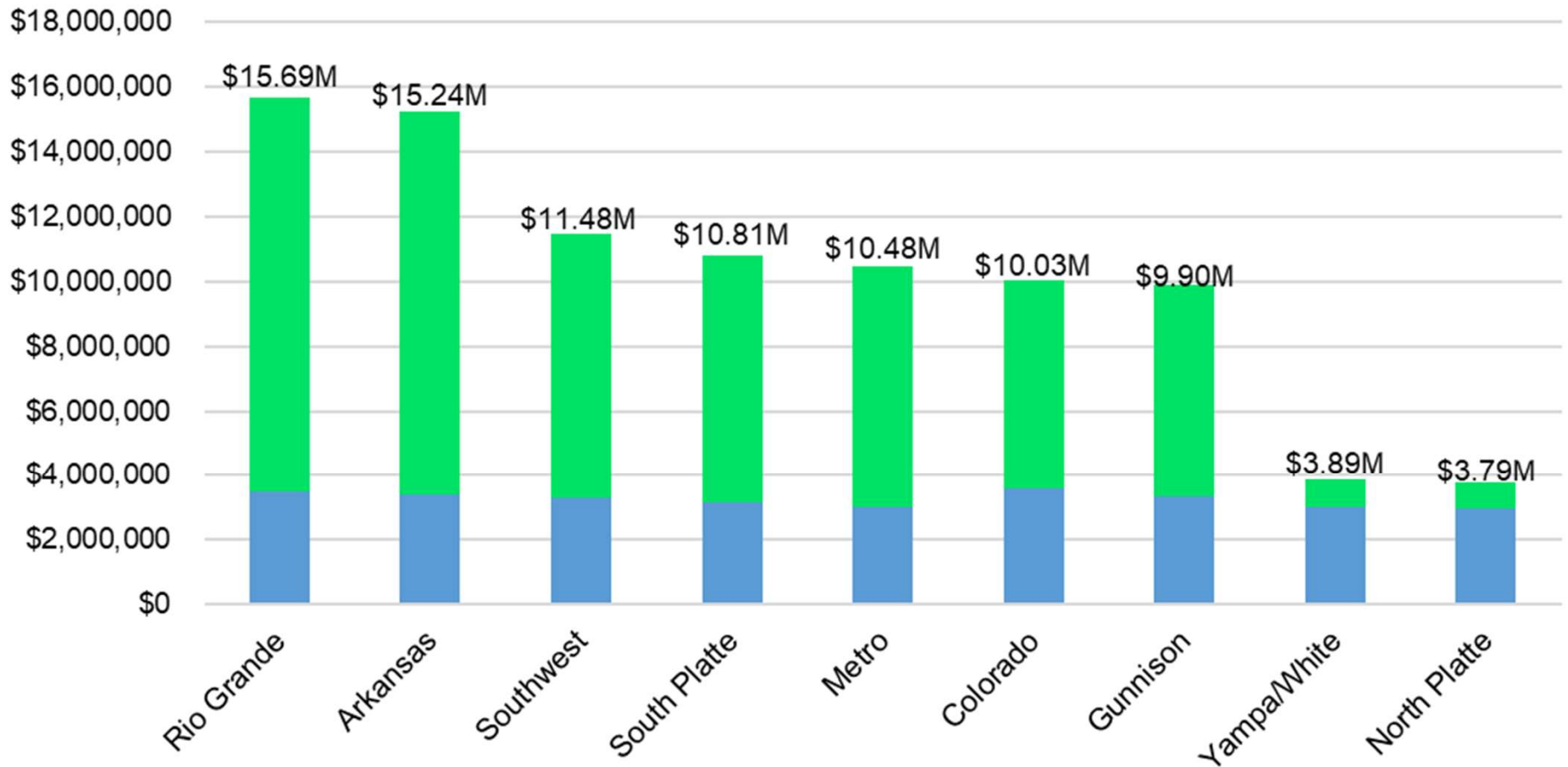
# WSRF Basin Account Summary (as of 1/1/2020)

■ Basin Account Grants ■ Basin Account Balance



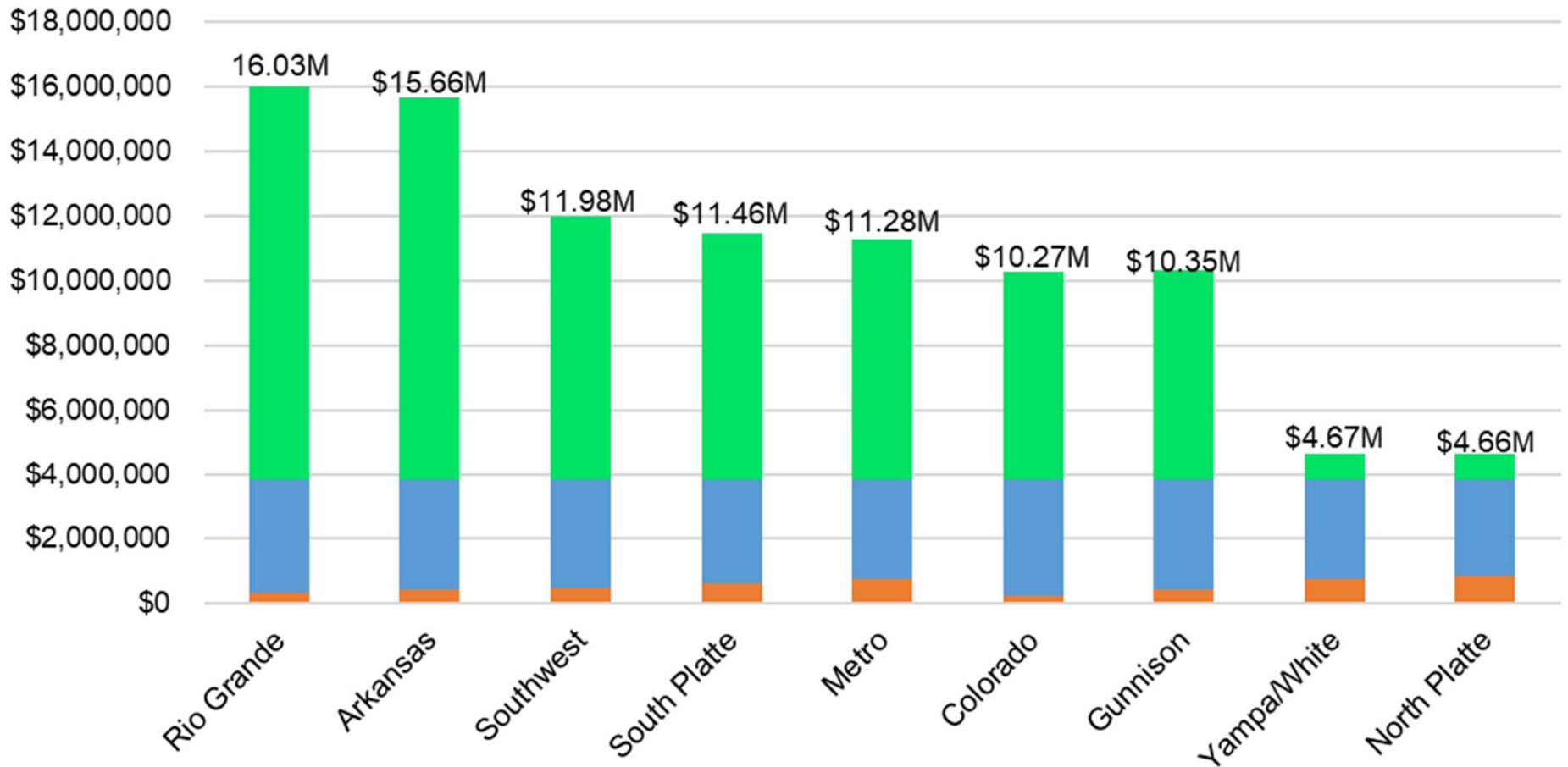
## WSRF Grant Approvals (as of 1/1/2020)

