

QQ Board Retreat: The Future is Now

April 26 and April 27, 2018

MEETING SUMMARY

1 OVERVIEW

THURSDAY, APRIL 26TH

Celebrating Our Successes: Reviewing QQ's History and Successes

Barb, Lane, and Torie reflect on the successes of QQ over the past 30 years. The presentation included an excellent timeline of noteworthy QQ accomplishments that can be viewed [here](#). The presentation was followed by small group discussions where members shared their own perspectives about the QQ's accomplishments.

Ebbs and Flows in the Colorado River - Collaboration or Conflict?

Anne Castle, fellow at CU's Getches-Wilkinson Center for Natural Resources, Energy and the Environment and the former Assistant Secretary for Water in the US Department of the Interior, presented on the challenges and opportunities of managing water for the Colorado River. Her presentation provided a great overview of the legal discussions and the many ways States are working together to successfully manage access to increasingly less water.

Identifying Opportunities for Collaboration

The QQ cannot accomplish its long-term goals alone. In a facilitated discussion, QQ members broke into smaller discussion groups to identify how QQ can take advantage of collaborating with other agencies to advance QQ goals. Results are reported in the Discussion Summary below.

Managing QQ Contractors & Board Transitions

The QQ policies provide a guide for contract team in developing annual work plans. Each year, the contract team determines how work will be completed based on budget, priorities, and resource availability. This year marks a transition period. Barb, Lane, and Torie shared the transition plan for Lane's departure, Barb's reduced role over time, and Torie's project management leadership.

In addition, both the Chair and Vice-Chair positions will need to be filled by the end of 2018. A process for filling the board leadership roles was discussed. Results are reported in the Discussion Summary below.

Confirming Priorities: Are We Heading in the Right Direction?

Torie presented priorities for the 2018/19 work plan, expectations for special projects, and timelines.

FRIDAY, APRIL 27TH

Refining Our Work

In break out groups, the QQ discussed where to focus and refine the QQ's work. The discussion included land use and water, media collaboration, member support, and QQ policy.

Charting a Course for the Future: QQ Strategic Planning

On day one, QQ focused on what QQ is doing this year and into 2019. This discussion shifted to thinking about what priorities ought to be in the future. Four smaller groups worked together to answer:

- What are the biggest concerns about water for QQ communities now and into the future?
- How can the QQ enhance the capacity of QQ members to face those challenges?
- What should the QQ be doing now to prepare to address those challenges?

2 DISCUSSION RESULTS

2.1 BOARD MEMBER REPLACEMENT AND SELECTION

Note: the process and guidelines outlined below were discussion only at the retreat. These suggestions are subject to input and additional discussion at future meetings.

A. Process for Board Selection Guidelines.

1. Develop guidelines summary. The group agreed informal guidelines were preferable to updating the QQ bylaws (included in the [board packet for the retreat](#)).
2. Email out to the QQ for any edits.
3. In late summer, at the next QQ meeting, finalize guidelines by approval of members.
4. In fall, call for new board member nomination.
5. In last QQ meeting of the year (usually early November), conduct board selection.

B. To Include in the Guidelines Summary

1. Create a position description for Board and Vice-Chairs for responsibilities including:
 - Communicate with team
 - Support agenda development
 - Facilitate meetings and gain consensus
 - Represent the QQ leadership through meetings, testimony, etc.
 - Edit and sign formal QQ letters
2. General desired qualities of the board leadership and examine possibility of three leadership positions instead of two (Chair, Vice Chair, and Secretary)

Chair	Distribution of Leadership
<ul style="list-style-type: none">• An elected official• Has time and the staff support necessary to create capacity to serve in additional leadership position with QQ• Can represent the broader regional interest of QQ• Has long term perspective and deep knowledge of CO region• Understand QQ history• Listener and problem solver	<ul style="list-style-type: none">• 1 elected• 1 open• All 3 from different org/agencies

- | | |
|--|--|
| <ul style="list-style-type: none">• Solid base of knowledge of water | |
|--|--|

3. Nomination Process

- To apply, complete a letter of intent or application or email leadership ahead of time
- Nominations can be submitted by other QQ board members, interested member, or a nomination from the floor.
- A small nomination committee or QQ leadership vets the willingness and time availability to serve in leadership.
- Once vetted, applications are distributed to members in advance of board meeting to review candidates.
- Selection and approval by consensus happens at the first and/or last board meeting of the year.

4. Service Term

- A term minimum for services will be agreed upon by the QQ from 2 to 4 years. No term limits were desired, but a reconfirmation of leadership at the end of terms was deemed desirable.

2.2 MEMBER SUPPORT

A. Recommendations for Improving Services

- Conduct new member on-boarding
 - Do a meeting for new members one hour prior to the official meeting once per year. Include the history of the organization.
 - History summary is awesome! The timeline should be converted into a media presentation. (Facilitator Tip: There are great tools to convert into interactive presentations with photos, documents, etc. <https://www.ispringsolutions.com/blog/top-10-free-and-paid-interactive-timeline-makers/>)
 - Develop a menu style list of services for new staff. E.G. water elements of plans review
 - Provide advice for how new members can focus.
- Member visits/Building support in communities (roadshow)
- Use our meetings better
 - Homework sent out before our meetings. We can do reading ahead of time.
 - Identify updates ahead of time and summarize in handout/email.
 - Develop common themes to have pointed discussions.
 - More discussion on topics. Focused.
- Provide resources for us to guide personal learning. Link updates to key subjects.
- Maybe explore technologies for telecommuting participation. First step, explore whether anyone feels excluded or wants to attend, but cannot. Then determine if there are rooms we can do this. Important to stay committed and being in person is part of that. Don't want to lose that element.

B. Future Learning Topics to Explore

- Managing wells
- Best practices toolbox

- Climate change and water
- State Water Plan implementation

C. Clarify Our Value to Our Member Communities and New Members

- This overlaps with the work of the Communication and Media. Meet with member community public information officers and communication specialist to refine message for QQ working committee including:
 - Quality
 - Nonconsumptive
 - COG supportive
- Clarify resources available:
 - QQ website
 - E-updates
 - TA for linking land use and water

2.3 LAND USE

A. Land Use and Water Nexus Priorities

This year and next a QQ project priority is developing and implementing standards. Need to consider what will help these efforts to succeed.

1. Model water quality standards completed in May 2018.
2. Model water savings standards starts with assessment this summer, standards by end of 2018, and 2019 technical assistance for implementation.

Currently, at least Eagle County, Minturn, and Dillon are rewriting codes.

B. Land Use Challenges & Opportunities

1. An issue: Lack of local buy-in/prioritization. Build the necessary political and public support for new policies.
 - Develop a conservation ethic to promote willingness to adopt policy.
 - Use the message: New normal is drought.
 - Is there public momentum to adopt policies?
 - Share success of what we are doing in other efforts and how they overlap with water conservation/management:
 - Energy efficiency
 - Resiliency
 - Sustainability
 - Opportunity to build awareness with a “roadshow” or sharing best practices of what is possible. Demonstrate the value of water demand management/conservation.
 - Opportunity to build support from building and development community. It is in their best interest to continue to have water available.
 - Connect sustainability plan and water as a way to move water/land use savings forward in communities with support for sustainability.
 - Foster interdepartmental support. Takes breaking down silos in local jurisdiction
2. Use the forthcoming assessment for dual purpose:

- Demonstrate to our State our own methods to protect our own water resources (walking the talk).
 - To define next steps for QQ members.
3. An issue: Groundwater Wells/Subsurface Impacts. Collaborate with the State Engineer's Office. Learning opportunity with State engineer on well permits and understanding what the impact on water use.
 4. As new water quality standards adopted, will need to work with wastewater and water treatment providers – it's connected.
 5. A challenge: Utility and enterprise fund decline in revenue if conserve water
 - A regional best practice: In Aspen, for absentee landowners with vacation rentals – use financial incentives to do an audit for energy, water. Encourage that the audit is a value to the homeowner and get a reduced permit fee for business.
 - Do a local region roadshow to elected officials about water and land use benefits.

