

SHORT LIST of CONCEPTS for FURTHER CONSIDERATION by the COLORADO RIVER DROUGHT TASK FORCE

WORKING DOCUMENT

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CONTINUE COMMUNITY & TECHNICAL ASSISTANCE GRANTS (HB22-1379)

No additional language added.

AGING INFRASTRUCTURE

Narrative from Kelly Romero-Heaney:

Water Plan Grants are already allowed for aging infrastructure projects. So are Water Supply Reserve Funds and CWCB Low-Interest Loan Programs.

See Water Plan Grant Statute:

https://urldefense.proofpoint.com/v2/url?u=https-3A_docs.google.com_document_d_123TwqRHZEasi5pLn2gkyZi4SwJHqAxVs4yv58svQW9Y_edit-3Fusp-3Dsharing&d=DwMFaQ&c=sdnEM9SRGFuMt5z5w3AhsPNahmNicq64TgF1JwNR0cs&r=gM1PnwPrjwVJy0HQ42TRNa9jeYh9gmJRMcNC9-8EH-0&m=5MY3hgprtIYYFUhAVqhyRxb6YccrfE_iAVz_SNpHSwKKkqg9KLnLVS52lg6ZgkP6&s=Nfj01a0sMC57gOUfDEjxWx18kbmtOufgFEYRgzFJ3kM&e=

And Water Plan Grant guidelines:

<https://dnrweblink.state.co.us/CWCB/0/edoc/220214/WaterPlanGrantCriteriaGuidelinesFeb2023Update>

Provide increased funding levels throughout state programs for aging infrastructure projects

(Posted on behalf of Daris Jutten 11/06) The CWCB prioritizes water plan grant applications that clearly have multiple benefits and that is consistent with the statutory guidance. So projects that are purely ag infrastructure improvement projects are not prioritized for the available Water Plan Grant funds which means the proponents need to pursue Water Supply Reserve (WSRF)dollars. You can see from the Governor's budget proposal that he is seeking \$3 million for WSRF and those dollars will be spread out over all the basins, I think the amount each basin will receive would be \$300,000. Meanwhile the WPIF (Water Plan Grant fund) is projected to receive \$35 million from gaming revenues. \$300,000 does not go very far to address the existing needs we have in the municipal and/or ag sectors.

Water Plan grant funds may be technically available for ag infrastructure projects, but in practice, both staff guidance and history show it does not work that way. As usual, per the budget information, the WSRF is the orphan child.”

- a. Provide increased state funding levels throughout state programs for aging infrastructure projects.
- b. This is not intended to override funds to the exclusion of environmental, recreational or municipal benefits (See page 2 comments on survey poll results).
- c. Aging infrastructure is extremely costly and yet “can provide the largest water savings we can realize by maintaining and improving our existing water infrastructure and avoiding losses in that capacity.” (Direct quote Gunnison River Basin Roundtable GRBR).

- d. Mr. Broderick asked which priority can actually ‘save’ or maybe just allow better adaptation during times of drought. Many ag irrigation projects can give data on this fact. The tribal presentation was clear that infrastructure stability and repair must happen prior to their ability to innovate.
- e. Per Kelly Romero-Heaney perhaps a tweak to funding criteria is the ‘fix’ but those on the GRBR believe that “it would require legislation or at least legislative direction to get more money for the WSRF program which is the most direct way to fund infrastructure improvements.” See attached feedback from GRBR members)
- f. Infrastructure improvements could include replacing and upgrading diversion structures, headgate and conveyance efficiency improvements.

STORAGE

Narrative from Daris Jutten:

- Storage is a key and seems to be a solid top priority in task force discussions and priority process. It didn’t appear in WRAR Talking points.
 - The talking points memo had good points, but only two points out of the six mentioned could get our vote to approve (aging infrastructure and technical assistance). Unintended consequences are important and care must be taken to avoid causing harm.
 - Aquifers are not a factor in our system.

