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Colorado Water  
Conservation Board

Department of Natural Resources



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Department of Local Affairs

Division of Local Government

## Colorado Land and Water Planning Strategic Coordination Workshop

Monday, December 11 | Denver Metro Chamber of Commerce

### Meeting Summary

#### Participants:

Brad Calvert (DRCOG), Anne Castle (CU Getches-Wilkinson Center), Theresa Connor (CSU), Andre Dosier (CSU), Stu Feinglas (Westminster), Greg Fisher (Denver Water), Andy Hill (DOLA), Jim Holway (Babbitt Center), Torie Jarvis (NWCCOG-QQ), Peter Kinney (Metro Mayor's Caucus), Anne Miller (DOLA), Amelia Nuding (Western Resource Advocates), Peter Pollock (Lincoln Institute of Land Policy), Flo Raitano (DRCOG), Kevin Reidy (CWCB), Logan Sand (DOLA), Jeremy Stapleton (Sonoran Institute), Michael Valdez (Special Districts Association of Colorado), Susan Wood (APA), Karen Hancock (Aurora), Morgan Cullen (Colorado Municipal League), John Duggan (CDPHE)  
& Matt Mulica and Jonathan Geurts (Keystone Policy Center)

#### Outcomes

Participants

- Gained a better understanding of what entities are doing regarding land and water planning integration in Colorado.
- Aligned on a common goal among the various programs working toward integrating land and water planning in Colorado.
- Discussed:
  - How to align on a community outreach strategy;
  - What tools or guidance materials exist and need to be developed;
  - How best to track and assess which communities have been trained and the level to which they have implemented an action plan.
  - How best to develop more capacity to deliver training and technical assistance.
- Tentatively signed up for working groups pending agreement on an overarching structure

#### Next Steps and Action Items

- CWCB and DOLA will draft a strategic vision and structure based on the points raised at this meeting, distributing it back to the group for review as a proposal.
- Western Resource Advocates will distribute an early copy of their upcoming report to group members to enable them to avoid duplication in their own materials planning.

**Next meeting:** The next meeting will occur the afternoon of March 7, prior to the Rocky Mountain Land Use Institute's annual meeting

## Notes

Kevin Reidy reviewed the origin of the state-wide drive to link land and water planning in the Colorado Water Plan. He characterized the predicted water supply gap and the range of potential outcomes, emphasizing that the key challenge is to maintain a balance of uses.

The group provided a round of updates on their efforts to train, fund, and/or develop tools and resources for Colorado communities to integrate land and water planning. See Appendix A for brief summaries of these updates and Appendix B # 1 for collected responses to the pre-meeting survey.

### ***Alignment Toward a Common Goal***

The group discussed the potential for aligning on a common goal. The initial language proposed came from the Colorado Water Plan: “By 2025, 75 percent of Coloradans will live in communities that have incorporated water-saving actions into land-use planning.”

- This group should focus on the integration of water and land use planning, which can address landscape issues, including the benefits of green infrastructure and outdoor use as a buffer for times of drought
  - o “Efficiency” is a more positive term and connotes more of an effort to maintain/improve quality of life, including the continued availability of water.
- Given the broader issues and community values, the diversity of local contexts, and the range of actions available to planners, it might help to set up a checklist like that for LEED certification, that recognizes tiered accomplishments for an increasing number of actions taken.
  - o A checklist is a good idea, provided each listed action can be backed up with an estimated quantitative improvement, with which the program can measure progress.

### ***Successful Integration***

The group discussed what it looks like for a community to have successfully integrated land and water use planning.

- Integration could benefit from embracing the One Water principles and taking into account the broader regional context.
- Once principles of integration are established, it would help to collect case studies of particularly successful examples. Successful integration case studies might include attempts to implement what had been planned and established mechanisms for measuring progress.
- There are generally three steps to program development:
  - o 1) develop citizen support
  - o 2) set objectives based on the results of an initial set of pilots, and
  - o 3) operationalize the program.
- Exploring the capacity of each actor and taking advantage of opportunities as they arise is a good first step
- Successful programs are initiated by enthusiastic individuals. It would help the whole effort to find these people, spread their energy, and connect them with each other.
- Integration requires both changes to the planning process and recommended plan language. Regarding process, it would be good to move away from deterministic language and towards

scenario planning. Regarding language, it would be helpful to have water use guidelines for a broader range of land uses.