C. Tools for Integrating Water and Land Use

- Landscaping policy
- Starting point – water conservation plans are required for larger utilities by State; voluntary plans are also being undertaken in the QQ region.
- Technological efficiencies

D. Resources for Best Practices (and possible collaboration)

- Feds/State
- RMLUI – session on land and water
- Own communities
- LILP/SI workshop
- Extension office
- APA
- Agriculture. Divert it or lose it. Need to educate on that issue. CO Agriculture Water Alliance, Farmer's Bureau, TNC, NRCS, timing, center pivots (what is the ag tool box?)

(Facilitator Note: This is a good resource: <https://www.colorado.gov/pacific/cowaterplan/integrating-water-land-use-planning>)

E. Learning Opportunities

1. Share local and statewide success with local boards about tool box opportunities.
2. Roadshow on Land Use and Water
3. Bridge to Front Range communities, managing land use/water connection
4. Dealing with stormwater, highway run off, and other local impacts to water quality
5. Innovation on efficiency with developers & builders, technologies, smart meters,
6. How to learn from each other: Learn what others are doing? Invite planners to the table. Connect to utilities and water providers in dev. Code
7. Impact of agricultural irrigation on domestic well
8. State Engineer/Statewide Issues
 - How to enforce? Use of well is abused
 - Maybe enforce locally?

- Household use only wells – is often used for outside uses
- How to engage the State Engineers Office?

2.4 QQ POLICY

A. 2018 Focus

This year focus is:

- Protect local authority (water plan, oil and gas)
- Lobbying
 - Water plan criteria for state support for projects, implementation of water plan, servarnce tax
 - Who are we up against and who can be our water champion?
- Question for discussion included:
 - Are we missing a key issue?
 - Or is it about selecting issues?
 - Or our approach to items?
- Learned that historically, we have approached policy two ways:
 - We approach an issue as partners:
 - First identify partners that we can use to lobby with us
 - Defense and response
 - Or, take a shadow approach:
 - Take opportunity to work at local level to advance model desired outcome
 - In this case, QQ does not get credit, but may get the win or move the issue forward
- This policy question is about strengthening our reputation to achieve our policy goals.
- Opportunities:
 - Invite key policymakers to our meetings for focused discussions/learning:
 - We invite policy makers for discussion where may have opposing points of view
 - Guests with overlapping interests
 - Get updates from the water congress political action committee
 - DNR
 - State Engineer Office on wells
 - CWCB – Becky Mitchell
 - State level local control (streamlined permitting)
 - Federal agendies
 - APA legislative committee to align with their annual policy on water. APA Colorado promotes water legislation, but does not collaborate. What have been the failures? How can QQ and APA collaborate?
 - We can share our research (e.g. share paper on shepherding water, econ)
 - Promote water as an issue in election season:
 - Draft a position letter to all key candidates (state and federal) to explain issues and offer selves as a resource.
 - Sponsor a statewide candidates forum with water focused questions. (gov)

2.5 MEDIA SUPPORT AND MESSAGING: HOW CAN WE COLLABORATE TO GET OUR MESSAGE OUT?

The issues is we know we need to tell story about the value of the headwaters. This is not currently a project for 2018. During the retreat, QQ brainstormed how to do this in the future.

A. Message Development.

1. Purpose

- Shared messages
- Shared themes
- Build credibility through content
- Scripted content
- Have others become our spokespeople

2. What is our value as QQ?

- QQ
- Nonconsumptive
- Economics, aesthetics, and recreation
- Process – a committee with staff from the government public information offices work this year to refine a better QQ message

3. What are the messages/stories that need to be told?

- Drought as new normal
- Wildfire
- Water saber champions
- Water is life and economics
- Message
 - What are we doing
 - QQ is a membership organization
 - Water is life and our economy
 - Local growth rate increasing
- Need refined alser focused message
 - The great divide
 - Grand, CO video
- QQ is the agency to depend upon
- Tell our story of success/outreach to other groups. Subject: The new market and trends
 - Home Builders Association/Builders
 - Realtors
 - Second home owners/recreators-have an interest
 - Town/Planning Depts

B. Who Are Potential Partners?

- Media (reporters, Denver Post, Gazette, MTN Town, local papers and Front Range papers, Swift Media, Aspen Daily, etc.)
- Authors
- Economic groups
- River District social media
- Denver water
- Nonprofits like the watershed groups
- Water Education Colorado
- Association of Ski Towns

- Media, schools, CMC
- Denver Metro Chamber of Commerce

C. What Are Communication Tactics?

- Monthly/bimonthly forums
- Regular column
- Social media (greg's video, 60 seconds)
- Video
- PSAs/radio interviews/Press Releases
- Make election issue
- Letter to candidates
- Cocktail events
- Use International Water Day
- Radio interviews, announcements, PSAs
- Editorial boards:
 - Get a regular column
 - Drought as the new normal
 - Wildfire
- Water saver of the season award
- Cocktails for Collaboration at Barb's
- Water Day March 22nd 2019
- Coordinate on message delivery for multiple agencies. Leverage resources.
- In elections – put water on the table as an issue. Dear candidate letter from QQ.

D. Next Steps for QQ

1. Add as an agenda for a future meeting. How might this be initiated in QQ?

- Who-Board
- Money- grants?
- When (priority level)
- Maybe put on agenda every meeting
- Priority is messaging, logo/branding second/lower priority
- Maybe need a subcommittee or hiring a PR firm
 - Looking for soundbites or elevator speech
 - 5 minute talking points
 - Can be integrated into existing mediums

2. Check in agenda item at each QQ meeting

2.6 WATER EDUCATION

- Water education is a very “insider” subject.
- Need to educate our communities
- Role for QQ – gather existing resources for local organizations to use
 - What is everyone doing/using – audit will show gaps that QQ can find resources
- Education opportunity:
 - Raising awareness @ water/snowpack/average
 - End users about costs

- End user awareness and enforcement
- Opportunity to collaborate more on messaging connecting people to water
 - Aspen Healthy Rivers influence learning/awareness on diversions
 - CB South metro district talked about HOA water use and irrigation
 - Role of HOA
 - Facilitate regional water educator staff collaboration
 - Ski resorts are leaders – use them to do education and promote school curriculum
- Need internal support to educate. Partner on education on ethic with conservation – create education resource list for members

2.7 CHARTING THE COURSE FOR THE FUTURE

A. Concerns for Future

- Continued degradation of resources
 - Overuse and quality
 - Visitors do not understand how to protect resources (no ethic)
 - We see it, but visitors see the river and think it is beautiful!
- Stream health
- Push for conservation and decline in return flows
- Long term water right speculation on agriculture – in Grand Valley and Orchard Mesa
- ATMs – how to tweak the legislation on alternative transfer methods (ATMs)
- Increase in local food production
- Water reuse
- Shepherding water
- Firming of water rights
- Infrastructure replacement/federal dollars
- Climate refugees and effect of climate on recreation industry and snowpack
- A compact call
- CO water plan implementation. Permitting and criteria upheld.
- We expect increased conflict: retirement of older thought around water/water use

B. How Can the QQ Help Members Prepare for the Future?

- Understand/prioritize response to all threats. A threats/risk assessment.
- Water Rights:
 - A list of conditional water rights for QQ
 - The Colorado Compact – how do you prepare locally? Need to understand water shepherding, agriculture transfers, etc, that can be used to protect own community and water rights. Need to understand the CO River Districts Risk Study.
 - State Engineers Office to support shepherding in compact situation
- Water Quality:
 - New standards on aquatic life/temperature/303(d) listings for future
 - Water quality ripple of impacts. All sorts of impacts. What are tools to protect water quality?
 - Water source protection learning
 - Wildfire threats. Good learning opportunities (maybe Ft. Collins lessons learned)
 - Build understanding of tools, watershed protection tools, arrangements with the USFS, where can we leverage money from water providers.

