

From your perspective as a community leader in Northern Colorado, what is your key takeaway from today's session?

- In entering into any group discussion/negotiation, everyone at the table, including me, is bringing their baggage/bias to the party. So it may be best to allow some time for dust to settle out before getting to the nuts and bolts. Perhaps listening before jumping in will allow opportunity to widen my perspective.
- My key takeaway was the water issue is even broader than I knew. With so many disparate industries represented in our class, it's clear that water protection, conservation, storage (not hoarding!), and the myriad of other water issues impact almost every sector. Yet it is one of the most complex issues to share. How can we make it easier for the general public to understand what we face, engage in the conversation and demand management?
- I really appreciated the historical context that Brian Werner laid out as it paints a complete picture of water scarcity in CO. The key point that I came away from the first session was that the only certainty we as water users have in the coming years will be that population growth and drought associated with climate change will continue for the foreseeable future. This will continue to increase the pressure on this limited resource so it is only through collaboration and engagement of all stakeholders in a basin that we can plan for future usage and avoid conflicts.

I've heard this phrase many times before but I still love it every time it's mentioned, "Whiskey is for drinking and water is for fighting." I think this sums up the history of water in CO and the West but it doesn't have to be the way forward. By recognizing that groups that may not share the same needs or goals do share the same resources we can work together to plan for development, agriculture and recreation through cross basin and interstate water sharing.

- One of my key takeaways from this month's meeting was what one of the speakers said, "Don't forget that whatever water you use had to come from a river somewhere". For me that really sunk in and creates the imagery that will always cause me to think about what water I use and remembering what a scarce resource water truly is.
- All the presentations in this first session were great and very informative. It is a complex subject and there was a lot to take in. Since at least two of our presenters are nearing retirement, and are considered to be seasoned experts in their field, is there concern for the knowledge that is going to be walking out the door? How are these entities planning to capture that knowledge and pass it along to others in the industry?
- I feel like Martin Carcasson's presentation about how our brains work was the greatest takeaway. It is obvious to me that securing our future water needs will take a great deal of compromise and collaboration from all parties. An opportunity to reflect on our own behaviors and habits is critical to navigating such a controversial subject together. This should be a mandatory course for all members of our community. Water as a resource has been deeply depended on for many generations. It will take a great deal of trust building to bring old water management methods up to speed for our future population to use.
- I was happy to hear that - even though it may take years - compromise and finding mutually agreeable solutions is possible. The upside of taking water matters to court is that it takes so many years to resolve that at least some people are highly motivated to stay out of court. (However, this makes me wonder what will happen with Larimer County and Thornton).
- I learned of the significance of return flows: that most irrigation water is NOT lost to evaporation but can satisfy downstream rights weeks after first use. I also learned that

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irrigation projects have changed river ecosystems from water in the river only during spring run-off to water throughout the growing season.

- My key takeaway from today's session is how complex and important water is to our rapidly growing region. Our forefathers had truly amazing vision to figure out how to get sufficient water to the locations where water was needed most. I am hopeful that as leaders in Northern CO, we can work together cooperatively, have vision to solve the future water needs of our region and educate our citizens to deal with this most life-sustaining issue.
- Our city elected and administrative leaders are very uninformed on water. This class is encouraging, but the need for a deeper knowledge of how water works and future impacts is needed. Water is currently a conversational hot topic and something to say, yeah that is a big problem. Our local leaders don't seem to be taking the next step of working together to come up with sustainable solutions. There is definitely still a fair amount of zero sum thinking.
- I have a couple key takeaways. First, I'm very impressed by the diversity and depth of interest and experience in the members of the class. I'm excited to learn from and alongside them during the months ahead. The second takeaway was from the presentations on Colorado water history and overview. The three speakers reinforced the complexity and difficulties in coming to a common understanding about how best to apportion our scarce water resources. It is interesting to learn that the need to divert water from the western slope to the front range was recognized more than a century ago as the state started growing and as mining, agriculture and early urban needs became apparent. Over time those complexities and disagreements have continued to grow and the disparate emotional stances continue to make wise resource management very difficult. However, even the limited success of processes like the river basin roundtables encouraging calm discussion and common understanding among very diverse stakeholders makes me optimistic that we can make breakthroughs in conservation, use and reuse to better steward our water resources.
- Future water management will be about conservation, efficiency of storage, and delivery of water, since supply is nearing its limit.
- My key takeaway from our first class is what I stated in my introduction. I realize how much I don't know about water in Colorado and how much I need to know to be a more effective leader on City Council. I felt comfortable with the material that Brian Werner shared with us because I have taught this information myself when I taught Colorado History. I loved hearing about the origins of water projects in Northern Colorado that have created the sophisticated water system that we enjoy today. I found it interesting to know who owns the water--for example, Greeley owning the water in Parkwood Lake. Or, where the water comes from--for example, the water at Horsetooth Reservoir comes from the Colorado River.
- The issue regarding water has been studied historically and analyzed from many different perspectives. Whether it be for economical, political, or environmental aspects, their viewpoints seem to be valid with sound documentation. The challenge is how or if all of these concerns can be addressed in a thoughtful, viable and timely manner.
- I appreciated hearing about some of the history of water and water development in Colorado. Specifically, it was very telling that the state started considering bringing water from Grand County to the Front Range back in the 1880's. It shows foresight, but more so, it shows that water was identified as a precious and limited resource from the time that people started to settle in the region. Additionally, I thought that it was unbelievable that 90% of people voted in the tax to establish the Northern Water Conservancy District. It is hard to imagine that there was that much consensus around any issue.

