

# Proceedings of the Statewide Roundtable Summit

Thursday, March 3, 2011, Westminster, CO



## EXECUTIVE SUMMARY

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On March 3, 2011, the Statewide Roundtable Summit drew participants from all corners of Colorado to discuss how to move forward with planning for the State's water supply future. The Summit was designed by the Public Education, Participation and Outreach Workgroup of the IBCC as an opportunity to meet fellow water supply planning cohorts from around the state and continue connecting the activities and entities within the Basin Roundtable process. Lively dialogue at the Summit centered on the role of the roundtables and the IBCC Framework. Of the 275 people that registered for the Summit, 128 were from a Basin Roundtable or the Interbasin Compact Committee, representing about 40% of the roundtable community (see table below). Of the remainder of participants, 22 were supporting staff and consultants, and 125 were members of the interested public. The latter represented government agencies, water providers, engineering firms, non-profit organizations, congressional offices, and academic institutions.

Roundtable	Members in Attendance	% Registered BRT Members
Arkansas	21	40%
Colorado	16	47%
Gunnison	15	47%
Metro	13	48%
North Platte	5	31%
Rio Grande	6	20%
South Platte	22	43%
Southwest	11	32%
Yampa/White/Green	10	45%
IBCC or BRT Liaison (who are not members)	9	N/A

This document provides a summary of the day. Additional detail, including complete notes, can be found by going to the Statewide Roundtable Summit [webpage](#).

## Morning Speakers' Take-Home Messages: Governor Hickenlooper, Eric Hecox, IBCC Subcommittee Chairs, and Heather Bergman

Governor Hickenlooper welcomed attendees with a keynote address. In this, he noted that Colorado has the needed data, cooperation and collaboration to move forward with statewide goals. In the **short-term**, the Governor recommended leaving Water Supply Reserve Account and CWCB funds intact in order to begin implementing projects from an integrated approach and he asked the IBCC to identify top priorities at their next meeting. In the **mid-term**, the Governor urged the roundtables to work with all interests in their basin on a portfolio approach to address consumptive and non-consumptive needs. In the **long-term**, the Governor stressed that the future of Colorado depends on meeting municipal and industrial needs without compromising agriculture or environmental and recreational resources. He closed by charging the IBCC, CWCB and the basin roundtables to continue addressing the challenges that we face with collaborative solutions, and ultimately asking for a detailed plan on how Colorado is going to share its water resources to meet our consumptive and nonconsumptive water supply needs.

Eric Hecox followed by giving an update on what has changed for the 2010 Statewide Water Supply Initiative. Eric offered responses to recurring questions concerning the fundamental need to have a framework and continue statewide water supply planning. Those recurring questions and brief responses based on SWSI 2010 are below:

1. Can't we just control our population?

*Colorado's population is expected to nearly double from about 5 million people to 10 million by 2050. Half of this growth is from births over deaths, so we would need to accommodate for population growth even if all in-migration ceased. The other 1/2 from in-migration is to fill jobs that are expected to be needed in Colorado. In terms of magnitude, most of this growth will be on the Front Range, but in terms of growth rate, the biggest challenges will be on the West Slope. Unless we want to limit or reduce job growth, it's not a question of whether we grow, but how we grow. One recommendation is that local entities should consider a closer connection between land use planning and water supply planning with encouragement and support from the state. This could help reduce the amount of water per person that is needed.*

2. Can't we just use less water?

*Depending on the population growth projection, Colorado will need between 600,000 and 1 million acre feet of additional municipal and industrial water supplies, even after taking into account passive conservation. Since 2000, statewide water needs for each person has decreased by about 18 percent statewide. Projections assume this is permanent and that all of passive conservation will be used to meet new demand, which are big assumptions. Additional conservation will be needed to meet those future demands, and is part of the overall portfolio. However, conservation alone is not sufficient to meet all of Colorado's future water supply needs.*

3. Do nonconsumptive needs really deserve equal treatment as consumptive needs?

*Environmental and recreational values will continue to be important. In many areas the local economy is dependent on these amenities. Much of the reason we have job and population growth is because of Colorado's recreational and environmental opportunities. Businesses move here or stay here because of this. In order to move forward on water projects, environmental needs will have to be met. Roundtables identified where the nonconsumptive values are and are now working to determine projects and methods to meet the needs.*

4. Does it really matter if Colorado's agriculture dries up? / Does the whole state agree we need to have a viable ag industry in the South Platte? / Isn't ag going to dry up anyway and we're just delaying the inevitable?

*The status quo portfolio leads to a significant reduction in irrigated acres, especially in the South Platte which could lose an additional 35% of acreage. Such large-scale dry-up would have adverse economic and environmental impacts. In addition, the state's agricultural economy is linked: a concern is the potential diminished ability for cattle to be finished and slaughtered and for agricultural products to be worked into the supply chain. Therefore there is a statewide vested interest in preventing the status quo. In addition, there are upward pressures on agricultural economies from the need for food security, proximity of food supplies to population centers (buying locally), and the need to feed the 5 million new people. Therefore, dry up is not inevitable.*

5. Isn't water available from other basins aside from the Colorado River? / Is water available in the Colorado River?

*Historical records indicate Colorado River supplies are still available to develop, although there may be local scarcities. Water supplies in other basins are extremely limited, especially when taking into account the projects that water providers are planning on implementing. The framework considers opportunities to develop Colorado River water supplies while mitigating for risks.*

6. Do we really need a portfolio of solutions?

*In order to avoid the status quo, Colorado is going to need a mix of solutions. On paper we might be able to meet future M&I needs with any one strategy, but that would not meet our water management objectives. Ag transfers would dry up irrigated lands in the South Platte; a large new water supply project bringing water from the West Slope east may cause unacceptable harm to the environment; too much conservation could negatively impact flows on the South Platte river; neither the planned projects nor conservation is sufficient to meet future needs. Therefore we need to pursue a mix of solutions and do so concurrently.*

As charged, a framework was submitted to former Governor Ritter and Governor Hickenlooper by the Interbasin Compact Committee on 12/15/2010. This emerging framework is a summary of their work over the past several years in crafting strategies to meet Colorado's future water needs. The Chairs of each IBCC subcommittee gave a brief report on their respective components of the framework.

Heather Bergman, facilitator of the IBCC, then gave a presentation of the feedback received during January and February 2011 basin roundtables and the public on the IBCC framework. Feedback on the framework has taken two forms: quantitative polling or survey data and qualitative suggestions for improvement. The overall results indicated that:

- A majority in each BRT and 74% of BRT members overall believe the framework is good or very good (only two members thought it was excellent).
- A majority of the public agrees that the framework is good or very good.
- Specific comments:
  - The framework is a big, first step
  - Tries to balance gives and gets across the divide
  - Focuses on "yes/and" rather than "either/or"
  - Acknowledges that there is more to discuss and do
  - Emphasis on balancing all sources is important

There was about 30 minutes of questions from the audience to the subcommittee chairs and CWCB staff.

## Table Discussions on Water Supply Solutions

In order to facilitate an in-depth discussion on the components of the IBCC Framework and the roles of the roundtables in moving forward, each participant was assigned to a table based on their stated preferences of the six topics outlined below. The tables were designed to be geographically diverse and represent a variety of interests. Each table was moderated by an IBCC member to guide the discussion with PEPO and staff members taking detailed notes. Every table was asked to discuss two questions. The first of which is detailed below. The second asked how the table would suggest the particular framework component they were considering be moved forward over the next 18 months in the IBCC work plan, within the roundtables and through the CWCB.

***New Supply (six tables):*** How could the framework better balance the risks and benefits associated with developing new water supplies while enabling unappropriated water to be used on both the West and East Slopes of Colorado?

***Conservation (four tables):*** If increased conservation levels helped ensure that new water supplies could be developed for both West Slope and East Slope uses, are the conservation elements in the framework appropriate?

***Alternative Agricultural Transfers (six tables):*** How can the framework facilitate alternative agriculture transfers that are geared toward balancing the needs of agriculture, municipal, industrial, and environmental interests on a statewide basis?

***Identified Projects and Processes (five tables):*** Assuming IPPs will be needed to help meet the water supply gap, how can the framework strike the right balance between helping to move some IPPs forward responsibly and not jeopardizing other interests?

***Nonconsumptive (four tables):*** How could the framework better ensure that the nonconsumptive guiding principles are met while meeting the statewide water supply gap?

***Framing It All Together (three tables):*** What is your overall vision for how the IBCC, roundtables, and CWCB should work towards meeting our future water challenges?

In addition each table was asked to address the following questions if time allowed:

1. How can we sequence the four supply components (IPPs, conservation, alternative agricultural transfers, and new supply development) without leading to a crisis in the future? How do we start the planning process on a new supply project now while ensuring/encouraging strict conservation measures on the Front Range?
2. During polling and discussions on the framework, roundtable members in each basin indicated that their basin is giving up more than it is getting. What changes are necessary to help each basin feel that it is getting more than it is giving up?
3. Are all needs and uses equally important? Or is it most important to focus on addressing the M&I need with the least damage to agriculture and the environment? What should the IBCC framework say regarding priorities?
4. How can (or should) the framework address trust – trust in the process and trust between entities, agencies, basins, etc.?
5. Are there any changes to water law that are needed (i.e., in the areas of reuse, agricultural efficiency, alternative agricultural transfers, etc.)? If so, what are those?

A summary of the table discussions is included below.

## Pioneering Solutions and Future Collaborations

The afternoon sessions of the Summit including three breakout tracks and one plenary that explored cross-basin and collaborative approaches addressing multi-purpose solutions.

### *Future of the Roundtables: Stepping Up or Standing Down: State funding, potential partnerships and the future of the basin roundtables*

Panelists discussed State budget issues and how to reconcile funding with the need for implementation. The conversation focused on how the IBCC and SWSI have pointed towards an implementation phase and CWCB will be working with each roundtable to put together portfolios of solutions. Highlights of the discussion included:

- Roundtables are a forum to build understanding of the needs and advocate for solutions, such as nominating projects for implementation and integrating consumptive and nonconsumptive needs
- Many roundtables are setting examples of cross-basin collaboration and more west-east slope meetings are needed
- Some roundtables are more ready for implementation than others. Short-term implementation has been on conservation and IPPs, long-term on new supply and ag transfers. Most basins need greater specificity on IPPs to move forward.
- The IBCC framework can serve as a template for a compact and set acceptable guidelines across basins such as the global settlement process
- There is an opportunity for greater structure and communication between the roundtables and the IBCC in order to be most effective
- CWCB is making decisions based on the perspectives and experiences of the IBCC and roundtables and how CWCB can best support the process will be defined

### *Nonconsumptive Needs: Building off the success of the 10,825 process, multi-purpose projects, and the Watershed Flow Evaluation Tool*

Panelists gave examples of successful and collaborative approaches to meeting nonconsumptive needs around the state. The discussion highlighted how consumptive and nonconsumptive needs are not always in conflict and can be integrated as we move forward with solutions, such as:

- The process of identifying nonconsumptive needs has united some basins around the state, such as the Colorado, in understanding common values and priorities.
- Opportunities exist for landowners to partner with environmental organizations and municipalities to enhance ecological values and increase land values while maintaining flows.
- When environmental and recreational flows are in conflict, parties can learn from others that have achieved voluntary flow agreements benefitting all involved. Multi-purpose water projects are a way to build in flexibility for meeting future needs.
- Tools exist for creating a common platform and quantifying nonconsumptive needs. These evaluations can identify sites where greater specificity is needed.
- The nonconsumptive community will achieve greater success if long-term identification of needs is done in conjunction with consumptive needs.

***Pressures on Agricultural and Urban Water Demands: Building off lessons learned from the Super Ditch, South Platte Water Co-op, Rio Grande groundwater management plans, and municipal experiences to bridge the urban-nonurban divide***

Panelists gave examples of collaborative arrangements that protect agriculture while plan for municipal and industrial water demands. The audience was provoked to think about how to address existing and future barriers in order to increase the viability of such arrangements. The highlights of the discussion included:

- Arrangements should be open and transparent and follow existing water law.
- Water provided must be a permanent supply for a municipality to rely upon to meet future demands with the option of leasing the water back to the farmer until it is needed or leasing reusable return flows for augmentation use by agricultural organizations.
- Colorado water law should provide basin-specific flexibility to promote irrigation efficiency and accommodate conserved agricultural water to meet future M&I demands.
- In order for local farmers to buy into the concept of rotational fallowing rather than the traditional buy and dry process of providing water for M&I demands, they need to see the benefits of doing so, such as reduced transaction and conversion costs.
- Additional pilot studies are needed to demonstrate the impacts and benefits of these arrangements.

***Challenges with New Supply: Building off lessons learned from the West Slope Water Bank, the Blue Mesa Workgroup, and other experiences to bridge the east-west slope divide***

Panelists gave examples of successful in-basin or cross-basin initiatives related to new supply development. The proceeding discussion focused on new supply's overarching principles that would have universal applicability as well as balancing and protecting interests on both sides of the divide, including:

- Future success will depend on continuing a transparent dialogue and including all perspectives at the table. Establishment of a task force can identify and address critical issues up front.
- Water banks indirectly affect storage. These collaborative processes can decrease the likelihood of compact curtailment and define a process for mitigating potential impacts
- Revenue for new supply can come from large municipal and agricultural users that have established water sharing and reuse arrangements.
- A uniform set of criteria for new supply is needed to move forward cooperatively

## **Summary Compilation of Table Discussions**

John Stulp summarized the table discussions from the morning. The table discussions are summarized in more detail below.

### ***General***

- Additional discussion and progress will require trust, which is still lacking between some stakeholders. We need to build trust and increase engagement and partnership between the IBCC and the basin roundtables (BRTs), between the basins, among advocacy groups, with the public, and with State and Federal agencies.
- There is a need for greater transparency on water availability, water consumption, water conservation, water planning, etc. Transparency facilitates trust.

- Broader education and outreach is needed to increase participation and understanding on the role of the IBCC, CWCB, and the BRTs; on the balance of gives and gets in the framework; on the sources of Colorado's water supply; on the complexities of Colorado water law (including seniority and return flows); and on the gap and the need for everyone in the state to do their part. This is between basins, with state and federal agencies, and the public.
- Developing sustainable funding and ensuring wise spending of current resources is critical. We should begin prioritizing to get the biggest bang for the buck and advancing "the low-hanging fruit" with available resources.
- Implementation needs to begin and accelerate. People need to see results of all these discussions.
- Specificity is important; additional detail will help build agreements and identify remaining problems to be addressed. Consider a statewide water plan.
- Increased regionalization may increase cooperation. One size does not fit all, and we can build geographic partnerships to tailor solutions to specific areas and problems.
- There is a need for a larger role of the BRTs. BRTs have unique knowledge and can explore issues and solutions in a regional context. Basin Roundtable vacant positions need to be filled.
- Eighteen months is not long enough to develop solutions to decades of problems. There are a lot of creative ideas and suggestions for next steps are emerging from discussions at the Summit. We need to gather these and consider if/how to explore them.
- Complete set of decision support system modeling tools statewide. This will allow for the ability to model future projects, quantify nonconsumptive needs, and model the impacts of climate change.
- Define what a state water project would be and if it would be helpful.