1. Create Additional Storage

(Brought forward by Daris Jutten)

- a. New storage in strategic locations
- b. Storage to protect and enhance existing agricultural uses under future uncertainty
 - i. Ag water contributes to stream health, stream volume, and the resulting benefits to stream temperatures, flows for fish habitat, flows for hydro, flows for recreation
- c. Strategic and small storage facilities that meet multiple needs (see above)
 - i. In years with low hydrology, added volume from system *re-regulating* reservoirs allows for improved efficiency and maximizing beneficial use.
 - ii. Small reservoirs may capture early run-off to add water during summer hotter, drier periods of low rainfall. In climate change scenarios some years they would be dry
 - iii. Need water to push water is a reality for many ag irrigation systems
 - iv. Prioritizing in-stream flows over building new reservoirs can marginalize the benefits ag water lends to healthy rivers.
 - v. Small reservoirs could be in the 2,000 to 5,000 A/F scale

2. More Flexible Sharing of Stored Water

Daris Jutten: Provide tools to facilitate flexibility in the use of water rights in storage

Alex Davis: Already stored water is water whose absence from the system has already been felt. With the appropriate safeguards to prevent expansion of use or double dipping, water users and the SEO should be given the ability to either share already stored water with other users -including the environment- more flexibly; For ex., without needing specific decreed beneficial uses. (one of the existing safeguards is that for any given reservoir, there will be a limited number of types of additional beneficial uses that could be applied (due to geography, hydrology and physics).

3. Storage Rehabilitation and Repair

(Brought forward by Daris Jutten)

Storage rehabilitation and repair is also needed as seen on Grand Mesa after the past 20-year drought.

4. Statewide Planning and Funding for Storage Reservoirs

(Brought forward by Randi Kim)

(S1, S2 & S5)

1. Colorado is a headwaters State, meaning every river, creek and stream delivers water out of our state. The Colorado River over the past 20+ years is experiencing the driest hydrology recorded in 1,200 years. In addition, ambient daily temperatures within the Colorado River basin are increasing, resulting in regional aridification that impacts snowpack runoff, low soil moisture, decreasing stream flows, and increased evaporation that leads to lower reservoir levels.
2. Reservoir storage has proven itself as the most effective year around tool at keeping rivers flowing for recreation, sustaining agriculture during the growing season, maintaining adequate stream flows to protect our fisheries and environment, and providing water users a sustainable supply of water during times of drought. It is critical that as a headwaters state, we actively continue to look for watersheds where additional storage can be developed and maintain existing storage infrastructure to fully utilize these facilities. Of course, there are environmental impacts to consider, and we will need to shift the focus from avoidance to mitigation, thereby creating new multi-benefit environments surrounding these projects that provide new and diverse opportunities for wildlife and recreation.
3. Drier dry periods and more frequent heavy rainfall precipitation events are predicted to be the new normal in our future weather patterns, these new normals are best managed by storage facilities upstream of communities that would provide a water storage mechanism for the back-to-back low snowpack years associated with prolonged drought when water is needed most.
4. The Colorado Water Plan Grant program should continue to fund Water Storage & Supply projects including development of additional storage, artificial recharge into aquifers, and dredging existing reservoirs to restore the reservoirs' full decreed storage capacity for multi-beneficial projects and projects identified in basin implementation plans to address the water supply and demand gap.
5. In addition, the legislature should consider funding a state-wide modeling and planning effort to identify locations for strategic placement of new or expanded reservoirs that would provide intrastate tool to develop multi-benefits. With the identification of these strategic reservoir locations, CWCB could spearhead proactive coordination amongst potential stakeholders via the basin roundtables to develop these reservoirs and realize these multi-benefits.

FOREST HEALTH & WILDFIRE READY WATERSHEDS

1. Natural Process protection to promote Drought and wildfire resiliency

(Brought forward by Alex Davis)

Legislation that states something to the effect of: Natural processes have evolved that recharge groundwater; create areas of greater biodiversity and saturate land protecting it from wildfires and providing other benefits to people at no cost. Such processes which include beavers inhabiting the landscapes should not be removed or interfered with absent a showing of harm to property, infrastructure or other rights, but should be allowed to exist.

2. Prioritize forest health and wildfire ready watersheds

(Brought forward by Daris Jutten)

1. Adding stronger criteria for state funding for Community Wildfire Protection Plans to meet the goals of CWP².
2. Protecting storage from wildfire impacts is important
3. Per the CO Water Plan : “Stream and forest health improvements using nature-based solutions can support both the natural environment and existing water infrastructure and storage by building resiliency for drought, fire, and floods; reducing sedimentation; improving water quality; attenuating high flows; and enhancing groundwater recharge.”

WATER BANKING

(Brought forward by Lee Miller)

Colorado law currently authorizes the formation of water banks within each water division. Among other limitations, however, such banks are restricted to leases of stored water. No provision is made for a water bank to facilitate leases or exchanges of direct flow water rights. This authorization is needed, however, in order to allow the types of transactions envisioned in the Colorado Water Plan to reduce the pressure to buy-and-dry and help meet other public needs. Colorado law has allowed short-term loans of water between two agricultural users for over one hundred years, and has more recently provided for interruptible water supply agreements and temporary lease/fallowing arrangements without Water Court approval and upon a finding by the State Engineer that no injury to other water rights will occur.