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- When early 1800s explorers labeled the Poudre basin "Great American Desert", a barren region unfit for man, etc, little did they know that in less than 80 years the basin would be a great network of irrigation canals and there would be talk of diverting water from the west slope to the east. I'm impressed with the strength of these forefathers, that was back breaking work. I'm also humbled by their vision.

What questions do you have based on what you heard from today's speakers and group discussion?

- Today's speakers spoke eloquently about decrees, rights use and shift of water for ag and domestic uses with almost no mention of water management for river/riparian health, fishery sustainability and recreational opportunity. Granted legal protection for these uses came very late to the game consequently water rights for these uses are so junior that they are almost meaningless under Colorado prior appropriation doctrine. However, these uses are increasingly important to the State's quality of life and economy and the public resoundingly supports these uses as being high value goals. So realistically how can we include and support these ideals in a changing world of water use?
- Colorado water users are challenged by water priority, even with other states as compacts allow senior water rights to leave the state. Can various entities, both public and private work together to find solutions to replace that water for other states and "buy" back our water rights?
- My big question is as a leader in Trout Unlimited what can outside groups like ours who may not own water rights do to articulate for environmental or recreational flows in our local streams and rivers. TU is currently engaging with Northern Water on the NISP project but I'd like to learn how to start conversations with other water managers to better implement their conservation programs. Looking beyond storage to river diversions and leaking ditches, what role do these water managers or districts see groups like TU playing in the future? My goal is that we are seen as an asset or partner and not an outsider hurling rhetorical bombs or delaying projects in the name of a few fish or our hobby of catching them. So I want to learn how best to collaborate to produce win-win outcomes for all parties.
- One question that I would like to know more about is the process of cloud seeding and how that could be used to increase productivity of moisture within clouds. Additionally, what are the measurable benefits, if any, and are there any potential negative impacts on water supplies by conducting this process?
- Chris Treese with the River District stated in his presentation that there is currently drought-contingency planning going on in the Upper Basin as well as the Lower Basin. One of the options presented was the potential for voluntary demand management in the Upper Basin. How would this work – would it be as individuals, or as an entity/district? Would there be any credit or compensation given to those that volunteer to use less water?
- If the Upper Basin has the water at its origin, but the Lower Basin has the legal right to the water, which basin would you rather live in when 2050 arrives?; Why don't we hear about cloud seeding more often?
- We heard that almost all mountain water leaves the mountains and they never get it back. How much do they need?; Are they struggling?; Do they need their own reservoirs?
- Is there any way for the Upper Colorado River Basin to negotiate a larger share given the rapid population growth of our inland population and the Lower Basin's proximity to the Pacific Ocean for desalination?

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- My questions about what I heard was to understand return flows and seepage better. I understand it in concept, but it doesn't seem like you would re-capture the total amount of loss. I may be influenced by a pond I regularly walk by, which is filled when the nearby ditch is running, but evaporates, but always has some water in it when it is not. Maybe this is a different issue?
- What did the Poudre and Big Thompson basins look like prior to any development (mining or ag)? Did the rivers dry-up?; How will C-BT be impacted by potential western slope/Colorado river shortages?
- I would like to better understand the South Platte River flows and uses and how it may be possible to gain even more reuse as the river flows through the state.; How can we use the brain science research to design better public processes dealing with resource use?; How will NISP alter the river ecosystems that the speakers mentioned as currently being in many ways more healthy than they were decades ago?
- How do we provide for future decades, with population projections of doubling, and shift in population density areas?; How will water compacts need to evolve as above changes happen and temperatures increase?
- I question whether we will be able to build enough storage to ward off the ravages of a drought. Right now we have Halligan Dam with plans to expand its capacity by 25%. I'm concerned that the rate of growth in Colorado will outpace our ability to provide water. I realize that we must form roundtables to facilitate discussions about our demands for water and how it will be allocated. I would also like to know more about the roundtables.
- How can groups and organizations continue to expand their reach and accelerate the educational and political process to address these critical issues? Unfortunately, I think we address and try to operate at "the speed of government".
- The statewide water plan was a great first step to put disparate interests in a room to have a conversation, but will it really result in collaborative efforts statewide given that most water disputes are zero sum?

What did you learn today that encouraged you, discouraged you, or captured your attention to the extent that you could see yourself engaging in it further?