#### ***New Supply Development***

- More specificity is needed on the new supply components of the framework, particularly regarding options and approaches for risk management on the West Slope and the East Slope (including new or expanded storage), definition and operation of a trigger, protection against and management of a Compact Call, the amount of water available (if any) for diversion, and the specific of a new supply development project (location, ownership, financing, seniority, role of the State, etc.).
- 1041 is a matter of great interest and there are a variety of perspectives on the issue, especially about the degree of certainty or uncertainty that 1041 provides for a variety of stakeholders. Additional discussions of benefits, concerns, and options are needed.
- There are examples of cooperative efforts that meet multiple interests, like Aspinall. We should explore these examples, learn the lessons they offer, and build on them.

#### ***Conservation***

- Additional work is needed to explore unintended consequences of conservation and reuse.
- Some mandates or tools included in the framework may not be politically viable. Incentives may be a more effective approach, although the cost is higher.
- Several concepts are absent from the framework: conservation retrofits, rural water use/users, land use planning, and reuse. Additional consideration of these issues is needed.

- Additional work is needed to clarify how conserved water will be used and how much can be applied to the gap.
- Better understand how conservation and developing water work together.
- One size does not fit all. In different areas of the state, conservation is needed for different reasons, can be implemented differently, and will yield different results.
- We need to explore Colorado water law to examine options for agricultural efficiency and augmentation credits and to look for ways of mitigating the constraints of “use it or lose it” doctrine.
- Develop model codes for conservation.

### ***Nonconsumptive Needs***

- Nonconsumptive needs need to be considered on their own, as well as with water supply projects. Prioritizing and implementing nonconsumptive projects and methods is critical.
- We need to balance and/or integrate consumptive and nonconsumptive needs.
- Discussions, studies, and projects about nonconsumptive needs are lagging and lacking; we need to advance the non-consumptive conversation.
- Consider nonconsumptive needs early in project development; design to address them.
- Quantification of needs is critical. Data that is accessible by the public would be good.
- More work is needed to integrate/reconcile nonconsumptive needs and agricultural uses.
- When considering mitigation for all entities the approach should be “no gain, no loss” for the environment.
- Quantify the costs of meeting nonconsumptive needs. Incorporate nonconsumptive costs into water supply projects.
- Identify sustainable funding for nonconsumptive needs (like GOCO or habitat stamp).

### ***Alternative Agricultural Transfer Methods (ATMs)***

- We need to develop water markets for agricultural transfers.
- There is a need to increase infrastructure to increase transfer and storage flexibility, especially for better water markets and ability to use alternative transfer methods. Include both east/west and north south alignments.
- It would be helpful to quantify the amount of water that could come out of agriculture.
- Strong rural economies keep people from selling their agricultural water.
- There are a lot of options and creative ideas related to transferring a portion of water and leasing agricultural water to municipalities that have not been sufficiently explored.
- Focus dry-up on marginal lands.
- Look at statutory frame for opportunities that would better allow for alternative agriculture transfer methods to move forward and gain traction.

### ***Identified Projects and Processes (IPPs)***

- What is the proper role of the State, the IBCC, the BRTs, other stakeholders, and the public in evaluating and/or facilitating IPPs?
- There are other tools for facilitating IPPs that are not included in the framework, such as early convening of stakeholders and the public for discussion, requiring State agencies to share their evaluation criteria, and encouraging multi-purpose projects.
- The framework should address improving existing infrastructure.
- We need a framework to reconcile and integrate consumptive and non-consumptive IPPs.



### ***Fitting it all Together (FIAT)***

- There needs to be more staff support for the basin roundtables.
- More joint basin roundtable meetings.
- Try role reversals (e.g. Colorado roundtable should think about what they would do if they were the Metro roundtable, and vice versa)
- Resolve IBCC, roundtable, and CWCB roles and responsibilities.

### **Moving Forward**

There was considerable agreement between Governor Hickenlooper's remarks, the table discussions, the SWSI 2010 recommendations, and the IBCC framework. Some of the overlapping themes of the Summit included:

- ✓ Implement where it can be done now.
- ✓ Develop more specificity to the other elements so that they can be implemented.
- ✓ Use the roundtables to guide this process from a regional approach.
- ✓ Build the level of trust across basins and between stakeholders and increase the level of engagement with the public, permitting agencies, and other stakeholders.
- ✓ Spend our current resources strategically and in a prioritized manner.

Over the coming weeks information laying out next steps resulting from the Summit will be provided. This will take into consideration results from the on-line follow-up survey, the notes provided herein, feedback from basin roundtable chairs, and other inputs.

### **Press Coverage of the Summit**

*Issues won't trickle, says governor's aide*

*Time is now to assure state will have water for growth, Stulp says.*

By Chris Woodka, The Pueblo Chieftain, March 6, 2011

[http://www.chieftain.com/news/local/issues-won-t-trickle-says-governor-s-aide/article\\_175c0b08-47a5-11e0-8fd0-001cc4c03286.html](http://www.chieftain.com/news/local/issues-won-t-trickle-says-governor-s-aide/article_175c0b08-47a5-11e0-8fd0-001cc4c03286.html)

*Colorado water forum dowsing for solutions*

By Bruce Finley, Denver Post, March 4, 2011

[http://www.denverpost.com/news/ci\\_17535848](http://www.denverpost.com/news/ci_17535848)

*Governor sees 'path forward' for water issues*

*Hickenlooper tells roundtables they're on the right track for a statewide solution.*

By Chris Woodka, The Pueblo Chieftain, March 4, 2011

[http://www.chieftain.com/news/local/governor-sees-path-forward-for-water-issues/article\\_7599f50e-4624-11e0-bacb-001cc4c002e0.html](http://www.chieftain.com/news/local/governor-sees-path-forward-for-water-issues/article_7599f50e-4624-11e0-bacb-001cc4c002e0.html)

*Water, water everywhere for Colo.?*

*Hickenlooper calls on experts to help quell regional conflicts*

By Joe Hanel, Durango Herald, March 4, 2011

<http://www.durangoherald.com/article/20110304/NEWS01/703039917/Water-water-everywhere-for-Colo?>

*Experts to sell public on water's value*

*Roundtables splash into true cost, its part food prices and power.*

By Chris Woodka, The Pueblo Chieftain, March 6, 2011

[http://www.chieftain.com/news/local/experts-to-sell-public-on-water-s-value/article\\_1fbfe8aa-47a5-11e0-880a-001cc4c03286.html](http://www.chieftain.com/news/local/experts-to-sell-public-on-water-s-value/article_1fbfe8aa-47a5-11e0-880a-001cc4c03286.html)

*New crop of water ideas sown in valley*

*For farmers, there will be more choices throughout the state.*

By Chris Woodka, The Pueblo Chieftain, March 5, 2011

[http://www.chieftain.com/news/local/new-crop-of-water-ideas-sown-in-valley/article\\_1b167f86-46f0-11e0-b8f6-001cc4c03286.html](http://www.chieftain.com/news/local/new-crop-of-water-ideas-sown-in-valley/article_1b167f86-46f0-11e0-b8f6-001cc4c03286.html)

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## RAW NOTES

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## ***NEW SUPPLY DEVELOPMENT (TABLES 1 THROUGH 6)***

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**Question 1:** *How could the framework better balance the risks and benefits associated with developing new water supplies while enabling unappropriated water to be used on both the West and East Slopes of Colorado?*

**Question 2:** *How would you suggest the framework components regarding new supply development be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

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### **TABLE 1: New Supply Development**

**Question 1:** *How could the framework better balance the risks and benefits associated with developing new water supplies while enabling unappropriated water to be used on both the West and East Slopes of Colorado?*

- Definition of new supply; beyond IPPs
- Desire to come to a discrete number for the amount of water left to be developed in the Colorado River; there are a lot of broad assumptions—result is a range, not a discrete number
- New supply to West Slope would be junior-junior; would not stand up to Compact call
- You could low-ball availability and be safe or high-ball it and wait for a Compact call
- Is there a “savings account” against a Compact call (new storage)
- Revenue + project use; tied together creates impetus to ensure project deliverables, tax-based solutions breed lack of urgency
- Is it an issue that any new supply will be “low man on the totem pole”?
- Front Range needs to put a deal on the table that makes things better for the West Slope to work with a deal rather than without
- 40-60 projects approved using 1041; 1 disapproved—1041 is the only process that takes care of analytical, ag transfers, etc. questions
- 1041 hangs over your shoulder throughout the process
- There is a desire for certainty with any project; how does 1041 improve/deteriorate certainty?
- At some point, you must embrace the risk and uncertainty
- Elk Head Reservoir improvement is an example of bringing multiple parties to the table at the beginning and your EIS process will be less of a pain
- Some groups will delay you no matter what you do
- Is the next Colorado River project a Denver project, a Northern project, a South Metro project, A Front Range project or a State project? Does the State have to comply with 1041?
- If the framework say 1041 should be weakened, politically it is “DOA” (dead on arrival)
- Any big project will be the “last project”; it will take care of West Slope first, then Front Range. It will need to be a statewide effort—this is what the IBCC should tackle
- The IBCC has agreed that new supply is part of the “portfolio”

- New projects have to be started now if they are to be finished by the time they are necessary
- In-basin IPPs should move forward immediately if there is support in the basin

**Question 2:** *How would you suggest the framework components regarding new supply development be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- More data on conservation, IPPs and ag transfers; to move new supply forward in lock-step with the other three resources
- Colorado water supply range is broad because of the science
- Phase two—funds diverted to Compact call study
- There needs to be a list of projects in the pipeline
- IBCC—can they condemn projects within a basin? If so, should those be taken off the table?
- Would water providers want obligatory IBCC involvement for projects?
- Water providers follow their city councils for growth and development
- Do not need state mandated conservation measures
- It is important not to underestimate East Slope demands or overestimate West Slope supply
- Mississippi, Flaming Gorge, etc., will be on the table if costs make them feasible

#### **TABLE 2: New Supply Development**

**Question 1:** *How could the framework better balance the risks and benefits associated with developing new water supplies while enabling unappropriated water to be used on both the West and East Slopes of Colorado?*

- Ensuring the west slope can grow at its own rate and have certainty that water will be left on the west slope. In exchange for new water for the Front Range.
- The Current framework may balance risks and benefits but this needs to be communicated by more education.

**Question 2:** *How would you suggest the framework components regarding new supply development be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- Next step needs to be “specifics” to give real value, needs to come from the Roundtables.
- Specifics need to look at multi-purpose projects and regionalization, manage risks, look at costs, and water quality.
- All 4 strategies need to move forward equally.
- Sharper focus on some strategies such as land use and ag efficiency.

**TABLE 3: New Supply Development**

**Question 1:** *How could the framework better balance the risks and benefits associated with developing new water supplies while enabling unappropriated water to be used on both the West and East Slopes o/Colorado?*

1. Administer Colorado River to benefit Colorado. Do not administer on a basis of reservoir levels or Powell & Mead as USBR has complete control. Administer on a basis of water flow at Lees Ferry as this is most accurate data available
2. Water banking
3. New Mexico/Utah use is increasing
4. Risk Management is only that! And not a new supply
5. Union Park was described or advertised by Dave Miller
6. How much risk is state willing to take by allowing more junior water rights?
7. “Fee for Transfer” fund should be put in place
  - a. Rod: Denver –COE “Global Agreement” does that
8. Pump back Projects (Blue mesa, big Straw, Yampa, Flaming Gorge)
9. Conservation Eliminates slack in the system
10. Unintended consequences of conservation & reuse (ie. low flows impact ability to treat sewage)
11. Ag dry up – lose open space and needed food production
12. Federal Ag subsidies are provided for high water use crops (incentivizing water use)

**Question 2:** *How would you suggest the framework components regarding new supply development be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

1. Start projects Now! For 2050 – study them now for best mx
2. Line item on water bill for identifying mitigation costs
3. Use IBCC statewide grants to identify projects
4. State needs to move forward on selecting sites/projects
5. Can state build & own water project w state support?
6. State develop alternatives for new supply
7. Bring all studies together for a single view of alternatives

We have created more impediments than solutions!!!!

**TABLE 4: New Supply Development**

**Question 1:** *How could the framework better balance the risks and benefits associated with developing new water supplies while enabling unappropriated water to be used on both the West and East Slopes o/Colorado?*

- Water banking that involves storage, rotational fallowing, etc. can help minimize risks of new development
- Can we use scenario planning such as the dry up tool, but with additional parameters, to manage risk?
- We need to focus on improving existing infrastructure, as well as developing new supplies
- We need to figure out how to make a water market function better and take into account the externalities

- New development will have to develop from the bottom up, not the top down
- Need the water users and water providers to partner with the State – CWCB, IBCC, and others
- IBCC can act as a facilitator
- CWCB should provide the resources to implement new development
- Raising the general public’s awareness
- A study that looks at public/private and urban/rural water supplies and pricing
- 18 months is not long enough for developing solutions
- Need to integrate agricultural interests (water trust) to bring parties together (clearinghouse concept)

**TABLE 5: New Supply Development**

**Question 1:** *How could the framework better balance the risks and benefits associated with developing new water supplies while enabling unappropriated water to be used on both the West and East Slopes of Colorado?*

- More action less talk—concrete action
- Shared sense of urgency—partner with other Upper Basin (UB) states and be wary of the Lower Basin (Lower Basin) states.
- 2007 Guidelines expire in 2026
- Barriers to development? Money?
- No, it is regulatory. Windy Gap and NISP
- File don off-stream reservoir, State legislators, SEO—dam safety, ACE—biggest hurdle; need help pushing it forward
- Need to look at state water as a statewide issue; water is expensive and it takes project money—change public perception
- Compensatory discussions in the Yampa: take a gallon, leave a gallon idea—but no outright theft
- Primary concern—must be able to grow in the Yampa (population); not wanting to mortgage our basin’s future
- Look at Wyoming’s needs regarding water from Flaming Gorge reservoir; talking with them currently.
  - Has not come to Yampa yet.
  - Understand the quid-pro-quo and the importance of reading out—have to pay for it
- Everyone has to give, everyone has to get
- Main reason there is a target on the Colorado basin is because of the issue of water quality; dealing with concentration at low levels
- Colorado River uncertainty in appropriation range
- There is water available in wet cycles—need to manage for risk—storage questions
  - West Slope risks as well—junior water rights
- Aspinall discussions—how could we operate reservoirs
- East Slope cannot fund the entire West Slope development
- Rec’s posture is much more standoffish than they once were—Rec/Federal process is more of an uncertainty than it used to be

- Role for the state in pushing through egregious processes
  - Need to do more without physically moving water—more movement by paper (e.g., mature gas industry)
- Balancing is important
- Define the rules of the game—set forth the compensatory requirements
- Management of water has increased the interests (recreation, riparian wetlands)
- Government recognized that we won't get consensus on some water issues
- IPP subcommittee (recommendations)
- Pumpback attraction when offer option is West Slope agricultural dry up
- Better designed Referendum A is a possibility; better to work out a deal than have it imposed on you
- \$3billion being spent on water efficiency projects
- Must be able to move faster than 26 years for an off-stream project
- New supply planning must be done concurrently with the low hanging conservation fruit
- 1kg/m down to 500gpm on wells in South Metro area
- Set forth parameters so that IPPs can be evaluated
- United delegation with other UB states
- Unreasonable delays in permit process—can call government delegation
- On a new supply project, what can we do right now? Could the state set rules/parameters?
- Flaming Gorge project impacts Yampa River flow
- Global ground rules need to be set?
- Environmentalists on land management issues have his ear—must be willing to stand up to environmentalists on water issues

**Question 2:** *How would you suggest the framework components regarding new supply development be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- Referendum B—funding mechanism (consensus)
- IBCC got out ahead of roundtables with Ritter
- Roundtables do not have uniformity/consensus even on same issues
- Clarity regarding CWCB recommendations in back of SWSI 2010 versus recommendations of IBCC



**TABLE 6: New Supply Development**

Discussion

RISK—needs to be discussed from supply and demand side

- Need transparency
- Denver Water includes safety factor
- Cooperative effort using storage enhancements, water banking, water supplies in Aspinall.
- Storage opportunities—firm up existing Colorado River water supplies
- 2002 put Colorado River supplies into question
- Need better data; transparency, Colorado River water Availability Study.
- Develop portfolio's for basins statewide; look at trends; identify risks in different areas.
- Reliability of supplies under different scenarios—who is at risk on portfolios; connect to local need
- No clear direction beyond Gap Analysis.
- Scenarios need to be outlined.
- Water entities be willing to subject systems to analysis
- Link planning with models
- Need for Trust; need to understand demand hydrology.
- Historic hydrology could be acceptable until variables such as climate change
- Forget climate change models and reduce historic hydrology
- Incentive System-look at regional trade-offs. Who?
- How will a call be managed? CWCB should take role to develop understanding of how shortages will be managed.
- Define how state will administer compact call
- Can various community sectors come to an agreement that storage is needed to meet future needs.
  - Expansion of existing storage.
  - Define how compact would be administered.
  - Storage is needed to meet all needs.
- Climate change includes variability; there is a need for a single number (%) we all can agree to.
  - Need water bank—with triggers
  - Who pays?
  - Who shoulders risk-use insurance model.
- If risk levels get too high, adjustments need to be made-need short term supply availability while adjustments are made.
- Assume works case scenario when planning.