The essential elements of an enhanced Colorado Water Bank are:

1. Actively facilitates voluntary transactions for temporary alternative uses of existing water rights
2. Use of the bank is risk-free to water right owner
3. Streamlined review process to determine available water and protect other water

rights

4. Actively operated by CWCB or delegated public entity within each water division

The existing statute on water banking, Colo. Rev. Stat. § 37-80.5-104.5 should be expanded and revised to authorize a statewide bank that accommodates voluntary, temporary transactions, not only for stored water but for direct flow water rights as well by striking the word “stored” from section (1)(a).

INDUSTRIAL WATER USERS Proposed Tool

(Brought forward by Jackie Brown) *updated 11/6/2023 9:15pm*

Electric Utilities affected by HB 19-1261 and SB 19-236 , as well as supporting extractive industries (e.g. coal mines) propose to: (1) temporarily enact appropriate water rights planning horizons, similar to those available to municipalities, in order to maintain their portfolio of water rights at least through the energy transition planning period (2050), so that those water rights may be available to support development of clean energy generation; and (2) the portfolio of water rights can be used during the transition in a manner that supports the State of Colorado’s drought response initiatives.

Method

(1) Modify definitions in the 1969 Water Right Determination and Administration Act to provide water rights protection and planning flexibility for electric utilities and supporting extractive industries, which modifications would sunset in 2050.

(2) Add language to § 37-83-105(2)(a)(IV)(A), C.R.S. (sunsetting in 2050) stating that:

(V) Within the Colorado River basin and its tributaries:

(A) Renewable loans from electric utilities and supporting industries of absolute water rights, approved to preserve or improve the natural environment to a reasonable degree are not limited to a period of use of one hundred twenty days.

(B) Renewable loans from electric utilities and supporting industries of absolute water rights may be used five out five years for which only a single approval of the state engineer is required. The five year period begins when the state engineer approves the loan. An applicant may reapply for and the state engineer may approve a renewable loan pursuant to this subsection (2)(a) (V) for five additional five-year periods.

(C) Renewable loans from electric utilities and supporting industries of absolute water rights may be used to preserve the natural environment to a reasonable degree even if there is not a decreed instream flow water right held by the board.

(D) Renewable loans from electric utilities and supporting industries of absolute water rights may be used to improve the natural environment to a reasonable degree for a stream reach even when the board does not hold a decreed instream flow water right.

(E) The provisions in (2) (a) (V) will sunset in 2050.

(F) There is a determination that a temporary instream flow lease is in the normal course of business and is not subject to Public Utility Commission approval.

(G) *Held for Safety Clause*

Supportive of the pilot project we discussed at the October 26, 2023 meeting with proper safeguards for existing users. (Steve Wolff)

STREAM & RIPARIAN AREA Management Tools

(Brought forward by Orla Bannan)

1. Temporary Loan Program

HB20-1157 expanded the Environmental Instream Flow Program's Temporary Loan Program. Allowing loans to preserve and improve the environment not only where there are decreed instream flow water rights, but also on stream reaches where there are no decreed instream flow water rights would improve the flexibility and applicability of the program. As an example, this would be helpful on stressed mainstem rivers for which new instream flow appropriations may not be feasible.

The current statute allows the owner of a decreed water right to loan water to the CWCB for use as instream flows. In addition to instream flows, the statute could be amended to allow the owner of a decreed water right to loan water to the CWCB for use by the Upper Colorado Endangered Fish Recovery Program, the San Juan Basin Recovery Implementation Program, to address temperature exceedance issues or for use in other locations where flows would benefit or improve the natural environment.

- Link to 2020 Bill: <https://leg.colorado.gov/bills/hb20-1157>
- Colorado Revised Statutes 37-83-105
- Item 8 on Water Sharing Tools Spreadsheet

Further discussion is needed relative to the San Juan Recovery Program and specific stream reaches that may be under consideration. (Steve Wolff)

2. Augmentation Plans

Colorado law was recently clarified at Colorado Revised Statutes 37-92-102 to reflect that the CWCB may obtain a water court approval for an augmentation plan intended to benefit a decreed ISF water right. It would be useful to further clarify that the CWCB may, like any other water user, obtain temporary approval of such a plan using the Substitute Water Supply Plans (SWSP) process set forth at 37-92-308(5).