- Adoption of land and water integration strategies needs to start with the comp plan; otherwise, it can be daunting to get started.
- Developers need to be brought into the conversation to discuss ways to improve efficiency at the points of construction and occupation. In addition to land and water use codes/policy, landscape regulations and building codes should fall in scope.
- The big gap in understanding for planners is how choices on individual developments affect issues on a macro scale.

### ***Community Engagement***

The group discussed ways for engaging communities in working towards the goals set by the Colorado Water Plan.

- Several potential audiences (i.e., elected officials, planning staff, and citizens) will require different messages and engagement strategies.
- Engaging a community is a matter of sequencing, building the support of the grassroots and local leadership will generate the political will to make a difficult change. At this time, it is important that policymakers and their staff are aware of the benefits and burdens of different choices, so they can bring other groups onboard.
- Providing planners with a ready-made presentation would be a good start on materials.
- The development community needs to be convinced first, and they are difficult to reach as many of them are not in-state. Typically, the development review process is the first major engagement point between developers and a city or county.
- ULI (Urban Land Institute) has expressed an interest in water use. This organization couples social issues with business interest. It may be an early adopter audience that could then disseminate the message more effectively.
- DRCOG (Denver Regional Council of Governments) is engaging municipalities in planning for an aging population, which might be a good general model for preparing communities to engage in nuanced conversations over smart growth and development patterns over time.
- Given that increased density and its corresponding decrease in landscaping may be the biggest lever to reducing municipal water use, the messaging may need to be focused on developers more than community members. Studies from the National Realtors Association, including evidential preference for walkable communities, may lend some business case persuasion to this message.
  - o LEED building standards incorporates water and land use.
  - o Outdoor maintenance affects HOA fees, which could be a selling point for reduced landscaping.
- Developers have expressed that regulatory hurdles are not hard to overcome, so long as they remain predictable. Certainty in regulation is important.

### ***Tools, Resources, and Guidance Materials – see Appendix B # 2 for answers from pre-survey***

The group discussed current gaps in information and resources, including connections that could be made.

- It would be helpful to be able to integrate water billing system data with land use data in each municipality to generate a localized set of water use information and data by development type.
- Significant variations exist within major land use classifications. For example, some versions of “mixed use” are very different from others and can’t be resolved by the purely residential standard of units per acre.
- Quantifying water use data by land area rather than population and including commercial uses would help to draw a more complete picture.
- Exploratory scenario planning needs to be introduced to municipalities, so they can prepare for a range of water use scenarios and future uncertainty.
- Western Resource Advocates is finalizing a report that may be useful as a guidance document. Group members should review it before starting on something new to prevent duplication.
- It would be helpful to have a central repository for informational resources and a few key guidance documents that translate the bulk of it into a step-by-step process. This might be tied to achieving different levels in a tiered certification system.
- Each organization will want to feature land and water use information tailored to its own audience. This information should be coordinated so as to ensure all info is complimentary and avoid contradiction.
- Any water use evaluation system needs to account for the full range of planning factors, including the benefits of green infrastructure, storm run-off etc.
- It would be helpful to walk planning staff through their own data together in a workshop format, perhaps offering continuing education credits. The 2.5-day intensive workshops convened by the Sonoran Institute worked in a similar way.
- Next steps might include a group pulling together resources and identifying gaps and redundancy. Then these collected resources would be piloted with intended users to gauge their relative helpfulness.

### ***Tracking***

The group discussed how to track the expansion of the program from community to community, track their progress in developing and implementing action plans, and track progress made towards achieving the group’s declared goals.

- The water conservation plan required of water providers every seven years includes a reporting requirement. This requirement has planning and implementation funding associated with it
- DOLA strongly encourages addressing water in comprehensive plans that are funded with DOLA grants, but it is not a requirement at this point. Additional guidance on what a strong water element in comp plan includes is needed.
- Regular reporting might count positively towards achievement in a tiered system. This system might enable the use of “Colorado Water Wise” or some other language in reference to a certification level.
- The qualifications that count towards certification cannot be identical across all communities as there is no one size fits all.
- A tiered system (silver, gold, platinum) could include must-do’s (i.e., water in comp plan) to get from one level to another as well actions that have assigned point values. A menu of water saving opportunities could be included.

### ***Policy and Capacity***

The group discussed its members' capacity to increase the reach of trainings and resources, including potential policy recommendations to the State.