Answers to Questions

**Question 1:** *How could the framework better balance the risks and benefits associated with developing new water supplies while enabling unappropriated water to be used on both the West and East Slopes of Colorado?*

1. Share risk equally between east and west slope
  - a. Insurance model—feed to develop compact entitlement without risk—services, tax for services pool
2. Develop water bank (compact reserve) as back-up supply for east and west slope.
3. Fee based funding source to develop storage; GOCO??
4. Management flexibility- adaptive management.
  - a. Go out 20-30 years then work backwards.

**Question 2:** *How would you suggest the framework components regarding new supply development be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

1. Development of a straw-man by CWCB/IBCC; 2-3 from each BRT, independent review from IBCC, then to BRTs, then to CWCB/IBCC
  - a. Broader representation from each BRT.
2. Take straw-man results to BRT's.

## CONSERVATION (TABLES 7 THROUGH 10)

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**Question 1:** *If increased conservation levels helped ensure that new water supplies could be developed for both West Slope and East Slope uses, are the conservation elements in the framework appropriate?*

- Are the tools or strategies the right tools and strategies?
- Does the framework strike the right balance between statewide efforts and region-specific efforts?
- Does the framework strike the right balance between encouraging or incentivizing actions or activities and mandating them?

**Question 2:** *How would you suggest the framework components regarding conservation be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

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### **TABLE 7: Conservation**

**Question 1:** *If increased conservation levels helped ensure that new water supplies could be developed for both West Slope and East Slope uses, are the conservation elements in the framework appropriate?*

#### Missing Elements

- Conservation efforts at tail end of ditch, how does this have effect on the recharge needs?
- Moving physical water away, effects the end users negatively
- Efforts to be fair, maybe get downstream credits and include the whole system in consideration
- Only 1 point addressed ag conservation; how could we help ag use it without using the rights?
- Maybe talk to ag more! Bring (NRCS, Soil Conservation) others to the table.
- Although conserving M&I has a large impact, ag is where the water is mostly used (remember 1<sup>st</sup> use water vs. reuse downstream)
- Disconnect between soil health/ag providers and water developers
- Lots of ideas about the small pieces, not the big pie!
- Requires water to accomplish tasks; give and take

#### Mandates

- People will invest what they are interested in
- Teach people their interests, make them stakeholders!!
- Who is mandated?
  - Utilities, old infrastructure, managing waste (what makes economic sense)
  - No! on resale, no support from public

- Maybe on future but really won't be effective long term because it is market driven (only helps short term)
- Mandates on efficiency standards will help short term, not long term
- Addressing mechanical problems could fix with regulations. Invest your users! Make them stakeholders and educate them
- Mandates are cheaper than incentives especially for utilities
- Standards for efficiency; big question--require or incentivize?
  - Eagle County docks users for not doing incentives/conservation
- Nothing in recommendations about encouraging retro-fits—why?
- Lots of these concerns are for cities, not really addressing rural users who don't get services from utilities
- How do counties handle these things? May make sense for county specific needs. Review counties regulations and see how they are addressing local issues
- Generating more work for inspectors
- Need to stay consistent; want East to conserve but West is wasting; need to find a balance
- Population/density standards; no two places are the same, not statewide
- Regional goals for conservation? Roundtables could start this conversation
- Pt 3: great idea! State sets/takes the lead on this, then help educate also
- Value our water! Make the users change their habits; give them a consistent message
- Education state wide! (not promotion, vest people's interests) Explain why conserving will benefit your community
- Requirements—get a regional perspective; move from here forward
- How can water users who aren't in a compact call conserve? Why? Understand/flesh out how conserving and developing your water works together.

**Question 2:** *How would you suggest the framework components regarding conservation be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- Data is missing!
- Include the Governor's office; they start, show leadership and they are part of the education effort. Make sure there is funding
- Roundtables receive community goals -- make recommendations to the IBCC -- the IBCC creates a package (if we go this route) for legislation.
- Maybe there should be a conservation subcommittee
- "I don't understand the role of the IBCC, process, etc."
- Before there was not a spot light on the roundtables; the Governor is putting us on the map.
- Need to get water users to the roundtables so they know where to go with questions and concerns
- Roundtables should work together
- IBCC members should participate in the roundtables. Appointees are not always a part of the grassroots discussions.
- IBCC should have an attendance requirement; it is disappointing that there are some who never participate

- Flesh out the framework; needs more specific information
- In order for basin's not to feel they are giving up more than they are getting they need to be in a place that is not a lost situation
- Trust: make people participate; cannot just say no; bring everyone to the table. If they do not join in, challenge them to find a solution
- All needs may not be equal but they all go together
- Get 'green' advocacy organizations involved so that they invest themselves and start participating
- Maybe get Water Congress involved? Seems another State organization might bog it down.
- Are the right people at the table? No one really sees county commissioners at meetings, or other agencies that do have state in water but are too busy for water issues. (Two county commissioner at the table; first time for one)

#### Data Needed

- Basin-specific benefits of measures and how they will be implemented
- If you save all this water, who gets the benefit of the saved water? What would this look like? How do you maximize savings?
- How do you prioritize the information? What are the top benefits/ best "project" to start conserving with?
- Always need storage
- Generate hooks for each type of user. Get more resources for users
- Need for an analysis of where we should spend money (M&I, ag, etc.)? What is the most "bang for your buck"?
- What we save, is it actually beneficial?

#### **TABLE 8: Conservation**

**Question 1:** *If increased conservation levels helped ensure that new water supplies could be developed for both West Slope and East Slope uses, are the conservation elements in the framework appropriate?*

- Are the tools or strategies the right tools and strategies?
- Does the framework strike the right balance between statewide efforts and region-specific efforts?
- Does the framework strike the right balance between encouraging or incentivizing actions or activities and mandating them?

Moderator: Implicit in Question 1: Are people really interested in conservation if it goes to supply for new use? Droughts, etc. get people interested, but what about using less so someone new can use it?

Discussion:

1. Good definitions will help further discussions on conservation. The average home uses less water than historically due to changes in washers, toilets, etc. – Passive

Conservation. Hotels now realizing saving hot water saves on their energy costs. These are Customer Side.

- Also a focus on the Utility Side
  - So there is demand side versus supply side conservation.
2. Planning, lot size and zoning affect outdoor water use. Land use planning and upfront efforts are disconnected from water use and conservation. Historically water has been expected to be available after the housing/towns are built.
  3. Conservation doesn't create water. It's a different use of the same water we've already had.
  4. Lots of talk of conservation providing a solution. Need to be very clear it's one part of the solution. Water use and reuse, secondary and tertiary use, small storage projects and groundwater together can make a huge difference.
  5. Concerns over mandates: Need to prevent double-dipping scenario of mandates imposed on top of conservation efforts that are already occurring. Mandates create different problems for different types of providers at different locations. Mandates can be very difficult for small, local or rural water providers because of their systems. More conservation can be achieved from larger municipal water users. Mandates of percent savings of total water provided is *not* helpful to any of the water providers, for a variety of reasons.
  6. Agricultural conservation doesn't benefit the ag user that saves the water; it gets lost from the water right. Ag conservation also will be extremely difficult to do in the Arkansas Basin. All ag conservation returns to the river and either goes to new junior diverter or outside the state of Colorado.
  7. Language issue of conservation versus supply. Conservation "old school" meant to store for later use, reliability, etc. Need now to return to some of that and tie water use efficiency with a way to make that water part of a reliable supply. *Storage is a critical part of making conservation work.* Need effective conservation storage, utility/municipality conservation and consumer conservation and storage for supply. These need to be discussed together by the IBCC and roundtables.
  8. Headwater areas face unique struggles with supply, storage and conservation.
  9. Cost of water, droughts, etc. help drive conservation.
  10. There is a political side to conservation. How Denver and Aurora do their conservation efforts is politically driven. West Slope conservation can bring up Compact issues.
  11. How can we enhance conservation efforts while not impacting what Colorado considers its Compact entitlements? How can we preserve beneficial use while providing flexibility for things like ag transfer and water banking?
  12. How can we get past pitting conservation against new supply? Need to debunk conservation vs. new supply and move conservation forward in ways that don't impede supply, beneficial use, etc.
  13. Conservation that addresses waste is rarely fought against. System loss and other related problems are easier to address. Questions of beneficial use are much thornier. Domestic use – old "highest and best use" doctrine drove lots of growth and water grabs. "Highest and best use" may *not* be all domestic use.
  14. Supplier and demand strategies leave out other players that could have a huge role. Counties, land use planning, and growth all play a huge role. Growth that considers water use could help.

15. Regional/Community Planning: Douglas County is requiring water plans prior to development. That process could be improved, but is an important first step. Is water available for new development? How can new development consider water use better? Regional and community planning efforts can take the onus off the private developers and consider local water future. This may be a better way to deal with it. The IBCC could help set up regional and community land use – water planning ties. Instead developer tells county or city it needs water and the county or provider will go find the water to not lose that development.
  - SuperDitch process is demonstrating that there are also issues with having the developers come to the available water, especially if infrastructure, housing, etc. is not available where the water is available.
  - Eventually food supply and local control of water on land will be very important and so we need to be very careful to preserve that water and land as we handle growth.
  - Water law doesn't favor certain activities. Need to be extremely careful about changing water law to avoid creating other problems.
16. Other states have done more work than Colorado and obtained more federal funding to monitor groundwater and improve data and planning.
17. Another missing player – the Federal Government. The Feds play a huge role in water use in Colorado and their decisions affect water users.
18. Lack of statewide support for projects a problem. Also difficulty in moving IPPS through the long process and addressing all regulatory, environmental and other issues.
19. Rain barrels and possible use? Impervious surface has increased. Could there be a de minimus amount of rain barrel storage and use that could be acceptable? 70s Supreme Court Decision.

**Question 2:** *How would you suggest the framework components regarding conservation be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

1. Bringing land planning into play will be critical. Start the discussions on land planning's tie to water use. Need land planning decision makers to be on the roundtables and engaged (some BRTs have counties or similar decision-makers represented).
2. Need to understand how conservation works for different locations and different uses within basins.
3. Develop matrix of conservation possibilities per basin.
4. Need more data and study on how land planning decisions affect water use. House Bill 1051 will require data reporting for some providers, but not all, and won't include land planning vs. water use data.
5. IBCC and BRTs need to try to develop information, share, and learn from it. Education for new residents is key so they understand Colorado is not the same as Pennsylvania.

We like the language in the New Supply section about new projects needing conservation plans, land use controls, etc. and would like to add that you need to be part of a Regional Water Authority. How to get folks to do that? Vail had 6 different water providers until recently. Douglas County has 34 providers.

**TABLE 9: Conservation**

**Question 1:** *If increased conservation levels helped ensure that new water supplies could be developed for both West Slope and East Slope uses, are the conservation elements in the framework appropriate?*

- From water supply perspective there is no reason to conserve on the Western Slope.
- What is done with conserved water?
- All new developments should be “water smart”.
- Move population to the water source.
- The framework ideas are good but won’t support any mandates.
- Need more incentives rather than hammers.

**Question 2:** *How would you suggest the framework components regarding conservation be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- Can we support this framework without agreements to take less water?
- Should be recognized that there is a local consideration in all statewide messaging.
- State legislation to direct plumbing codes
- No mandates—incentives; raise tap fees, mandates --tiered rate structures for all metering
- Water budgets work

**TABLE 10: Conservation**

**Question 1:** *If increased conservation levels helped ensure that new water supplies could be developed for both West Slope and East Slope uses, are the conservation elements in the framework appropriate?*

- Tools not necessarily the right ones. Has to be acknowledgment of integrated implementation that is basin/local specific. Gradual not just passive. Also active conservation is needed. Upgrades inside for outside reuse really need to be emphasized.
- Concern that 1 size does not fit all. In Mtns-indoor savings inside but doesn’t save because water eventually goes back into stream to next user.
- Some people think conservation will save water but it’s really all about reuse.
- Denver water and other FR communities don’t extensively reuse. Golf courses and some large entities use non-potable water outside but this could be greatly increased.
- Maybe you could serve more people even though much does go back into the stream. Reuse strategies definitely reduces energy used to process clean water.
- When do we say “Let’s conserve for CO not just locales”?
- For tools and strategies to fit CO we need to start local then move into the broader scope of understanding the impact.
- Must get out of silos-population growth and pricing will drive this.
- Without conservation strategies we do impact quality if not quantity.
- Lack of conservation will impact need for more transbasin water.
- Conservation allows serving additional taps to homes.
- West wants East to come spend money...both could do conservation as an “olive branch” even if some communities don’t perceive they need to do conservation.



- Need to think about structural vs. non-structural strategies.
- Conservation requires education!!!
- Active conservation via regulations can help.
- Overall tools and strategies are a good beginning but we have a long way to go.

Does Framework strike the right balance?