- Colorado Revised Statutes 37-92-308(5)
- Items 10 & 15 on Water Sharing Tools Spreadsheet

AG WATER PROTECTION

1. Agricultural Water Protection Water Rights

(Brought forward by Orla Bannan)

Agricultural Water Protection Water Rights create opportunities for agricultural water rights holders to make water temporarily available for other uses, while keeping water in agriculture. This provides a potential source of water for instream flows. This tool is currently limited to Divisions 1 and 2 and could be extended to agricultural water rights holders in other divisions.

- Colorado Revised Statutes 37-92-305(19) and 37-92-308(12)
- Item 13 on Water Sharing Tools Spreadsheet

2. Incentivize Conservation Easements

(Brought forward by Alex Davis)

Incentivize the use of conservation easements and other tools to prevent development on prime agricultural land. The existence of agricultural land brings many benefits to the State, regional and local communities that have been identified in numerous forums. These benefits include maintenance of Colorado/western culture and history; maintenance of unique landscapes; when the food is sold locally, reduced carbon footprint, maintenance of habitat for birds, insects and other animals (particularly by organic and regenerative farming practices; and increased food security. If we want to preserve agricultural land long term, the Legislature should consider connecting investment of state funds in agriculture to conservation easements and other tools that ensure the land will not be sold for development.

WATER SHARING TOOLS

1. Reversion of Present Perfected Water Rights Otherwise Subject to Abandonment.

(From AG Weiser, but put on this list by Alex Davis)

- a. Under the Water Right Determination and Administration Act of 1969, the State and division engineers must prepare decennially an abandonment list comprising all the absolute water rights determined to have been abandoned in whole or in part and which previously have not been adjudicated as abandoned.
- b. In an abandonment proceeding, the water court determines whether particular water rights do or do not exist.
- c. Water rights are usufructuary in nature, and in an abandonment proceeding the use entitlement may be lost to the stream. When this occurs, the property rights adhering to the particular water right no longer exist.

- d. Abandoning water rights that predate the Colorado River Compact could reduce the amount of water Colorado can use—especially under any potential compact administration for the Upper Division States—because those rights are not subject to curtailment under the Compact. The Compact recognizes that “present perfected rights to the beneficial use of water of the Colorado River system are unimpaired by this compact.”
- e. Simply abandoning one of these water rights would mean that it no longer exists and would be unavailable for use under any future compact administration in Colorado. The General Assembly could avoid that outcome by declaring that if a present perfected right would otherwise be abandoned, it could instead revert to the State under a legal mechanism akin to escheat.
- f. The General Assembly would also need to authorize the State to use any such water rights as part of a program to shepherd these rights to the state line in order to help the State maintain its compliance with the Colorado River compacts. When not needed for compact compliance, moreover, these water rights could be used by the CWCB for multi-benefit purposes, such as protecting local habitats, *recharging aquifers, increasing storage or assisting water users.* (*Italics added by Alex Davis*)

2. Shepherding with Environmental Co-benefits

(Brought forward by Aaron Citron)

Healthy rivers are necessary to a healthy water supply. When flows are too low, temperatures go up, water quality declines, algae blooms foul intakes, fish suffer, and transit losses increase. Coloradans value the natural environment and bustling recreational economy it supports. To ensure our water users and rivers themselves are resilient in the face of drought, the Task Force should consider opportunities to improve natural systems alongside other recommendations being considered.

If Colorado decides to take actions to voluntarily reduce risks related to interstate commitments on the Colorado River, such efforts could be leveraged to address instream flow shortfalls and to help meet endangered fish recovery program flow targets. The Nature Conservancy proposes directing the State Engineer to adopt guidelines that would govern administration of water under these circumstances such that releases and delivery of water would be timed and shepherded through specific stream reaches to provide demonstrable stream health benefits without appreciable increases to transit loss. Instream flow and recovery program targets would provide the defined reach, quantified flow needs, and hydrograph that could be met through administrative decisions and reservoir releases.

Suggested legislative language:

C.R.S. §37-80-102. General duties of state engineer – supervision and utilization of employees – satellite and telemetry-based monitoring systems.

