



City Manager's Office  
300 LaPorte Avenue  
PO Box 580  
Fort Collins, CO 80522  
970.221.6505  
970.224.6107 - fax  
fcgov.com

**Minutes  
City of Fort Collins  
Futures Committee Meeting  
Regular Meeting  
CIC Room, City Hall  
300 LaPorte Ave  
June 9, 2014  
4:00–6:00pm**

**Committee Members Present:**

Wade Troxell, Chair  
Gerry Horak  
Bruce Hendee  
Darin Atteberry  
Gino Campana

**Committee Members Absent:**

None

**City Staff:**

Dianne Tjalkens, Admin/Board Support  
Kevin Gertig, Utilities Executive Director  
Ana Arias, Civil Engagement Liaison

**Invited Guests:**

Eric Wilkerson, Northern Colorado Water Conservancy District  
Brian Werner, Northern Colorado Water Conservancy District

**Community Members:**

Kevin Jones, Fort Collins Area Chamber of Commerce  
Dale Adamy, citizen

---

**Wade Troxell called meeting to order: 4:06pm**

**Approval of May Minutes:**

Not discussed.

**Think Tank Item 16: Water Security**—*Kevin Gertig, City of Fort Collins; Eric Wilkerson and Brian Werner, Northern Colorado Water Conservancy District*

Kevin Gertig gave a PowerPoint presentation. He said it will be important to look at water and power as the nexus of the future. We want to reduce carbon but have needs we will have to look at. We have been successful in decreasing water supply demand; however, the population is increasing, so we will see increased need. There must be an aggressive plan for water conservation. He discussed goals for reduction. Storage will also be critical to meet future

demand, meet legal obligations, provide protection against vulnerability, store what we conserve and meet return flow obligations. Provider-controlled storage is currently limited in Fort Collins compared to other neighboring cities. The City is in process with Army Corps of Engineers to expand Halligan Reservoir. The City owns Halligan, but not the water rights in it. Future issues include climate change. We will see more significant swings in weather and will be stretched in supply and condition of water. There may be more significant periods of drought. Our approach must be system-wide. Water will also be necessary to fight forest fires. Slopes are looking good now, but the western slope has experienced mudslides from increased precipitation. We must be aware of caution angles and monitor slope conditions. We continue to expand our monitoring, working with Northern and USGS, as well as CSU. It's easy to be focused on droughts and floods, but we have multiple variables. Redundant systems and multiple supplies are important to the future as well as working with our neighbors on future planning. Platte River has one line that takes CBT water to Rawhide. If that source is off for period of time, we could have an energy issue.

Eric Wilkerson, Northern Colorado Water Conservancy District, discussed the CBT project. He gave a packet of information including a map. 80% of the state's water resources are on the western slope. The CBT project was authorized to bring water to agriculture. 217,000 acre feet of water are delivered annually by the CBT project. In 1997 the water contracts were 85% owned by agriculture and 15% by municipality. The use of the CBT project has changed considerably over time. The ownership is now 67% municipal with the remainder as agricultural. Through rental market on the project the water can move back and forth between municipality and agriculture as needed. It has storage between three reservoirs of 800,000 acre feet of water which allows Fort Collins to be drought resistant for up to three years. 2003 and 2013 were the only years that Northern had to declare a quota based on water availability. CBT is a supplemental water supply project. It is designed to add to the existing regional water supply. The contracts are delivered all the way to Greeley. They add up water in storage on April 1, look at snowpack projections, soil conditions, etc., to determine what will need to be supplied. In wet years they built reserves by bringing in more water. In regard to security for municipalities they have contracts based on actual need. Fort Collins is pushing against its cap; therefore Fort Collins should be able to withstand a 50 or 100 year drought. The Windy Gap Project is their other water project. The allotment contracts Fort Collins owned have been transferred to Platte River Power Authority. The water is brought through the CBT project from Granby. It utilizes unused capacity in the CBT project. When there is not unused capacity, Windy Gap is not used. When the project was conceived, it was determined that participants would need their own storage. The only way to overcome hydrological variability is storage. In 2003 the participants in Windy Gap came together to build a new reservoir west of Carter Lake, that will hold 30,000 acre feet firm yield. Fort Collins is involved through PRPA. They are one of the larger participants in this firming project. Northern is hoping to have permits by the end of the year and complete the project in five to six years. This area has been found to be the fastest growing region through 2050. There will be need for 600,000 to 1 million acre feet more water. Conservation is playing a significant role. Halligan, Seaman, NISP, etc. are projects envisioned by water purveyors for storage. Agricultural water may also be converted to water supply for municipalities. There is a lot of competition for water. Pleasant Valley Pipeline is a good example of Northern coordinating an effort to bring a pipeline from Poudre to the Soldier Canyon filter plant. It