■ Basin Account Grants ■ State Account Grants

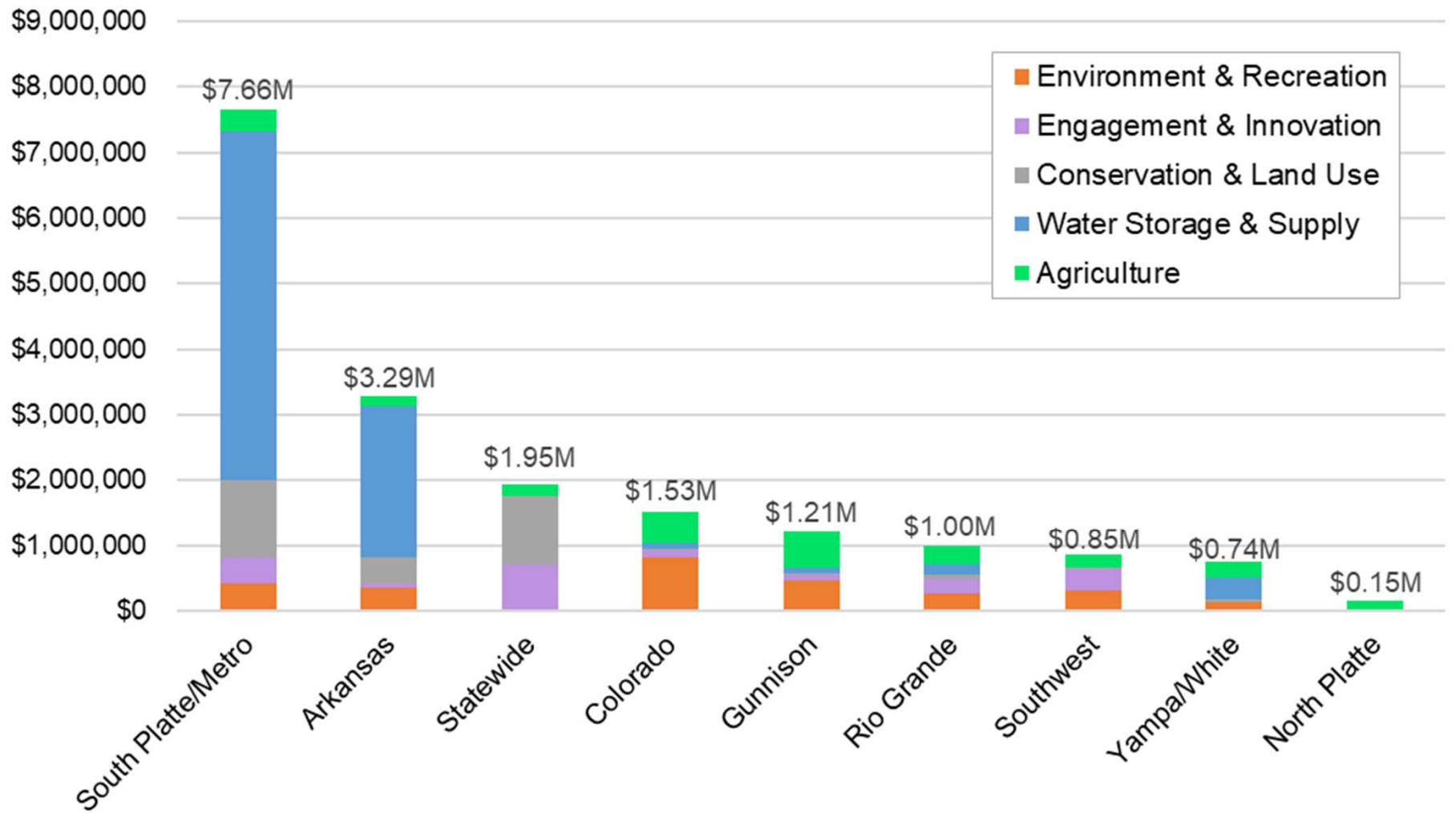


# WSRF Grant Approvals + Balances (as of 1/1/2020)

Basin Account Balance   Basin Account Grants   State Account Grants



# Colorado Water Plan Grant Approvals



**ARKANSAS BASIN**

**FIRE, FLOOD**

**&**

**BIP INITIATIVE**





Position ARWC as a Basin leader for fuels mitigation projects and post-fire recovery response



Uniquely positioned to provide input from the water community and act as a liaison for Federal, State, and Local pre and post-fire projects



Continue to support the Roundtable, Sub-Committees, and Basin Members on Project Development and Implementation



Funding gap exists between identifying the need and implementing the project (Scoping, Project Development, Funding, Grant Writing)



Support from the ABRT is essential to position ARWC as a resource for Basin Communities in project development and implementation

# PURPOSE & NEED



Position ARWC as the go-to resource for Forest Mitigation and Post-Fire Recovery Work.



Leverage funding from this grant to continue to build support for ARWC's services to support communities between need identification and project implementation.



Create an Upper Basin & Lower Basin Partnership to efficiently and effectively meet the needs of the ABRT & Basin Communities



Align objectives and strategies (ARWC, PEPO, Upper/Lower) to meet the Roundtable's watershed health, education, and project development needs



Work together to continue to provide operations and execution of Roundtable activities including sub-committees and BIP update

# STRATEGY



# OBJECTIVES

Act	Act as a Basin Leader for Forest Health & Post-Fire Recovery and Locally Identified Project Development
Develop	Develop at least 2 large-scale, multi-jurisdictional fuels mitigation projects that expand jurisdictions
Support	Support Chaffee County with Post-Fire Recovery for Decker Fire
Provide	Provide guidance and assistance to Basin Communities on locally driven project development
Support	Support the functions and address the needs of the Roundtable, sub-committees, and the BIP update process
Provide	Provide education, outreach, and communications throughout the Basin

**TASK 1**

# **FOREST HEALTH**

# FOREST HEALTH FUELS MITIGATION

- Cross jurisdictional boundaries & build off existing projects and partnerships
- Serve as a liaison between federal, state, local, and private partners to build critical fuels mitigation projects in the most wildfire prone landscapes
- Develop at least 2 large-scale multi-agency mitigation projects that are ready to move into the implementation phase & focus on water resources
  - Stakeholder Engagement
  - Project Scoping
  - Mapping and Preliminary Design
  - Funding Development
  - Grant Writing
  - Contracting and Permitting
  - Upper Basin Reservoirs and Headwaters, Cucharus River Basin & Pueblo YMCA

**TASK 2**

**POST FIRE RECOVERY**

# POST-FIRE RECOVERY (DECKER FIRE)

- Assist Chaffee County with Post-Fire Recovery Management
- Serve as a liaison between government and landowners to build relationships and move forward with recovery initiatives
- Help Chaffee County government and landowners navigate post-fire
  - EWP, CWCB, CDPHE, EQUIP, and other assistance programs
- Provide essential “boots on the ground” recovery project development/management services
  - Lead Local Recovery Meetings & Engage Stakeholders
  - Act as a Consultant to the County for Project Development & Scoping
  - Provide Initial Mapping, Modeling, and Assessments
  - Act as a Liaison Between Landowners and Government Agencies
  - Assist with Navigating Recovery Programs
  - Lead Efforts for Contracting, Permitting, LTEs and O&M Agreements

**TASK 3**

# **BASIN SUPPORT**

# ABRT, BIP, SUB-COMMITTEES & MEMBER SUPPORT

- Develop an Upper Basin & Lower Basin Partnership to meet Basin needs
- Provide oversight, guidance, and assistance with the BIP update
- Provide continued leadership and assistance for Roundtable & Sub-committees
  - Executive Committee, Needs Assessment, Enviro/Rec, LAW Q W G, ARBWF
- Partner with PEPO to provide education, outreach, and communications
  - Provide Monthly Workshops during interim meeting dates
  - Provide a quarterly newsletter on Basin activities, projects, etc.
- Provide guidance and direction to Ark. Basin Communities in the development of locally identified projects
  - Stakeholder engagement, project scoping, funding analysis, grant writing, consulting,





**CURRENTLY IDENTIFIED  
PROJECTS & NEEDS**

## Identified Needs and Potential Future Projects

- Water Advisory Council Development (Lake)- Lake County BOCC
- Augmentation and Multi-Use Storage (Lake)- Lake County BOCC
- Water System Improvements and Protection- Fuels Mitigation (Lake)- Parkville Water, Lake County BOCC
- Expansion of Fuels Mitigation projects at Turquoise Reservoir and Twin Lakes (Lake) - USFS, CSFS, Co Springs Utilities, Lake County BOCC
- Expand Monarch Pass Project (Fuels Mitigation) to Include Phase 3 (Chaffee)-USFS
- Poncha Loop Fuels Mitigation (Chaffee) -USFS
- South Arkansas Integrated Water Management Plan (Chaffee) -UAWCD, Local Partners
- Decker Fire Recovery (Chaffee)- Chaffee County BOCC, UAWCD
- Fuels Mitigation (Fremont)- Fremont BOCC
- Stormwater (Fremont)- Fremont BOCC
- Collaborative Development Water Education and Outreach (Fremont)- Canon City White Water
- Canon City River Restoration, Planning, and Management (Fremont)- Fremont BOCC, Env. Rec, City of Canon City
- Fuels Mitigation YMCA Camp David (Pueblo)- Pueblo YMCA
- Fuels Mitigation (Pueblo) -USFS
- Fuels Mitigation Cucharas River Basin- USFS, SPA
- Soil Health and Soil Health/ Forest Health Nexus- LAVWCD
- Amity Multi-Purpose Storage Project -Amity Mutual Ditch CO, CPW
- Many More to Come!

# BUDGET

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds (cash &amp; in-kind)</u> <sup>(3)</sup>	<u>WSRF Funds (Basin &amp; Statewide combined)</u> <sup>(3)</sup>	<u>Total</u>
1	Fuels Mitigation Project Development	6/1/2020	12/31/2021	\$ 14,000	\$ 100,950	\$ 114,950
2	Post-Fire Response & Recovery (Decker Fire)	6/1/2020	12/31/2021	\$ 25,000	\$ 91,950	\$ 116,950
3	Roundtable, BIP, and Member Support	6/1/2020	12/31/2021	\$ -	\$ 134,771	\$ 134,771
4	Grant Administration	6/1/2020	12/31/2021	\$ -	\$ 17,403	\$ 17,403
<b>Total</b>				<b>\$39,000</b>	<b>\$345,074</b>	<b>\$384,074</b>

Statewide Request	\$ 255,182		
Basin Roundtable Request = 66.7% of task 3	\$ 89,892	% of State	35%
Chaffee County Post-Fire Match	\$ 25,000		
Colorado Springs Utilities Forestry Match	\$ 5,000		
Pueblo Board of Water Works Forestry Match	\$ 5,000		
Upper Arkansas Water Conservancy District Match	\$ 1,000		
Lake County BOCC Match	\$ 1,000		
Parkville Water District (Lake County) Match	\$ 1,000		
Huerfano County Water Conservancy District Match	\$ 1,000		
Total Basin + Water Provider/ Partner Match=	\$ 128,892	% of State	50.51%
Total Project	\$ 384,074		

# ARKANSAS GROUNDWATER USERS' ASSOCIATION RESERVOIR PROJECT AGUA RESERVOIR CO.



Arkansas Basin Round-table  
January 8, 2020

Presented by:  
Kevin W. Niles  
General Manager

Let us have a splendid legacy for our children... let us turn to them and say 'this you inherit and guard it well, for it is far more precious than money... and once it is destroyed, nature's beauty cannot be repurchased at any price.'

