Interbasin Compact Committee (IBCC) Meeting October 1, 2013 Denver, Colorado

Attendees

IBCC

Stan Cazier Eric Kuhn Bill Trampe

Carlyle Currier Jim Lochhead Wayne Vanderschuere

Jeris DanielsonOlen LundSteve VandiverJeff DevereKevin McBrideBruce WhiteheadT. Wright DickinsonPeter NicholsEric WilkinsonRep. Randy FischerSen. Gail SchwartzJay WinnerSteve HarrisTravis Smith (also CWCB)Jim Yahn

Taylor Hawes Joe Stibrich Melinda Kassen John Stulp

Colorado Water Conservation Board (CWCB)

Russ George Alan Hamel John McClow

Participating Staff

Heather Bergman (Peak Jacob Bornstein (CWCB) James Eklund (CWCB)

Facilitation Group) Becky Mitchell (CWCB)

Welcome and Flood Update

John Stulp welcomed the group and stated that recent flooding in Colorado has been on everyone's mind over the past few weeks. He commended cooperation between local, state, and federal agencies and invited IBCC members from the South Platte and Arkansas basins to provide updates on the impacts of the flood on their regions.

Eric Wilkinson, General Manager of the Northern Colorado Water Conservancy District (NCWCD), provided an update on flood damage in that district, touching on the following points:

- Flooding of this magnitude has not been seen in the South Platte Basin since irrigation began in the basin.
- In several locations, creeks and streams changed course and jumped drainages; in other areas, flumes and headgates can currently be observed in good condition near their original location with no water flowing around them.
- At the peak of the flood, the Big Thompson River had flows of 10-15,000 cubic feet per second (cfs). The Poudre River was flowing at 12,000 cfs at the mouth of its canyon.

- After trash and debris collected under a bridge at 95th Street, Boulder Creek jumped to an adjacent drainage and is currently running 200 feet to the north of a ditch that sends water to the South Platte River.
- At last count, 167 irrigation and diversion structures in the District were destroyed or severely damaged by the flood. Colorado-Big Thompson project structures sustained roughly a third of a million dollars in damage. A large ditch company that provides home water supply in Big Thompson Canyon sustained \$2-3 million in damage.
- Many companies do not know where to start in terms of repairs. Especially hard-hit are smaller ditch companies that only irrigate a few hundred acres and are looking at millions of dollars to repair or replace their structures.

Jim Yahn, Manager of the North Sterling Irrigation District, provided the following update on flood damage in the District:

- Flooding was not as destructive on the North Sterling Irrigation District as it was in areas closer to the mountains; there was a little more time to prepare. However, damage was still significant.
- Flooding impacts were the worst near the confluence of the Poudre and South Platte Rivers. The Town of Kersey sustained a great deal of damage.
- Prewitt Reservoir was not damaged significantly, but water came over the headgates and there was quite a bit of trash and debris. The reservoir is taking water now. Empire Reservoir has indicated that they will be up and running in a few weeks. Riverside Reservoir still needs to build a road to access the site and assess the damage.
- Bridges in the District did not sustain much damage, but approaches are washed out which makes it difficult to access structures.
- Flood gates were closed in the District; however, water crossed roads and washed across farm fields to enter and fill the ditch, which broke out in four locations.
- Diversion structures are still in place and sound in the District.

Jim Lochhead, CEO and Manager of Denver Water, provided an update on flood impacts to the Denver Water service area:

- Denver Water sustained \$15 million in damage. Downstream gravel pits were inundated and damaged, as were water conduits.
- However, the system functioned well overall during the storm and flooding event.
- Storage increased by 26,000 acre-feet (af). The system is now 97% full.

Robert Sakata, a farmer in Adams County, provided the group with an overview of flooding impacts in his area:

• A major concern among vegetable farmers is when they can resume production. They are not currently allowed to harvest because of potential contamination from raw sewage on

- their crops. The Colorado Department of Public Health and Environment has indicated that it could take 2-3 years to resume production if crops have been contaminated.
- Infrastructure needed for augmentation is not currently operational. There is a concern among farmers in the area that they will need to cut back on pumping because they cannot supply augmentation water.
- Crops have been lost in the Brighton area because farmers could not access fields to harvest them.
- The Brighton Ditch Board has only 20 major shareholders and sustained millions of dollars in damage. It is unclear how the group will be able to make payments to conduct the necessary repairs.
- Liability is a further concern among farmers in the area; although flooding was worsened
 by urban runoff, the presence of residential areas near ditches may result in liability for
 ditch companies. The ditch was turned off but still over-topped and impacted nearby
 homes.