- Get the South Platte to speak about how to engage the USFS
- Water Resource Management
 - Partner with Front Range water providers who have money to innovate.
 - CO State Water Plan SWP review goals and how is the QQ achieving those goals
- Ensuring an adequate water supply:
 - Little water rights and how effected. Summit Water Augmentation. How have they manged this process and learned from them?
 - Pitken Healthy Stream Fund. Gives resources to the community. How can we replicate this type? How can we bet a resources to ourselves more?
 - The Republic River. Anything to learn due to well overuse? Are there BMPs?
 - Missouri Heights is running out of water. What was the methodology there? What can we learn?
- Wells and septic: is this an appropriate development pattern?
 - Coloradop Rural Water potential. Video on septic management
 - Case Study: Pitkin Regulation - When sell a property need to inspect the septic to transfer property.

3 NEXT STEPS

3.1 NEXT STEPS AND FUTURE ACTIVITIES

- System map the QQ universe to assess our collaboration (Facilitation resource for actor mapping: <https://www.fsg.org/tools-and-resources/guide-actor-mapping>) Also could be helpful exercise for water education collaboration
- Continue to monitor our transition to new staff/board. Provide check ins.
- Distribute meeting summary
- Board elections
- Develop future agendas
- Develop message QQ basic version

3.2 FUTURE QQ AGENDAS

A. Future Agenda Items

- Contribution review of QQ members
- Staff stability
- QQ's Legal Defense Fund
- Future projects

B. August Agenda

- Board Replacement Guidelines
- Upcoming Water Quality Control Commission rulemaking on 401 certifications
- Priority setting for next agenda
- Maybe a roundtable discussion about what we are doign related to organizational communication (do homework so prepared for discussion)
- Potential guests:
 - DNR

- CWCB (West Slope board members)
 - Presentation and discussion
- Fire – how this season fire season prepares and uses to discuss water/drought
- Interim Water Meeting report (either August or November)



THE COLORADO RIVER

Collaboration or Conflict?

**Northwest Colorado COG
Water Q/Q Committee
April 26, 2018**

Anne J Castle

Getches-Wilkinson Center, University of Colorado

Colorado River Basin



Source: US Bureau of Reclamation



Areas Served Outside the Basin

Source: US Bureau of Reclamation

Sound Bites

- Serves 40 million people in US and MX
 - Including 4 of the fastest growing states
- Irrigates 5 million acres of farmland
- 23 Native American tribes rely on it
- 11 National Parks in the Basin
- Supports \$1.4 trillion economy
 - \$26 billion recreational industry

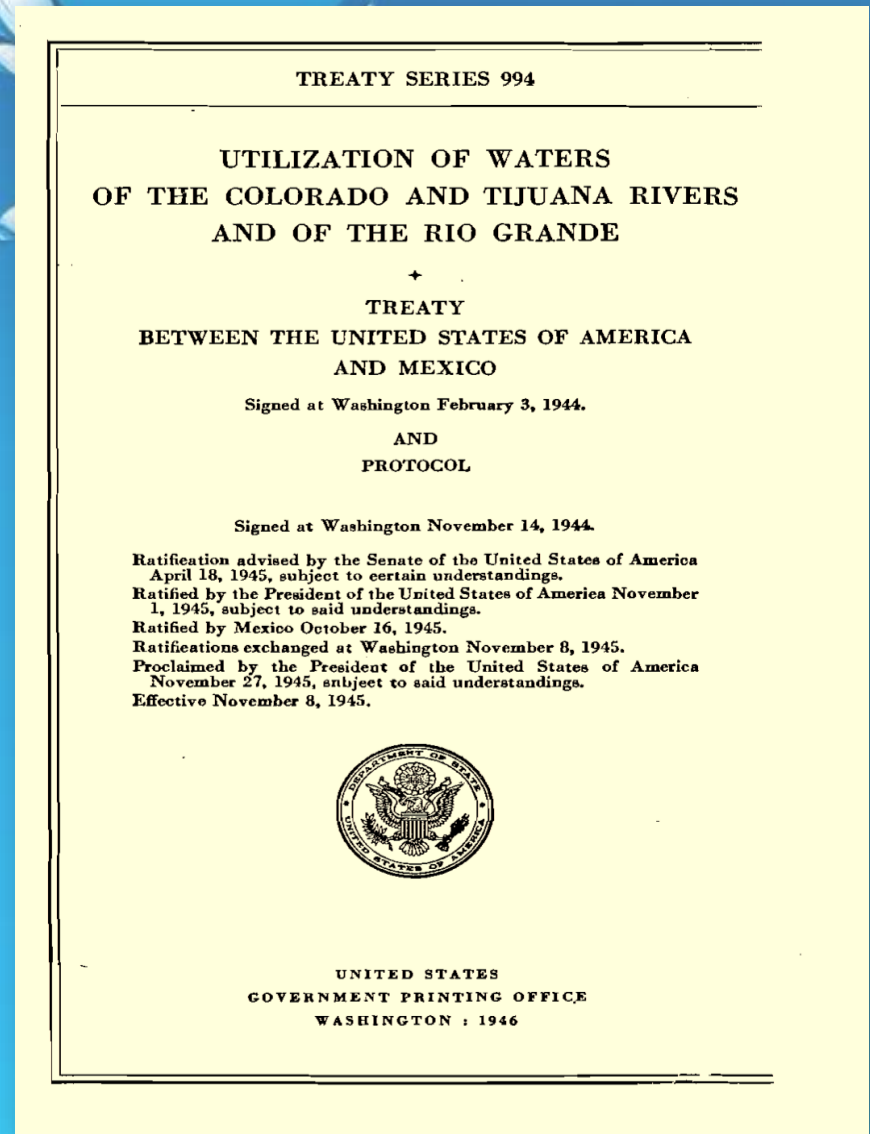
The Basic Math

Colorado River Compact - 1922

- Divided the river 50/50
 - Lower Basin gets 7.5 MAF
 - Upper Basin gets 7.5 MAF, but bears the risk of shortage
- If deliveries to Mexico in the future, split equally between Upper and Lower Basins