Ansel Adams

# AGUA RESERVOIR CO

- BACKGROUND

- \* STONEWALL QUARRY – SELLER OF 2000 AF STORAGE VESSEL (LOCATION HWY 96)
- \* NEW COMPANY TO BE ESTABLISHED – AGUA RESERVOIR COMPANY (2000 SHARES ISSUED)
- \* AGUA TO PURCHASE 1000 AF OF PERMANENT STORAGE (OFF THE EXCELSIOR DITCH)
- \* AGUA WILL OWN 1000 SHARES / OTHER ENTITY WILL OWN 1000 SHARES
- \* PURCHASE PRICE - \$3,500 PER SHARE (TOTAL 3.5 MILLION DOLLARS)
- \* GRANT FROM COLORADO WATER PLAN (CWCB) - \$500,000
- \* TOTAL LOAN \$3 MILLION (COLORADO WATER CONSERVATION BOARD/ CWCB)
- \* 30 YEARS @ 2.00% INTEREST = TOTAL ANNUAL LOAN PAYMENT \$135,289



# AGUA RESERVOIR CO

- PURPOSE (REASONS FOR PURCHASE)

- \* AGUA HAS LOST ALMOST 8,000 AF OF EXCELSIOR WATER IN PAST 4 YEARS – NO STORAGE AVAILABLE
- \* CURRENTLY ONLY USING RECHARGE PONDS AND TEMPORARY STORAGE IN PUEBLO RESERVOIR  
(SPILL THREATS 3 X YEARS IN A ROW)
- \* ALLOWS FOR BETTER ACCOUNTING AND PREDICTED SOURCES AVAILABLE
- \* ALLOWS AGUA TO MANAGE DECREED AUGMENTATION PLANS MORE EFFECTIVELY AND RULE 14 PLAN
- \* POSSIBLE FUTURE GROUNDWATER RULES PROMULGATED BY DWR DIVISION ENGINEER
- \* CREATES ADDITIONAL ASSET TO AGUA ( EXCELSIOR DITCH AND AGUA RESERVOIR)
- \* ALLOWS FOR BETTER CONTROL OF EXCELSIOR WATER
- \* POSSIBLE REVENUE BASED ON LEASING SPACE TO OTHER WATER COMPANIES
- \* CREATES AN ADDITIONAL WATER RIGHT FOR AGUA ( DECREED STORAGE RIGHT 16CW3093)
- \* ALIGNS WITH THE COLORADO WATER PLAN (ADDITIONAL 50,000 AF STORAGE BY 2050)



# AGUA RESERVOIR CO

- DETAILS AND SPECIFICATIONS

- \* REGISTERED VOTE OF OVERALL AGUA MEMBERSHIP (MAJORITY RULES)
- \* AGUA BOARD OF DIRECTORS TO RAISE ANNUAL DUES FOR 2021 (PER AGUA BYLAWS)
- \* OPERATIONS AND MAINTENANCE DONE BY AGUA (ANNUAL BILLED MANAGEMENT AGREEMENT)
- \* SW SP 2020/ COURT CASE FILED WITH THE STATE TO RUN EXCELSIOR WATER TO RESERVOIR
- \* INLET AND OUTLET INFRASTRUCTURE BUILT BY SELLER (COMPLETE TURN-KEY OPERATION)
- \* ADDITIONAL STORAGE MAY BE BUILT BY STONEWALL AND AVAILABLE FOR AGUA TO PURCHASE
- \* POSSIBLE REVENUE GENERATED BY LEASING STORAGE SPACE AND CONVEYANCE FEES TO USE THE EXCELSIOR DITCH
- \* WATER TO BE STORED STARTING 2020 AND LOAN REPAYMENT STARTING 2021

# AGUA RESERVOIR CO

- CONCLUSION

- \* SO FAR 85% OF MEMBERSHIP POLLED HAS VOTED (YES)

- \* ALL MEMBERS MUST VOTE ON THE PROJECT (YES/ NO)

- \* THIS PURCHASE WILL STRENGTHEN AGUA'S WATER AND FINANCIAL PORTFOLIO

- \* PROJECT HAS COMPLETE SUPPORT BY AGUA BOARD OF DIRECTORS

- \* AUGMENTATION ASSOCIATIONS WILL NEED PERMANENT STORAGE IN THE FUTURE

- \* STORAGE WILL BE VITAL TO THE LONG-TERM SUCCESS OF AGUA

- \* ADDITIONAL ASSETS INCREASES THE VALUE OF AGUA AND THEIR OUTSTANDING SHARES

- \* AGUA WILL BE ONE OF THE THE FIRST ASSOCIATION TO OBTAIN AND OPERATE PERMEANT STORAGE

- \* THE BEST GIFT YOU CAN GIVE TO THE COMING GENERATION IS WATER

- \* YOU NEVER KNOW THE WORTH OF WATER UNTIL THE WELL RUNS DRY

# AGUA RESERVOIR CO

- QUESTIONS AND OR COMMENTS???



Image: Not of a ctual vessel



# Cucharas Collaborative Storage Project

**Legend**

- Bruce Canyon Reservoir
- Butte Ditch
- Cucharas River
- Highway 12

Bruce Canyon Reservoir 1406 ac-ft

Butte Ditch

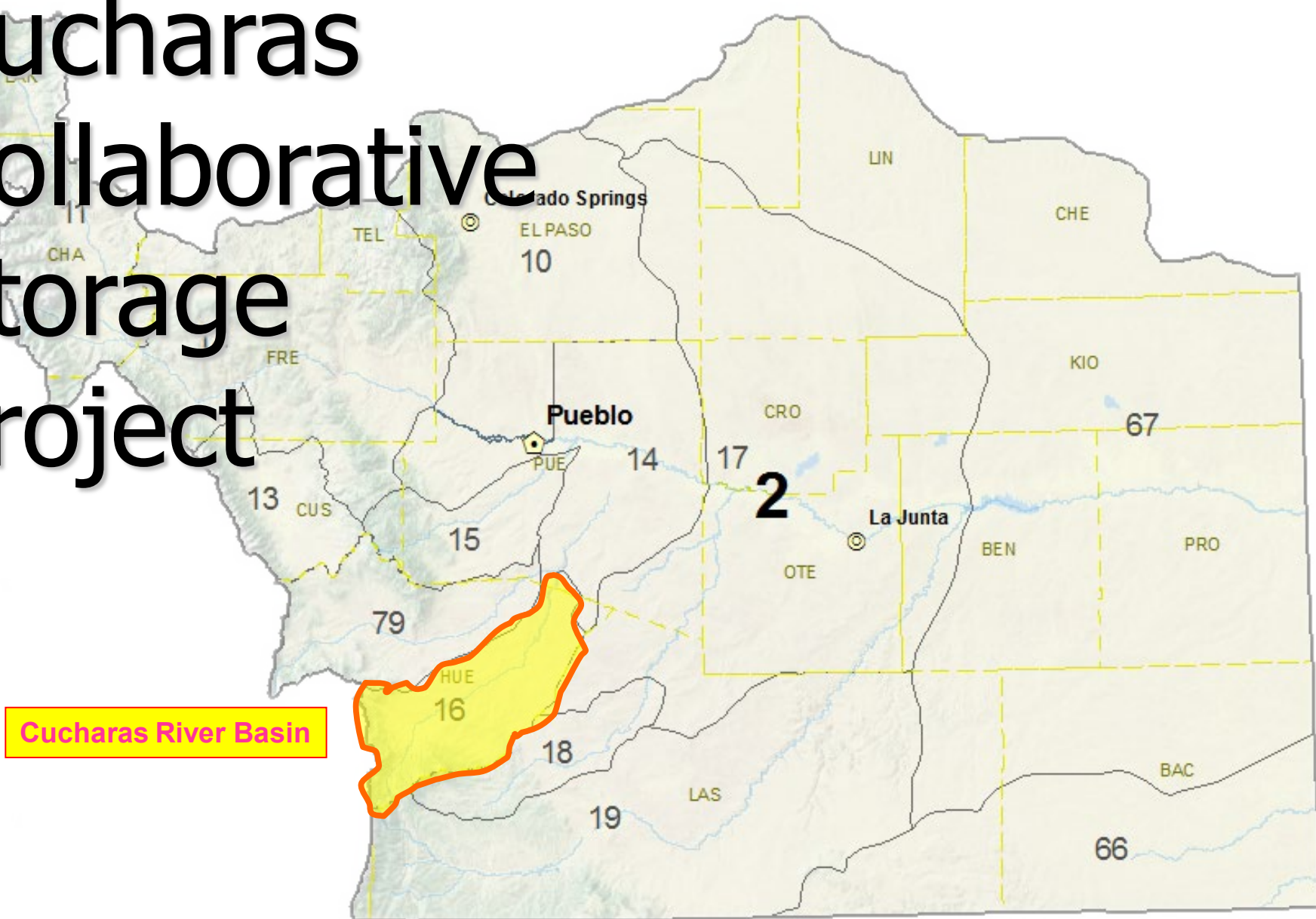
Cucharas River

Highway 12





# Cucharas Collaborative Storage Project



Cucharas River Basin

# Background

Cucharas Basin Storage  
Collaborative

# Cucharas Storage Collaborative since 2015

## State

- DWR Div 2
  - **LOTS of in-kind**
- CPW
- CSFS

## Federal

- USFS
- NRCS

## \$\$ Contributors:

- Cuchara S&WD
- Town of La Veta
- City of Walsenburg
- HCWCD
- Maria Lakes Grazing Assn
- LVFPD
- HCFMLD
- Huerfano BOCC

13 meetings

# Timeline (1)

- 2013 - DEO/DSB recommend collaborative storage project
- 2014 - HCWCD study: 70% storage capacity loss since WWII
- 2015 - Collaborative formed
- 2015 - 2017, Storage Study (Ph 1, \$250K)
  - 2K af Muni storage gap
  - 15K+ af Ag storage gap
  - Storage sites, winnowing: 70 -> 28 -> 15 -> 5
  - Feasibility design for 5 “preferred” sites
  - DSS yield model