- Should East and West have the same priorities?
- Transbasin diversion be used to extinction.
- Water belongs to the state and efficiency should be required by ALL of state!
- Improve irrigation landscaping water because reuse systems are critical.
- Can make progress on outside use that don't have to go through the system
- Must be community based.
- At local level you can focus on results rather than regulatory methods—focus on the goal.
- Co Springs-lower than in 2002 uses
- Must use transbasin water to full extent.
- Communication and Education are key.
- Framework is IBCC---NOT RT invention. RT take issues with these suggested requirements.
- Regarding striking the right balance related to mandates, until water issue becomes a regulation or state recognized issue it won't matter. More focused on saving \$\$\$\$ instead of water. Perhaps the real focus should be energy use related to water.
- The numbers in SWSI re per person use are misinterpreted for statewide goal on PC use we need to define better.
- Must become a mandate for conservation to be implemented.
- Will state actually use occupancy rates in gathering data?
- Shouldn't we set goals for New Supply? Maybe???
- We've come to the line-it's time to spread the pain as we cross the line.
- We definitely need better data!
- Is the line a per person line?
- A Benchmarking program like energy has used with carbon footprints might help the public become more educated and understand and embrace conservation goals.
- Must be careful in these conversations regarding return flows. We cannot take water rights away. We can't simply give conserved water to a community if it hurts a downstream user. This is a BIG QUESTION— Can we tweak Co water law?
- That is a very big question. What will CO look like in the future...those who created CO Water Laws couldn't predict the future.
- Farm efficiencies—ag uses water efficiently considering return flow management.
- Some question whether crop applications used are the most efficient possible.
- Can improve crop water efficiencies with crop design, save energy but NOT with bio-engineering.
- Shouldn't be penalized for using sprinklers as in the Arkansas Valley.
- Must compromise regarding some regulations and laws.
- We've come to the limits of our resource. Changing interpretation of CO Water Laws NOT the doctrines according to Judge Hobbs.

- Our values will determine our priorities across the state.
- Couldn't municipalities work with water rights owners and say "we'll buy half and we'll help you improve efficiencies"—need flexibility in negotiation strategies.
- Must change the "Use it or Lose It " mentality
- Tweak CO water law so as not to injure downstream users.
- Gaps in consumptive use could be sold to municipalities.
- Instead of water use it or lose it....can get credit through a long term Trust or lease and obtain cash ie with conservation easements.

**Question 2:** *How would you suggest the framework components regarding conservation be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- 1) Tweak Colorado Water Law and Regulations to avoid "use it or lose it" mentality while preventing injury downstream in order to improve ag efficiencies.
- 2) Need more focus on REUSE of fully consumable water ie Aurora's Prairie Water Project.
- 3) Goals:
  - a) Establish water benchmarks statewide for Gallons Per Day Per Capita while allowing local communities to establish their own strategies.
  - b) Collaborate with Energy and how they have handled social marketing so we're not reinventing the public education/benchmarking wheel.
- 4) Link land use management and new construction regulations by dragging decision makers into conservation implementation.
- 5) We need to standardize data collection and a definition for per capita use.

# ***ALTERNATIVE AGRICULTURAL TRANSFERS***

## ***(TABLES 11 THROUGH 16)***

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**Question 1:** *How can the framework facilitate alternative agriculture transfers that are geared toward balancing the needs of agriculture, municipal, industrial, and environmental interests on a statewide basis?*

**Question 2:** *How would you suggest the framework components regarding alternative agriculture transfers be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

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### **TABLE 11: Alternative Agricultural Transfers**

**Question 1:** *How can the framework facilitate alternative agriculture transfers that are geared toward balancing the needs of agriculture, municipal, industrial, and environmental interests on a statewide basis?*

- All RT's supportive of Ag
- Look at opportunities on basin level
- RT's need to get involved in evaluating opportunities for ATMs in their Basins
- Water rights holders – not water needers – should be involved in the development of Water Banks
- To make ATM's really work, need storage – somewhere to put that water in lieu of putting on Ag land. Need infrastructure to move water from Ag point of diversion to place of need.
- New municipal infrastructure should have some additional capacity for temp or alternative water supply.
- If Ag/rural economies are strong, producers will not sell their water (or at least it will cost a lot more).
- Long-term right-to-use contracts tied to hydrology – wet years / average years / dry years
- Look at what four or five areas in state for pipelines that could strategically move water – both temporary and permanent.
- State needs to facilitate rules that make temporary transfer cheaper
- Transaction costs for water court limit interest in ATM's.
- Need basin water management authorities to work with Division Engineer
- Ditch wide consumption use analysis could be based on well-established consumptive use numbers
- West slope issues much more about stream flows – environmental v. Ag
  - Should be mechanism to reward Ag efficiency – create incentives – legal and financial – for increasing efficiency
- Each basin needs to evaluate opportunities for Ag efficiency.

**Question 2:** *How would you suggest the framework components regarding alternative agriculture transfers be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- Need some basin specific plot studies that are devised for local user input.
- Cities should bear the risk of uncertain hydrology- i.e. ATM water yield based upon acres in program, not a firm yield of water.
- Reduce transaction costs by Basin Administrative Structure that can approve/deny ATMs
- Evaluation of infrastructure available needed to facilitate ATM, look at North/South infrastructure instead of East/West alignments.
- Colorado Water Law needs to reflect culture and preferences of basins.

**TABLE 12: Alternative Agricultural Transfers**

**Question 1:** *How can the framework facilitate alternative agriculture transfers that are geared toward balancing the needs of agriculture, municipal, industrial, and environmental interests on a statewide basis?*

- Recognition of the issue will help to eliminate pressure, yet we need to figure out how to maintain an economic base for rural communities.
- Rotational fallowing – a plus to water but a detriment to the Ag economy due to less inputs—Maybe we need to explore different farming practices.
- Interruption supply – best idea- but can you quantify the amount of water in the river?
- Water Banks- Not used because the water isn't there in the dry years.
- Water transfer fee's- go back to Ag Base-
- Ag conservation – remember it can get so good that it can fail to recharge the aquifer/river system.
- Farmers do things to become more efficient – such as removing sprinklers to bring back wetland habitats.
- Near Term recommendations:
  1. Transfer portion of right- protect to those who don't transfer by use of a referee instead of court (less expensive option). Could usurp some of the unknown out of process by being an educated representative – mediating the water situation with nothing to gain- can set guidelines for who could do studies, how they might progress, and save on fixed costs. So the burden goes to developer/ user not to the holder it would protect the water user.

**Question 2:** *How would you suggest the framework components regarding alternative agriculture transfers be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- More Referees
- More money for effective modeling, for qualitative decision making
- Maintain economic Vigor in rural communities so that the Ag business stabilizes

**TABLE 13: Alternative Agricultural Transfers**

**Question 1:** *How can the framework facilitate alternative agriculture transfers that are geared toward balancing the needs of agriculture, municipal, industrial, and environmental interests on a statewide basis?*

- Mutually agreeable contract terms.
  - Municipalities are requesting contracts that are 75 to 100 years.
  - The agricultural community is not interested in a contract with terms that long.
  - One solution, a long term contract that involves a market fluctuation clause.
- Change structure/charter of ditch companies to also act as water banks.
  - This will allow ditch water to act as firming water for other projects.
    - As an example, if a subdivision needs augmentation water it could build a small reservoir that is a junior. Then it could get a contract with a nearby ditch company that specifies in dry years, whenever the engineering indicates that the junior reservoir will not fill, the ditch company water bank will forgo some of its senior water for augmentation purposes.
- Change legislation to make the whole process easier.
  - Close gap on question of consumptive use calculation for years when water is forgone.
  - Streamline process for water court that makes a change case for water banking less costly.
- On a large scale, a “water insurance” process on the West Slope that would act to protect against a Colorado River Compact call.
  - Get a number of pre-1922 water rights to pledge water in the event of a Compact Call. In return for giving up water in drought years they will get annual premiums from the insurance pool based on the amount pledged.
  - Players on the juniors on the West Slope and junior nterbasin transfer water players on the Front Range could buy insurance that would allow for continued use in the event of a Compact call.

**Question 2:** *How would you suggest the framework components regarding alternative agriculture transfers be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- [Editorial] Please note our moderate stated that the framework was everything related to water in Colorado... water law, legislation, CWCB, IBCC, DWR policy, etc.
- Attitudes need to be changed.
  - The old rancher/farmer attitude that they are trying to screw us and take our water needs to be changed.
  - The West Slope attitude that they are trying to screw us and take our water needs to be changed.
  - Basically, the shift discussed involved moving to the perspective that we are all in this together and there are win-wins to be had.

General Questions:

- Trust in the process.
  - General consensus was someone always takes the screws.

- We need more facts to overcome the perception that all basins and users are net losers in the process.
- Face-to-face communication is a critical path to building trust in the process. It is tough to see someone as the enemy when you meet with them and they are trying to figure out how to plan for the future, just like everyone who is involved in water... west slope/front range, rancher/municipality.
- Population pressure.
  - There was a discussion about Colorado population control.
    - Most saw it a fruitless waste of time discussing.
    - Education was suggested as a method to curb child bearing related population growth.

#### **TABLE 14: Alternative Agricultural Transfers**

**Question 1:** *How can the framework facilitate alternative agriculture transfers that are geared toward balancing the needs of agriculture, municipal, industrial, and environmental interests on a statewide basis?*

- The structure of using peer-reviewed studies is successful, and the group really agreed about this. But there needs to be more "targeting" of these studies so we know better how much water is available for transfer in the various basins. The opinion was offered that some basin-specific solutions are not fully transferrable everywhere else.
- One person believed that the interruptible supply approach was going to make the most sense, because cities won't want to lease water for short-term. They want sustainable supply.
- There was also a sense that further studies need to be matched with implementation soon, as the studies don't produce water.

**Question 2:** *How would you suggest the framework components regarding alternative agriculture transfers be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- The group would like to see more leadership at the statewide level for pushing the "4-legged stool" forward. The main framework is good, on a strategic level, even though there are tactical issues that need to be resolved, but at the statewide level, there needs to be an articulated program of implementation on meeting the gap.
- Some felt that for some reason there is a reticence on the issue of "putting a plan" together. Is it because we lack the initiative, or there is not enough support above?
- In order to facilitate the Alt Ag Transfers, you are going to need new storage and supply to move forward too.
- It would be helpful to give the roundtables some "authority" (not fully defined) to move larger projects forward. One person cited the example of a large storage project that was shut down because of minority groups. The roundtables don't administer the water or supply it, but the roundtable approval needs to really matter when it comes to getting big projects accomplished.

#### **TABLE 15: Alternative Agricultural Transfers**

**Question 1:** *How can the framework facilitate alternative agriculture transfers that are geared toward balancing the needs of agriculture, municipal, industrial, and environmental interests on a statewide basis?*

- How do alternative ag transfers address permanency?
  - o Municipalities require a firm yield to sell a water tap
  - o Ag water could be used for drought protection
  - o Ag water could be used on a less permanent basis for industrial uses with a limited life expectancy
- Legal mechanism needed?
  - o Any ideas for changing the law need to have a peer review
  - o Super Ditch says that a change of use is too expensive and legislation for temporary transfers is needed
  - o On South Platte legislation is currently not a favorable solution
  - o Legislation may need to be tailored to specific areas
  - o Need to look at federal legislation to free up water from federal projects (particularly on west slope)
- Can we just increase farm efficiency?
  - o In depth discussion of how the South Platte River developed based on return flows and how increasing efficiency on the farm is detrimental to downstream return flows and can affect downstream water rights that were developed on those return flows. The South Platte overall is a very efficient river system.
  - o Do other basins differ from the South Platte and are they as dependent on return flows.
  - o In South Platte and Arkansas River basins, irrigation systems, by the seepage of water from canals and reservoirs, provide wetlands and wildlife habitat and that has been in existence for over 100 years.
  - o Would it be possible to save water by limiting evaporation from canals and reservoirs?
- Traditional buy and dry is extremely detrimental to rural economies.
  - o Free market still does work
  - o Alternative transfers give farmers an option to buy and dry
- Need to look at Colorado's river basins independently to determine what may work in any given area, because there are, most likely, site specific solutions.

**Question 2:** *How would you suggest the framework components regarding alternative agriculture transfers be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- Need specific input from individual roundtables
  - o Decide where the water is to be used
  - o Quantify the amount of water that could be made available through ATMs.
- Could facilitate inter basin meetings to focus specifically on ag transfers

**TABLE 16: Alternative Agricultural Transfers**

- Municipalities are looking for solutions beyond 40 years i.e. permanent. Conservancy districts and ag users are skeptical of a state managed plan/solution for this.
- How does leasing provide long term guarantees so municipalities can continue to plan for growth?
- Has “on the ground” complexity been accounted for with some of the leasing strategies that the Ark is moving towards and are in place in the South Platte? Has DWR begun to plan for these being more common at a statewide level? Do they have the resources to plan now for what’s ahead (since it’s extremely likely they will need more resources in the future)?
- Who do you streamline the ag lease legal process for? Ditch co.’s? Individual producers? Hard to do it for both and there are pros and cons with either.
- Need a framework [for leasing] that allows the free market to work but protects the interests of those who do and don’t choose to participate.
- There is a local level value judgment (that is hard to put a dollar amount on) that factors into each basin’s ag future.
- Rotation fallowing (as a byproduct of leasing) encourages less use of marginal land which is good for the environment and improves the overall efficiency of food/commodity production.
- Can we absorb some loss to ag without compromising the integrity of the state’s ag sector? If so how much? Understanding the relationship between Colo. ag and Colo. food security would probably help answer this question.
- Can we ensure lease arrangements are designed and approved as drought mitigation tool so they are not used as a growth incentive?
- Needs to be a vehicle for allowing producers to confirm leases or plant fields based on snowpack and commodity prices. Do we need a central lease exchange? Allowing sale of leases as snowpack/runoff information comes available. Note: Key relationships between producers / ditch co.’s / municipalities need to be in place before this step can be considered.
- IBCC is providing a non-legal non-confrontational arena to build key relationships [like those mentioned in the previous bullet].
- We’re in a good position compared to other Colo Riv basin states. What can we learn from other places like Australia that have already begun implementing new “frameworks”?
- WSRA criteria likely to be tightened. Some RTs looking for more guidance in this area on some projects.



# ***IDENTIFIED PROJECTS AND PROCESSES (IPPs)***

## ***(TABLES 17 THROUGH 21)***

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**Question 1:** *Assuming IPPs will be needed to help meet the water supply gap, how can the framework strike the right balance between helping to move some IPPs forward responsibly and not jeopardizing other interests?*

**Question 2:** *How would you suggest the framework components regarding IPPs be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

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### **TABLE 17: Identified Projects and Processes (IPPs)**

**Question 1:** *Assuming IPPs will be needed to help meet the water supply gap, how can the framework strike the right balance between helping to move some IPPs forward responsibly and not jeopardizing other interests?*

- IPPs – localized interests – impacts from processes or a result?  
Local versus State involvement and control – 1041 powers – more local control
- Examples – Windy Gap, Moffitt Tunnel/Frazier River, Homestake II
- Concern 1041- is it a hostage holding situation? How to keep discussion going?  
Can state and/or federal help conversation to keep it (IPPs) moving?
- What is sense of government – appoint task force to move forward- If move forward, keep discussion going – or force IPPs to happen?
- Concern-one side has more influence on decision makers.
- Should State be role of facilitator – State is not decision maker, but can be a show stopper?
- Incentives between practice need to be aligned to reach a solution.
- Approach issue as “Adaptive Management Plan”.
- State entity will not have west slope’s best interests in mind.
- Model State Compact Process – Judiciary Special Master.
- IPPs – part of addressing the gap.
- Mitigation – Two extremes – Too little to extortion are requests being made to mitigate none-impacts.
- Governor Executive Order:
  - Include Appropriate People for both sides
  - Define Move Forward
  - Include in addition to Gov. appoint of IPPs
  - Include stakeholders – Do we look at collaborative- consensus project
- Market – used to help in this process – not seeing this now.
- Is there an additional dynamic- Front Range Project need to be planned & implemented versus western slope not expect need – Recognize each other’s position?
- For example- amount of water available is thought of differently – between basins i.e. Colorado River and Front Range.
- Statewide issues – Water – Growth – Jobs.