Wayne Vanderschuere, General Manager of Water Services for Colorado Springs Utilities (CSU), provided the following update on flooding impacts to his region:

- Compared to flood damage along the South Platte River, what happened in the Colorado Springs area was relatively small. However, it was still significant.
- CSU lost all of its local diversion systems, which provide 8-10 million gallons of water a day. Currently, transmountain water supplies are being relied on while repairs are completed.
- In the Waldo Canyon burn area, flooding destroyed over \$10 million in recently-built detention ponds and roads.
- There was a fair amount of local damage and basement flooding in residential areas.

Update on September 24-25 CWCB Board Meeting

John Stulp and Travis Smith provided an update on the recent CWCB Board meeting held in Telluride. Key points are highlighted below.

- Several IBCC members attended the meeting and presented the No/Low Regrets Action
 Plan to the Board. It was received favorably, and the Board commended the IBCC for the
 level of agreement reached. The Board discussed a proposal to change the name of the
 Plan. "Immediate Action Plan for Colorado's Water Future" was among the proposed
 alternatives.
- A path forward for a new supply conversation was discussed at the Board meeting. The Board endorsed the plan outlined at the September 11 new supply meeting (see below) and committed to their participation in the process.

Update on September 11 New Supply Meeting

Peter Nichols, Eric Kuhn, Becky Mitchell, and Heather Bergman provided an overview of the New Supply Subcommittee meeting held on September 11. Key points are highlighted below.

- A Venn diagram was produced prior to the meeting that illustrates areas of agreement on proposed approaches to new supply from the East Slope Joint Roundtables White Paper, the West Slope Caucus Statement, the No/Low Regrets Action Plan, and the New Supply Subcommittee Proposal. This diagram formed the basis for discussion at the September 11 new supply meeting.
- The meeting included participants from the New Supply Subcommittee, as well as representatives from East Slope and West Slope basin roundtables.
- After discussion, meeting participants proposed a two-pronged approach to direct
 conversations about new supply over the next year. One component of the discussion will
 be to outline a framework agreement about new supply based on the concepts outlined in
 the New Supply Venn Diagram, and including additional concepts proposed by meeting
 participants (see attached memo). A second and concurrent component of the new supply
 discussion will be to define the projected state water gap more precisely.
- Meeting participants suggested that the new supply conversation take place among the
 IBCC as a whole (instead of the New Supply Subcommittee) and that East Slope and
 West Slope basin roundtable members be actively engaged in the process. CWCB Board
 members will also be encouraged to participate in the discussion. The IBCC will make a
 special effort to engage other stakeholders in the conversation as well, with particular
 attention to the agricultural, environmental, and recreation communities.
- The goal of the new supply discussion will be to find the highest level of agreement possible in one year and present it to the CWCB Board.

Discussion

- One group member stated that any conversation about the projected state water supply gap should incorporate future West Slope needs. Staff clarified that accounting for West Slope needs is one of the concepts outlined in the New Supply Venn Diagram and that drilling down into West Slope data was included in the New Supply Memo presented to the CWCB Board. This topic will be explored in future new supply discussions.
- Some group members suggested that more dialogue is needed about what the concept of new supply includes. One group member pointed out that the phrase "new supply" can be misleading, particularly to the public, unless water is coming from outside of the state. Another group member stated that language about new supply should clarify that water is being reallocated, not brought in from other states. Other group members emphasized the importance of distinguishing new supply projects from those that are categorized as identified projects and processes (IPPs).
- One group member expressed concern about what a new supply framework agreement would entail, stating that once a specific project has been identified in terms of who will

pay and who will benefit, a specific, limited group of people need to be at the negotiating table. Staff and other group members clarified that a new supply framework agreement is intended to provide a broad set principles regarding new supply projects and will not be a binding or project-specific agreement. This framework agreement can assist the State in facilitating specific agreements and/or helping them move to fruition more efficiently.

- Some group members stressed the importance of addressing risk management in a discussion about new supply. Staff clarified that risk management concepts are included in the New Supply Venn Diagram that will form the basis of the new supply discussion.
- Some group members pointed out that a discussion about new supply will need to explore water supply needs beyond 2050.
- A group member highlighted the importance of feasibility when discussing new supply and emphasized that the amount of available water needs to be considered alongside the projected water supply gap.
- The group discussed whether or not a new supply framework agreement represents the interbasin compact envisioned with the founding of the IBCC.

Further Exploring and Understanding the Gap

To outline work that has already been performed in describing the projected state water gap, Jacob Bornstein provided an overview of the Basin Municipal and Industrial (M&I) Gap Analysis prepared in 2011. Key points are highlighted below:

- The 2011 Gap Analysis breaks down the projected water supply gap for each Colorado basin and the Front Range according to various IPP success rates. It also identifies a projected year for the water supply gap to begin, based on IPP success rates.
- The 2011 Gap Analysis breaks down yields for IPPs based on success rate scenarios and according to basin and either region or county.
- The 2011 Gap Analysis also identifies specific IPPs according to basin and either region or county.