# Timeline (2)

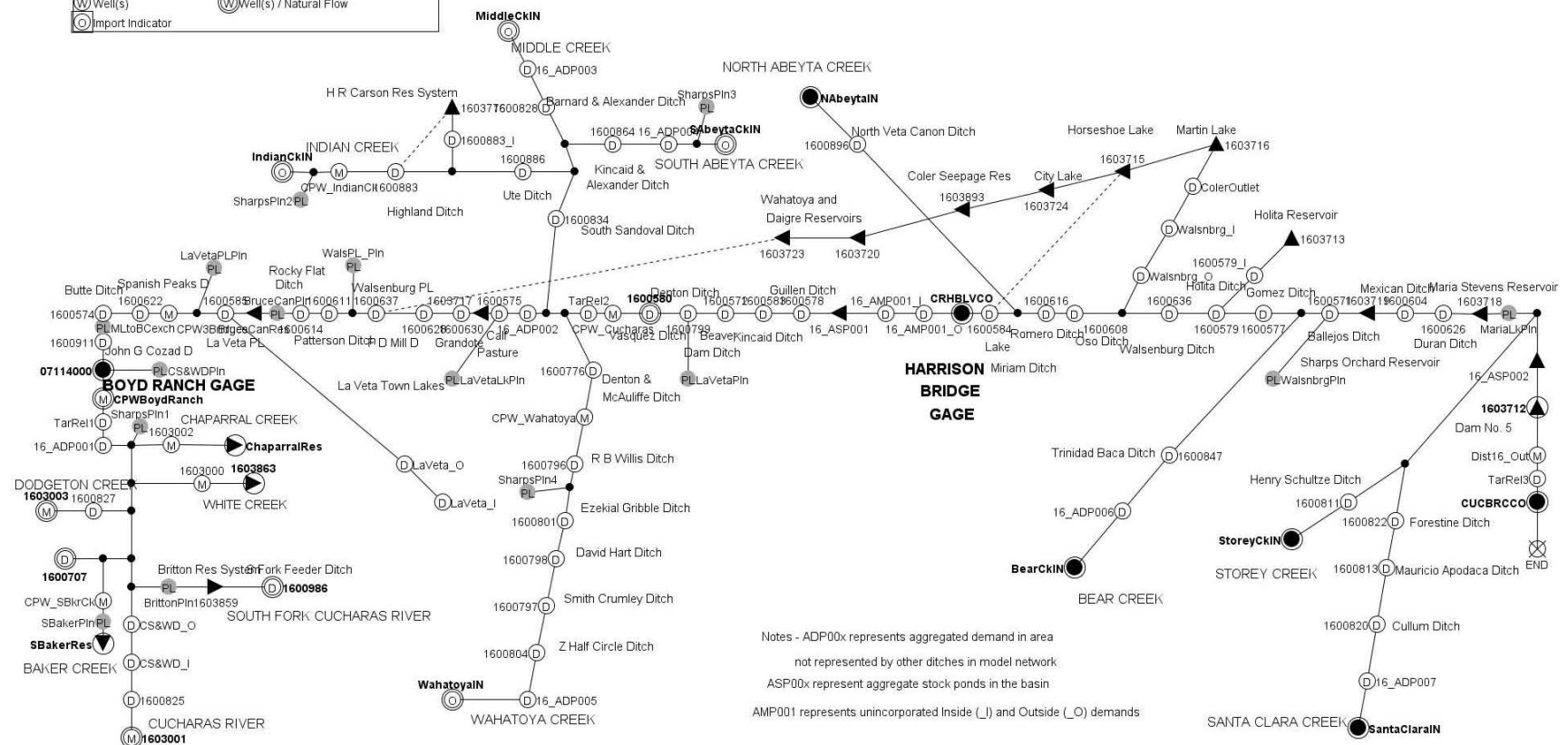
- 2017 - Water Ct Appl, storage + exchange (**\$210K+** thru Oct)
- 2017 - Geotechnical Investigation, 5 sites (Ph 2, \$134K)
- 2017 - Add'l geotech investigation, 3 sites (Ph 3, \$43K)
- 2018 - 30% design – 3 sites (Ph 4, \$50K)
- **2019 - 50% design – 2 sites, (Ph 5, \$141K)**
- 2020 - Water Ct trial...

# CUCHARAS COLLABORATIVE STORAGE STUDY

## YIELD MODEL NETWORK

DSS Compatible

Legend	
⊗	Most Downstream Node
⊕	Diversion
⊕	Diversion / Natural Flow
⊕	Diversion + Well(s)
⊕	Diversion + Well(s) / Natural Flow
⊕	Instream (Minimum) Flow
⊕	Instream (Minimum) Flow / Natural Flow
⊕	Other
⊕	Other / Natural Flow
⊕	Plan
⊕	Plan / Natural Flow
▶	Reservoir
▶	Reservoir / Natural Flow
●	Streamflow Gage
●	Streamflow Gage / Natural Flow
⊕	Well(s)
⊕	Well(s) / Natural Flow
⊕	Import Indicator



Notes - ADP00x represents aggregated demand in area not represented by other ditches in model network  
 ASP00x represent aggregate stock ponds in the basin  
 AMP001 represents unincorporated Inside (I) and Outside (O) demands

**Screening Matrix**

<b>Enlargement of Existing Storage</b>	<b>Weighted Score</b>	<b>Rank</b>
Britton Ponds Enlargement (42 AF small dam)	40	18
Britton Ponds Enlargement (239 AF large dam)	41	16
La Veta Lakes Enlargement	55	3
HR Carson #1/#2 combined storage	47.5	8.5
Daigre Reservoir enlargement	46	12
City Lake (unrestricted)	47.5	8.5
City Lake (enlargement)	45.5	13.5
Holita Reservoir Rehabilitation	55	3
Maria Stevens Rehab/Enlargement	55	3
Horseshoe/Martin Joint Use Pool	45.5	13.5

<b>New Storage Projects</b>	<b>Weighted Score</b>	<b>Rank</b>
South Baker Creek Reservoir	40.5	17
Chaparral Creek Reservoir	47	10
Bruce Canyon Reservoir	56	1
Coler Seepage Reservoir	46.5	11
White Creek Reservoir (500 AF)	50.5	6.5



# Preferred Sites

Maria Stevens enlg 642 af

Bruce Canyon 1406 af

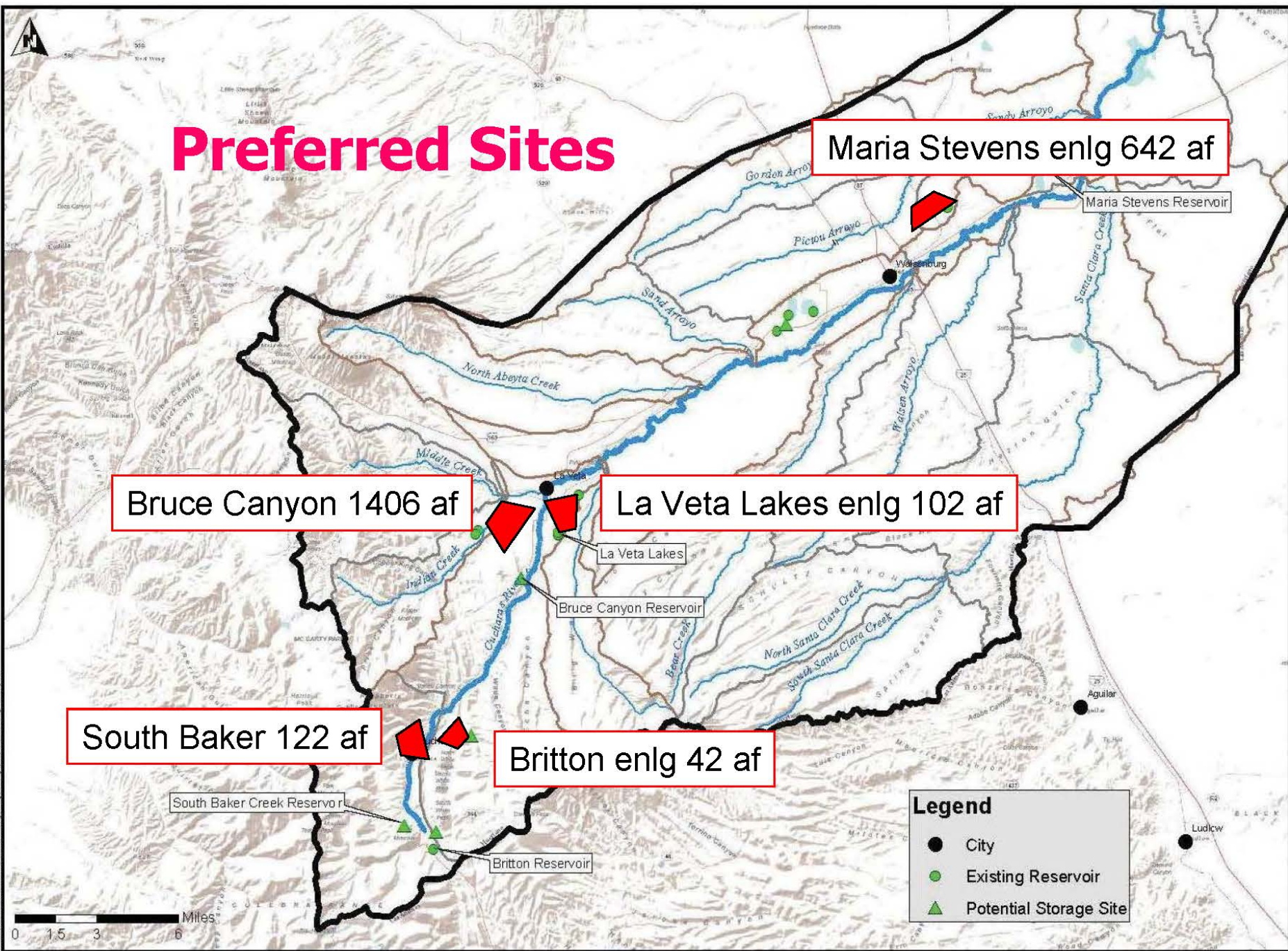
La Veta Lakes enlg 102 af

South Baker 122 af

Britton enlg 42 af

## Legend

- City
- Existing Reservoir
- ▲ Potential Storage Site



# Preferred Sites

Reservoir	Capacity (ac-ft)	Ave Yield (ac-ft per yr)
Britton	42	42
South Baker Creek	122	54
Bruce Canyon	1,406	677
LV Lakes	102	102
Maria Stevens	642	1,206
<b>Total</b>	<b>2,314</b>	<b>2,081</b>



# “Preferred” Reservoir Costs

## Feasibility level

<b>Reservoir Alternative / Storage Capacity</b>	<b>Project Cost<sup>1,2</sup></b>	<b>Unit Cost (\$/ac-ft Capacity)</b>
Britton Ponds Enlargement (42 AF)	\$6,577,340	\$156,602
★ South Baker Creek Reservoir (122 AF)	\$13,101,600	\$107,390
La Veta Lakes Enlargement (102 AF)	\$6,621,300	\$64,915
★ Bruce Canyon Reservoir (1406 AF)	\$19,184,100	\$13,644
★ Maria Stevens Rehab/Enlargement (642 AF)	\$8,406,300	\$13,094

<b>Reservoir Alternative / Storage Capacity</b>	<b>Delivery (ac-ft/yr)</b>	<b>50-Yr Cost<sup>1,2</sup> (\$/ac-ft/yr)</b>
Britton Ponds Enlargement (42 AF)	22	\$5,979
★ South Baker Creek Reservoir (122 AF)	54	\$4,852
La Veta Lakes Enlargement (102 AF)	102	\$1,298
★ Bruce Canyon Reservoir (1406 AF)	622	\$617
★ Maria Stevens Rehab/Enlargement (642 AF)	271	\$620