- Is location of project the issue – does mind set of location or relocation impact perception of negative impact by IPP?
- Consideration of other impacts and may not give local impacts

\*\*\* No Silver Bullet – may need to still look at other issues.

**Question 2:** *How would you suggest the framework components regarding IPPs be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- #1 – Active proposal – should include local stakeholders.
- Have various stakeholders monitor funding sources to provide needed input – fund ability to various interest communicate and include and add to project funding.
- Projects need to be looked at framework process- early in project State evaluations of process – leverage State project proponent that have everyone at x \$\$/1000 acft water.
- Will State project support – make the project happen?
- May be need to Focus on process(es) – to get project moving and increase complete buy in.
- Should State be more involved as process facilitator.
- Keep State somewhat neutral- on project with exception of legislation required.
- Can this be done outside of legislation?
- Need to figure out Gap – if does not have happen – water and economy goes out of state – negative impact to “State”.
- Need to have West and East talking.
- Water process itself has changed – process may be working but not fast enough or to people’s satisfaction.

#### **TABLE 18: Identified Projects and Processes (IPPs)**

**Question 1:** *Assuming IPPs will be needed to help meet the water supply gap, how can the framework strike the right balance between helping to move some IPPs forward responsibly and not jeopardizing other interests?*

Get everyone at table upfront otherwise the proposed Task Force will not be effective – But others think this is another layer of regulations – Dual purpose projects likely if others can bring \$ to the table – For projects with multiple interests – need to have set and binding commitments otherwise its third parties keep asking for additional benefits and concessions...this can be never ending and delay a project – If third parties not included initially then others can come in later and request / require re-evaluation of work done to date – New projects should include as much of public input as feasible at the beginning– State should not mandate who should be present at these early “scoping” meetings...Stakeholders should be determined by project’s proponents...Have State agencies articulate their criteria and needs early in any project’s life-cycle, so their needs are known and can be addressed and met ....Have specific State Task Forces for specific projects..Not all projects have the same characteristics. Task Force to provide service to both project proponents and opponents for it to be beneficial. Look at what historically made projects acceptable and successful vs. those unsuccessful. Eventually the State Administration and legislature may have to become an advocate of a project if it is deemed to be of benefit to the State; the State makes these decisions when it comes to transportation

issues of new roads or upgrades. Overall, the table liked the concept of a Task Force...State can help with resolutions of issues with federal agencies. One member at the table opposed the State becoming an advocate of any water project.

**Question 2:** *How would you suggest the framework components regarding IPPs be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

Do we need both the Governor & legislation for IPP's to move forward? Majority opinion of RT's is for IBCC to move forward. Have an Executive Order which would allow agencies to sit down and determine what common elements are and what are not – Need to have consensus within a RT – and IBCC accepts a majority of RT's decisions – to request as Executive Order – But others think there should “informed consent” – allowing differences of opinions Existing water projects (reservoirs, etc.) that are falling apart? Should not these be included in IPP's ? Table felt that this should be the case.

### **TABLE 19: Identified Projects and Processes (IPPs)**

*Before the group began to address the assigned question at hand, the conversation centered on:*

***“Who’s in charge here: IBCC or CWCB Board?”***

East slope power brokers at table thought this was a big issue that needed to be addressed before we could talk about anything else, but others didn't think the issue really mattered anymore, if ever.

Big Providers Q: “Need clear direction from the Gov office of what appropriate role is for “the state” and for the Roundtables. Can the state or Governor clarify that the IBCC and Roundtable are just an advisory role to the CWCB Board?” Comments from some large water providers that CWCB **OR** IBCC needed to go away (strong implication that IBCC should disappear.) Who got to decide that the IBCC and Roundtables were helpful?

Mike King explained that back in December both outgoing Governor Ritter and incoming Governor Hickenlooper made determination that the IBCC/Roundtable process was helpful and would continue.

Others emphasized the real value of the Roundtables are the strong relationship foundations that form basis for future deal making. Just understanding what the concerns are from different regions of the state is a big plus for everyone that has come out of this. ‘Who’s in charge’ misses collaborative success.

**Question 1:** *Assuming IPPs will be needed to help meet the water supply gap, how can the framework strike the right balance between helping to move some IPPs forward responsibly and not jeopardizing other interests?*

Q: What IPP's do you have in mind when you say IPP?

A: East Slope diversions like Windy Gap, Moffat, etc.

There are other ways that projects can be done quickly when you have to expand water supply. In a crisis situation, you can do things in less than 5 years that otherwise would take decades. Example described re the Prairie Water's Project. There was a crisis when Aurora was down to just days (not months) away from running dry in spring 2002. The excitement and energy of working on a HUGE project that everyone saw was clearly needed helped keep everyone working in the same direction. They pulled it off.

Examples mentioned: Blue Mesa project; Rense(?) plant; Northern Integrated Supply project; Ag transfers; WISE Partnership; Pumps, pipes, projects actually implemented. “It’s not like things are not getting done or moving forward.”

### **Value Oriented Goals**

Regional Solutions: WISE project discussed as example that brings many different aspects of projects together. Q: Where should influence be placed within the state?

Sequencing water projects is a potential role for the state. (We can use FastTracks as a parallel example.) “First, this project is funded; then we’ll do another project in another part of the state.”

Mitigation should help balance by having project costs reflect the real cost of doing business. Project end users (customers) should pay ALL the costs of both the infrastructure and the NC needs. How we determine the real value of the non consumptive needs is very hard to put into the equation. But, we should quantify those costs better and include them into the real cost of projects that are paid by the customers of the project proponents. This point had consensus at our table. (--about the only thing everyone agreed on!)

**Question 2:** *How would you suggest the framework components regarding IPPs be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

Conversation centered around question about whether the State can be a “deal closer” and bless deals that have been so painfully negotiated by the many parties?

Q: Do we really have the mechanism in place for the state to “bless” projects or processes? (Should we do this with IPP’s or just new supply?)

A’s: Not really appropriate to have state “bless” projects. (Interfering with other state mandated processes, like DOW review, would be compromised. Everything can’t happen simultaneously with reviews, like 1041. Careful what you ask for.) Others (large water providers from east slope) strongly felt we needed to have state offer support of projects that clearly help meet needs identified by the state.

Q: What if the state Engineer determines that deals struck cannot be supported by current water law? A: Then we go to legislature and get the law changed with the strong leadership of the Governor/State.

How we tie water to land use needs to be seriously addressed while recognizing different community values for land use. Making the connection between land use and water availability is a big jump but someone has to work on this and figure it out.

### ***Are all needs and uses equally important?***

While framework document says everything is equal, most of this group don’t think it practically works that way--mostly because we don’t have the data or knowledge about environmental needs to say whether we’re meeting them or not. If we don’t know what they are, then how can they be treated with equal importance when we’re talking about IPP’s or New Supply?

Large Diverter/front range provider: “We need to better quantify all our nonconsumptive needs better. If the (east slope) knows what the west slope wants, then we can figure out if we can help or meet that need.” West slope response: But then we just fight about “how little” water to satisfy that need—not “how much” water is needed for recreation and the environment.

Conversation terms are reversed when talking about M&I needs. Semantics frame position.

### **TABLE 20: Identified Projects and Processes (IPPs)**

**Question 1:** *Assuming IPPs will be needed to help meet the water supply gap, how can the framework strike the right balance between helping to move some IPPs forward responsibly and not jeopardizing other interests?*

1. Involve Feds only if there is a Federal nexus. Gunnison IPPs may involve re-operation of Aspinall Unit.
2. Windy Gap and Moffat Firing Projects – Feds looking to State (DOW and Dept of Health water quality). There is a distinction between “State support” vs. meeting statutory obligations.
3. Staffing limitations could be a problem. Task Force could bring State input forward earlier in the process.
4. Championing projects could conflict with environmental protection obligations.
5. MOUs between Feds/State already exist.
6. Congressional delegation not engaged in projects and need to be.
7. Water provider projects being obstructed by State e.g. Green Mountain being held up by State. Bring solutions to the table.
8. Concern that IPPs which may have limited vetting are considered State priorities.
9. Some IPPs that may be good are not publicly vetted due to negotiations.
10. How should consumptive and non-consumptive IPPs be vetted? Which projects are broadly supported? More structure for Roundtable vetting.
11. Process should not interfere with water rights.
12. Local nexus is provided by 1041 regulations which is a bottom up vehicle.
13. The limitation of use of Instream Flow is quantification.
14. Roundtables can bring diverse interests together and provide political support to put behind the formal process.
15. Lack of knowledge by general public puts demand on Roundtables to outreach to public. Who is responsible?
16. Charge full value of water and build in education to cost – see economic value of water by applying economic indicators.
17. Roundtables have broadened the dialogue and mutual understanding. Can Roundtables grow into more decisive planning, problem solving, public education and implementation functions?
18. Get everyone in the same to answer key questions once. Formal procedures and related sequencing make this difficult. Joint Task Force could help with this. Problem: agency resources tight, so agencies avoid involvement until they are required to act.

**Question 2:** *How would you suggest the framework components regarding IPPs be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

1. IPPs launching place for how these IPPs begin. Support projects that meet the gap. Allow cooperation on IPPs without giving up options to engage as the process unfolds.
2. Framework for reconciling consumptive and non-consumptive IPPs with consideration for fairness re: who benefits, who pays. Point of sale is a way to apply this – fishing licenses, lift tickets, etc. What if there is no point of sale e.g. land management agencies?
3. Water court change cases – could be effective venue for mitigation of non-consumptive needs.
4. Needed to work out approach project by project.

5. Processes are already in place –need to educate the public.
6. Large projects basin-wide or Statewide should be the focus of IBCC and Roundtables.
7. Take a regional approach to conservation e.g. urban mandates won't fit rural areas.
8. Develop model codes (non-mandatory) for conservation.

**TABLE 21: Identified Projects and Processes (IPPs)**

General Comments to Questions Included:

- The State of Colorado should take a more active role in IPPs with input from the local and roundtable levels. In addition, *early* federal involvement should be included. Reorganize State government to facilitate implementation of IPPs. The facilitating entity should be the Division of Natural Resources. This should be done within 18 months.
- The problem lies in the statutes. As an example, the Division of Natural Resources should coordinate projects from the beginning (i.e., from scoping process through the life of the project). Currently, this occurs much too late in the process. As one participant indicated, “in the ninth inning.” A map was drawn, for example (which you should have copies of), that indicated Colorado doesn't weigh in on providing a ‘State Position’ until the 37-60-122.2 process at the end (e.g., after NEPA, Coordinating Act, 404, etc.). This needs to change and a ‘State Position’ needs to occur *much* sooner in the IPP process. In addition, the 120 day timeline to provide this Position seems unwarrantedly long. All changes should occur within 18 months.
- For those who are working on an IPP, a checklist of general steps would be helpful to navigate the vast array of requirements and contacts. Need a planning and collaboration process. This should be developed within 18 months.
- There is a continued need to educate all involved or impacted by IPP's. Press releases related to roundtable updates to local papers (as has been done in the past) would be helpful. This to start immediately.

Misc. Comments:

- Need to remove obstacles/red tape to project implementation.
- For IPP coordination models, see EPA's framework.
- Colorado Department of Health is an outlier in the process—where do they fit in?
- There were questions related to county participation on the Roundtables due to potential conflict(s) of interest.
- There is a need to immediately fill vacancies on the Roundtables (especially at the City and County levels—i.e., Archuleta County) so that adequate representation is included.
- What is the status of Good Samaritan legislation? Need to finally get that passed!

## NONCONSUMPTIVE NEEDS (TABLES 22 THROUGH 26)

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**Question 1:** *How could the framework better ensure that the nonconsumptive guiding principles (see attached) are met while meeting the statewide water supply gap?*

**Question 2:** *How would you suggest the framework components regarding nonconsumptive projects and methods be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

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### **TABLE 22: Nonconsumptive Needs**

**Question 1:** *How could the framework better ensure that the nonconsumptive guiding principles (see attached) are met while meeting the statewide water supply gap?*

- Flows are important on an economic basis – tourism: want it to flow through the county. How manage for rafting and trout fishing? \$25 million in Chaffee; huge economic benefit.
- Same issues elsewhere: recreation/fishing/rafting are huge for the economy.
- Fry-Ark built Ruedi but can't sell water from it – does that mean they have way more water than needed?
- Not in upper Roaring Fork – 40-50% diverted to East Slope – Just because have stored water that can't sell, doesn't mean have more water than needed. Crystal River routinely dries up in the late summer. Instream Flows are not met because of agricultural diversions.
- “Filling the Gap” report – Overview: argues that state CAN meet Front Range needs without transbasin diversions. Mirrors SWSI – 4 legs of the stool. Report was done because ISFs are important. 400,000 AF gap in South Platte – can get 200,000 AF from re-use projects: Prairie Water, WISE Project; 150,000 AF from ag transfers; 100,000 AF from APPs (Acceptable Planned Projects) – not “buy & dry”. Active conservation – 60% to meeting future demands.
- Colorado Springs is working on assessing customer attitudes regarding conservation – resource valuation.
- Forcing conservation by rate increases?
- Yes.
- Need education regarding where water comes from. Discussion of Southern Delivery System – impact on West Slope Flow Management Program. Highest concentration of attributes in Arkansas Basin near reservoirs like Pueblo Reservoir and John Martin Reservoir.
- Aurora actively buying water for future from the Arkansas Basin. Perception that Southern Delivery System System will enable those water rights to be delivered without flowing through Chaffee County --makes rafting interest paranoid.
- One element that enabled the permit was Inter-Governmental Agreements – can't do anything that results in a net loss of Arkansas Basin water.
- Projects in the Upper Colorado - Denver/Northern WCD. If both projects go on line, Grand County could lose 80% of streamflows. Don't see water providers concerned about nonconsumptive needs.