Jacob also presented an overview of what steps will be taken in the future to further refine understanding of the projected water supply gap, touching on the following points:

- CWCB will work with the State Demographer to identify potential changes in demand. The revised demand figured will include water needs from Niobrara shale oil production on both the East and West Slopes.
- Basin roundtables will update information about IPPs and potentially add new IPPs as part of their basin implementation plans.
- Future State Water Supply Initiative (SWSI) analysis will include five scenarios and examine impacts of wet, dry, and average years. This will allow for better planning when extremes occur.
- Nonconsumptive and agricultural water supply gaps will be analyzed along with the M&I gap.

• Work performed as part of the no/low regrets planning effort may be included in future gap analyses.

Discussion

- Some group members expressed concern that the 2011 Gap Analysis projected a gap for an entire basin at a distant date, when local areas within that basin are facing a more immediate gap. A group member suggested that more detailed and locally-based information is needed about timeframes in which water supply gaps will occur. Staff clarified that the 2011 Gap Analysis was two years old and would continue to be improved to reflect more detailed parameters.
- One group member had questions about whether IPPs categorized as "new transbasin projects" in the 2011 Gap Analysis were considered new supply projects. Staff clarified that they were considered IPPs and that for the purposes of this discussion, new supply only referred to unappropriated water.
- A suggestion was made to gather data about which providers are using buy-and-dry practices to acquire their water supply.
- The group discussed further refinement of IPP success rates. Some group members pointed out that using one number to estimate a projected success rate (e.g., 80%) for all IPPs does not reflect the fact that some projects have already completed permitting and are well on their way to being implemented while others are at very early stages; nor does it reflect that some projects will be 100% successful while others might not come to fruition at all. Staff clarified that since the past gap analysis, the basin roundtables further refined the percent success rate for each IPP category as part of their portfolio development.
- A group member suggested incorporating an assessment of whether or not the outcome of an IPP failure is acceptable. In some cases, basins will not be able to implement an IPP, but the outcome, while not ideal, is acceptable. In other cases, such as in areas where existing homes and businesses will have no water if an IPP is not successfully completed, steps will need to be taken to ensure the IPP's success even if water rights, infrastructure, and/or financing are not immediately available.
- A group member pointed out that it will be important to time the IBCC conversation about analyzing the gap with basin implementation plan work. In some cases, the IBCC will need to wait for information to emerge from basin implementation plans in order to have a meaningful dialogue.
- Some group members emphasized the importance of determining the agricultural water supply gap and stated that various parties will need to get involved in quantifying it (e.g., the Colorado Agricultural Water Alliance (CAWA)). Staff clarified that basin implementation plans will set goals and measurable outcomes for agriculture and that CAWA can perhaps help to provide these numbers.

- One group member suggested that data be collected about all potential future water needs for municipalities, agricultural lands, and nonconsumptive values. Other group members felt that this would not be a helpful exercise while the gap continues to increase. Staff clarified that setting realistic goals and measurable outcomes for water needs and allocations will be an important part of basin implementation plans but that it is not a task for IBCC as it works to further understand the gap at the statewide level.
- A group member stated that all data that is collected about a future water supply gap should be presented in a simple and understandable way.
- Some group members had questions about whether the 2011 Gap Analysis accounted for
 evaporative and transfer losses, and whether the final numbers represented diversion
 amounts or consumptive use. Staff clarified that the numbers represented "delivered
 water" rather than diverted water or consumptively used water. One group member
 suggested that this concept be explained or refined in more detail in future gap analyses
 and that additional work should be done to account for and reflect reuse and
 nonconsumptive uses.
- The group discussed the role of the IBCC in gathering data about projected water supply gaps, particularly in light of the fact that much of the needed data will be collected by roundtables through their basin implementation plans. Many group members stated that the IBCC should not gather more data but should focus instead on identifying regional, collaborative solutions to meet localized gaps.

Cooperative Agreement Panel Presentations

To help inform discussions about a new supply framework agreement, four IBCC members were asked to share their experiences in working through significant cooperative water supply agreements.

Wayne Vanderschuere spoke about the Eagle River Memorandum of Understanding (MOU). Key points are highlighted below.

- The Eagle River MOU was developed in 1998 as a joint-use project between East Slope and West Slope parties.
- It is a 30,000 af project that delivers 20,000 af to Aurora Water and CSU, and 10,000 af for use within the Eagle River Basin.
- Elements that made this cooperative project a success were that it provides certainty around future supply, it is adaptable and flexible, and it provides benefits to all involved parties.