# Who paid for all this? So far....

## CWCB

WSRA	\$357,277	
CWP	\$16,786	
<b>Total CWCB</b>	<b>\$374,063</b>	<b>78%</b>

## Matching

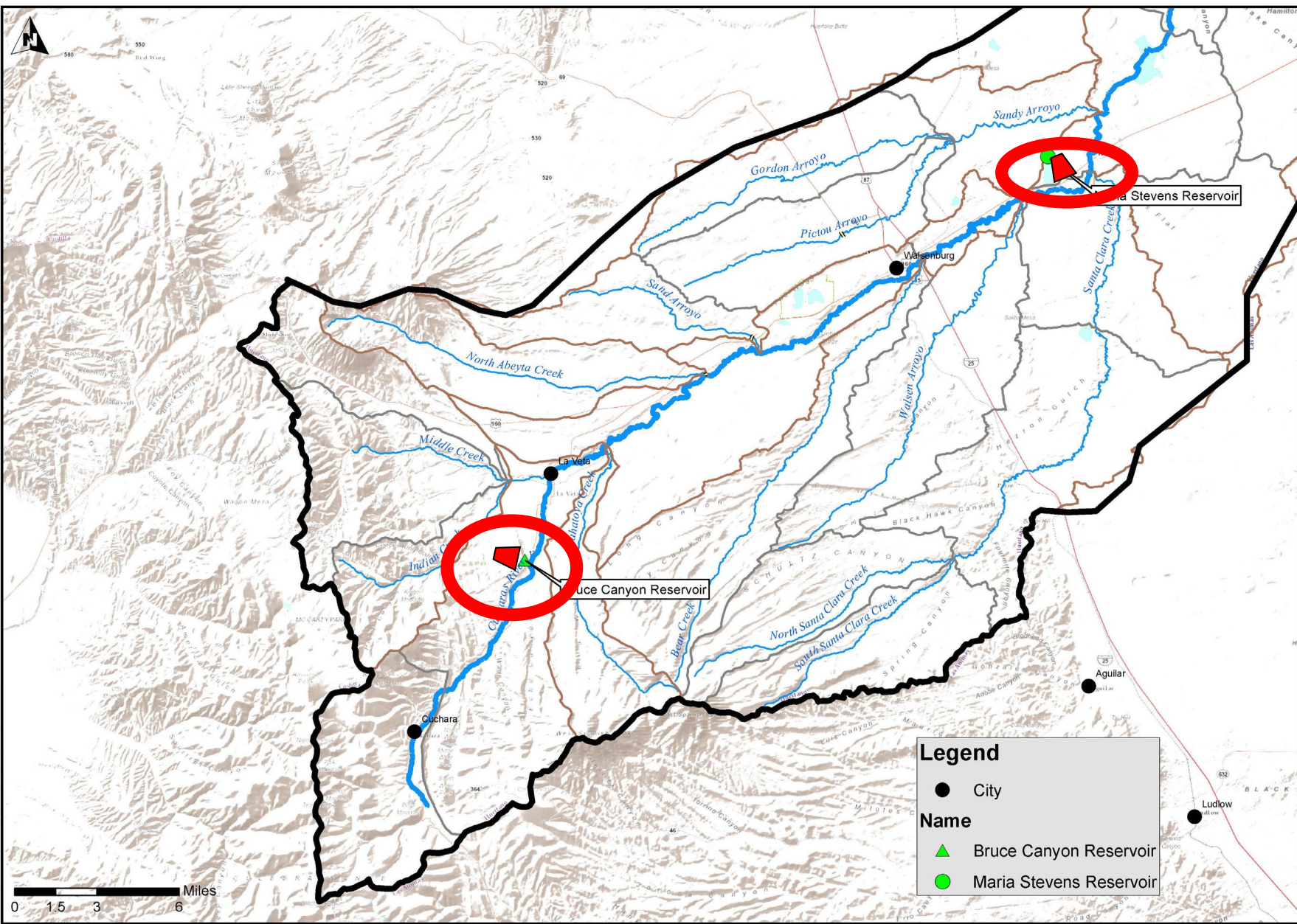
HCWCD	\$31,237	
BOCC	\$13,000	
CSWD	\$13,000	
La Veta	\$12,000	
Walsenburg	\$5,000	
HCFMLD	\$10,000	
LVFPD	\$3,000	
Maria Lake GA	\$15,331	
<b>Total Local Match</b>	<b>\$102,568</b>	<b>22%</b>

**Total all sources** **\$476,631**

# Current Applications

- **50% design, including geotech**
  - **Bruce Canyon Reservoir**
  - **Maria Stevens Reservoir  
Enlargement**
- **Total project cost: \$141,144**
  - **1/2 each**





**Legend**

- City
- ▲ Bruce Canyon Reservoir
- Maria Stevens Reservoir

**Applegate Group, Inc.**  
 Water Resource Advisors for the West  
 1100 West 121st Ave, Ste 100  
 Denver, CO 80234-2728  
 Phone: (303) 652-6611  
 Fax: (303) 652-2759  
 www.applegategroup.com e-mail: info@applegategroup.com