(1)(m): IN ADDITION TO THE STATE ENGINEER'S OTHER RESPONSIBILITIES AND AUTHORITIES TO ADMINISTER DELIVERIES OF WATER, THE ADMINISTRATION OF DELIVERIES OF WATER TO THE STATE LINE AND TO AND THROUGH STREAM REACHES WITHIN THE STATE, INCLUDING FOR STORAGE IN RESERVOIRS, OR BY EXCHANGE. THE STATE ENGINEER SHALL, PURSUANT TO C.R.S. § 37-92-501 ADOPT WRITTEN GUIDELINES, ORDERS AND INSTRUCTIONS GOVERNING THE CIRCUMSTANCES UNDER WHICH THE

RELEASE AND DELIVERY OF WATER TO REDUCE OR MITIGATE INTERSTATE COMMITMENTS SHALL BE SHEPHERDED THROUGH **SPECIFIC STREAM REACHES** TO PROVIDE DEMONSTRABLE STREAM HEALTH AND RECREATIONAL BENEFITS WITHOUT APPRECIABLE TRANSIT LOSS.

Should the stream reaches be specified? Jackie Brown

For the State Engineer to administer water to reduce or mitigate “interstate commitments,” as referenced in SB23-295, by delivery to storage either in Colorado or in Lake Powell, “drought security” or a similar concept may first need to be defined as a beneficial use in statute. The Task Force should discuss the relative merits and potential downfalls of such legislation, including how and when water rights might be changed to that use.

Comments on Aaron Citron’s proposal from SWCD (Steve Wolff)

While we are not opposed to the State Engineer considering whether it is possible to shepherd water in a manner that also provides stream health and recreational benefits, we do have the following questions and concerns with this specific legislative proposal:

- Requiring the State Engineer to begin promulgating these guidelines, orders, and instructions is premature and skips over a key question, which is whether the State Engineer’s authority includes, or ought to include, the release and delivery of water to “reduce or mitigate interstate commitments.” At this point, it is not even clear that there is a universal agreement on what this phrase means. As we understand it, the State Engineer currently has the authority to shepherd water to the state line for the limited purpose of satisfying obligations of the State of Colorado imposed by compact or judicial order, including but not limited to within the Colorado River Basin. While this action may fall within “reducing or mitigating interstate commitments”, it is unclear to us whether this legislative proposal seeks to expand the State Engineer’s authority such that he or she may shepherd water for additional purposes that may have a more attenuated link to compact compliance. It would be helpful to discuss what would, and conversely would not, qualify as reducing or mitigating interstate commitments.
- Is this legislative proposal intended to apply statewide?
- We generally support the State Engineer attempting to administer water rights to provide incidental in-channel benefits, so long as it does not undermine the primary purpose for which the water is being administered passed other water users. We suggest adding to the end of the last sentence: “ or without compromising the primary purpose for which the water is being provided.”

Comment on Shepherding with Environmental Co-benefits (Orla Bannan)

Supportive of this proposal to shepherd water, released or delivered to reduce or mitigate interstate commitments, in a manner that provides stream health benefits. For the State Engineer to administer water to reduce or mitigate interstate commitments, as referenced in SB23-295, beneficial use will need to be defined. I agree with the comments above that it would be helpful for the Task Force to discuss.

LONG-TERM OUTLOOK FOR 10-YEAR TOTAL FLOW at LEE FERRY

(CT-1)

(Brought forward by Randi Kim)

The Colorado River Compact (Article III(d)) specifies that “The states of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years...” The Colorado River Compact say (Article IV) specifies that:

- a) “Curtailement” may be necessary, if the flow at Lee Ferry is depleted below Article III
- b) UCRC sets “quantity” and “time” of curtailement for each state
- c) The state (Colorado) determines how to meet compact compliance obligations

The State Engineer has determined that the 10-year aggregate flows at Lee Ferry have not fallen below 75,000,000 acre-feet for the years 2004-2022. The current projection by the U.S. Bureau of Reclamation for 2023 and 2024 is that the 10-year aggregate flows at Lee Ferry will not fall below 75,000,000 acre-feet. Further, the State Engineer’s outlook for 2025 is that the 10-year aggregate flows at Lee Ferry will exceed 75,000,000 acre-feet.

Aggregate flows at Lee Ferry have steadily declined since 2001 from just over 100,000 acre-feet to an estimated 84,553 acre-feet for 2025. No longer-term outlooks are available, but the declining flows suggest that flows could fall below 75,000,000 acre-feet in the future.

Without a longer-term outlook of flows at Lee Ferry, water users and regulators live with a great deal of uncertainty regarding the possibility of curtailement. A longer-term outlook would identify possible future conditions under which CO may need to implement curtailement. It would also provide a planning tool for demand management.