Jim Lochhead provided an overview of the Colorado River Cooperative Agreement (CRCA). Highlights are presented below.

- The CRCA was officially signed and made effective September 26, 2013.
- 40 different entities entered into negotiations, and all of them needed to feel that their interests would be better served with the project than without it.
- A key component of the CRCA's success was confidential negotiations and board-to-board communication and relationship building.
- Going beyond the mitigation required by permitting and agreeing to environmental enhancements was another key component of the CRCA.
- The State can play a major role in agreements like this, particularly when it comes to aligning the efforts of multiple agencies and pushing the process forward.

Joe Stibrich, Manager of Water Resources at Aurora Water, described the Water, Infrastructure, and Supply Efficiency (WISE) Partnership. Key points are highlighted below.

- WISE is a 10,000 af supply agreement in which Denver and Aurora will sell unused water to a group of Douglas County entities, reducing their reliance on non-renewable groundwater.
- Water supplies are provided on an interruptible basis, which allows for flexibility and adaptive management.
- The partnership represents a reallocation of existing supply for Front Range entities and constitutes an efficient use of existing resources.
- Negotiations were conducted between three parties, Denver Water, Aurora Water, and the South Metro Water Supply Authority (SMWSA). SMWSA represented 17 entities.
 Having fewer parties at the table allowed discussions to proceed more simply than if a larger group had convened.
- While modeling for the partnership was completed in three years, meetings and negotiations took an additional four years. Time and patience is needed for agreements such as this one to occur.

Eric Wilkinson gave an overview of the Windy Gap Firming Project, which will increase the reliability of the Windy Gap Project and lead to an average annual increase of 9-10,000 af of water. Key elements of project success are highlighted below:

- The State played a large role in moving the process forward in terms of mitigation requirements and water right transfers.
- As with the CRCA, environmental enhancement was an important component of the Project's success. 7.5 million will be spent in stream restoration.
- The Project was designed to benefit all parties. One quarter of the 9-10,000 af yield generated by the Project will be dedicated to West Slope uses.

Eric Kuhn, General Manager of the Colorado River Water Conservation District (CRWCD), gave his perspective on state water agreements, many of which have involved the CRWCD. Highlights are presented below.

- A successful agreement needs to ensure that all parties will be better off with it than without it.
- The perfect can be the enemy of the good when it comes to cooperative projects.
- The State needs to incorporate flexibility into water right transfers.
- Confidential negotiations are often required, but it is important that affected parties are brought to the table and that there are no surprises. Multiple boards need to be involved throughout the negotiations so they can trust the process.

Discussion

- The group discussed ways in which elements of successful cooperative projects aligned with components of the New Supply Venn Diagram. A commitment to conservation and reuse was a key part of WISE and CRCA. The role of the State in these agreements was another key theme highlighted by the cooperative project presentations.
- One group member highlighted the importance of intersecting interests in moving
 cooperative agreements forward and suggested that a second Venn diagram be designed
 that highlighted interests as opposed to methods. Another group member agreed with this
 approach, stating that negotiations between various interests are unique to each project.
 This group member had concerns that a framework agreement could create an additional
 and burdensome set of requirements on cooperative agreements.
- Some group members pointed out that a common theme among the cooperative agreements presented was the long timeframes and detailed processes that need to occur. Dedication and commitment to the process is needed.
- Some group members expressed frustration about the Section122.2 fish and wildlife mitigation plans required by the State. One group member stated that the environmental community may support an effort to repeal the measure, as it was never endorsed by the environmental community.
- The group discussed the role of the State in cooperative agreements, with many group members stating that the State should play a role in both protecting all interests and expediting legal and permitting processes. One group member suggested that the Executive Branch of the state government be a cooperating party in future water agreements; this would reassure various parties that their interests were being represented while possibly helping to expedite state permitting and mitigation processes. Another group member disagreed with this approach, stating that giving the State that kind of authority would be complicated and problematic. Many group members emphasized the directive of the Governor that state agencies align with each other and cooperate with federal permitting agencies.

One group member asked whether it was the role of the IBCC to make recommendations
to the State through a new supply framework agreement, or whether the IBCC would be
creating a process to discuss new supply projects. Staff responded that it was up to the
IBCC to identify their own goals in this process.