**Exhibit C**  
**MAP: 50% Design of Bruce Canyon Reservoir and Maria Stevens Reservoir Enlargement**

Date: 19Nov2019	Revision Description
Job #: 18-117	
Drawn By: SAS	
No.	Rev. Date



# Bruce Canyon



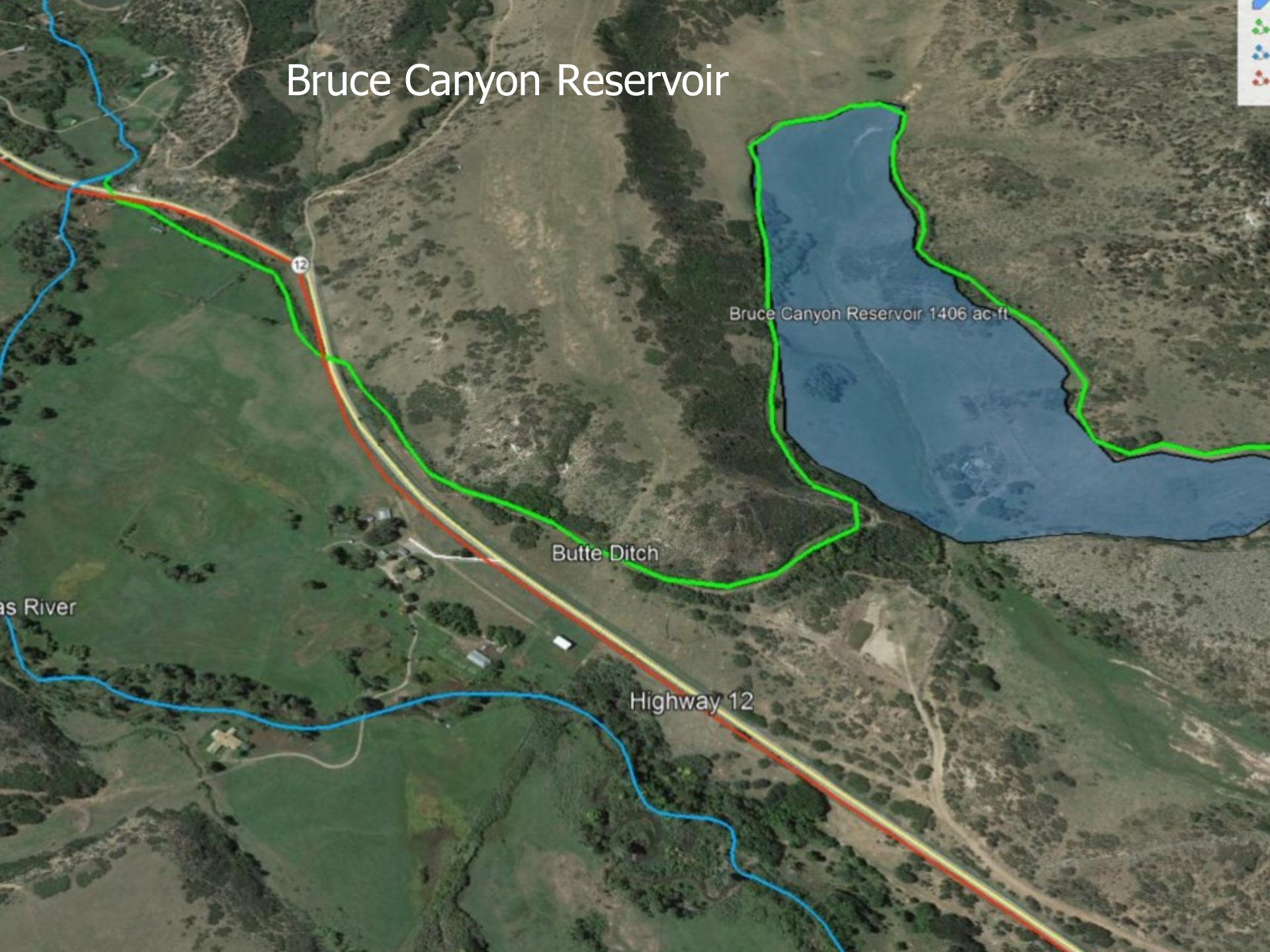


# Bruce Canyon Reservoir site





# Bruce Canyon Reservoir



Bruce Canyon Reservoir 1406 ac-ft

Butte Ditch

Highway 12

as River

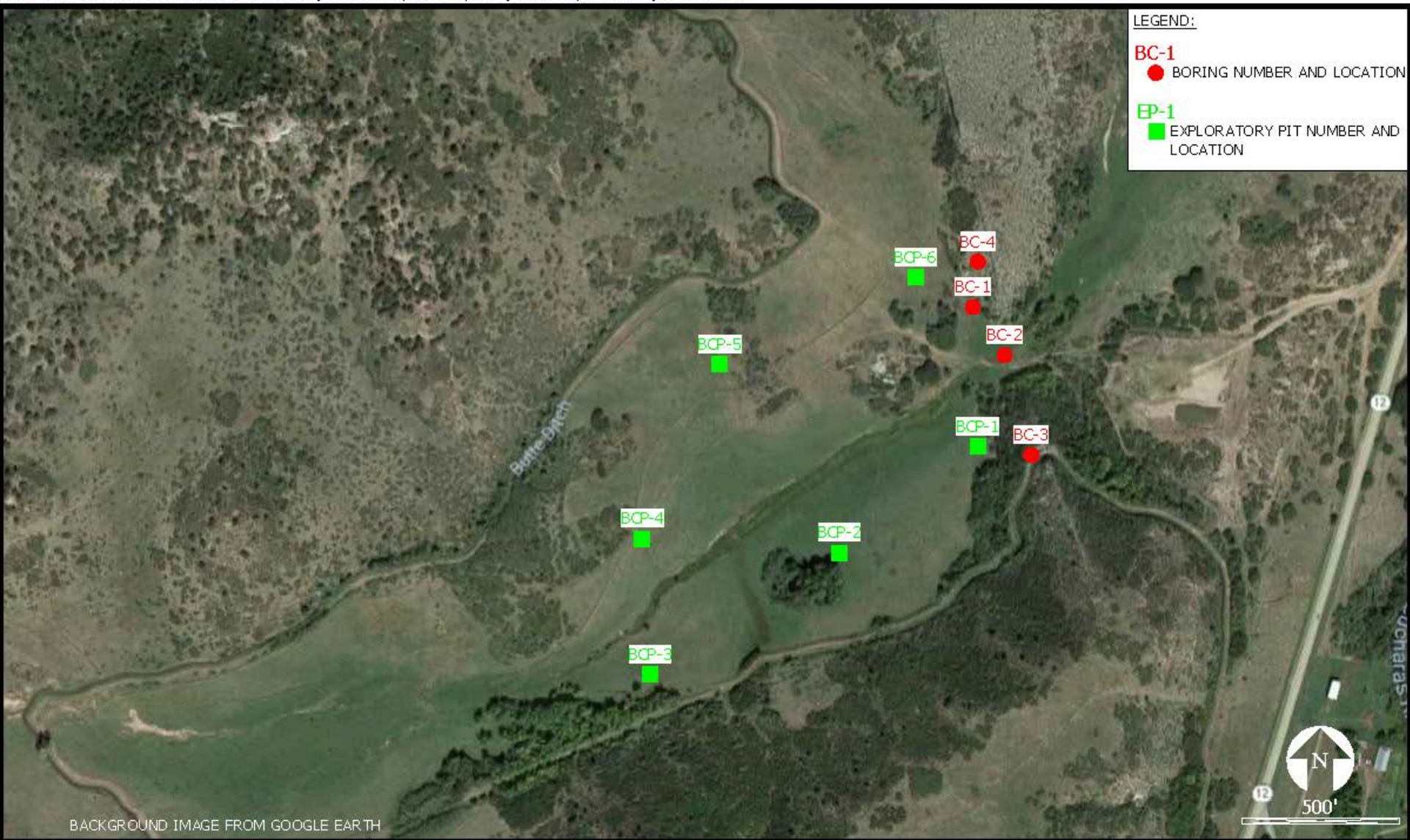
12











PROJECT NO:	18.117		
PROJECT NAME:	Cucharas Basin Collaborative Storage		
DRAWN BY:	KNZ	CHECKED BY:	JAC2
DWG DATE:	10.11.18	REV. DATE:	10.17.19

**FIGURE 14**  
Bruce Canyon Reservoir  
Locations of Borings and Exploratory Pits

**CESARE, INC.**  
Geotechnical Engineers & Construction Materials Consultants

# Grant Applications

50% Design, including geotech

- **Total project cost: \$141,144 (1/2 each)**
- **Bruce Canyon, 1406 af, \$70,572**
- **HCWCD-1, WSRF**
  - **\$35,286 state-wide account**
  - **\$17,643 basin account**
  - **\$17,643 local cash match**
- **SOW**
  - **1: Geotechnical analysis [50%]**
  - **2: Hydrologic analysis (IDF, routing) [8%]**
  - **3: 50% design, DSB [32%]**
  - **4: Present results to Collaborative [3%]**
  - **5: Administration [7%]**



# Maria Stevens - Current

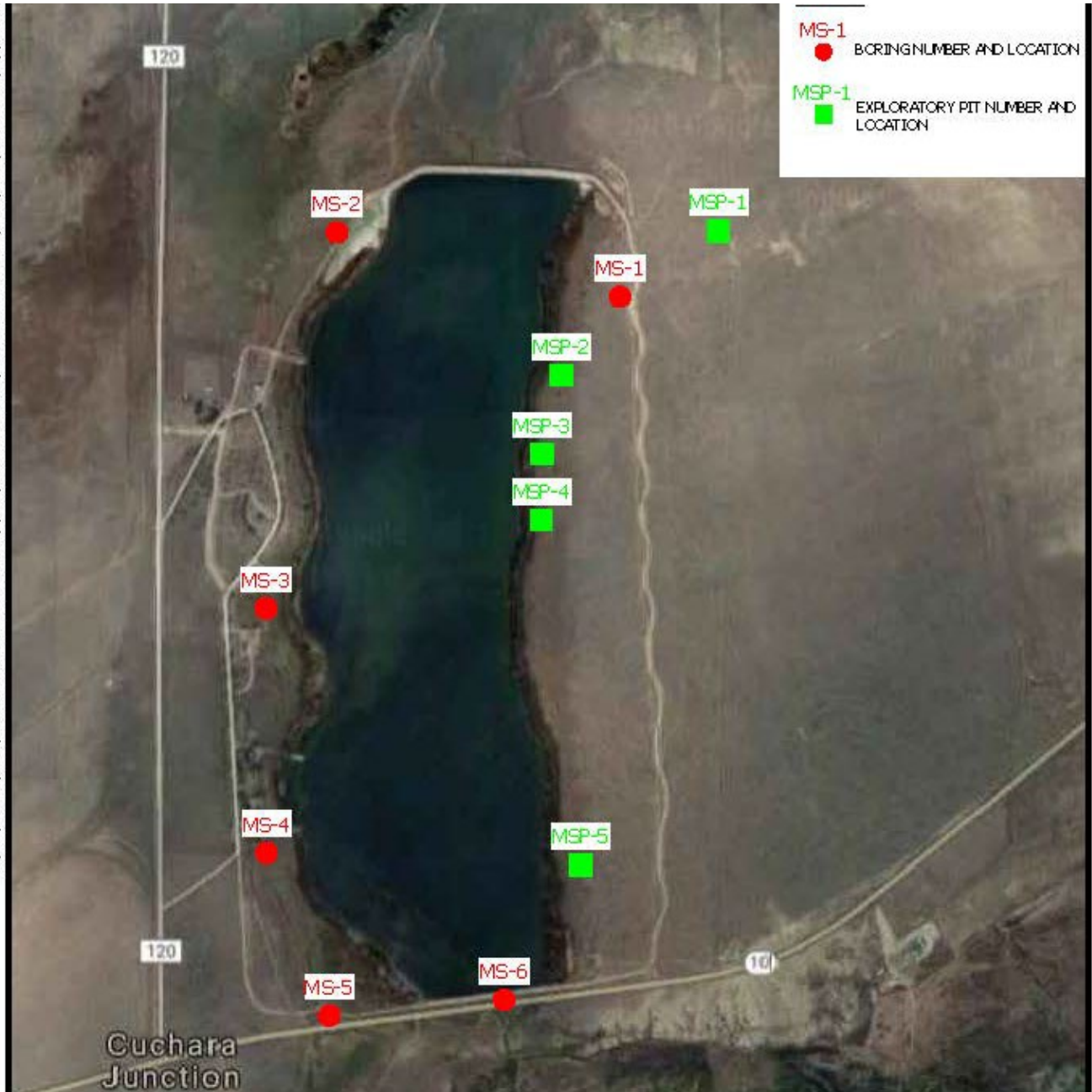




# Maria Stevens Reservoir Enlargement



W:\2008\CenterMain\08\_1000\8137\Cuchara Basin Collaborative Storage\ACD\Water Stevens Reservoir\Map Stevens Reservoir Boring and Exploratory Pit Locations.dwg 10/10/08 4:13

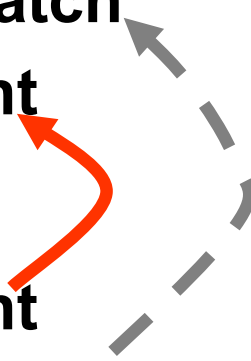




# Maria Stevens Reservoir



# Maria Steven Reservoir Enlargement, 642 af

- **50% design, \$70,572**
  - **HCWCD-2, CWP Grant (storage)**
    - \$35,286 CWCB
    - \$17,786 local cash match
    - \$17,500 basin account
  - **HCWCD-3, WSRF**
    - \$17,500 basin account
    - \$4,375 local cash match
  - **SOW – same as Bruce Canyon Reservoir**
- 
- A diagram consisting of a dashed grey arrow pointing from the 'basin account' item under HCWCD-3 to the 'basin account' item under HCWCD-2. A solid red arrow points from the 'basin account' item under HCWCD-3 to the 'local cash match' item under HCWCD-2.

# Summary Amounts

- **\$35,143: WSRF basin accout [24.9%]**
  - **\$35,286: WSRF state-wide acct [25.0%]**
  - **\$35,286: CWP grant [25.0%]**
  - **\$35,429: Local cash match [25.1%]**
- \$144,144: Total project cost**

# Local Cash Matches

for these grants

Contributing Entity	Grant Application			Total
	HCWCD-1 WSRA-BCR	HCWCD-2 CWP-MSRE	HCWCD-3 WSRA-MSRE	
BOCC	\$5,000	\$4,000	\$0	\$9,000
MLGA	\$0	\$5,411	\$0	\$5,411
CSWD	\$2,500	\$0	\$0	\$2,500
LV	\$5,000	\$0	\$0	\$5,000
HCWCD	\$5,143	\$4,000	\$4,375	\$13,518
		<b>Total local cash match</b>		<b>\$35,429</b>



# Cucharas Collaborative Storage Project

Questions?

**Legend**

- Bruce Canyon Reservoir
- Butte Ditch
- Cucharas River
- Highway 12

Bruce Canyon Reservoir 1406 ac-ft

Butte Ditch

Highway 12



# Actual Local Match

[including litigation legal and engineering]

- **CWCB**  
\$479,748  
(58%)
- **Local Match**  
\$347,997  
(42%)
- **Unemployment**
  - 7.6%
  - 2.6% State
- **Median HH Income**
  - \$35,800 (55%)
  - \$65,458 State
- **Median home value**
  - \$137,400 (48%)
  - \$286,100 State