1944 Treaty - Mexico's Allocation

- 1.5 MAF/year
- Reductions in event of extraordinary drought

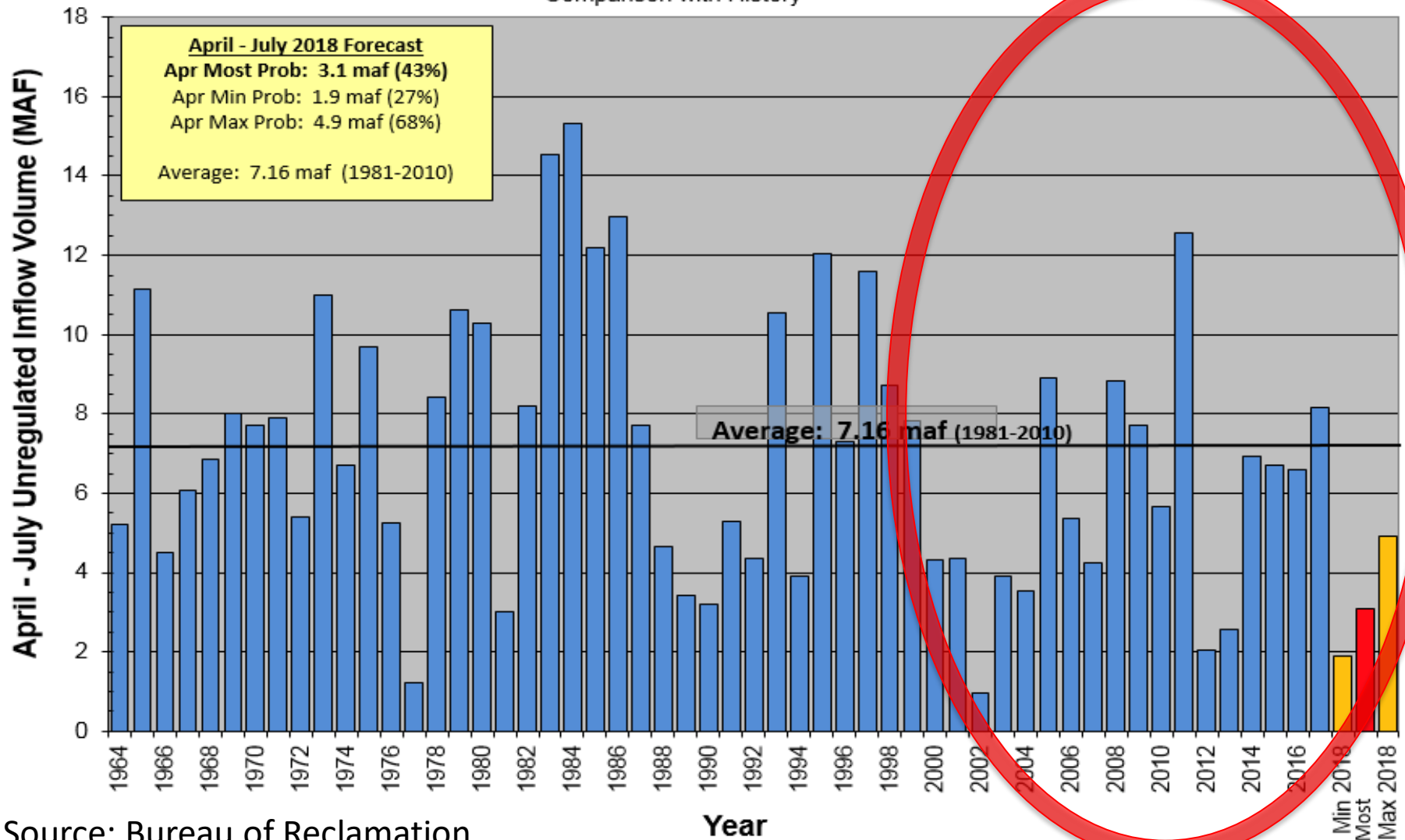


Next Developments

- 1948 – Upper Basin Compact
 - CO: 51.75%
 - NM: 11.25%
 - UT: 23%
 - WY: 14%
- 1956 – Colorado River Storage Project Act
- 1964 – Arizona v. California, US Supreme Court decree

Historic Drought in the Colorado River

Lake Powell Unregulated Inflow
 April - July 2018 Forecast
 Issued April 3rd
 Comparison with History



Source: Bureau of Reclamation

Lake Mead Annual Water Budget

Inflow = 9.0 MAF

Outflow = 9.6 MAF

Mead Evap = 0.6 MAF

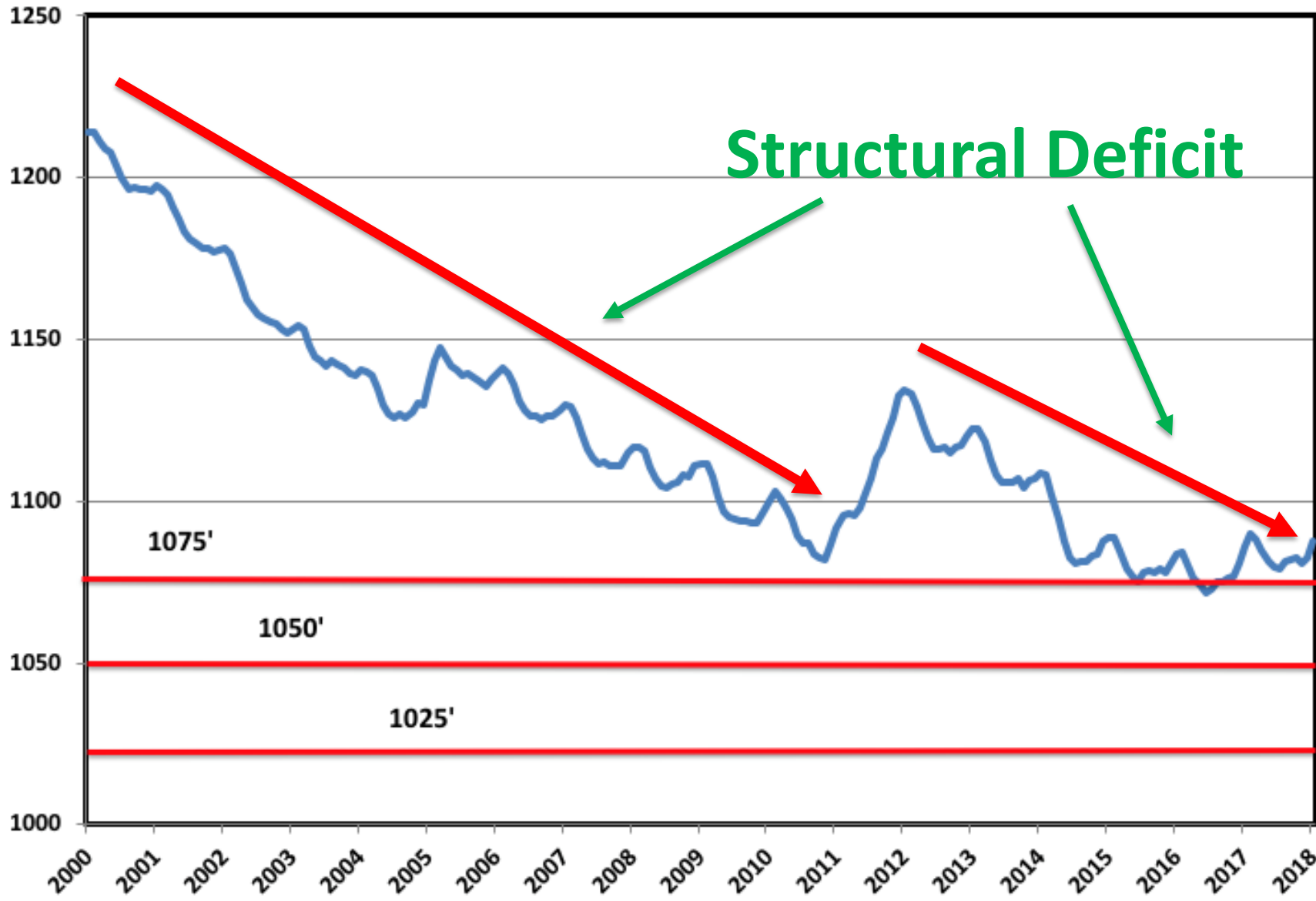
Deficit = 1.2 MAF

Source: US Bureau of Reclamation

Lake Mead Elevations 2000 - 2017

Elevation Feet Above Sea Level

Structural Deficit



Source: Bureau of Reclamation

Year

Predictions for the Future

- Udall/Overpeck paper 2017
- Rising temperatures decrease runoff
- Conservative estimates:
 - 20% decrease in runoff by 2050
 - 35% by 2100
- Support for decreases of:
 - 30% by 2050
 - 55% by 2100

Initial Responses

- 2007 Interim Guidelines
- Minute 319 with Mexico

2007 Interim Guidelines

- Sharing of shortage and surplus
- Balancing and equalization of lake levels
- Banking of water - Intentionally Created Surplus

Lake Powell



Lake Mead



2007 Interim Guidelines

Lower Basin Shortage Sharing

(in acre feet)