The legislature should consider directing the State Engineer to develop a longer-term outlook for 10-year total flows at Lee Ferry beyond 2025 using various scenarios similar to the approach presented in the Colorado Water Plan which considered uncertainties in future climate conditions, social conditions, and supply-demand conditions. A longer-term outlook or predictive model should provide a possible range of flows that would be expected at Lee Ferry to assess if, and when, curtailement may be necessary.

NUMERIC GOALS FOR DEMAND MANAGEMENT

(Brought forward by Randi Kim)

(DM6, MP3)

Develop numeric goals for Demand Management and include cost of maintaining soil health in compensation model.

Demand management are the reductions in consumptive use that are temporary, voluntary, and compensated to ensure ongoing compliance with the Colorado River Compact. Currently, Upper Division States are in full compliance with the Compact and using 3 to 4 million acre-feet less than our 7.5 million acre-foot annual apportionment.

A longer-term outlook is needed to determine if, and when, curtailment may be necessary in the future (see CT-1). With a longer-term outlook, numeric goals for demand management could be established for the Colorado River and its tributaries by basin. These goals could be used as the basis for discussions with water users for temporary, voluntary, and compensated demand management plans. At present, one barrier for water users to participate in a voluntary program is not knowing “how much” demand management may be needed for compact compliance.

Another hindrance to a demand management program is concerns about degrading soil health with temporary fallowing. As such, the compensation plan should include funding for alternate low-water use crops or soil amendments (e.g., biochar) to maintain soil health during the temporary fallowing period.

The legislature should consider directing the State Engineer to develop planning-level goals for demand management by basin.

The legislature should consider an allowance for funding alternate crops and/or soil amendments in the compensation plan for demand management.

MEASUREMENT TOOLS

(Brought forward by Randi Kim)

(M1, M2 & M3)

The adage, ‘you can’t manage what you don’t measure’ certainly applies to Colorado’s water resources. The seven states in the Colorado River basin are being asked to negotiate operating guidelines that provide equitable and adequate water supplies throughout the basin. As Colorado develops intrastate tools to better understand their own water usage, this information will be equally as important in negotiating with downstream states. Being able to accurately meter and account for water usage amongst all sectors in the Colorado River basin, will assure our decision making will be based on sound data utilized to develop effective policy.

New technologies like airborne snow measurements using LiDAR and soil moisture monitoring are tools being developed to better understand, model, and calculate the relationship between snowpack accumulation, resulting stream flows, and the effect soil moisture, increased temperatures and aridification have in determining these critical predictive values. Accurate predictions of snowpack runoff into basin reservoirs will provide regulating entities the information they need in a timely manner to make operational decisions within the Colorado River basin. Measurement accuracy is critical in making sure regulating entities do not over allocate releases at Lee’s Ferry and from CRSP reservoirs including Lake Powell.

The legislature should continue funding state-wide efforts to improve measurement of streams and expand snowpack measurements using LiDAR for larger scale basin-wide projects. For smaller localized projects, state funding mechanisms for these projects should include a requirement for measurement devices to demonstrate water efficiencies.

INVASIVE PHREATOPHYTE & SPECIES REMOVAL

(Brought forward by Randi Kim)

(SR4)

Invasive phreatophytes (deep-rooted, water intensive vegetation like Russian Olive and Tamarisk) and other invasive species can fundamentally alter stream channels and systems by preventing floodplain connectivity, creating sediment deposition, altering the nutrient cycles of riparian areas, and consuming large amounts of water.

Local removal efforts can complement stream or riparian improvements but large-scale efforts to remove these species requires effective management across jurisdictions.

The legislature should consider funding a state-wide assessment of the water loss and other impacts associated with invasive phreatophytes and develop a state-wide program for eradicating these invasive species on a larger scale rather than relying upon small locally based efforts led by non-profit organizations. *(And increasing the Colorado Department of Ag's noxious weed removal enforcement program) (Alex Davis)*

CONSERVED CONSUMPTIVE USE

(Andy Mueller) Colorado River District Proposal re: Conserved Consumptive Use Programs within Colorado Adopted for Potential Interstate Purposes.

Preamble:

This proposal does not recommend the adoption of a specific interstate program or strategy. Instead, this proposal recommends that standards apply to implementation within Colorado of any program that would conserve existing consumptive use of the State's Colorado River allocation (regardless of the specific name of any such program).

The Colorado River Drought Task Force has discussed several types of programs that could be utilized within the State of Colorado if and when the State implements a program to intentionally reduce its consumptive use of water to address interstate commitments. These programs are distinctly different than many of the programs discussed by the Task Force to promote drought resiliency within the State of Colorado. It is important that any program designed and implemented to reduce consumption of Colorado River water for the primary purpose of sending that water across the Colorado state line follow the principles identified by this Task Force: Put Colorado First and Do No Harm.

