

## Water Literate Leaders Homework Following November Session

### 1. **What did you learn today that encouraged you?**

- A great deal of thought is being given to the use, conservation, and quality of water in Colorado. I am amazed at the efforts of many of the municipalities to be good stewards and good partners with the agriculture community to use water wisely. Municipalities are purchasing water rights for the future but are leasing back the water to agriculture.
- I was encouraged by the idea of water storage by recharging groundwater aquifers as described by Randy Knutson of the Central Colorado Water Conservancy District.
- I was encouraged to learn of the recharge efforts that Mr. Knutson spoke of.
- Chatfield Reservoir will help the farmers associated with the Central Colorado Water Conservation District.
- I thought the guest speakers did a great job of briefly describing some innovative water transfer/sharing mechanisms that work better for agriculture over more traditional sales to municipalities. It would be interesting to hear more about these types of arrangements and how we might advance similar projects in the region.
- Thornton's plan being buy and share, not just buy and dry, at least for now.
- That there are ways to help preserve local agriculture including conservation easements.
- The presentations and speakers were excellent. I believe there is much dialog happening within the area of water. There appears that conversations are happening yet much needs to be accomplished.

### 2. **What did you learn today that discouraged you?**

- Water is an issue that is going to become increasingly valuable and contentious in the future years. Comment was made that we are allowing too many people into the state, as there is not enough water to support the growing number of people. So what is the solution? Build a wall?
- I was discouraged by the impact that drying up farms that use CBT water will have. I understand that the water comes from the other side of the continental divide and is thus fully consumable, but once it has been used for farming for a number of years, then it is suddenly dried up and allowed to be completely diverted elsewhere, it would reduce the groundwater and potentially dry up streams in the winter in the vicinity of the dry-up.

- I was discouraged by what I perceived to be a negative attitude towards municipalities and the development industry from agricultural representatives. While I was aware of Thornton's "buy and dry" plans, I was discouraged by the amount of water that will be moved from N. CO without return flows.
- That there is no concrete knowledge of the Acre Feet return flow loss to the river in NOCO as soon as Thornton implements their plan. On an interesting note, it made me more empathic with the Western Slope as they are losing return flows when water is transferred to the Eastern Slope
- The comment and discussion among the group about current community support for agriculture and balancing values and water use with growth was a little discouraging, but good conversation to consider. It makes me want to know more about what types of community long-term visioning has been done in this region, as I know the Poudre Runs Through It has likely done this and likely other groups have as well. It would be interesting to see what values people have shown an interest in retaining and balancing, as the area continues to experience increased population growth.
- The more I learn, the more I realize how complex the whole structure is of water supply and storage with many independent companies and entities. There appears to be considerable space for simplification to improve current efficiency and planning for the future.
- That the buy and dry policy is really hurting farmers particularly with local availability of silage. I learned once again that there are a lot of problems with regard to water and that the solutions continue to be more complex, more controversial and more expensive.
- I wonder if there would be as much concern or interest in water if there was storage.
- I was discouraged about the price of water and then the price of land. There is not much incentive or ability to be involved in production agriculture when costs relative to the prices they receive make it nearly impossible for an agricultural business to stay in business.

### **3. What did you learn today that surprised you?**

- I hadn't given much thought that the ditches that have been used for decades at a fairly high water level, are not functioning well because of the drop in water volume. How is that being addressed?
- Gerry Horak made the point that a municipal water supplier (such as a city or a water district) buying the water rights actually helps keep farming viable. If I followed him correctly, his logic was that in normal and wet years the water is rented annually back to agricultural users, and only in dry years does the city or water district use that water. If I understood him correctly, he said that it is viable

for farmers not to have water on dry years, every so often. That surprised me.

- I was interested to note that the Grand River ditch is senior to the Colorado River Compact.
- That water quality is important to Ag as well.
- Although not totally surprising, I thought the way that Jon Slutsky phrased how important water quality was to agriculture was a great point and well made. Water quality impacts various sectors, although I had not considered its direct impact on crops and agriculture quite the way that Jon expressed it. It would be interesting to dive into water quality issues a bit deeper and see how we can maintain quality along with considering issues related to quantity.
- That agriculture is such a major part of the economy of Colorado. Being from the Midwest, I never thought of Colorado as agricultural. Also that more circles than squares are seen from the air in Colorado today, indicating more efficient irrigation.
- I learned that the management of ditches is much more complex than I thought it would be, and that it increasingly involves municipalities.
- I was surprised to learn had we had available (this past six years) water storage capacity we could have accumulated enough water to have had stored enough to fill a reservoir the size of Glade Reservoir.

#### **4. What did you learn today that you want to know more about?**

- We seem to have a growing demand for meats of most any kind. I am curious as to the water demands for the various stock yards and the impact of the waste from those yards.
- I followed that CBT water (and other water coming from the western slope) has different consumptive use than water originating on our side of the continental divide. This is why Thornton can fully consume the CBT water that they got from buying Water Supply and Storage. What I want to know more about is how the "buy and dry" works for agricultural water that originated on our side of the continental divide. It sounds like the use of the water must be adjudicated in water court to do that, but I would like to learn more about that.
- I would be interested in learning more about how difficult it is to reduce the salinity of water discharged from treatment facilities so that it is more suitable for agriculture.
- Augmentation and recharge concepts.
- I would like to learn more about some successful examples of alternative transfer mechanisms. I would also like to learn more about whether and how the different sectors in this region and in the watersheds would like to come together and engage in useful planning for the future management of watersheds and water issues.

- Water quality issues.
- I'd like to know if there are ways to treat waste water that don't increase the salinity of the water that is discharged.
- Stream management plans.
- Water quality. We focus much attention on water quantity, but water quality is important too.
- To hear about phosphorus and the Chatfield Reservoir.

**5. Was there anything today that captured your attention to the extent that you could see yourself engaging in it further – to study it further, to play a leadership role in bringing it to the attention of others?**

- I have recently been appointed to the Loveland Utilities Commission which plays a role in water and power. The statement that “Water quality is adversely impacted by development” concerns me. I was under the impression that cities are keeping up with development and that water quality is not adversely impacted.
- I am interested in learning and engaging further in the notion of water storage in underground aquifers. As difficult and time consuming as it seems to build new reservoirs, natural underground storage of large quantities of water makes a lot of sense. I'd really like to learn more about this.
- I would welcome more discussion about the contents of the Colorado Water Plan.
- Sustain Ag long term.
- I think the idea of strategically planning in a manner that includes agriculture, municipalities, and the environment is a necessary step to plan for a balanced future in Northern Colorado and I could see myself wanting to engage in that type of planning work in the future.
- The success of the Ft Collins, Loveland, and Larimer County open spaces plan. Becoming active personally in the plan and development for Windsor.
- I would like to learn how to better work with people in agriculture to create mutually beneficial policies.

**Other Thoughts:**

It would be interesting to have a presentation on:

- how all the water in snow packs, reservoirs and aquifers in the state is tracked
- how flows are measured
- how real time all the information is, and
- how accurate these measurements are thought to be.

Suggestions for field trips: A municipal water treatment plant and a waste water treatment plant.