Lake Mead Elevation	California (4.4 MAF)	Arizona (2.8 MAF)	Nevada (0.3 MAF)
1075' – 1050'	0	320,000	13,000
1050' – 1025'	0	400,000	17,000
Below 1025'	0	480,000	20,000

Minute 319

- Effective 2013 - 2017
- Addresses shortage sharing, and much more



Participants in Min. 319

- US Federal Government
 - Dept. of State and IBWC
 - Dept. of the Interior (Reclamation and FWS)
- Mexican Federal Government
- 7 Colorado River Basin States
- Key US water districts/funders
- Multiple environmental NGOs/funders
 - US and Mexican

Minute 319 Components

- Operational
 - Sharing of shortage and surplus
 - Gives Mexico the ability to defer deliveries and store in US reservoirs
- Infrastructure
 - \$21M in US investment in Mexico
- Environmental
 - Pulse and base flows

Shortage Sharing Schedule from Minute 319

Lake Mead Elevation	California (4.4 MAF)	Arizona (2.8 MAF)	Nevada (0.3 MAF)	Mexico (1.5 MAF)
1075' – 1050'	0	320,000	13,000	50,000
1050' – 1025'	0	400,000	17,000	70,000
Below 1025'	0	480,000	20,000	125,000

Environmental

- Base flow – 52,696 af
 - Water to be developed by env NGOs
 - Raised \$10 million to purchase rights
- Pulse flow – 105,392 af
 - Just once during 5-year term

Colorado River in Mexico



Colorado River Delta in 1948



Aldo Leopold, Sand County Almanac, The Green Lagoons:

“the river was nowhere and everywhere, for he could not decide which of a hundred green lagoons offered the most pleasant and least speedy path to the Gulf.”

The Delta Today



Morelos Dam – the River disappears



Opening the Gates – March 2014





The Leading Edge

Source: National Geographic



Source:
Dale Turner, TNC
Used with permission



**May 12,
2014**

Almost there



**May 15,
2014**

The river and
the sea meet
once again

Lessons Learned

- Water did the most good in the active restoration areas
- Base flows may be more important for the environment
- The human element – reconnection of the communities to the River

SAN LUIS RIO COLORADO



SAN LUIS RIO COLORADO



SAN LUIS RIO COLORADO



New and Ongoing Efforts

- System Conservation Pilot Program
- 7-State Drought Contingency Planning (DCP)
- Minute 323

System Conservation Agreement

- Leadership by major municipalities in drought contingency actions
- Demonstrate capabilities of voluntary water conservation measures
- \$11 million initially
 - Additional \$5M in 2016
 - \$16M+ for 2018

Agreement No. 14-XX-30-W0574

AGREEMENT AMONG
THE UNITED STATES OF AMERICA, THROUGH THE
DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
THE CENTRAL ARIZONA WATER CONSERVATION DISTRICT,
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA,
DENVER WATER, AND
THE SOUTHERN NEVADA WATER AUTHORITY,
FOR A PILOT PROGRAM FOR FUNDING THE CREATION OF COLORADO RIVER
SYSTEM WATER THROUGH VOLUNTARY WATER CONSERVATION AND
REDUCTIONS IN USE

1. PREAMBLE: THIS AGREEMENT ("Agreement") is entered into this 30th day of July, 2014 ("Effective Date"), by and between the UNITED STATES OF AMERICA ("United States"), represented by the Secretary of the Interior ("Secretary") acting through the officials executing this Agreement, the CENTRAL ARIZONA WATER CONSERVATION DISTRICT, a multi-county water conservation district duly organized and existing under the laws of the State of Arizona ("CAWCD"), the METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, a regional public water district duly organized under California law ("MWD"), DENVER WATER, a municipal corporation and political subdivision of the State of Colorado ("DW"), and the SOUTHERN NEVADA WATER AUTHORITY, a political subdivision of the State of Nevada ("SNWA"), each being referred to individually as "Party" and collectively as the "Parties", and pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388), designated the Reclamation Act, and acts amendatory thereof or supplementary thereto, the Act of March 4, 1921 referred to as the Contributed Funds Act (41 Stat. 1404, 43 U.S.C. § 395), the Act of January 12, 1927 (44 Stat. 957, 43 U.S.C. § 397a), the Act of December 21, 1928 (45 Stat. 1057), designated the Boulder Canyon Project Act, the Act of April 11, 1956 (70 Stat. 105), designated the Colorado River Storage Project Act; the Act of September 30, 1968 (82 Stat. 885), designated the Colorado River Basin Project Act, the Act of

Upper Basin DCP

- Weather modification
- Drought operations – use other upstream reservoirs to maintain critical levels in Lake Powell
- Demand management investigation

Lower Basin DCP

- Proposed new shortage sharing schedule
- DCP+ in Arizona

Proposed New Lower Basin Shortage Sharing Schedule

Lake Mead Elevation	California (4.4 MAF)	Arizona (2.8 MAF)	Nevada (0.3 MAF)	USBR
1090' – 1075'	0	192,000	8,000	100,000
1075' – 1050'	0	512,000	21,000	100,000
1050' – 1045'	0	592,000	25,000	100,000
1045' – 1040'	200,000	640,000	27,000	100,000
1040' – 1035'	250,000	640,000	27,000	100,000
1035' – 1030'	300,000	640,000	27,000	100,000
1030' – 1025'	350,000	640,000	27,000	100,000
Below 1025'	350,000	720,000	30,000	100,000

But

An Elusive Colorado River Drought Plan Fails To Materialize – For Now

By LUKE RUNYON • JAN 10, 2018

91.5 KRCC
The Takeaway

Arizona water managers disagree on how to prevent a shortage on the Colorado River

Brandon Loomis, The Republic | azcentral.com Published 6:00 a.m. MT March 2, 2018

azcentral.
PART OF THE USA TODAY NETWORK

Arizona Debates Conservation as Colorado River Shortage Looms

Posted March 13, 2018, 5:29 AM

Bloomberg
Environment

Minute 323

- Signed last September
- Extends Minute 319 provisions
- New and deeper shortage sharing contingent on agreements and approvals among US entities



Binational Water Scarcity Contingency Plan

Lake Mead Elevation	California (4.4 MAF)	Arizona (2.8 MAF)	Nevada (0.3 MAF)	USBR	Mexico (1.5 MAF)	Total
1090' – 1075'	0	192,000	8,000	100,000	41,000	341,000
1075' – 1050'	0	512,000	21,000	100,000	80,000	713,000
1050' – 1045'	0	592,000	25,000	100,000	104,000	821,000
1045' – 1040'	200,000	640,000	27,000	100,000	146,000	1,113,000
1040' – 1035'	250,000	640,000	27,000	100,000	154,000	1,171,000
1035' – 1030'	300,000	640,000	27,000	100,000	162,000	1,229,000
1030' – 1025'	350,000	640,000	27,000	100,000	171,000	1,288,000
Below 1025'	350,000	720,000	30,000	100,000	275,000	1,475,000

Interstate Troubles

Colorado and three states accuse Arizona of manipulating Colorado River supply and demand

THE DENVER POST

Feud erupts between utility, US states over Colorado River

The Washington Post
Democracy Dies in Darkness

Four states that also get Colorado River water say CAP keeps too much for Arizona

T tucson.com

Upper Basin and Denver Water Objections

“CAP’s goal appears to be to delay agreement on drought plans in order to take advantage of what it terms the “sweet spot” by drawing “bonus water” from Lake Powell.”



UPPER COLORADO RIVER COMMISSION

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April 13, 2018

Mr. Tom Buschatzke, Director
Arizona Department of Water Resources
3550 N. Central Ave #200
Phoenix, AZ 85012

We write to express our concern that deadlock over water management in Arizona threatens the health of the entire Colorado River basin. Lakes Powell and Mead remain at near historic low elevations, and the current projected inflow into Lake Powell this year is 5.62 million acre-feet – only 52% of average. Without action, the current pattern of drought could draw Lake Powell to critical elevations and result in deep shortages in the Lower Basin within the next few years.