Mapping out the New Supply Conceptual Agreement Process: Electronic Polling

To start the process of developing a framework agreement for new supply, an electronic polling session was conducted to gauge the opinion of IBCC members about new supply concepts. Covered topics included:

- Conceptual Foundations
- Potential Multi-Purpose Components
- Project Structure Components
- Demand Management Components
- Risk Management Components
- Preserving and Planning for New Supply

For each new supply concept, polling slides listed statements that have emerged from previous discussions and documents relating to new supply. For each statement, group members were asked if: a) substantive agreement had been reached on the concept already, and little to no further discussion was needed, b) the IBCC should continue to discuss the concept, or c) the IBCC should not discuss the during the next year. The results of the polling session are attached at the end of this summary. Highlights from the polling results are presented below.

- For most of the covered topics, a majority of participants believed that substantive agreement had been reached and little to no further discussion was needed.
- However, at least four participants for each topic believed that more discussion was needed during the next year.
- For each covered topic, at least one participant believed that the IBCC should not discuss that topic during the next year.
- The following topics received the highest level of support for further discussion during the next year:
 - o "Volatility of interstate water dynamics requires adaptive management approaches to be developed prior to implementation." (63%)
 - o "Some of the five IBCC scenarios indicate that additional new supply development is needed beyond the IPPs, and some do not. Therefore, the low regret action is to preserve the option to build a new supply project in the future, not to build a project now or foreclose the opportunity to build it later." (57%)
 - o "Determine how one or more new supply options could be preserved and identify some substantive action(s) that can be taken to preserve the new supply option in the near term." (50%)

- o "The CWCB should work with basin roundtables to determine how and where a new supply project could be built, including research on potential nonconsumptive impacts, downstream economic impacts, fiscal and partnership structures, and other items needed to develop a strategy and further detail for potential projects. This work may narrow the locations of the potentially viable locations of a future water supply project." (48%)
- o "The partnership structure, participants, financing, and operational and structural rules under which a new supply project would operate, including the role of the State, will need to be determined prior to implementation." (46%)
- o "Conservation, reuse, and land use actions defined in the No/Low Regrets Action Plan should be substantively completed prior to implementation of a new supply project." (46%)
- o "Both West and East Slope agriculture should be preserved. Development of new supply should not be made more difficult than the transfer of agricultural water to municipal uses." (43%)

Discussion

- One group member urged the group to explore the definition of new supply and possibly move to define it as any projects, large or small, that help to meet the gap without causing unacceptable consequences.
- A group member stated that the concepts laid out in the polling exercise could be interpreted by different people in different ways and that more discussion was needed to secure a high level of agreement. A suggestion was made to cluster the concepts according to themes, prioritize them according to the level of agreement identified in the polling session (prioritizing items with the most divided polling responses), and discuss them further at future meetings. The group agreed that staff should cluster these concepts according to their own judgment, prioritize them as described above, and sequence them for discussion at future IBCC meetings in whatever makes sense once staff further analyses the results. A group member expressed concern about the risk management statement provided in the polling session, stating that risk management had to be discussed meaningfully as part of any new supply conceptual agreement. Staff clarified that risk management was intended to be part of the conversation that goes into a new supply conceptual agreement, but that the group would need to strike a balance between discussing risk and not disrupting other conversations relating to the Colorado River Compact.
- Other group members weighed in on the risk management issue. One group member stated that risk management has to consist of adaptive management strategies that allow various parties to react to political or compact developments. Another group member pointed out that risk management is not intended to end potential new supply projects but that it must be addressed directly when examining the feasibility of a project. Some group

members understood that interstate negotiations precluded the possibility of quantifying the risk of a compact call. However, they urged the group to find a way to assure existing users that they would not be harmed in the event of a call. One group member felt that uncertainty about the risk of a compact call was acceptable; however, trigger points and on- and off-ramps should be developed to anticipate various scenarios.

A group member made a suggestion to hold an information exchange session regarding
the State's approach to Colorado River Compact negotiations and to provide some
context for how realistic a call may be. Those involved in interstate negotiations can also
gather perspectives and information from various basins about how those negotiations
affect local interests and operations.

Next Steps

Prior to the next IBCC meeting, staff will cluster and prioritize the concepts laid out in the New Supply Conceptual Agreement polling exercise. The next IBCC meeting will be structured as follows:

- At least part of the day will be spent on an information exchange session about risk management. This session will be considered a starting point for the risk management conversation.
- Further discussion about the concepts laid out in the polling exercise will take place after staff has clustered and prioritized these concepts.

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

1313 Sherman Street, Room 721 Denver, Colorado 80203 Phone: (303) 866-3441 Fax: (303) 866-4474 www.cwcb.state.co.us

TO: Colorado Water Conservation Board Members

FROM: Rebecca Mitchell, Water Supply Planning Section

DATE: September 13, 2013

SUBJECT: Agenda Item 25, September 24-25, 2013 Board Meeting

New Supply



John W. Hickenlooper

Governor

Mike King DNR Executive Director

James Eklund CWCB Director

Staff Recommendation: This is a discussion item only. No Board action is required.