- Is Flaming Gorge preferable?
- Talked to Aaron Million about Flaming Gorge project; shares others' concerns. IBCC report structured around projects and how nonconsumptive needs can benefit from projects. Also need to recognize damage to nonconsumptive needs attributes from consumptive uses. Need to look at projects differently – apply biology to engineering of projects. Project is part of the river – not river part of the project.
- Attributes because of flows coming out of Aspinall. North Fork Gunnison – Hotchkiss, lots of money spent on stream restoration – bad engineering and high flows washed it out. From Aspinall Unit to confluence with the Colorado River, pretty solid flows. Hartland diversion is a barrier to fish coming upstream to spawn. Working on it but having problems – over budget. Fish ladder – boating bypass.
- North Fork Gunnison: low flows in fall – Paonia Reservoir silting in. 21,000 AF reservoir, but 12-15% of reservoir is filled with silt. No bottom valve to suck out the silt. If got silt out, 2,000 AF could be available to supplement flows. Anthracite side: no water restrictions. High water washes out restoration.
- Water quality and flow are issues. Number hasn't been identified for recreational use. Conflicts between rafting and fish needs.
- We need to strike a balance – to support fishery, need to mimic natural hydrograph. Can't have high rafting flows all the time. Arkansas River Flow Program is a good compromise.
- Next year on IBCC – looking for solutions to issues. Have many reservoirs in state. Not operated in a coordinated fashion or to benefit nonconsumptive needs. Could IBCC look at changing operation of reservoirs?
- Grand County Stream Management Plan looked at this. Looked at streams in County and what flows are needed and how to achieve. Based on science.
- Is that (Grand County Stream Management Plan) a good example to review?
- Yes.
- And Aspinall Unit a good example. Also, Rio Grande Reservoir, Elkhead Reservoir.
- Hoping Watershed Flow Evaluation Tool will help with this by quantifying needs of streams. Idea is to get high-altitude picture of what streams need. Enables ability to look at systematically.
- Need to look at the whole system. Then can do site-specific evaluations.
- Colorado Springs has looked at Watershed Flow Evaluation Tool and Grand County Plan – try to avoid battle of the experts and look at the science. Find common ground.
- If going to have new project, should project sponsor be required to provide environmental enhancement?
- Nestle Water – reasonable approach is “no gain; no loss” – If there will be an environmental impact, replace it (wetlands). Don't call it enhancement, but avoid negative environmental impact.
- Two projects on Grand Mesa – WCD 1891 easements – putting Forest Service reservoirs back into service – reconstructing. Having to provide wetlands mitigation. 10-15% “overkill”, regarding what destroying vs. what replacing.
- When building a project, environmental community unhappy. At meetings to discuss the issues, think they have environmental community lined up and OK with project, then another group comes up and says they weren't at the table. How do we address this?



- Municipalities' biggest concern about Watershed Flow Evaluation Tool – how will it be used? Many people spawn lots of issues.
- IBCC trying to streamline projects.
- Difficult to streamline – don't want to steamroll an agency into a decision.
- So many groups get involved. Idaho-based group is fighting Chaffee County ranchers about grazing practices.
- Need a way to increase certainty – Colorado Springs would be glad to increase reservoir size. Want to maintain quality of life, but also have duty to customers.
- Understand certainty issue. Is certainty going same way stationarity went? Climate change, etc.
- If Colorado Springs wants a project and certainty, may be asked if this is the last project?
- Harris summed it up – solution has always been a new dam or a new diversion. Not feasible anymore. Now the question is “who do we take it from, and who do we give it to”? General public not aware of this.
- Maybe need to look at NEW water – Mississippi.
- Tie nonconsumptive needs to the Lower Basin Compact. Compact delivery provides Instream Flows.

**Question 2:** *How would you suggest the framework components regarding nonconsumptive projects and methods be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

Quantification

- Irrigated agriculture creates environmental enhancements. The two areas should be in lock-step.
- Trout Unlimited does lot of work with the agricultural community, improving diversion structures for fish passage.
- Larger scale – Colorado River Cutthroat Trout Recovery Program engages wildlife agencies and water users -- avoids draconian measures of Endangered Species Act. Issue of not being able to use saved agricultural water for other purposes, like environmental uses.
- Look at what changes are needed to Colorado law, management and administration of water more helpful to meeting supplies.
- Issue of farmers/ranchers afraid of losing value of water.
- What about downstream users who depend on the water?
- Issue of how to increase efficiency and protect downstream users.

**TABLE 23: Nonconsumptive Needs**

**Question 1:** *How could the framework better ensure that the nonconsumptive guiding principles (see attached) are met while meeting the statewide water supply gap?*

- We need a way to measure what we have
- WFET – so site specific. We need a tool that can help us move forward –especially with regard to endangered species.

- Don't agree that riparian or recreation should be used in WFET.... Output percent risk of change, if you take 20% out of stream, then there is a 25% chance risk of change. What does this mean? Concern whether that tool can actually be used to quantify.
- Modeled results with site specific data. The tool is a first cut – shows where site specific is needed.
- How do we best arrive – purely down scientific tract? Or is politics part of the equation.
- Non- consumptive often at odds with one another.
- What is good enough?
- When is enough studying enough. Must have enough data to find out what we need to quantify environmental attributes. How much is enough is more of a political decision.
- Global optimization vs. local optimization. Need to look at specific projects. Just lay ground rules. Investigation or level of investigation will dictate what level of study is needed. Statewide how far do we dictate – principles that are guiding enough without being overly prescriptive.
- Enhance local economies, easier to draw connecting than through streamflow and riparian health.
- Chip away at parts. You will always have indefinite part. We have to quantify. Prescribed amount – may have to change. May have to reevaluate r2cross or other data. Must allow for adaptation years down the road. Management – extra legal – that allow for adaptive management procedures. Build flexibility into the system.
- Who is the final judge? If you put these agreements together. Values need to be determined locally.
- Keep it small you can keep it local, but a two forks isn't local.
- Set amount by compact – does that issue have some part in the conversation with non-consumptive and if so, than what? Can we make use of it in a non-consumptive way?
- Animas - good place to let water escape the state. Reshuffle the uses within.
- A lot of senior rights pulling water through. What do they contribute to non-consumptive values? Large buckets do help with timing.
- History not designed to bring non-consumptive needs forward. No implementation goals ... Bias built into system of beneficial use. Deliveries are important – recovery plan pushing water down to the state line
- Compacts – recognize that compact or senior rights that pull water through the system to meet those non-consumptive needs.

**Question 2:** *How would you suggest the framework components regarding nonconsumptive projects and methods be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- Got to have implementation – some methods some tools. Don't have tools and history for non-consumptive. Tools that we can support on a broad scale for the state. Non-structural multipurpose -projects must be included.
- Colorado Water law... RICD... concerted evaluation of whether it works, can it be applied, where is it appropriate.
- A way shift from consumptive to non-consumptive – not a handle on how Colorado water law helps or handles. Helpful to take a few issues like RICD to see how do these really

work to make the system work. To what degree does water law need to evolve to address Non consumptive uses – water trust, RICD. Do they work? Do we need other tools? A way to make it work without undermining Prior Appropriations. We need to combine RICD and ISF to get something that will really address full range of requirements for non consumptive needs.

- What do we really need? Is it a management agreement?
- Roundtables are the perfect place to have these conversations – if the roundtables will assert their authority.
- Nxt 18 months? - Quantify, target, identify and implement.

#### **TABLE 24: Nonconsumptive Needs**

**Question 1:** *How could the framework better ensure that the nonconsumptive guiding principles (see attached) are met while meeting the statewide water supply gap?*

Overall we need more data in a way that the layperson can understand. A DSS for the entire state needs to be completed asap. It also needs to be user friendly. Currently only highly skilled technicians understand it. Quantification of the needs must be done. Using the “gap” for nonconsumptive needs leads to confusion and frustration as nc needs cannot always be quantified the way consumptive needs are. We were unable to come up with a new and better description due mostly to lack of time.

There was strong support from the entire group for “the flow evaluation tool” for a basin wide “Big Picture” analysis. Another idea that was supported was the need for a risk assessment tool and it must include Climate Change.

IPP’s when not too far along and new projects need more of a front-end approach in incorporating nc needs. Site specific studies that include stakeholders early on was supported by all, including EPA and FS participants although they acknowledged it would not be a panacea for the NEPA process. There is a need for a framework the State can support. EPA stressed the need to incorporate Conservation and reliable water demand numbers.

In general a tool that can give certainty to IPP’s and new projects the State can support. Again, DSS for the entire state as data is key but it must be user friendly.

**Question 2:** *How would you suggest the framework components regarding nonconsumptive projects and methods be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

Move forward with the Flow Evaluation Tool studies on the Colorado and Yampa. See if it meets local, state and stakeholder needs. Fast track results and get out to all Basins.

Promote completion of DSS where not complete statewide. Flow Evaluation Tool must have reliable data.

#### **TABLE 25: Nonconsumptive Needs**

**Question 1:** *How could the framework better ensure that the nonconsumptive guiding principles (see attached) are met while meeting the statewide water supply gap?*

- Quantification—need to know targets
- Challenge in general vs. specific
- Funding—to help offset costs and more

- Lacks focused effort to see if the existing funds are enough
- Can we look at a market-based focus?
- Use funding early
- Who/how do we prioritize projects if this exists; there isn't a clear idea of what happens
- Holistic approach
- Funding prioritization reconciled with potential projects/issues (some of what happens after the fact should be earlier)
- Need more conversations about priorities
- Are some funds going unused or not being used efficiently?
- Statewide nonconsumptive funding coordination
- Funding for quantification
- GOCO funds—used on more water related issues
- GOCO's 4<sup>th</sup> quadrant—built as an incentive but could DOW and GOCO work something out with regard to funding nonconsumptive needs (e.g., political concerns, access, public funds and resources, private funds equal opportunities and concerns)?
- Conservation easements providing benefits
- Habitat—like stamp for rafters?
- Cost of keeping water in rivers for recreation; other recreation users should also pay?
- How can we leverage funds? Partner with Ag/others for a market-based approach?
- New money will be hard to come by; need to look at leveraging funds
- Integrating nonconsumptive needs with in water supply planning
- What is better than the system we have now?
- Environmental cost/benefit of a project
- Can nonconsumptive groups be part of early conversations?
- Value in CWCB coordinating permitting? Already exists but could be tweaked?
- Centralized permitting efforts—“there has to be an easier way”
- Instream flows can make exchanges difficult; are there other tools?
- Quantification will drive discussion for needs and prioritization. Once we identify efforts on the ground, need to start looking at if it is “adequate”
- Loss of seepage from transfers or efficiencies (e.g., lining of ditches in Grand County)
- Help respect 1041 powers to continue local protections/authorities
- Mitigation funds—site specific and range in amounts, etc.
- Cost savings can be found in avoiding environmental impacts
- Get everyone to the table if needs cannot be addressed
- Lack of definition with 1041 powers; hard to estimate costs of mitigation when mitigation is unknown
- How do we start sorting this out—what is the next step?
- Despite resistance to government, this could be an area that benefits from government coordination and/or oversight
- 2 challenges:
  - Proposed new projects with impacts
  - Historic diversions which did not fall under the regulations/review we have now; need for restoration

- Using existing assets (e.g., Northern allowing Grand County irrigators to pay for additional pumping to raise flows)
- Are there projects that can be built sensitively and we can try to step back and incentivize the nexus between some projects and the environment
- State water project—will we ever be at a place where it becomes a reality?
  - Is there more in the definition of “state water project” as something more than a pipeline and reservoir?
  - Statewide conservation and/or ag water banks?
- Compact compliance can help provide nonconsumptive needs

**Question 2:** *How would you suggest the framework components regarding nonconsumptive projects and methods be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

- CWCB Work Plan will hopefully integrate these recommendations
- Go back to BRTs for more feedback and have them make suggestions for what they would do differently
- Push BRTs to consider other basin’s perspectives; push outside comfort zones.
- More joint meetings with BRTs
- Role reversals; Colorado BRT should think about what they would do if they were the Metro BRT and vice versa.

**Question 3:** Given the four resources for addressing the gap, how do they get put together?

- Cannot conserve your way out—key component
- Fixed cost of providing water
- Politically unpopular to increase rates after conservation is successful
- Driving factor of decision making is cost; that really can be difficult to reuse rates, especially if customers feel they are doing a good job on conserving
- Other funding options: federal vs. state?
- Water Sense tax credit at federal level
- Shift program expenditures to new efforts like xeriscaping

### **TABLE 26: Nonconsumptive Needs**

**Question 1:** *How could the framework better ensure that the nonconsumptive guiding principles (see attached) are met while meeting the statewide water supply gap?*

1. Add to guiding principles – “Low-impact hydroelectric development values”.
2. By analyzing the potential of delayed runoff and less evaporation from storing snow in glacial cirques
3. Consider non-consumptive needs during initial project design instead of as an afterthought. Example – Halligan-Siemen (Greeley)
4. “Shared-vision Planning” (Did Corps of Engineers coin this term?); also, “Future-search conferencing” (method to vision and find common ground).
5. Acknowledge and maximize environmental benefit of water delivery for non-consumptive needs.

**Question 2:** *How would you suggest the framework components regarding nonconsumptive projects and methods be moved forward over the next 18 months in the IBCC work plan, within the roundtables, and through CWCB?*

1. Speed up and/or generalize quantification of non-consumptive needs in order to reach shared vision in water projects and move ahead. Examples – analyzing timing and rates of storage release options to benefit non-consumptive goals; HUP program (?), U.S. Fish and Wildlife in Colorado River Basin; Green Mountain, Granby.
2. Focus on design alternatives to meet all water user needs (shared-vision planning), Guiding Principle E.

**General:**

Figure out where the bureaucratic logjams are and cut the red tape.

## ***FITTING IT ALL TOGETHER (TABLES 27 THROUGH 29)***

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1. How can we sequence the four supply components (IPPs, conservation, alternative agricultural transfers, and new supply development) without leading to a crisis in the future? How do we start the process on a new supply project now while ensuring/encouraging strict conservation measures on the Front Range?
  2. During polling and discussions on the framework, roundtable members in each basin indicated that their basin is giving up more than it is getting. What changes are necessary to help each basin feel that it is getting more than it is giving up?
  3. Are all needs and uses equally important? Or is it most important to focus on addressing the M&I need with the least damage to agriculture and the environment? What should the IBCC framework say regarding priorities?
  4. How can (or should) the framework address trust--trust in the process and trust between entities, agencies, basins, etc.?
  5. What changes to water law are needed (i.e., in the areas of reuse, agricultural efficiency, alternative agricultural transfers, etc.)?
- 

### **TABLE 27: Fitting It All Together**

What is the import of the IBCC report? It sends a good message about the real costs of water—mitigation of agriculture, environmental, social, cultural.

- People don't know where the water comes from – We need citizen awareness of watersheds
- The message needs to come from a wider source than the customer's water providers. Are customers are willing to pay a little extra for food security? For environmental uses of water?
- Perhaps we can learn from the experience of electrical utilities when they began to unbundle the cost of services on the customer's bill. That way, when the price of coal went up, the customer saw exactly why their bill went up.
- CONCLUSION: Education of municipal customers is critical to Fitting It All Together

What is the value of the Roundtable process? The best effect is the dialogue. Is the money in the system beneficial? It is a source of good dialogue but perhaps skews the discussion to money, not concepts.

- We need to move toward solutions and implementation. Keep problem solving at the roundtable level.
- We are now having intense conversations on real issues.

What is the framework for moving forward in the next 18 months? Roundtables need specificity on the tasks. Should we try to answer questions like “What is enough conservation? What does “Restore” mean with respect to non-consumptive uses? Should we quit pretending that an Intra-State Compact will be produced by the Roundtable process?

- What is a non-consumptive need?
- Perhaps a crisis is inevitable to bring the various advocacy groups to the table.

- Are all needs equal? Do we have respect for each other's interests?
- We need to build trust. I question whether all the players are trustworthy. What are the agendas?