The basin remains in a historic 18 year (and counting) drought. This has significantly affected the Upper Basin, with large hydrologic shortages on an annual basis. However, during this time, the Lower Basin has continued on average to receive above-normal release volumes from Lake Powell. Nevertheless, Lake Mead is only at 41% capacity and is projected to continue to drop. This is because the Lower Basin uses exceed what a normal supply will support, also known as the “structural deficit.” The consequence of this water supply and demand imbalance under the 2007 Interim Guidelines is to continue to pull above-normal releases from Lake Powell, as Ted Cooke’s, General Manager of the Central Arizona Water Conservation District (“CAWCD”), widely circulated “sweet spot” graphic illustrates.

Representatives of Arizona, California, and Nevada have nearly finalized the Lower Basin Drought Contingency Plan – a suite of measures to help prevent Lake Mead from falling below dangerously low elevations. The voluntary water use reductions contemplated by those measures are necessary in light of the continuing drought. As you know, the Upper Division States are also preparing to take actions in light of the continuing drought which will benefit the Lower Basin. In particular, our proposed actions are all intended to protect Lake Powell elevations so that we may continue to assure full compliance with our obligations under the Colorado River Compact. Yet, in-fighting within Arizona has significantly contributed to stalling collaborative and critical progress throughout the basin and has delayed Mexico’s participation in similar reductions under Minute 323.

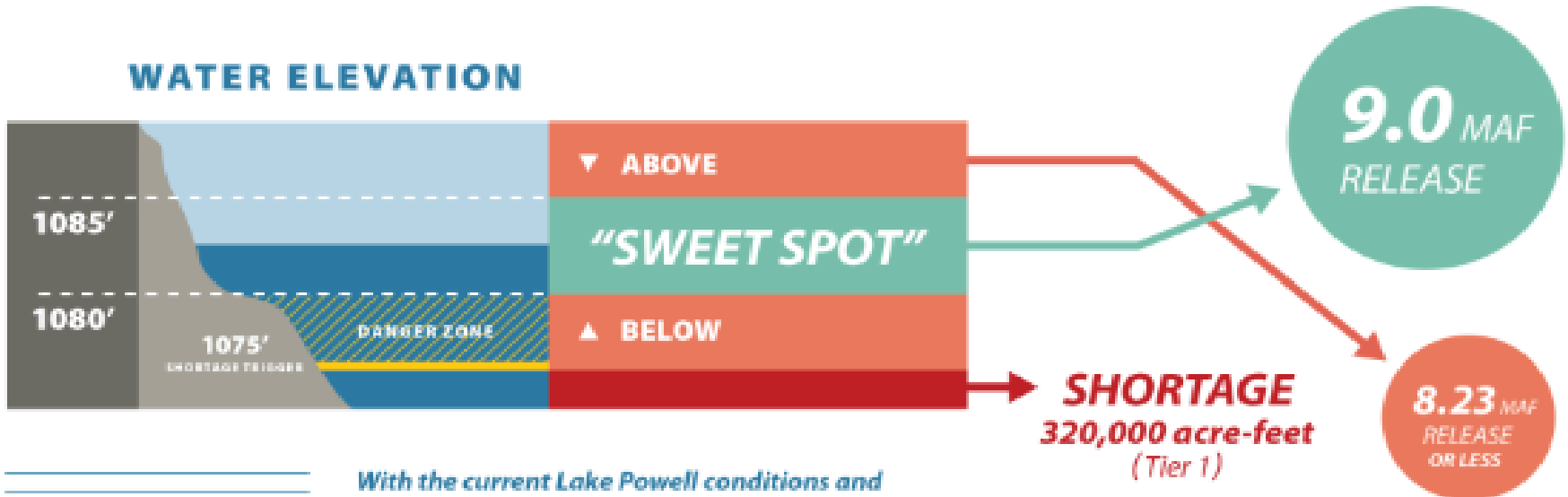
Our concerns are heightened by the graphic displayed on CAWCD’s website and relied upon in public presentations by Ted Cooke. Specifically, these efforts lay out CAWCD’s strategy to intentionally maximize demands within the Central Arizona Project to induce larger than normal releases from Lake Powell. CAWCD’s goal appears to be to delay agreement on drought plans in order to take advantage of

Maintaining the "SWEET SPOT"

THE LEVEL OF LAKE MEAD

IS ONE FACTOR THAT DETERMINES

AMOUNT OF WATER RELEASED FROM LAKE POWELL



With the current Lake Powell conditions and a Lake Mead elevation between 1080' and 1085', 9 MAF of water is released.

HYDROLOGY

ANOTHER FACTOR THAT DETERMINES RELEASES FROM LAKE POWELL is the inflow to Lake Powell from snowpack and precipitation which generates river flows.

8.23 MAF
RESULTS IN SHORTAGE

Releases of 8.23 MAF will drop the lake level 9' annually and drive the system into shortage more quickly.

What's Next?

- **Nail down the DCP in Lower Basin**
- Min. 323 – work group to determine how US and Mexico can jointly plan and operate the river after 2026
- Upper Basin water bank in Lake Powell?
- Address the overall structural deficit

Colorado Issues

- System conservation water bank – in Lake Powell or other UB reservoirs
- Shepherding conserved water to bank
- How to deal with new depletions - in Colorado and other UB states
- Quantifying and measuring conservation
- Tying development approvals more closely to water availability and conservation

Long Term Challenges

An aerial photograph of a winding river, likely the Colorado River, flowing through a dry, agricultural landscape. The river is a prominent light-colored feature, meandering through brownish fields and some small structures. In the background, there are rolling hills and mountains under a clear sky. The overall scene suggests a semi-arid environment with significant water management challenges.

- **Climate change – impact on runoff**
- **Salton Sea**
- **Unquantified tribal settlements and unused tribal water**
- **Not sacrificing the agricultural economy or the environment**

Significant Achievements

- Voluntary reductions in demand, triggered by falling reservoir levels
- Participants – Feds, 7 states, water agencies, NGOs, tribes, philanthropy
- Little (not zero) major litigation over the last 15 years

Why Is This Basin Different?

- Federal role
- Constructive role of env NGOs and philanthropy
- Collaboration has become the expectation
- Litigation viewed as failure



QUESTIONS and DISCUSSION



The Future Is Now

Why This Retreat? Why Now?