## COLLABORATIVE STORAGE PHASES:

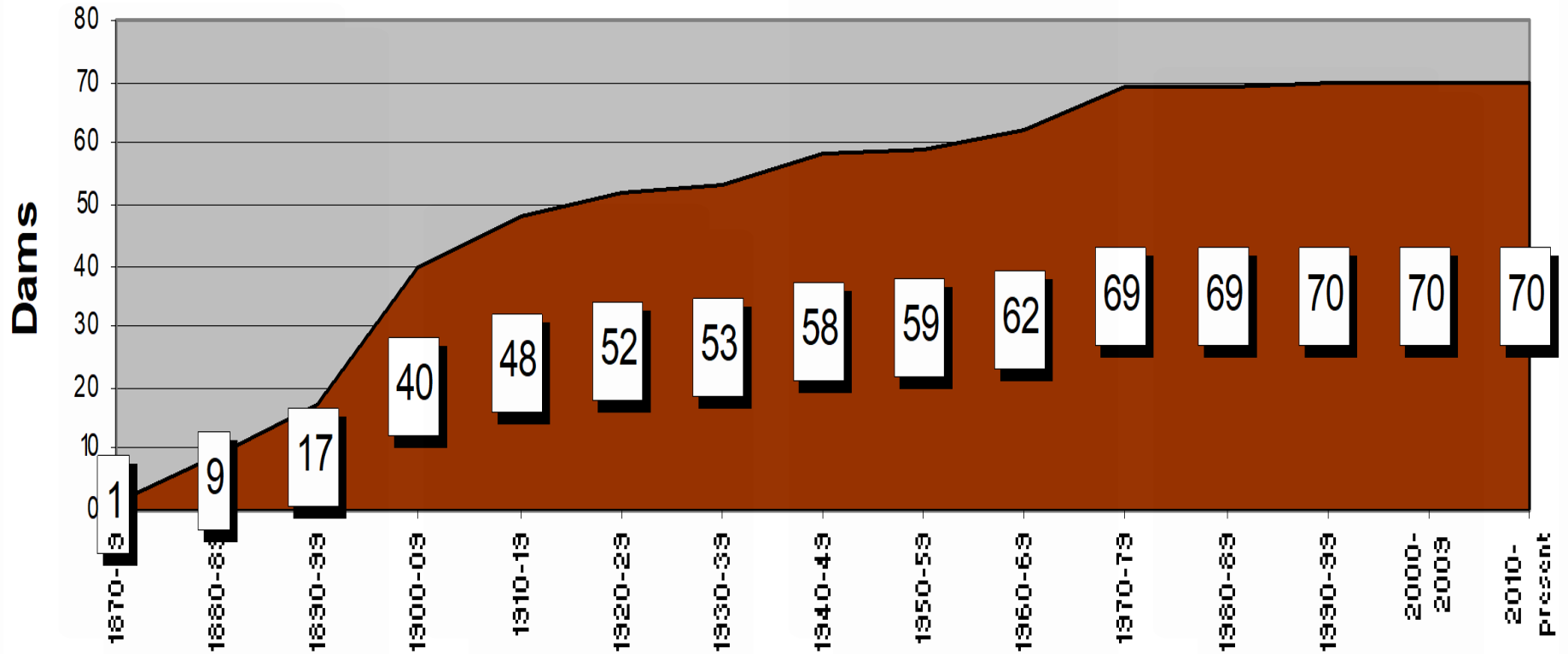
		Calendar Year(s)	Phase Costs	Cumulative Costs	Comments
1	Feasibility Study [part of initial investigation]	2015-2017	\$250,000	\$250,000	WSRF+local; resulting in 5 <i>preferred</i> reservoir sites identified: BPE, SBC, BCR, LVLE, MSRE
2	Initial Geotechnical Investigation	2017-18	\$133,557	\$383,557	WSRF+local; all preferred sites
3	30% design, SBC; Geotech for SBC + BCR	2018-19	\$60,045	\$443,602	WSRF+local
4	30% design for MSR + BCR	2018-2019	\$32,000	\$475,602	CWP+local
-	-	-	-	-	Costs includes both BCR and MSRE hereafter
5	50 % design for BCR and MSR with EOPC	2020-2021	\$141,144	\$616,746	CWP/WSRF/+local?? Will take 1 year from NTP/PO which is expected c. 7/2020
6	90% design	2021-2022	c. \$200,000	c. \$816,746	c.\$100K/dam. Funding: CWCB WSRF/CWP/+local, EDA, USBOR waterSMART, CWCB's TAFC?
7A	Final design	2022?	c. \$80,000	c. \$896,746	c.\$40K/dam. Funding: CWCB WSRF/CWP/+local, USBOR waterSMART, CWCB's TAFC?
7B	Permitting	2022-2024?	c. \$600,000	c. \$1,496,746	SWAG: per dam \$120K/dam - \$1M/dam
7C	Land acquisition	2022-2024?	c. \$1,195,000	c. \$ 2,691,746	SWAG: MLGA, \$963K per appraisal of right to enlarge (8/13/2019); BCR, 62 ac x \$2.5K/ac x 1.5 = \$232K
8A	Bidding, contractor selection, and construction	2024-2027?	c. \$27,600,000	c. \$ 30,291,746	SWAG! Funding: CWCB WPLF?, CWP, WSRA/WPG/+local; EDA, Fed'l Infrastructure Bill?? MSR (feasibility) construction only, \$8.4M; BCR (feasibility) construction only, \$19.2M
8B	Construction Engineering	2024-2027?	c. \$160,000	c. \$ 30,451,746	SWAG: \$80,000/dam; CWCB WPLF?, CWP, WSRA/WPG/+local; EDA, Fed'l Infrastructure Bill??

### Abbreviations and notes:

BPE = Britton Ponds Enlargement, 42 af  
 SBC = South Baker Creek Reservoir, 122 af  
 BCR = Bruce Canyon Reservoir, 1406 af  
 LVLE = La Veta Town Lakes Enlargement, 102 af  
 MSRE = Maria Stevens Reservoir Rehab/Enlargement, 642 af

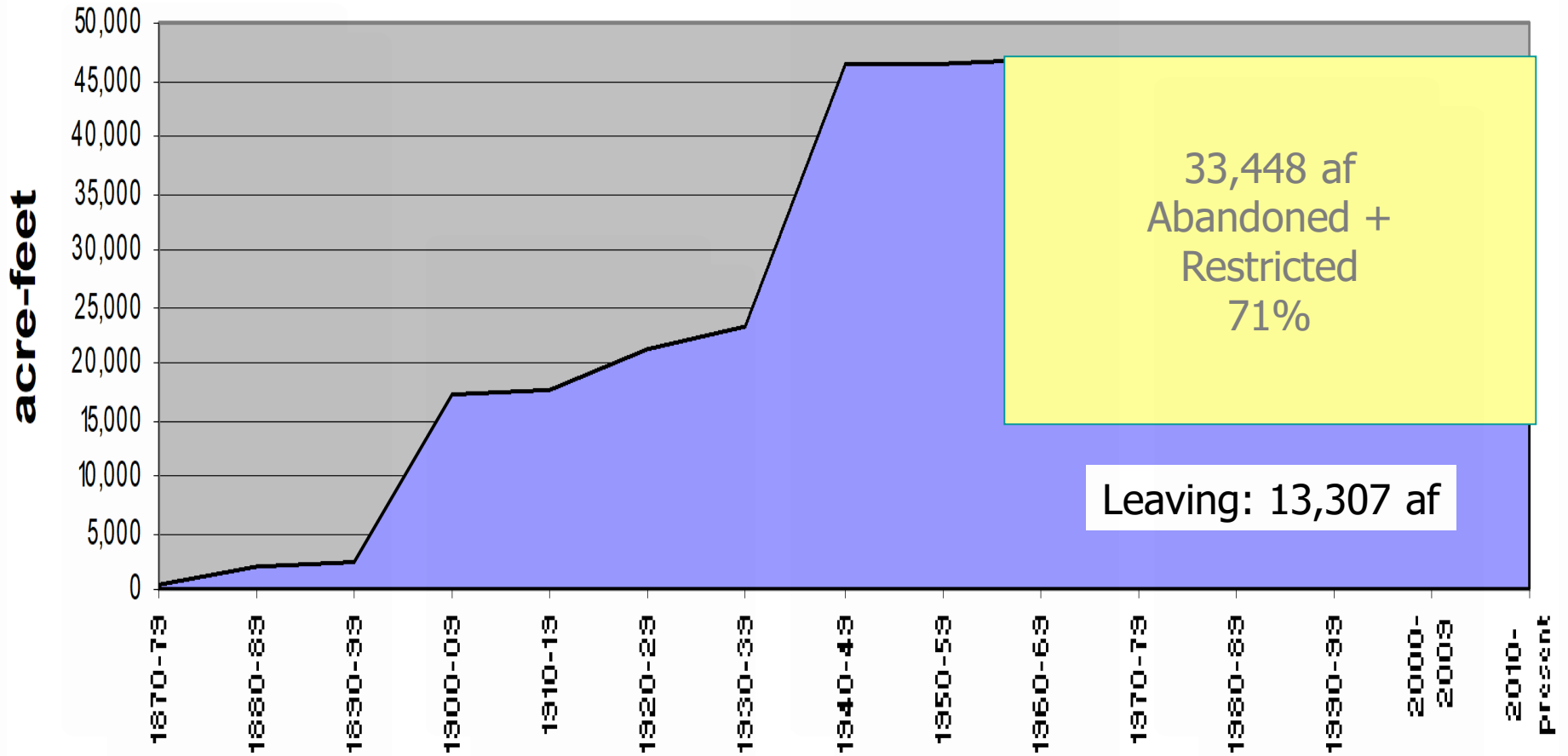
SWAG = Scientific Wild-Assed Guess  
 FY ends on Sept 30 of the same calendar year

# Cucharas Basin Dams Constructed STRUCTURES



# Cucharas Basin Storage Construction

## VOLUME



ST. CHARLES MESA COTTONWOOD  
IRRIGATING DITCH # 2  
HEADGATE/ AUGMENTATION  
STATION

# GRANT OBJECTIVES

- Maximizing the use of water resources by replacing aging infrastructure
- Improving the overall engineering soundness, stability, and efficiency of the structures
- More efficient and better water delivery for M&I and Augmentation
- The telemetry station will more accurately measure/quantify the diversion, and provide real-time data access and threshold alerts
- Cost savings for SCMWD on yearly repair fees
- UAWCD will also utilize the augmentation station to quantify CID<sub>1</sub> water and save costs by not having to build an additional augmentation station
- UAWCD is working in collaboration with SCMWD which will increase the beneficial use of water on Cottonwood Creek through the water districts augmentation plan