Background:

During the August IBCC meeting, there was not sufficient time to resolve potential no and low regret actions concerning new supply. On September 11th the IBCC new supply subcommittee met with basin roundtable members from the Arkansas, Colorado, Gunnison, Metro, South Platte, and Southwest to discuss how to move forward. To assist the conversation a Venn diagram (attached) was developed that displayed where there are overlaps between the East Slope White Paper, the West Slope Caucus statement, the IBCC's New Supply Subcommittee Chairs' document, and a previous draft version of the No and Low Regrets document that incorporated previous discussions with the IBCC, the 2010 Letter to the Governors, SWSI 2010, and the Flaming Gorge Task Force. The group concluded that the following two concurrent conversations should occur:

1. New Supply Conceptual Agreement

- <u>Topics</u>: Items on the Venn diagram will serve as discussion topics. Additionally, the following components will be explored and included as needed:
 - Colorado River Cooperative Agreement, Flaming Gorge Task Force, and Windy Gap Firming as starting points
 - o Feasibility discussion as appropriate
 - o Project sponsorship discussion
 - o Cooperative agreements
- <u>Process</u>: IBCC conversation with CWCB members participating and concerted outreach to the roundtables and other stakeholder groups (agriculture, environment, etc.) at the beginning, middle, and end
- Outcome and Timing: Deliver best agreement to Board in one year, including any remaining areas of disagreement and reasons for disagreement

2. Further Explore/Understand the Gap

- Regional assessment of needs
- Also further examine needs at a sub-county level

- Update/overlap gap data with scenario planning
- Identify potential customers for new supply
- Dig down into West Slope data

Discussion

After a brief introduction by staff, members from the IBCC New Supply Subcommittee and Basin Roundtables will discuss with and seek feedback from the Board on the recommended two concurrent conversations and how to move forward with both.

NEW SUPPLY CONCEPTUAL AGREEMENT

Prepared for: IBCC Meeting October 1, 2013 Denver, CO

Conceptual Foundations

Conceptual Foundations

- The gap, and therefore the amount of water that may be needed from new supply, should be minimized as much as possible by implementing IPPs, conservation, and other portfolio elements defined in the No/Low Regrets Action Plan.
- Future water demands are uncertain for both the West and East Slopes, and the ability for each to develop at its own pace must be protected. The ability to meet future West Slope needs, which may develop at a slower pace than East Slope needs, should be protected.
- Future water supplies are uncertain on both the East and West Slopes; reliability and flexibility must be incorporated into any future new supply project.
- In some years there will be water available for an additional transbasin diversion, and in some years there will not.

Conceptual Foundations

Conceptual Foundations

- There is not likely additional water from the headwaters of the Colorado River mainstem beyond existing IPPs and the cooperative project outlined in the Colorado River Cooperative Agreement.
- Some of the five IBCC scenarios indicate that additional new supply development is needed beyond the IPPs, and some do not. Therefore, the *low regret action* is to preserve the option to build a new supply project in the future, not to build a project now or foreclose the opportunity to build it later.
- Some type of substantive action to preserve the new supply option is needed in the near term.

Conceptual Foundations

Conceptual Foundations

- Once the option to develop new supply has been preserved, the need for and feasibility of building a new supply project should be periodically reassessed.
- Implementing projects that protect the environment and help recover imperiled species now will help create future conditions under which a new supply project might be possible. These nonconsumptive projects and methods should be pursued.
- Both West and East Slope agriculture should be preserved.
 Development of new supply should not be made more difficult than the transfer of agricultural water to municipal uses.

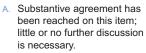
Conceptual Foundations

Polling Options

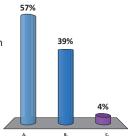
- A. Substantive agreement has been reached on this item; little or no further discussion is necessary.
- B. We should continue to discuss this item in order to reach agreement.
- C. We should not discuss this item during the next year.

Conceptual Foundations

The gap, and therefore the amount of water that may be needed from new supply, should be minimized as much as possible by implementing the IPPs, conservation, and other portfolio elements defined in the No/Low Regrets Action Plan.



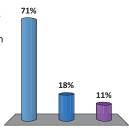
- We should continue to discuss this item in order to reach agreement.
- We should not discuss this item during the next year.



Conceptual Foundations

Future water demands are uncertain for both the West and East Slopes, and the ability for each to develop at its own pace must be protected. The ability to meet future West Slope needs, which may develop at a slower pace than East Slope needs, should be protected.

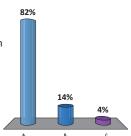
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Conceptual Foundations

In some years there will be water available for an additional transbasin diversion, and in some years there will not.