Retreat Goals

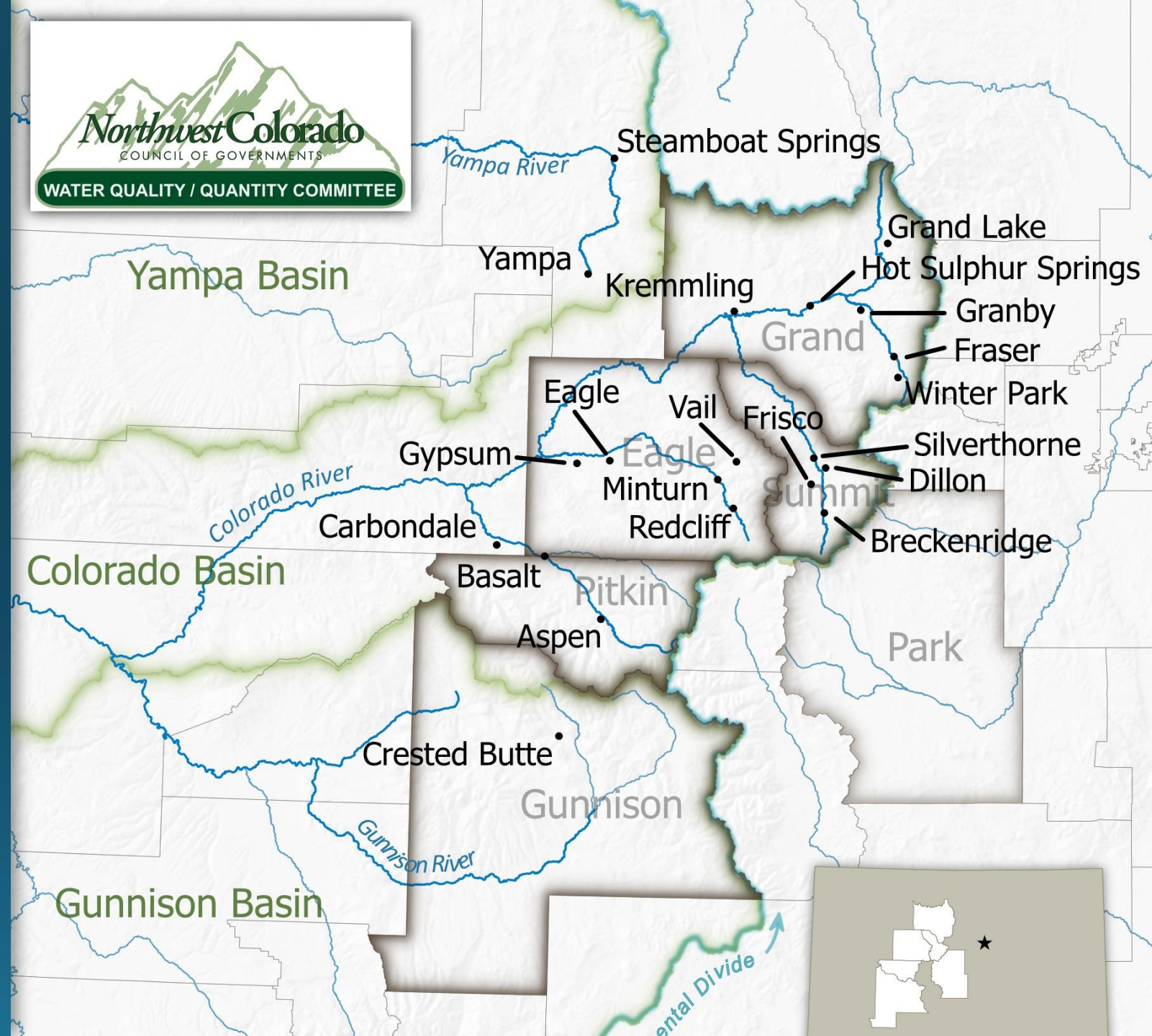
Reflect	Reflect on the history and successes of the committee.
Review	Review QQ policies, strategies, and program delivery for relevancy and desired impact.
Prioritize	Prioritize program outcomes and any program improvements.
Confirm	Confirm the 2018 Work Plan.
Strategize	Strategize future QQ work.

Mission

To facilitate and augment the efforts of member jurisdictions to protect and enhance the region's water quality while encouraging its responsible use for the good of Colorado citizens and the environment.



Our headwaters region



DEFINING CHARACTERISTICS

Water-dependent economies (recreation-tourism, agriculture, and resource extraction)



Photo by Mason Summing, the Wilderness Society



DEFINING CHARACTERISTICS

Water quality and quantity impacted by transmountain diversions



DEFINING CHARACTERISTICS

Local governments active in water quality and quantity protection



Swan Creek restoration, top photo in 2015, pre-restoration of mine tailings, and bottom photo during restoration in 2017. Courtesy of Summit County, CO, available at <http://www.co.summit.co.us/Blog.aspx?CID=5>.

QQ POLICIES

1. PROTECT AND IMPLEMENT LOCAL GOVERNMENT AUTHORITY TO PROTECT WATER RESOURCES
2. BUILD COALITIONS & EDUCATION
3. TRANSMOUNTAIN DIVERSION OVERSIGHT
4. WATER QUALITY
5. STATEWIDE WATER POLICY

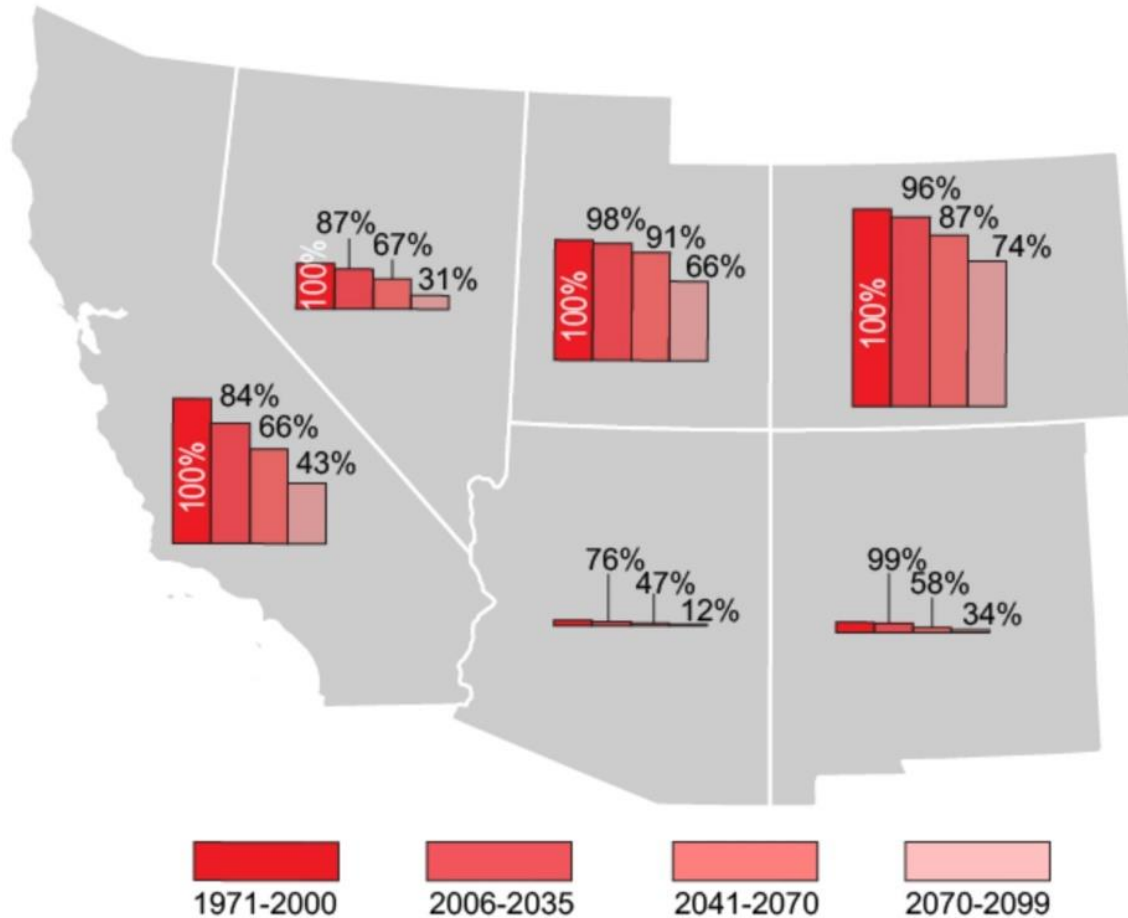
(subpolicies listed in board packet)