The Task Force—and the General Assembly—should not be pre-occupied by a program name. Rather, we should focus on the impacts of any potential conserved consumptive use programs within our state and do our best to structure any such program for the maximum benefit of the State of Colorado as well as to mitigate any potential harm. Whether an interstate oriented conserved consumptive use program is called a System Conservation Program, Demand Management, Water Banking, Strategic Water Reserve or another yet to be invented name, they all have the common trait of reducing the consumption of existing Colorado River basin water uses in order to send water out of state. Such programs can help to address interstate commitments, but they also have potential negative impacts within Colorado.

The General Assembly should not design the details of any program intended to achieve these interstate goals. Rather, the General Assembly can pass a bill that is designed to protect Colorado's unique values (those that have been identified in our years-long discussions and investigations of Demand Management and System Conservation) by establishing standards that any such program must meet inside of our state. The design and implementation of the Program(s) shall be left to the state, operators of the transmountain diversion projects (for projects involving transmountain supplies), and the West Slope water conservation districts.

Much of the work on these standards has already been done by the CWCB in its 2018 Demand Management Policy Statement and by the General Assembly itself in drafting SB23-295.

Legislative Concept/Structure:

Any water conservation program implemented or enacted in Colorado with the goal of delivering conserved consumptive use to the state line shall comply with the following criteria:

- a. Reductions in consumptive use shall be voluntary;
- b. Reductions in consumptive use in the agricultural sector shall also be temporary and compensated;
- c. Programs shall prioritize the avoidance of disproportionate negative economic or environmental impacts to any single subbasin or region within Colorado while protecting the legal rights of water rights holders. To that end, any conserved consumptive use program operated within the State of Colorado shall be designed to produce conserved consumptive use water proportionally from all basins and regions which currently consume the waters of the Colorado River. Such proportionality shall be based upon the proportion that a region/basin's post-compact consumptive use of Colorado River basin water bears to the State's total post-compact consumptive use of Colorado River basin water;
- d. Programs shall comply with applicable state law, including, but not limited to, the requirement that the implementation of a Program must not cause material injury to other water rights holders. In order to assure the protection from injury, the program operators shall implement a notice and public input, and right of appeal process no less rigorous than that currently used by the State of Colorado for Substitute Water Supply Plans as set forth in CRS § 37-92-308(4)(c).
- e. Programs shall consider and be fully informed by the input and considerations of water rights holders and stakeholders potentially impacted by the operation of Programs within Colorado, and institute a public review process for any such proposed Programs.
- f. If a Program is operated within the jurisdictional boundaries of the Colorado River Water Conservation District or the Southwestern Water Conservation District for water diverted and used within the boundaries of those Districts, it shall be designed and implemented by the applicable District in collaboration with the Colorado Water Conservation Board.
- g. If a Program is operated to reduce consumptive use of Colorado River water used outside of the natural Colorado River basin, such a program shall be designed and implemented by transmountain diversion operators in collaboration with the Colorado Water Conservation Board.
- h. Any program must be implemented consistent with the Colorado Water Plan's Conceptual Framework, including specifically its Principle Four.

i. The Program(s) primary goal should be to assure compliance with the Colorado River Compact. The State Engineer shall be provided with the appropriate legal authority and direction necessary to fulfill the purposes of the Program in a manner that, without minimizing the primary purpose of the Program, provides benefits to recreation and the environment.

SYSTEMATIC WATER CONSERVATION AND LOWER BASIN OVERUSE

(Andy Mueller) Colorado River District Proposal re: Systematic Water Conservation and Lower Basin Overuse

Preamble:

This proposal will provide legislative support to one of Commissioner Mitchell's key "irrefutable truths." Systematic water conservation programs and reductions in conserved consumptive use are necessary currently in the Colorado River basin due to the failure of the Lower Basin to reduce its consumptive use during times of diminished hydrological supply.

The Lower Basin states have historically overused the Colorado River, and during the 23-year megadrought, this overuse led to the draining of the major system reservoirs and pressure on all water users to reduce their use. Therefore, the Lower Basin must commit to permanent reductions in consumptive use which will result in permanently bringing its collective annual water consumption, including properly accounted-for system losses, below 7.5 Million Acre Feet of mainstem Colorado River water. The Lower Basin's commitment must be secured before our state or the Upper Basin implements further systematic water conservation programs, whether called SCPP, Demand Management, or something else.