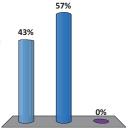
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Conceptual Foundations

Some of the five IBCC scenarios indicate that additional new supply development is needed beyond the IPPs, and some do not. Therefore, the *low regret action* is to preserve the option to build a new supply project in the future, not to build a project now or foreclose the opportunity to build it later.

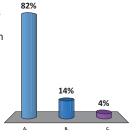
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Conceptual Foundations

Future water supplies are uncertain on both the East and West Slopes; reliability and flexibility must be incorporated into any future new supply project.

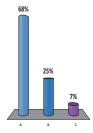
- A. Substantive agreement has been reached on this item; little or no further discussion is necessary.
- B. We should continue to discuss this item in order to reach agreement.
- C. We should not discuss this item during the next year.



Conceptual Foundations

There is not likely additional water from the headwaters of the Colorado River mainstem beyond existing IPPs and the Colorado River Cooperative Agreement.

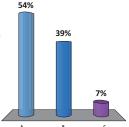
- A. Substantive agreement has been reached on this item; little or no further discussion is necessary.
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Conceptual Foundations

Some type of substantive action to preserve the new supply option is needed in the near term.

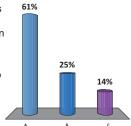
- A. Substantive agreement has been reached on this item; little or no further discussion is necessary.
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Conceptual Foundations

Once the option to develop new supply has been preserved, the need for and feasibility of building a new supply project should be periodically reassessed.

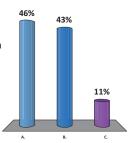
- A. Substantive agreement has been reached on this item; little or no further discussion is necessary.
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Conceptual Foundations

Both West and East Slope agriculture should be preserved. Development of new supply should not be made more difficult than the transfer of agricultural water to municipal uses.

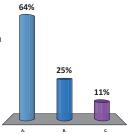
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Conceptual Foundations

Implementing projects that protect the environment and help recover imperiled species now will help create future conditions under which a new supply project might be possible. These nonconsumptive projects and methods should be pursued.

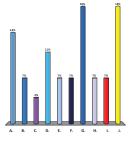
- A. Substantive agreement has been reached on this item; little or no further discussion is necessary.
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Conceptual Foundations

Which of these concepts is most important to discuss?

- A. The gap...
- B. Future water demands. . .
- C. Future water supplies. . .
- D. In some years. . .
- E. There is not likely. . .
- F. Some of the five. . .
- G. Some type of. . .
- H. Once the option. . .
- Implementing projects. .
- J. Both West and East. . .



Potential Project Components

A Note of Clarity

Part of an agreement may indicate what component any future project should include or what actions would need to take place prior to a new supply project's implementation.

This does not assume that a project will or will not be built.

These items merely indicate that *if* a project were to be built, it would need these types of components and actions.

This is applicable for polling questions on multi-purpose components, project structure, demand management, and risk management.

Potential Multi-Purpose Components

Potential Multi-Purpose Components

In addition to meeting East Slope needs, a new supply project should:

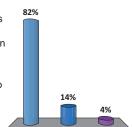
- Be developed as a cooperative project so that all parties are better off with the project than without it
- Include compensatory projects for the West Slope
- · Not negatively impact existing water rights holders
- Include benefits and/or mitigation for native species and other nonconsumptive values
- Have significant operational flexibility (such as the ability to be used conjunctively with alternative agricultural transfers and nontributary groundwater when water supply is not available)
- Include headwater enhancements (i.e., exchanges with current transbasin diverters to allow for system flexibility if the headwaters were water-short)

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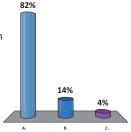


Potential Multi-Purpose Components

In addition to meeting East Slope needs, a new supply project should:

Not negatively impact existing water rights holders

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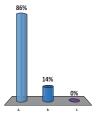


Potential Multi-Purpose Components

In addition to meeting East Slope needs, a new supply project should:

Have significant operational flexibility (such as the ability to be used conjunctively with alternative agricultural transfers and nontributary groundwater when water supply is not available)

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Potential Multi-Purpose Components

In addition to meeting East Slope needs, a new supply project should:

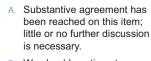
Include compensatory projects for the West Slope



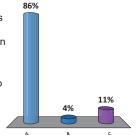
Potential Multi-Purpose Components

In addition to meeting East Slope needs, a new supply project should:

Include benefits and/or mitigation for native species and other nonconsumptive values



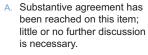
- B. We should continue to discuss this item in order to reach agreement.
- C. We should not discuss this item during the next year.