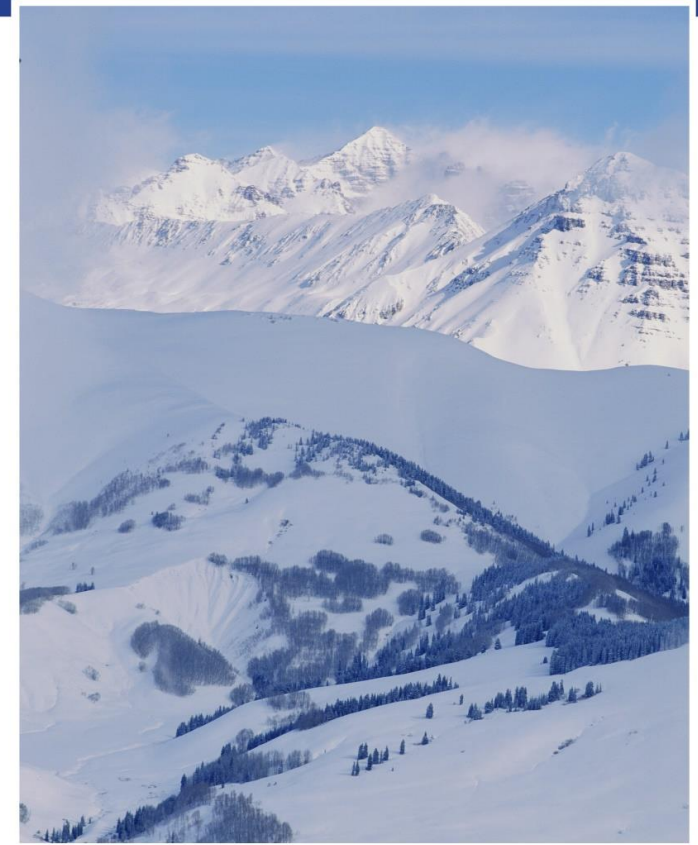
AN UNCERTAIN FUTURE

Projected Snowpacks

Projections with medium-high future emissions, comparisons to 1971–2000



CLIMATE CHANGE IN THE HEADWATERS WATER AND SNOW IMPACTS



A report to the Northwest Colorado Council of Governments

the
**ROCKY
MOUNTAIN
CLIMATE**
Organization

Stephen Saunders
Tom Easley
2018

AN UNCERTAIN FUTURE

<u>QQ REGIONAL GROWTH</u>	2010	Forecast: 2050	Percent increase
Region 12 (NWCCOG)	113,496	198,180	42%
Gunnison County	15,314	22,728	33%
Park County	16,277	23,797	32%
Garfield County (Carbondale only QQ member)	56,153	105,711	46%
Routt County (Steamboat Springs only QQ member)	23,451	45,998	49%

Statistics from Colorado State Demography Office, available at <https://demography.dola.colorado.gov/population/>



A scenic view of a waterfall cascading into a pool of water, surrounded by dense green forest and a rocky cliffside. The waterfall is composed of several streams of water falling from a mossy rock ledge. The pool below is calm, reflecting the surrounding greenery and the sky. The background features a steep, rocky cliffside covered in lush green trees and shrubs. The overall atmosphere is serene and natural.

Celebrating Our Successes

Reviewing QQ's history and accomplishments

Share Your Story!

Groups of 3-4

Storyteller share your favorite QQ memory.

- An accomplishment and how it happened
- Changes in the socio-political environment over time
- Funny people stories
- Impact QQ has had on your own community/work

Each group will share highlights in plenary

A landscape photograph showing a river winding through a valley. The river is dark and flows from the background towards the foreground. The banks are lined with dry, yellowish-brown grass and some shrubs. In the distance, there are rolling hills and mountains under a blue sky with large, white and grey clouds. The overall scene is a natural, outdoor setting.

Managing Transitions

QQ CONTRACT STAFF

CURRENT

- Sullivan, Green, Seavy LLC (SGS, Barbara's law firm)
- Lane Wyatt (to end of 2018)
- Torie Jarvis
- Contract amount: \$160,196

TRANSITION PLAN

- Torie lead project manager
- 2018 use team of consultants to begin to fill work from Lane
 - Ashley Bembenek of Alpine Environmental
 - Lotic Hydrological
- In 2019 may propose adding Ashley to the contract.
- Legal consultant contract with firm, not Barb. Firm lawyers willing to take on role.

QQ BOARD STRUCTURE

Board = All QQ members.

Consensus based decisions.

For meetings, anyone present has a voice.

For absent members, can voice concern at any time.

Chair and Vice-Chair provide day-to-day guidance to contract team

QQ LEADERSHIP SELECTION

Chair

Rachel Richards, for past three years. Term-limited at the end of 2018.

Vice-Chair

Tom Clark, Kremmling Mayor, no longer in office.

Bylaws do not specify a process:

***OFFICERS.** The membership shall elect a Chair and Vice Chair to oversee meetings and serve as day to day contact for consultants as necessary.*

QQ LEADERSHIP SELECTION

Ideas from the interviews and surveys:

- Chair/Vice-Chair position descriptions and/or desired traits
- Board member nomination process
- Leadership succession process
- Board confirmation
- Formalize

A wide-angle photograph of a snowy landscape. In the foreground, a path of footprints and tire tracks leads from the bottom center towards the middle ground. The path is flanked by snow-covered bushes and small trees. In the background, rolling hills are covered in snow, with a few more trees scattered across the slopes. The sky is overcast with grey clouds. The overall tone is cold and quiet.

Confirming our
Work:
Are we headed in the right direction?

OUR CURRENT WORK

QQ CORE POLICIES

(subpolicies and 2018 Scope of Work listed in board packet)

- 1. PROTECT AND IMPLEMENT LOCAL GOVERNMENT AUTHORITY TO PROTECT WATER RESOURCES**
- 2. BUILDING COALITIONS AND EDUCATION**
- 3. TRANSMOUNTAIN DIVERSION OVERSIGHT**
- 4. WATER QUALITY**
- 5. STATEWIDE WATER POLICY**

- Plus:
 - Member services
 - Administration

2018-2019 Projects:
Ongoing work and
committee
representation

- Legislative and state policy monitoring
- Grand Lake Adaptive Mgmt & NEPA
- Learning By Doing
- Upper CO Wild & Scenic Stakeholders
- CO Water Congress
- Land Use/ Water Planning Alliance
- CO Basin Roundtable (TBD future participation by contract staff post-Lane)
- Advisory board for Sonoran Inst. Growing Water Smart trainings
- QQ quarterly meeting planning
- Implement 208 Plan on behalf of NWCCOG

2018-2019 Projects: Water Plan Implementation

- Criteria and state endorsement
- Linking Land Use/ Water Planning
 - Water Plan grant for 2018-2019
- Supporting local Stream Management Plans
- Funding implementation

2018-2019 Projects: Water quality

- Upcoming rulemakings
 - 401 certification
 - 2019 Colorado Basin Rulemaking
- Model WQPS (to be finalized May 2018)
- Climax studies and potential proposal on molybdenum
- Evaluating watershed group proposal for Grand Lake as Outstanding Water

2018-2019 Projects: Member support

- Member assessment and technical assistance for linking water & land use planning
- New process for introducing new elected officials
- QQ website and history development
- Member visits, summer 2018
- New member meeting summaries
- Member e-updates (early summer 2018, first one)

2018-2019 Projects

Protecting local authority:

- Oil & Gas: *Martinez v. COGCC* amicus (May 2018)
- Water Plan criteria discussions

Legislative monitoring & Lobbying

- 2018 priorities:
 - * funding for ANS program (√)
 - * Water Plan criteria
 - * Implementation and severance replacement funding
- Future priorities could be:
 - * Linking land use/ water planning
 - * Water Plan criteria
 - * Broader water funding
 - * Protecting or expanding ISF and RICD
 - * Climate change or drought response

WHAT DOES SUCCESS FOR QQ LOOK LIKE IN 5 YEARS?

- Local control and protection strengthened
- QQ reputation and representation stronger
- Proactive not just reactive
- Organizational structure sustainable and strong
- Successful water planning
- CO water ethic statewide