These Lower Basin reductions in use should include proper accounting and assessment by the federal government and its Lower Basin contractees of evaporation and transit losses (i.e., "system loss").

Legislative Concept/Structure:

Operation of any water conservation program involving Colorado River water authorized or enabled by legislation in the State of Colorado with the goal of delivering conserved consumptive use to the state line shall be expressly contingent upon permanent consumptive use reductions by the Lower Basin states of California, Nevada and Arizona that bring their collective annual water consumption from the mainstem of the Colorado River equal to or below 7.5 Million Acre Feet of mainstem Colorado River water use and include verifiable accounting for all system losses.

MUNICIPAL

1. Turf removal program

(Brought forward by Randi Kim)

HB-1151 required CWCB to develop a turf replacement program that will provide incentives for replacing nonessential irrigated turf with more water-wise landscaping. HB-1151 allocated \$2 million to finance the program.

This funding level is inadequate to sustain an impactful state-wide turf replacement program. In comparison, Utah approved \$5 million in funding and Nevada provided funding of \$24 million for turf replacement.

The legislature should consider increasing funding levels to \$5 million per year. *(and increasing the amount one entity can access)*(Alex Davis)

From Daris Jutten: Increase state funding for the current turf removal program or other programs, and tie state funding to disincentives for new non-functional turf and/or codes disallowing new non-functional turf.

2. Advanced Metering Infrastructure (AMI) for municipal water users (MU9)

(Brought forward by Randi Kim)

Advanced Metering Infrastructure (AMI) provides near to real time data of water usage that can be made available to customers through a portal. AMI customer portal educates customers on water use and provides an avenue to promote water conservation. AMI can also be used to identify potential sources of water loss in the distribution system.

The legislature should consider a requirement for all large municipal water providers to develop an AMI implementation plan to install AMI within the next 5 to 10 years. This should be supported by grant funding through the Colorado Water Plan, Conservation & Land Use Planning program.

3. Direct Potable Reuse: Facilitate, fund and support

(Brought forward by Alex Davis)

Aurora and other cities are already pursuing implementation of Direct Potable Reuse (“DPR”) as one of the strategies to address projected water supply gaps. The Colorado Dept of Health & Environment has recently adopted rules guiding development and implementation of DPR. The legislature should consider how it can incentivize and support addition of DPR systems to municipalities.

NARRATIVE SUGGESTIONS

(Brought forward by Daris Jutten)

NARRATIVE issues

1. Task Force discussed the importance of using the narrative to educate the legislature (and the public) on the complexity of solving some issues.
2. Explain the long DTF (Colorado First) discussion on ‘trigger’s required for **mandatory** new programs which should occur only in times of potential curtailment.
3. Narrative could outline the ‘unresolved issues’ and need to pay sources to help better define possible answers going forward.
4. Narrative should include context:

- a. Language from the legislation that advocates for temporary, voluntary and compensated SB23-295 Section 2 (4)(b)(I)(II)(III)
 - i. NOTE hydrology already forces many users to use less than 100% of water rights due to snowpack, etc., and that reduction is not compensated nor recognized. UVWUA, Dolores River and tribes are good examples.
 - ii. Written description of the principle of no disproportionate negative impacts to any single subbasin or region.
- b. Language that describes additional 'principles' such as preferring local and regional input vs state controlled tools (See CO River district tools)
- c. Demand Management vs demand management per the request from Speaker McClusky.
 - i. Big DM goes away in post 2026 guidelines, dm is a more local plan that is like drought contingency planning
- d. Inform legislature that many groups everywhere in CO are already adapting and planning for local plans to improve resilience to drought.
- e. Explanations about how good ideas in one area may have unintended consequences in other areas – Importance of Do No Harm.
- f. Need for long term analysis of unresolved issues that are beyond the scope of Drought Task Force.
 - i. Explain that some legislation (proactive, river health) not ready for today (good example on Electric utility discussion which fits for Craig CO and maybe not on Front Range per Kyle)
 - ii. IBCC appointees were not chosen for expertise in the specific arena of SB23-295 and a group with the subject area experts such as found on the Task Force would be a preferred group to tackle unresolved topics.

NEXT STEP SUGGESTIONS

1. IBCC

(Brought forward by Kelly Romero-Heaney)

Optimize the use of the Interbasin Compact Committee (IBCC) and refer outstanding drought tool research, design, and recommendations to the IBCC.

As currently structured, I don't believe the IBCC is the right forum to continue any Drought Task Force discussions in. (Steve Wolff)