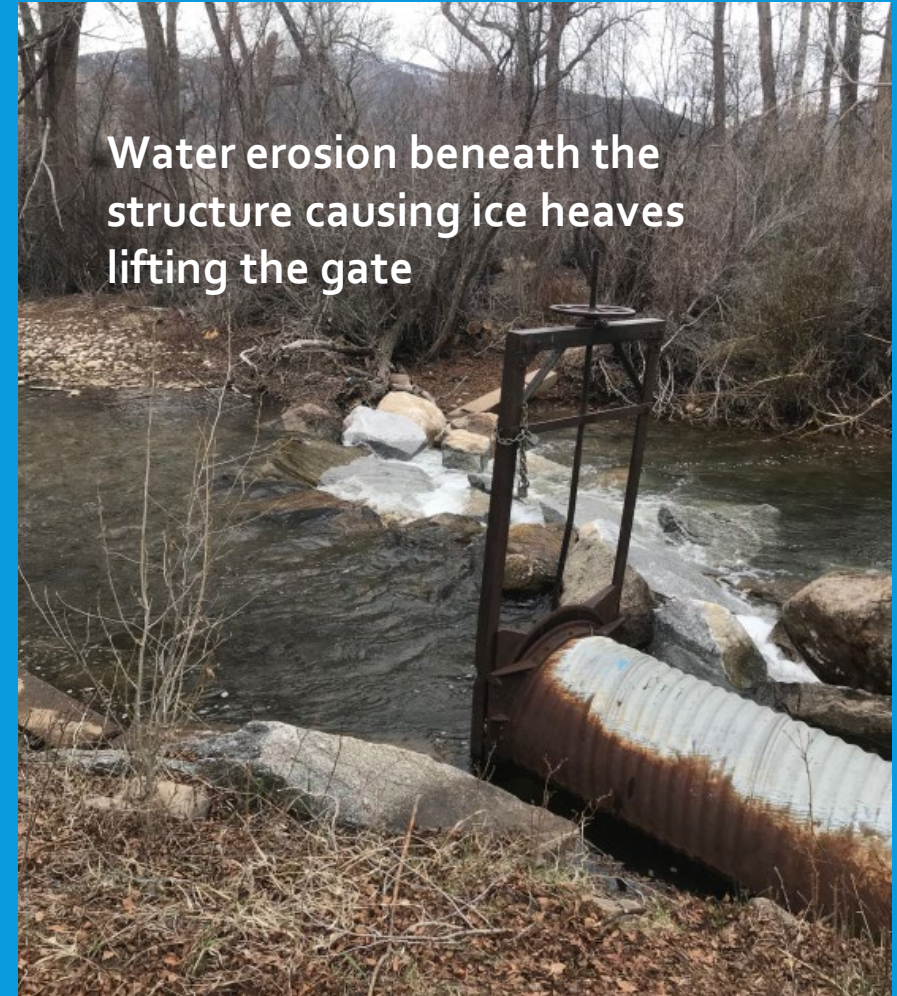


# CURRENT ISSUES



Wing wall failing causing a drop in water level at the headgate.

The channel substrate is such that it moves during high flows and pushes the larger riprap down stream or makes it sink changing water levels.



Water erosion beneath the structure causing ice heaves lifting the gate

Goal: Looking for a permanent fix, more accurate water measuring, and better utilization of resources.



# TASKS 1 & 2

## Task 1

- Mobilization of equipment and materials.
- Site preparation and debris cleanup

## Task 2 (Right – South Side of diversion)

- Installation of bulk bags to dewater the area of construction and divert flows to the North side of the creek.
- Install Cast-in-place headwall and new slide gate



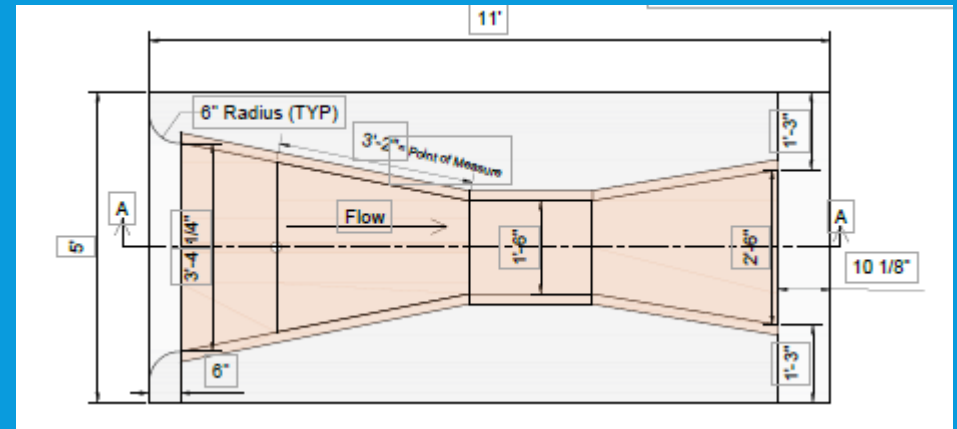


# TASK 2 (continued)

## Task 2 – Parshall Flume

- Existing flume and measuring equipment to be removed and flume re-installed with a concrete foundation.
- Create more stability and better grading.

Task 2: Parshall Flume and Measuring Equipment to be Removed and Re-Installed with Concrete Foundation





# TASKS

## 3 & 4

### Task 3 (Left- North side of diversion)

- Installation of bulk bags to dewater the construction area
- Installation and grouting of riprap
- Reinforcement for erosion control
- Preservation of floodwall and protection of fishery flow and passage

### Task 4

- De-mobilization of equipment and materials.
- Site restoration of disturbed area







# TASK 5

## Task 5 – Telemetry Station

- Installation and verification of all equipment and programming
- Integrating previous equipment into upgraded station
- Database management to ensure proper and timely reporting on the UAWCD website
- Provides alert system for predetermined threshold values

# SCMWD CID2 -GRANT FUNDING REQUEST-

Basin Account Request	\$10,040
Statewide Account Request <sup>(1)</sup>	\$100,400
Total WSRF Funds Requested (Basin & Statewide)	\$110,440
Match Funding (not including Basin Acct)	\$73,560
<b>Total Project Costs</b>	<b>\$184,000</b>

Contributing Entity	Amount and Form of Match (Cash or In-Kind)
Arkansas Basin Roundtable	\$10,000 (Cash)
Upper Arkansas Water Conservancy District	\$10,000 (In-Kind)
St Charles Mesa Water District	\$63,560 (Cash)
<b>Total Match</b>	<b>\$83,560</b>

83% of statewide request



# LAVWCD- Soil Health Demonstration Plots

Amber Weber, LAVWCD Soil Health Director

Needs Assessment Meeting 12/11/2109

# LAVWCD's Mission

- “To acquire, retain and conserve water resources within the Lower Arkansas River; To encourage the use of such water for the socio-economic benefit of the District citizens. To participate in water-related projects that will embody thoughtful conservation, responsible growth, and beneficial water usage within the Lower Arkansas Valley” and this is done with projects relating to water quantity, quality, conservation easements, and soil health practices to maintain water rights in the area.



# Project Overview

- Soil health- vastly misunderstood in both implementation and how soil health practices will impact water use and water quality
- Because of stringent water rights, an arid landscape, late adopters, and insecurities, demonstration plots will be the key to proving the affects of soil health BMPs (Best Management Practices) on not only the soil and its organic matter, but water quality, water holding capacity, and on-field economics.
  - Demo plots will be placed on water-long, water-short, dryland, and natural grass grazing

- 4 soil health demonstrations with water quality nexus
  - Producer-led
  - 100 acre plots
  - Split in half or smaller sections within
  - Weather station in middle
  - Multi-variable plots- cover crops, composting, synthetic input reduction, grazing, etc.
  - Soil and water quality samples
  - Economic, quantitative, and qualitative analysis
  - Technically synthesize the water consumption and quality of soil health practices
  - Display effectiveness via field days/tours
  - Farmer-led network of resources

# BIP and CWP Justification



WATER SUPPLY  
MANAGEMENT- WATER  
HOLDING CAPACITY  
INCREASE



AGRICULTURAL GAP OF  
600,000 AC-FT OF WATER  
PER YEAR- CONSERVATION  
IS KEY



INCREASED ORGANIC  
MATTER AND  
MYCORRHIZAL FUNGI WILL  
LEAD TO HIGHER WATER  
AND NUTRIENT HOLDING  
CAPACITY; LEADS TO  
BETTER CROP  
QUALITY/PRODUCTION,  
CONSERVATION OF WATER,  
INCREASE WATER QUALITY  
WITH NUTRIENT HOLDING  
CAPACITY



WATER QUALITY AND SOIL  
HEALTH ARE BOTH  
MENTIONED IN THE  
COLORADO WATER PLAN.  
THESE DEMONSTRATION  
PLOTS UTILIZE BOTH SETS  
OF DATA TO SHOW THE  
NEXUS BETWEEN THE  
TWO.

# Related Studies

- CDPHE
  - Currently working to see how cover crops, reduced tillage, and reduced fertilizer input can affect crop production and water quality
- EPA
  - Working on both water quality and soil health and educational outreach for each
- NRCS
  - Working to partner to utilize funding and expertise on LAVWCD's projects
- LAVWCD
  - Super Ditch is fallowing fields and may reduce wind and soil erosion on fallowed fields



Task 1-  
Development  
of Soil Health  
Test Plots





## Task 2- Soil and Water Quality Monitoring





## Task 3- Economic Analysis

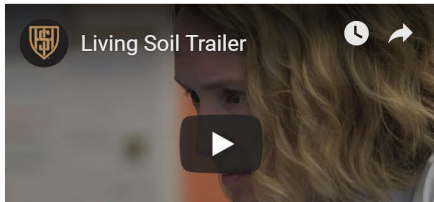


# Task 4- Field Days

VIDEO

TESTIMONIALS

LINKS



BURY YOUR BRIEFS

MERIT OR MYTH?

NO TILL FARMER

NRCS YOUTUBE

SOIL FOR HOPE CONSULTING

SOIL HEALTH INSTITUTE

SOIL HEALTH PARTNERSHIP FB PAGE

SD SOIL HEALTH COALITION FB PAGE

UNDERSTANDING AG

# Task 5- Success Stories





**Colorado Water Conservation Board**

**Water Plan Grant - Exhibit B**

**Budget and Schedule**

Prepared Date: December 1 ,2019

Name of Applicant: Lower Arkansas Valley Water Conservancy District

Name of Water Project: Soil Health Demonstration Plots

Project Start Date: November 1, 2020

Project End Date: December 31, 2023

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Development of Soil Health Demo Plots	NTP	12/31/2023	\$79,500.00	\$48,125.00	\$127,625
2	Soil and Water Quality Monitoring	NTP	12/31/2023	\$75,000.00	\$96,875.00	\$171,875
3	Economic Analysis	1/1/2021	12/31/2023	\$20,500.00	\$9,900.00	\$30,400
4	Field Days	1/1/2021	12/31/2023	\$6,500.00	\$10,500.00	\$17,000
5	Success Stories	1/1/2022	12/31/2023	\$8,500.00	\$16,625.00	\$25,125
6	Grant Management	NTP	12/31/2023	\$10,000.00	\$17,975.00	\$27,975
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
<b>Total</b>				<b>\$200,000</b>	<b>\$200,000</b>	<b>\$400,000</b>

Budget





Questions?