utilizes the Munroe Gravity Canal, brings water east and delivers it. Greeley uses the canal in the winter to supply its Bellvue plant.

### **Comments/Q & A:**

- There is sensitivity to agricultural needs in Fort Collins. We have a desire to be sustainable. The tipping point in buy and dry is going to be critical. Will this continue to be an issue of municipalities impacting agriculture? Agriculture is an economic driver in our community.
- Agriculture used to be the economy in Fort Collins. If we aren't successful in conservation, up to 45% of agriculture in the South Platte Basin could be dried up. Everyone is trying to find a way not to do that. Alternative transfer methods are being looked at, but there will be a significant impact. If you do significant conservation or transfer of agriculture to municipal you need storage to manage existing supplies to get through droughts. In an arid region you need storage to bridge the variations. If you believe in global climate change, you know the weather is going to be more extreme.
- Storage is often overplayed. It's the major infrastructure that can help balance, but to make an analogy to electric, there aren't going to be enormous batteries. More distributed solutions are better for electric. There can be those kinds of solutions in water as well. We talk about agriculture to urban; we can monetize water back to urban use. This can be technology enabled to meter, monitor and measure, to accurately account for the water. There are opportunities in innovation. There is an enormous amount of water lost in evaporation. Can underground storage be part of the mix? Our irrigation system in Fort Collins can be used as storage as well, not just as a conveyance mechanism. How do we get these concepts into the mix? In the Water Innovation Cluster we are doing demonstration projects on different solution sets.
- We have a water resource engineer working northeast of Greeley. We are trying to see how much you can grow with a certain amount of water to see how much can be saved and used in a municipality. These studies are being done with the ATM grants the state has given out. Some are working on Lake Canal. Underground storage is on marine shale, which adversely affects salinity in the water supply. This is hard to control without walls. There are efforts in the Denver area for a conjunctive use. Renewable surface water is being provided by major suppliers. Reuse water is being cleaned up and re-injected into the aquifer. The idea is to use renewable supplies, and in droughts harvest the stored water from underground. It's expensive and you must be careful the quality of water you are injecting. Technologies are being explored.
- In Singapore they view the entire island as a catchment. They do a lot of reuse.
- Fort Collins has a lot of potential for reuse. There are ditches and Windy Gap water which are reusable. Platte River is fully consumptive of its allotment once it gets to the power plant. Under state law, if you bring developed water into a basin, you can use and reuse until depletion. Many cities are doing that now, including Broomfield and Longmont. However, you must maintain dominion and control over the water.
- We are using some of this, but there are more opportunities. We have all the elements, but we must have redundancies in key areas.
- The effects on water from the High Park fire show the need for redundancy. A combination of several strategies will be required to provide redundancy of supply and conveyance.