What is important for the IBCC to focus on next? Implementation is beyond the scope of the IBCC program.

- Look at reuse and agricultural efficiency.
- Yes, rework the ag efficiency to incentivize farmers if the water generated benefits the environment.
- 

Do we support alternatives to ag transfers? All participants agreed that the alternatives to ag transfers was a critical next step in this process.

### **TABLE 28: Fitting It All Together**

For discussion, Moderator offered a choice between issues of substance or issues related to process. By majority vote, the group elected to begin with issues related to process.

The group unanimously supports continuing the roundtable process, including funding (both operations and the WSRA grants).

QUERY: How can we coordinate roundtable activities to work together to solve water supply challenges?

- Reiterate that this group is very supportive of the roundtable process - we need that broad-based input and support [to solve water supply challenges].
- Roundtables add value: education (including education of the public) and are good data collectors, providing good information [to state planners].
- CWCB board members need better communication with [CWCB] staff.
- It is important to keep pressure on the roundtables to remain open and inclusive [in selecting and retaining members].
- Support of the roundtables should include a paid staff person for each roundtable to provide technical information to the roundtable members [beyond current level of support provided by CWCB staff].
- A plan should be developed for roundtable members to visit other roundtables routinely.

Responsibilities of each roundtable:

- Assure that there is good communication with the IBCC.
- Provide educational support for its membership, including orientation for new members.
- Serve as an incubator for future CWCB directors and water leaders in general (important).

Roundtables and the IBCC are advisory committees to CWCB; CWCB should make decisions based on advice from Roundtables and IBCC; however, with roundtables and IBCC only



advisory, some feel that we are perpetuating the system that got us where we are today, which is not a good place.

- We need a clear cut chain of command so that decisions can be made based on information developed at the roundtables (e.g.: Roundtable -+ IBCC -+ CWCB).
- A question regarding substantive issues: Are all needs and uses equally important?
- Some questioned whether the uses well enough defined. For example, what does “M&I” mean? (Drinking water vs. watering bluegrass lawns).
- “We support keeping people from dying of thirst; we do not support lawn watering.”
- It is hard to analyze needs with a “one size fits all” analysis; people in different environments respect different needs from their own perspectives.
- Ideally, we should match cost with benefit to the state [as a whole] and pursue the most valuable [option].
- To each person, his or her need is most important.
- We may agree in principle that all needs are equal in importance, but not all will be met, so choices will need to be made.
- Some uses are quantifiable, others are not, making a monetary comparison almost impossible.
- If M&I (however it is defined) is most important, land use issues must also be addressed to maximize utilization of M&I water.
- Our efforts should focus on multiple benefit projects that can meet more than one need, serve more than one use.
- Even if all uses are theoretically equal, we cannot avoid planning for M&I needs (emphasis on needs rather than wants, and require consideration of sustainability).
- Recognize that conservation isn’t necessarily cheap; revenue declines with less use and rates will go up.
- In current planning efforts, there is not enough emphasis on drought planning - how to meet our needs in the event of sustained drought. Rather than die of thirst, will we let endangered fish die?
- Economic development should include moving the people to where the water is. That could be done by placing industries and jobs near the water and people will follow.
- We cannot leave the solutions to pure market forces alone; we also need good policy decisions, and we need that good chain of command in order to make those good policy decisions (see notes above).
- Query to policy makers: What can we afford to give up in order to have the sustainable balance of uses that provides the community we want to have?
- There is not enough communication between water providers and land use officials.
- We need a policy that keeps water from “moving to money”.
- Privatization of water systems is not the answer.
- We can choose to ignore reality, but we cannot avoid the consequences of doing so.
- We should make it easier for municipalities to share “surplus water” they hold in reserve with agricultural users in wet years.

**TABLE 29: Fitting It All Together**

The question was how entities should work toward solving future water challenges

- On the matter of bringing in-basin solutions into play, a place for first-level successes, some in the group heavily emphasized undue delays caused by federal authorities, whether they be slow moving studies and analyses as part of NEPA to potential threats from new listings under the ESA. A question was how to get support for these project stuck in NEPA
- The regulatory process is out of control and expensive. It needs to be streamlined while still being fair to the public
- Table members said first efforts would be to look for underutilized water projects that could be expanded and/or brought up to full storage standards (not under SEO restriction).
- They also called for more information sharing among Roundtables so that we can make informed decisions
- They said the analyses of how much water is left to develop should be driven forward
- They cited the need to analyze the risk to current water rights that new development would bring
- Studies they wanted completed included the Colorado Compact Administration Study, the Water Bank, the Colorado River Water Availability Study and the Gunnison/Arkansas Study of the Aspinall Unit

On the question of sequencing:

- The group said find the 80 percent of solutions that are agreed upon statewide
- Some questioned the concept of “sequencing,” favoring instead an uniform approach to all of the tools to address demand, conservation and agriculture
- To that event, we must start talking. The “old days” of ramrodded projects are gone
- A Weld County Commissioner said he did not think he’d see a new transmountain diversion in his time, nor would his kids
- The era of big federal projects is gone
- In that event, we have to find strategic, smart projects

Other comments

- Some were doubtful that temporary ag transfers would be successful
- Funding and money resides with the CWCB; The IBCC is “ground up.” Give more authority to the IBCC and let them run with it.
- The elephant in the room is the change in Colorado’s social and economic structure and the profitability of agriculture
- Profitability would be a key disincentive to move water out of ag
- Forces growth in marginal areas and make it more concentrated so growth does not use as much water
- Growth should be infill instead of expansion
- All tools are equally important, but if everything is a priority, nothing is a priority. Meanwhile M&I is the de facto priority
- Make conservation a priority

# “FUTURE OF THE BASIN ROUNDTABLES: STEPPING UP OR STANDING DOWN” BREAKOUT SESSION

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*Panelists:*

- Jennifer Gimbel, Colorado Water Conservation Board (moderator)
- Eric Hecox, Colorado Water Conservation Board
- Mike Preston, Dolores River Water Conservancy District
- Gary Barber, El Paso County Water Authority
- Eric Wilkinson, Northern Colorado Water Conservancy District

Jennifer asked the panel what implementation means for their basin.

Eric W said that implementation over the next 18 months begins with roundtable especially when it comes to IPPs and conservation, long-term will be inter-basin discussion on new supply and every RT should protect against new ag transfers.

Mike Preston explained that the Southwest is looking at meeting water for M&I without impacting ag, consumptive IPPs are well-developed but they need to integrate the nonconsumptive

Gary Barber talked about how the Arkansas has been looking at implementation, need to answer questions, what are the projects and is there enough conservation.

The time for discussion is not over, in order for a basin to expect new water from ag or from west slope several things need to in place. We need to deal land use issues which respect 1041 but also institute 1041 responsibilities.

Rachel Richards – a lot of IPPs cross basin line. The basins looking for supply are pretty clear on needs but the Colorado basin is not clear on their IPPs. Nonconsumptive needs tool is not complete and still waiting for supply availability report. Do not have a detailed proposal to react to and still waiting for Global settlement.

Mike Seele, Arkansas – focus has become on WSRA, the original intent was looking at policies acceptable across basins such as groundwater recharge

Don Schwindt, SW – Status quo is not where we want to be. Someone has to provide leadership, the roundtable process may not be appropriate to promote the four legs of the stool for implementation.

Mark Fuller, CO – Between all of the roundtables maybe there are some projects that could move forward – IPPs, nonconsumptive, conservation or a demonstration basis. Need some lessons, let's look at lessons learned, getting roundtables together to look at projects

Barber – What Arkansas has been trying to do is reach to the Gunnison, it is a lot harder to hate someone you know well, trying to see this in a bigger context.

Preston – roundtable could nominate projects for implementation may force them to agree, this would address both grassroots and leadership

Wilkinson – need to look at IPPs in two categories: in your own backyard and within basin; interbasin IPPs other than those being pursued right now, going to take a long time. The parameters for the discussion and the project need to be laid out. IBCC could not reach a consensus because there was so much to consider. Need to have a commonality of interests. Ark/Gunn is setting a good example. We are not close to a new water supply project. IBCC put a timeline on that of 20 years. No one is going to push a project through. Reaching time on demand curve where we have to start doing something.

Peter Nichols – IBCC had a discussion because they were not happening at the roundtables, west slope and front range roundtables should meet and put more meat on the bones

Jim Pokrandt, CO – When you look at the big picture what we know how to do well is a transbasin diversion, what is fertile ground for the west slope is all the other things. Windy Gap and Moffat are IPPs that can serve as an example

George Sibley, Gunnison – Is it time for a compact? Looks like page 18 is a sketch of a compact

Gimbel – One of the advantages of the framework is for the roundtable to start talking to each other about a compact

Bill Trampe, Gunnison – I was asked what was intended by the IBCC, I need more specificity and more direction setting the roundtable to respond to. CWCB needs to define

Gimbel – Is this the beginning of a compact?

Nichols – Yes it is. We should continue to look at what that deal would look like

Gimbel – Let me ask North Platte and Rio Grande if an interbasin compact makes sense

Carl Trick, North Platte – We are in a situation where we are not affected. I have heard the word implementation put out here and is that a chance for the state and IBCC and not the roundtable? CWCB and IBCC has been a division. Does IBCC have funding and staff to start this implementation without CWCB?

Preston – Roundtable are a place to build understanding of the needs and perhaps advocacy. CWCB is very structure with laws and staff and can take the formal steps. For the roundtables

and IBCC to be effective, may need more structure. Now that the framework is at more roundtables, could add to the structure with more detail, need something to react to.

Barber – roundtable provide perspective, IBCC provides experience, CWCB provides the decision, CWCB could receive ideas to set the policy

Wilkinson – roundtable is a good process to build consensus and agreement within a basin. IBCC is a big picture entity and roundtables have basin representatives, CWCB provides the technical support as the state policy board

Gimbel – your homework assignment is to tell me how the CWCB can best support you.

# “PRESSURES ON AGRICULTURAL AND URBAN WATER DEMANDS” BREAKOUT SESSION

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## *Panelists:*

- Travis Smith, San Luis Valley Irrigation District (moderator)
- Joe Frank, Lower South Platte Water Conservancy District
- Harold Evans, Evans Group
- Jay Winner, Lower Arkansas Water Conservancy District
- Louis Meyer, Schmueser Gordon Meyer, Inc.

## *Panelists' Topics:*

Travis – Opening remarks, Rio Grande groundwater management plans

Joe – Cooperative efforts and moving forward in the South Platte

Harold – Ag transfers from a municipal perspective, sustainable economies

Jay – Best practices for cooperative relationships between farmers and municipalities in the Arkansas

Louis – Ag efficiencies and limitations in the Colorado, potential legal changes

Travis Smith called the session to order and asked the panel members to introduce themselves. He then asked Joe Frank to discuss the South Platte River Co-Op. Joe described the Co-Op which is a new organization being formed to exchange water from excess augmentation plan return flows, stored water, and new water rights to locations upstream as far as Greeley at the confluence with the Poudre River. The Co-Op met with over 40 water user organizations to obtain feedback and suggestions on how the Co-Op should operate. They learned that two key principles should guide the operations:

1. Be open and transparent
2. Follow existing water law

The Co-Op has been awarded two grants from the ATM Ag Water Program funded by the CWCB. The first grant operations have nearly concluded and the second is beginning within a week. They are seeking to follow a bottom-up process as they move forward with their program.

Travis then asked Harold Evans to discuss the City of Greeley water acquisition program. Harold offered the following observations concerning the program:

1. ATM from ag water will be a part of the city's water portfolio.
2. Desirable ATM ag water will be location specific and must be able to deliver water to the Greeley water treatment plants.
3. Ag water transfers must be between a willing seller and buyer.
4. The water provided must be permanent supply for the city to rely upon to meet future demands. City historically acquired water from irrigated lands that it grew onto but now it is growing onto

dry land agriculture. City is buying ag water to meet future demands and is leasing the water back to the farmer until it is needed by Greeley. The City is also leasing reusable return flows for augmentation use by agricultural organizations.

Weld County in 2007 was the largest agricultural sales county in Colorado with over 25% of the sales in Colorado from Weld County. The Greeley area is experiencing growth related to La Prino Cheese expanding with 60,000 additional dairy cows needed to meet the expansion needs. There are energy companies moving into the area with solar panel and wind turbine manufacturing included. The population of Weld County will double by 2050 as a result. It will be a challenge to maintain agriculture and provide water for this growth. He said that the IPPs related to the enlargement of Halligan and Seaman Reservoirs, the construction of the Windy Gap firming reservoir, Chimney Hollow, and the NISP Project would greatly assist in meeting future water needs without seriously impact to agriculture.

Travis asked Louis Meyer to offer his observations from the Colorado River basin. Louis said his basic premise is that Colorado water law should be changed to accommodate using water saved from agriculture through conservation efforts to meet future M&I demands. He mentioned that the Aspen Valley Land Trust had placed over 30,000 acres into conservation easements. He discussed the program by Salt Lake City to impose a \$0.50 surcharge on monthly water bills to fund watershed protection efforts. This same concept could be used to assist farmers in conserving water. He went on to say that the Colorado River basin has 11 sub-basins and each basin may have its own solution to using conservation efforts to provide water for future demands. He opined that water law needs to be changed to provide more flexibility and to reduce transaction costs. He suggested that pilot studies should be initiated on increasing the efficiency of ag water use such as from flood irrigation to sprinkler irrigation and marketing the saved water.

Travis then asked Jay Winner to discuss the Super Ditch project being implemented by the Lower Arkansas River Water Conservancy District. He said there are several lessons to be learned from the project. One was the getting the local farmers to buy-in to the concept of rotational fallowing rather than the traditional buy and dry process of providing water for M&I demands. He said that they took a group of farmers to California to observe the Palo Verde Canal fallowing project which provides water to Los Angeles under a rotational fallowing program. After seeing this project, the local farmers under 7 canals in the Arkansas River basin between Pueblo and Las Animas agreed to work with the District in moving ahead on the Super Ditch rotational fallowing program. A number of engineering studies have been undertaken to determine yield of water under various hydrologic conditions and exchange potential upstream to as far as Pueblo Reservoir. The cost of leasing water from the Super Ditch is projected to be around \$500 per acre-foot. The Super Ditch is also looking at methods to reduce transaction costs and conversion costs.

Travis then briefly described the ground water management efforts to sustain the current agriculture that exists in the San Luis Valley in light of declining water levels in the aquifers in the valley. The 2002 drought resulted in the recognition that a response was needed to prevent future issues. Legislation was passed allowing a solution specific to the San Luis Valley and allowed for the creation of Ground Water Management Districts with the charge to develop management plans to provide for sustainability of the valley's ground water resources. The Ground Water Management District No. 1 located in Closed Basin

north of the Rio Grande is attempting to encourage farmers to voluntarily remove 40,000 acres of irrigated lands from production. It has been a difficult process and it is not yet completed.

Travis then asked for questions from the audience.

Mike Gibson from the Rio Grande Roundtable asked Harold Evans on the details of the leasing back of water to the farmers. Harold replied that the sales agreement has the details of the lease back so that the farmer is aware up front of the program. The city is attempting to meet its comprehensive plan to acquire water to meet 2060 demands. As a result the purchased water is leased back for a 15 year period and some with a 5 year renewal period. They are leasing the water back to farmers at a cost of \$30 per acre-foot.