- The lack of inclusion of the importance of water management for resource benefits was discouraging for me, which encourages me to bring this essential element in the puzzle more prominently into discussions on water use in Colorado and the west.
- Not directly connected to the water discussion, but I really liked Martin Carcasson's presentation on addressing polarization and groupishness. Timely for our new cohort and for the industries we represent. I am planning to reach out to Professor Carcasson to learn more.
- I was discouraged to see that rivers like the Platte are often totally diverted for agriculture, completely drying up the river. But I was encouraged to learn how groundwater can recharge the river sending plenty downstream for other water users. So I'd like to learn how organizations like CPRW and TU can work with water users to keep some of this water in the stream for environmental flows. I know that in-stream flow is now considered a beneficial use so I'd like to learn more about how that can be used to further enrich natural spaces like the cottonwood corridors along the Poudre and Platte. These areas now provide a home to song birds and other wildlife in areas that were once seasonal flows and could dry up completely. I think that expanding recreational opportunities along river corridors could provide

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environmental and economic benefits to some of these Eastern Plains towns that have shrunk as the result of contractions in the agricultural industry.

- One of the concepts that challenged my perspective was based on what one of the speakers we had talked about how water has such a different perspective depending on where in the state you live and how much differently that dependency is and how their conservation efforts are different the further downstream you happen to be.
- The presentation on “Addressing the Leadership Challenge of Polarization and Groupishness” was very interesting to me and is a topic that I would like to explore further. It seems that regardless of the topic being discussed (it could be any industry), if somebody has already formed their opinion about a subject (whether it was based in fact or not), they seem to be convinced, and it becomes challenging for them to hear anything that doesn’t support that opinion. I found it both enlightening and frustrating that this is a reality of how the human brain works. I believe that this is a complicated subject matter, but I would love to have a better understanding of some of the possible tools and phrases to help facilitate meaningful conversation.
- The deeper I go into learning about water, the more I find I still need to learn about! I’m really enjoying being in the educational environment with a cohort, however I am glad I’ve done a little studying ahead of the class start date in order to more fully comprehend the content while in class. I love learning a new language of water, and feel encouraged to seek out several water conferences & meeting this next year. I want to understand how public & private entities are interpreting the Colorado Water Plan, and to hear what various water professionals are paying attention to.

I also enjoyed seeing water through the economic lens with Chris Treese. The uncertainty of climate change is a real risk for our community. I know what water feels like to play in. I know what water sounds like to sit by. I want to understand how water behaves as an economic driver. That is the information that will get local businesses to pay attention. I want to be able to share that story with others.

- I did want to learn more about Martin Carcasson's work, so I emailed him and got the five-page summary. It is definitely a challenging time. We're prone to giving in to our worst selves instead of disciplining ourselves to be better. I daresay we often know better, but don't do better - and by this I mean be more deliberative, more cooperative, and wiser, as opposed to giving in to our basic instincts.
- I was encouraged by the success of the river basin roundtables - that they are bringing together all of the concerned parties for the first time to hear each other's cases. I was discouraged by the unrealistic allocations of the Colorado River Compact and the train wreck they have set up for the near future.
- One of the things that encourages me is how effective Roundtable discussions have been with those in the water industry. That tells me that we need more of these discussion groups to brainstorm and facilitate solving problems/issues, both water and other issues that Northern CO faces. I guess I was discouraged by the amount of water that is committed to other states that may not be on the same page as those others willing to collaborate.
- My response to question one discouraged me, but I certainly see it as a challenge worth engaging. This class is really encouraging. I am grateful to be a part of it and thankful for its mission and leadership.
- I am encouraged by the rigor of the curriculum and the opportunity to dive into this fascinating subject. I am discouraged by the urgency with which we need to address our water resource issues in the face of intense growth and even more competing needs. The

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hydrology of the South Platte and how it is used, flows back to the river, and then gets reused has captured my attention and made me wonder what other opportunities there are for us to be innovative and collaborative.

- I was encouraged after class discussions with the presenters about technology in reuse and developing sources, i.e. desalination, for southern states. I was not discouraged except with the limited supply of water. I was engaged in how to accomplish such a complex problem of water needs, with a fair consideration for all interests involved.
- As we discussed the flows of the various rivers, I found myself wanting to know more about how the new Whitewater Park will be able to work and I want to find out more about it. There will be a grand opening on October 12 and, hopefully, we will be given more information about how it will work.
- What is discouraging is how short term much of our actions have been without a continuing reassessment of our decisions until we reach critical situations. What is encouraging is being able to learn from other civilizations (the Anasazi) and how they have survived through centuries. Also, encouraging is how efforts/discussions throughout the state (ex: the water basin discussions) have taken place to be able to plan for the future. The question is how are these plans being implemented and at a more rapid pace. This should be a national concern.
- Although not technically water related, I found the conversation about wicked problems very interesting. I'd like to explore further how consensus can be achieved given how we make decisions and self-select information.