- If we can do more innovation here and lead globally, there is a market for water conservation, reuse and storage technologies.
- The additional storage is critical, but it would be good to have the background on all strategies to provide water. Recently the City made a change to not accept water rights; there are storage costs, but why wouldn't it be better to take it?
- We don't have an ability to use that water. If you can't use a supply, we will build a portfolio of water we can't use. We have a good portfolio of water rights, but can't fully exercise it because we lack storage. Unless there is a mechanism to use the water, it doesn't make business sense.
- You won't accept ditch rights without a project connected to it. Why do we not accept the ditch rights when the costs are low?
- There needs to be a place to put the water to manage it. Internal management of \$1 billion in water rights is a lot to manage.
- Is there a value on it?
- An analogy to electricity is that if you can produce but not transmit, you can't use the electricity and it goes to waste.
- If you have an agriculture water right that you give to the City and the City waits for 20 years to convert to municipal, the right to change is based on a study of consumptive use. You have 20 years of non-use on which that study is based. Other cities want to leave the water in the ditch and buy it if they want to. The consumptive use needs to continue so that when you go to water court the use is not lowered.
- Northern will not let you transfer that water to Fort Collins just to let it sit in the bank. Fort Collins is up against their ownership gap. We tried to start a water conservancy district in the past, which would have needed an income stream, that would go out and get first rights of refusal on water. They wouldn't pursue the purchase of water, but if a farmer wanted to sell water, they would match the price, so the water supply stayed in the area. When water leaves the area, the economic building block that water represents is transferred. Economics, not politics, will keep the water here; you have to match what another area would pay. CBT and Windy Gap are contract rights, not water rights.
- We rent water to farmers every year because we have water in ditches. We need storage because we can't survive a long term drought. If something happens to Northern's projects, we have a problem. I want Halligan built. We can then change the management of the ditches and down the line. We need a bucket. We aren't in charge of CBT. There is a board of directors with a different fiduciary responsibility. If we have storage we can do something with the ditch rights.
- Let's do both.
- Kevin Gertig agreed to gather the data on this issue and return to the Committee with more information.
- Up until last year you could bring those rights to the City and the City would accept them with or without a project. Last year there was a change to take no rights, unless you come with a project that will take 100% of the water. Some of these rights are in our best interest to continue to receive.
- The decision was based on the ability to use that water right.
- The firm yield rights are far more valuable than those that don't.
- If all our rights were good and had better yield, would we need to buy more water?

- We are in good shape right now. It will be imperative to join with others like Northern for water quality monitoring.
- Northern is in agreement. Dissolved oxygen and mercury are concerns to Fort Collins. Northern is spending a lot of money on water quality and would love to cooperate.
- Utilize CSU and work with Wynn. Partnerships will be critical as we move into the future.
- Water quality is one of the biggest aspects of water security. You must have data to see what is changing and why in order to address cause and effect. Fort Collins is concerned with a large number of water sheds.
- The Utility serves the tri-districts and it would be in our best interests to work together.
- Futures Committee and staff can take a special tour of Northern.

#### **DO 16: Next Steps**

- Kevin will prepare follow-up materials including information on and vision for water quality, and strategies such as the Water Innovation Cluster and potential partnerships.
- If we went four years with a bad drought like we did in 2002, could we still deliver water to New Belgium, Avago, Anheuser Busch, etc.?
- The facility was not designed for such a significant event. For the future we will need to be better equipped. We had water quality issues at that time.
- If there is nothing flowing in the river, we are dependent on Northern. This is why we need Halligan.
- If you had perfect foresight and someone in 2000 said that the next five years would be 20% inflow, we would have declared 50% quota every year to carry Fort Collins through, but we don't have perfect foresight. And there would have been push-back.
- We need more that we are in charge of, so the City can make those decisions.
- Halligan could be used as a drought supply.
- Carbon reduction is a major goal. What does Northern see in terms of hydro?
- We are putting in hydro at Carter and pursuing hydro below Granby. We are working with Mountain Parks and Electric to buy the Granby hydro.

**Public Comment:** Kevin Jones—Global solutions of marketing and generating income make a lot of sense.

- We will have to compete with those who are trying to take the water out of the area.

---

#### **Future Agenda Discussion**

*July*—Water Conservation and alternative methods, including Woodward's NetZero water

*August*—Aging Infrastructure could take two to three meetings including funding streams for replacement costs

*September*—Disruptive Innovation such as solar streets, automated vehicles, wastewater treatment, etc., and how these affect infrastructure

---

*Meeting adjourned by Wade Troxell at 5:50pm.*