Steve Harris from the Southwest Roundtable asked Jay Winner about the current understanding of fallowing especially with respect grass crops. Jay responded that CSU scientists have been doing pilot studies in the Arkansas River basin on fallowing lands and the ability to bring them back into production after one year of fallowing. They have found that the production from the land after one year of fallowing is better than it was prior to fallowing. He did not have any information on fallowing of grass crops.

Rick Parson, water consultant, asked Jay Winner if the Palo Verde program was for more than one year of dry up under the fallowing program? Jay said he was not sure but did know that it involves fallowing 15% of the lands under the canal at any one time.

Another question from the audience was asked to Jay Winner on the cost of leased water from the Super Ditch. Is it \$500 per acre or \$500 per acre-foot? Jay replied that it was \$500 per acre-foot of consumptive use.

Tracy Bouvette asked the panel about ag water conservation and can water consumptive use saved be leased to other farmers under a ditch? Jay Winner responded that under the irrigation efficiency rules in the Arkansas River basin that farmers can sell excess consumptive use accretions to farmers needing to augment depletions. Louis Meyer added that he thought that conserved water not just consumptive use water could be marketed within a basin based on rules for a specific basin. Harold Evans responded that changing return flows by increasing irrigation efficiency is a major issue and has consequences that must be considered in any ag water conservation program. Joe Frank agreed and said reducing return flows through a conservation program will injure other water rights on the South Platte who are their neighbors.

Dana Miller from the Arkansas Basin Roundtable asked Louis Meyer for more details on his surcharge for municipal water users. Louis replied that his concept was to use the surcharge to assist farmers upstream implement water conservation programs that would in his opinion increase water supply downstream.

Judy Lopez from the Rio Grande basin asked Louis Meyer what his definition of ag water conservation is? Louis responded with the example of the stream which he has a ranch on where he uses sprinklers to irrigate his pasture 4 hours a day. A rancher downstream irrigates 24/7 and dries up the stream later in the summer. If this rancher converted to sprinklers, he would not have to divert as much water and water



would remain in the stream. Judy replied that sprinkler irrigation led to increased consumptive use in the San Luis Valley which resulted in aquifer depletions and the current problem the water users are attempting to solve. She said a person proposing ag water conservation should be aware of all of the consequences.

Eric Kuhn from the Colorado River Roundtable asked how could flexibility be provided to water law to allow conservation in one basin that may work but would not in another basin? Travis Smith responded that the Rio Grande basin (San Luis Valley) was able to get basin specific legislation to allow the creation of Ground Water Management Districts with specific responsibilities to provide for the sustainable use of the ground water resources of the valley.

Travis noted that it was past 3:00 p.m. and that the session needed to end. He thanked the panel and audience for the excellent participation in the session's topic.

# “NONCONSUMPTIVE NEEDS” BREAKOUT SESSION

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*Panelists:*

- Geoff Blakeslee, The Nature Conservancy (moderator)
- Caroline Bradford, Eagle County Representative
- Lane Wyatt, Northwest Council of Governments
- Gerry Knapp, City of Aurora
- Greg Kernohan, Ducks Unlimited

*Panelists' Topics:*

Geoff – opening remarks, Elkhead PBO

Caroline – 10,825 process as an alternative method, finding common values in the Colorado basin

Lane – Watershed Flow Evaluation Tool

Gerry – building off the success of the voluntary flow agreement in the Upper Arkansas

Greg – partnerships between ag, municipalities and environmental parties for protecting wetlands

Geoff: Elkhead reservoir was expanded – use to supplement low season flows in the Yampa River for endangered fish.

Caroline Bradford (Eagle County Basin Roundtable – Colorado Basin Roundtable): asked to talk about success in the roundtable – she was skeptical because she doesn't know if they have any success stories. Nonconsumptive Needs mapping exercises were pretty dissatisfying – all of their streams had important values from a nonconsumptive perspective. They wanted to protect all of the streams not just the highest priorities. The process brought our basin together. Helped them understand everyone's needs. Between the upper basin and lower basin helped each other understand each other needs. Come to lots of agreement that the headwaters area through Glenwood spring is the important area. Site-specific quantification was conducted in 2009 for this area. 10825 process and endangered fish flows was separate from the roundtable process – going to release water from Granby to benefit fish.

Question – don't have any priorities in the lower basin. A: already have endangered fish program for lower part of basin and instead focused on the Colorado River headwaters.

Q: We'd like to see one – an instream flow on the Colorado? A: Can only speak for herself but a lot of people in the basin would like to see an ISF for Colorado mainstem.

Greg Kernohan: South Platte Ranch – Hayborn project – landowner had 800 acres with great potential for recharge – partnered with Lower South Platte water conservancy district – put water from South Platte to recharge wetlands and were able to re-time 800 AF/year. Eight family farms

tributary to the South Platte didn't have an augmentation plan, LSPWCD was able to include them in their augmentation plan and they were incorporated into Dcuks Unlimited program.

Brush Prairie Ponds – city of Brush maintains this project. Run water through canal to wetlands and retimed to river. The City owns the property and uses credits for municipal water supply. Why do we still work together? Increases land value because there are places to hunt. DU is in it for the wildlife component.

Gerry Knapp – City of Aurora: Voluntary flow agreement for upper Arkansas. Ark/CO Basin Manager regarding water rights. Look towards the future of nonconsumptive needs – they didn't start with the roundtables...it illustrates that we can work on these things and it gives a place to start from as we move forward. Voluntary flow program – Ark doesn't have enough water to maintain a rafting season but because of transbasin and storage, etc the rafting folks would ask for flows to be released and worked with cities to get the released. It was fish vs. recreation – high flows for rafting were bad for fishing. Sat down and worked things – rafting flows in summer and shut off Aug 15 for fishing. Also have a winter fish program. Environmental and Recreational needs can be in conflict. Reservoirs on west slope for east slope purposes have provided environmental benefit. We all want to see multipurpose projects and built in flexibility whenever we to meet changing needs.

Lane Wyatt – NWCCOG: Represents Summit County. Pleased to hear Eric Hecox and the Governor put nonconsumptive needs on par with ag needs. With passage of CW21 that allowed for evaluation for nonconsumptive needs – move away from hysteric approach of the past – take a more objective approach. More of a risk based tool – already at risk for env/rec – bring the state of science flow and recreational relationships. TNC has gotten a head start on this with the ELOHA model and also have the CRDSS and this has been of benefit. Scientist various flow ecology, recreational, - put this into a decision tool – morphing – validating. Tool has merit – expert workshops flows for fish and is their surrogate for these. Had similar workshop for riparian. Also looked at site-specific data in pilot study where could compare site-specific. Some of changes that have been made – professional expertise for recreation – don't use a predictive model needs to be based on expert opinion. Streams that are augmented don't work the best for this. Riparian – needs to be based on channel characteristics. Need to look at each attribute itself. Another validation step – use that to validate results in flow evaluation tool. Recreational relationships – risk based system – involves input on the acceptable levels of risk = what does that really mean. Final products – mapping products – status of nonconsumptive needs – ultimately to look into the future how do the circumstances in the future change. Does offer a high evaluation help ID where locations that need more site-specific information – directing resources – in this notion of the flow gap for nonconsumptive and balancing. Initial evaluation of multipurpose – moving into new turf – a lot of scrutiny but output has improved the process.

Q Lane: Struggle on the quantification for rafting, environmental – cost and return to accommodate nonconsumptive needs: Tug of war between our values? A: tool brings the valuation these changes have occurred to – it doesn't bring what is worth – at least there is a common place to start from. A: a lot of times in the Colorado basin –east slope just tell us what you want? Without site-specific quantification, we don't know how to answer the questions?

Greg Q: Are the wetlands connected to stream? A: yes but through the alluvial system.

Greg Q: On-going monitoring? Improvements to WQ? A: Wetlands offer phenomenal opportunity for water quality.

Reed Q: Public outreach to the rest of the roundtables – is it ready to go statewide are the bugs worked out? Other basins are interested as Rio Grande would like presentation on Watershed Flow Evaluation Tool

Example Rio Grande reservoir is multipurpose project

CWCB staff should come up with a better term; “nonconsumptive gap” isn't a real name for this.

Peter Fleming Q: within mainstem of Colorado – my experience has been short term solutions there has been a willingness by all parties to meet nonconsumptive needs on short term basis but the rub is to identify long term needs – can be perceived as a threat as numbers can take a life of their own –long term identification

Q: How do we get the nonconsumptive needs with a common language with consumptive needs – I know it is frightening to quantify, trouble with the numbers on the nonconsumptive stuff and working in an intensely legal system – upper Colorado – tipping point – caution

# “CHALLENGES TO NEW SUPPLY” PLENARY SESSION

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## *Panelists:*

- Tom Gray, Moffat County (moderator)
- John McClow, Upper Gunnison Water Conservancy District
- Bruce Whitehead, Southwestern Water Conservation District
- Gary Barber, El Paso County Water Authority
- Mark Pifher, Aurora Water

## *Panelists' Topics:*

Tom – opening remarks, introduce panel, prepare audience to think about questions and guiding principles for new supply

John – Blue Mesa Workgroup

Bruce – ALP Project, Water Bank (mitigating risks and increasing certainty for existing uses)

Gary – Flaming Gorge Assessment, Arkansas success stories

Mark – Eagle River MOU, the Arkansas Basin Ag Transfers and the proposed WISE Partnership with Denver and the South Metro Authority

Jotting down phrases today: maybe people will be moved off their positions by end of the day? No meeting can take place in Colorado without discussion about new supply. Concepts are ok but be aware of the details and be aware of the consequences and unintended consequences. New Supply on west slope brings up images of transbasin diversions. The status quo has been mentioned several times today and it is not something we can embrace. New supply options – just taking water is not an option and diversions can be possible if basin needs are met.

We are getting there – we have had discussions among the state that we've never had before – give us time.

Mark Pifher – asked to identify real life examples of water sharing that actually worked and glean what could be used for a more general set of guidelines: Eagle Park MOU (homestake II – decreed many years ago) decreed points of diversion in wilderness area – moved diversion out of wilderness areas, capped future diversions, share the yields with west slope partners. Ark Basin water rights – moving from ag to urban and out of basin. Worked very closely with farmers involved and installed drip irrigation on Aurora's nickel. Also leased back the water to farmers. Revegetation – was based on an expert panel. School trust fund. Leasing program including infrastructure investments. Wise Partnership – south metro water supply authority – on nonrenewable groundwater. Denver Water has strategic reserve – can this been used? Aurora has high water rates and can alleviate rate pressure. Reusable return flows, we can now recapture – use excess system capacity when it is available – Denver and Aurora returns – use extra – interruptible supply. Global settlement that would allow these to move out of service area. Work with downstream ag to augment supplies and create revenue stream. 3 examples of cooperation.

John McClow – Blue Mesa Workgroup – that process began when Harris Sherman wrote BOR in Grand Junction for 200KAF in Blue Mesa for use to avoid compact curtailment. Last year joint roundtable meeting and explained concept to both roundtables – Ark said sounds like a good deal. Developed subcommittee of both roundtables – interested in any way. Part of a water bank for the whole state in event of compact call – perform a study for blue mesa reservoir. Coordinate that with water bank working group – done collaboratively – it doesn't directly relate to new supply but related to developing new supply elsewhere.

Bruce Whitehead – Animas La Plata Project – new development that has taken place. Original vision was for municipal and irrigation needs. Originally decreed for uses in 1966 and has appropriate date of 1938. 70 plus years that this has been worked on – changes to the project in 1980 in water rights. Tribal water rights claim settled in 1988 and decreed under consent decree in 1991. Both had an allocation for animas La Plata. In 2000 – limited – San Juan recovery program. Ute mountain tribe, Navajo Nation, New Mexico – important to mention all these entities – working with that many different people as well as the conservation community is a challenge. 75,000 AF could fill this summer or late fall. How do we meet these needs in the future? Discussion about the water bank – yesterday we had a meeting and Colorado Compact Water Bank (CCWB) – wanted to discuss Colorado river issues. TNC has been working with the group and the FRWC is also at the table. Animas La Plata – the southern ute is also interested in being involved in these discussion. What would happen if there was curtailment in the future and the first thing is to 1) avoid, 2) protect pre-22 rights, and 3) curtailment does occur we need to identify critical demands and we would like to avoid and mitigate secondary impacts. Temporary fallowing. Bank could be used on both side of the divide – has been expanded to discuss storage. Lessons learned – be transparent.

Gary Barber – go out face the adversary and come back – not losing comes ahead of winning. Began as roundtable right smack in the middle of CSU kicking off NEPA process. Stormwater management – stormwater enterprise – 2006 and it looks like everyone is stuck – can't solve 1041 in Pueblo Country – how are we going to get around this – Fountain Creek Vision task force – grant request through roundtable – 75k for facilitation – formed plaintiffs, defendants and one plaintiff/defendant and went at it a couple of years and came out with a few things to move forward. Ark Roundtable – resource document re: projects and methods to meet our needs – Colorado River Basin Roundtable – Ark Basin's life blood is from the Colorado...resource document a watershed district out of task force approach. First don't lose – perhaps a similar task force could be used for Flaming Gorge – will a task force work or not for Flaming Gorge. Rather than try and force something forward – let's get the issues on the table early instead of having to wait later in the process. We are better served being in the room talking to one another – need help to have a genuine conversation – need facilitation and support by CWCB Staff. It is not so much problem solving exercise more a dialogue about we want our future to look like. That is our story of how to stay in the room together.

Q Bruce: promotion of IBCC report and yet I heard people say the 3 things that should move forward together are alt ag transfers, conservation and IPPs – new supply development is a lightning rod- then maybe we can consider – as long as we have the new supply in the mix there will be controversy. A: Using Animas La Plata as example – remember it took 70 years to get

storage – we don't have the time to address the gap. It is a mistake to not continue the discussion about new supplies due to the time it takes to build a project. Why everyone is sitting around talking about the problem the patient is dying. Let's talk about the alternatives.

Q: Other new supply examples – put together a framework (IBCC) some ideas were put together but what the subcommittee thought should answered. Do you guys think that the questions in the framework are the right questions to be thinking about in the next year – should we look at these in an abstract way or in association with a specific project? A: Yes we should have the conservation in abstract. Very important to continue to have the discussion – dabbled in the risk.

Q: Who is going to build the project? Who are we going to be negotiating with? Who has the wherewithal to make this happen? A: Consortium of large municipal users and ag users on the east slope. It is going to be difficult to build new projects and multiple uses need to be considered today – where the demand is at will need to be where the source of the \$\$ comes from. The old paradigm one entity and duking it out one by one.

Q: Who do you think would be building this in the future? – Audience? Billions of dollar actually seems financially doable – there are different rules depending on who is doing it – the conservancy district – there is comfort in this. Get a uniform set of fairly concrete criteria – if people know how to play the game that is what IBCC is trying to do.

Q: Mt. Evans reservoir site – strategically where the runoff is coming from. Capturing water that could be captured before it leaves the state. Identify where these reservoirs should be located. Existing reservoirs that can no longer hold what they were designed? A: Use of existing infrastructure is important.