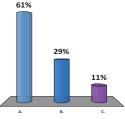
Potential Multi-Purpose Components

In addition to meeting East Slope needs, a new supply project should:

Include headwater enhancements (i.e., exchanges with current transbasin diverters to allow for system flexibility if the headwaters were water-short)



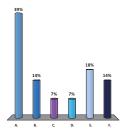
- B. We should continue to discuss this item in order to reach agreement.
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Potential Multi-Purpose Components

Which of these components is most important to discuss?

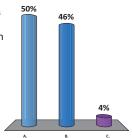
- Be developed as a cooperative project so that all parties are better off with it than without.
- B. Include compensatory projects for the West Slope
- Do not negatively impact existing water rights holders
- Include benefits and/or mitigation for native species and other nonconsumptive values
- E. Have significant operational flexibility (such as the ability to be used conjunctively with alternative agricultural transfers and nontributary groundwater when water supply is not available)
- Include headwater enhancements (i.e., exchanges with current transbasin diverters to allow for system flexibility if the headwaters were water-short



Project Structure Components

The partnership structure, participants, financing, and operational and structural rules under which a new supply project would operate, including the role of the State, will need to be determined prior to implementation.

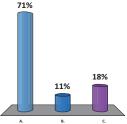
- A. Substantive agreement has been reached on this item; little or no further discussion is necessary.
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Project Structure Components

Project feasibility will need to be determined prior to implementation.

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Project Structure Components

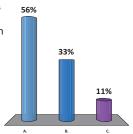
Project Structure Components

- The partnership structure, participants, financing, and operational and structural rules under which a new supply project would operate, including the role of the State, will need to be determined prior to implementation.
- Proof of need will need to be determined prior to implementation (participants would be required to show proof of the need for a new supply project across likely scenarios, as defined in future SWSI and Colorado Water Plan efforts).
- Project feasibility will need to be determined prior to implementation.
- New supply conceptual configuration should be developed in the near term.

Project Structure Components

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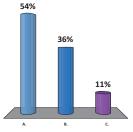
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Project Structure Components

New supply conceptual configuration should be developed in the near term.

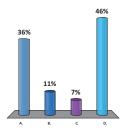
- A. I agree with this concept; the IBCC should take on this work.
- B. I'm not sure about this concept; the IBCC should discuss it further.
- We should not discuss this concept during the next year.



Project Structure Components

Which of these concepts is most important to discuss?

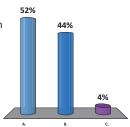
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Demand Management Components

Conservation, reuse, and land use actions defined in the No/Low Regrets Action Plan should be substantively completed prior to implementation of a new supply project.

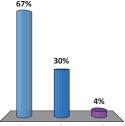
- A. Substantive agreement has been reached on this item; little or no further discussion is necessary.
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Demand Management Components

Participating water providers who utilize other fully consumable water supplies should have a full-scale reuse program to recycle as much water as is technically and economically possible.

- A. Substantive agreement has been reached on this item; little or no further discussion is necessary.
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Demand Management Components

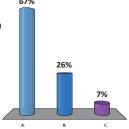
Demand Management Components

- Conservation, reuse, and land use actions defined in the No/Low Regrets Action Plan should be substantively completed prior to implementation of a new supply project.
- Active conservation plans and activities approved by the CWCB for all participating water providers should be in place prior to implementation of a new supply project.
- Participating water providers who utilize other fully consumable water supplies should have a full-scale reuse program to recycle as much water as is technically and economically possible.
- A commitment should be made by participating East Slope communities to work toward high conservation levels by 2050.

Demand Management Components

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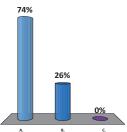
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Demand Management Components

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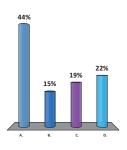
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Demand Management Components

Which of these concepts is most important to discuss?

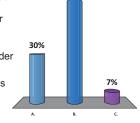
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Risk Management Components

Volatility of interstate water dynamics requires adaptive management approaches to be developed prior to implementation.

- Substantive agreement has been reached on this concept; little or no further discussion is necessary.
- B. We should continue to discuss this concept in order to reach agreement.
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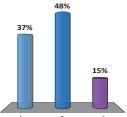


63%

Preserving and Planning for New Supply

The CWCB should work with basin roundtables to determine how and where a new supply project could be built, including research on potential nonconsumptive impacts, downstream economic impacts, fiscal and partnership structures, and other items needed to develop a strategy and further detail for potential projects. This work may narrow the locations of the potentially viable locations of a future water supply project.

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Preserving and Planning for New Supply

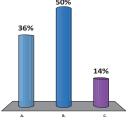
Preserving and Planning for New Supply

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- Determine how one or more new supply options could be preserved and identify some substantive action(s) that can be taken to preserve the new supply option in the near term.

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