- The work of integrating land and water use planning has been supported by the interest and investment of private foundations, but changes are expected. To become long term, this works needs a dedicated funding stream.
- DRCOG has tools and analytics, but its funding is restricted to topics other than water use.
- APA (American Planning Association) Colorado has access to 1400 members. A train-the-trainer session at the state conference seemed initially useful but suffered from a lack of follow-up. This could be an opportunity. APA directors are geographically distributed and can facilitate locally specific dissemination of these ideas.
- State-level coordination on this issue will greatly benefit from a full-time dedicated champion to push.
- The Lincoln Institute will continue to work in the land and water planning space. It can fund pilot projects but prefers not to be the only source of funding or to fund a project over the long term.
- Regional councils of governments could assist with making the resources regionally specific. CARO (Colorado Association of Regional Organizations) could be approached to coordinate this work, especially in partnership with APA. CARO seed funding might be a good place to start, and its chair, Miriam Gillow-Wiles, used to work for the Sonoran Institute.
- Individuals within the basin roundtables may be able to help with coordination, though not all roundtables work with municipal or industrial uses.
- Community engagement could begin with pilots in the most populated areas, building outward from there.

### ***Future Coordination and Action Planning***

The group discussed next steps and actions required to move towards implementation. An initial structure was proposed consisting of three work groups focused on the following major categories of activity: 1) tools, resources and information gathering; 2) training, education and outreach, and technical assistance; and 3) data and modeling

- This group has focused so far on connecting with land and water planning staff. It may want to extend its scope to include policymakers.
- Materials should be developed that provide planners and/or policymakers with info regarding the steps in the process and the resource that they need to achieve each step.
- The group should capture Westminster's case study and step-by-step manual as an initial example of successful land and water planning integration.
- It would help now to better define what is in and out of scope, to prevent scope creep and dilution of purpose. Part of this definition should be a survey of which groups need to know what information to help target the development of education and outreach.
- Overall, it would be easier to participate on a work group if there was an assurance it was connected to a 3-year overarching strategy with an initial concrete deliverable in the 6-month timeframe.

- It is important that this effort remain state-led, to retain the diversity of stakeholders around the table.
- In terms of implementation, it might be most effective to develop a half-day workshop to deliver to planners. The first step in designing this workshop should be to identify gaps in their current knowledge and available resources.
- A good first product might be a strategic vision and framework developed from the information raised in this meeting. Keystone, DOLA, and CWCB will draft this framework, distributing it back to the group as a proposal for discussion.

**Participants tentatively signed up their entities under the following work groups pending agreement on an overarching structure:**

- Training, Education and Outreach, and Technical Assistance;
  - Colorado Municipal League, Water Resource Institute (Reagan Waskom), CDPHE, Water Education Colorado, WRA, APA, Metro Mayors Caucus, Sonoran Institute, Urban Land Institute, CO Home Builders Association, CWCB & DOLA
- Tools, Resources and Information Gathering;
  - Babbitt Center, CSU, CU Getches-Wilkinson Center, Lincoln Institute of Land Policy, NWCOG, Western Resource Advocates, Westminster, Sonoran Institute, CWCB & DOLA
- Data and Modeling
  - Aurora Water, Colorado State University, Denver Water, DRCOG, Westminster, CWCB & DOLA

## Appendix A

### Organizational updates regarding land and water planning integration

- **American Planning Association:**  
Represent the Colorado chapter, but at the national level APA has formed a water task force. They may have resources we can draw on, including a policy guide on water, section on water in the West. At the state level, comprehensive plan recommendations will include water in planning. In 2018 session, we plan to propose similar legislation. Focus now is turning more to education than legislation as an initial step.
- **Lincoln Institute of Land Policy**  
Lincoln is a think tank out of Cambridge. One objective of our board is to work on climate change. Udall: "all climate change is water change." We do a lot of work through joint programs like Sonoran. We do work through exploratory scenario planning (XSP.) The formation of Babbitt Center for Land and Water Policy was one result of these conversations. Lincoln is an international group.
- **Babbitt Center for Land and Water Policy**  
Based in Phoenix, started in May, focus is on how best to integrate land and water planning, currently focused on Colorado River Basin. Also interested in the tech side, from XSP processes to high resolution land cover mapping. Demo and pilot projects are still in scope. Lincoln likes to play the role of convener for these conversations. Specific projects - we have started reviewing comp plans around the West, committed to help CWCB and DOLA with Colorado's plans. Also having conversations with water providers about their plans. Have talked with WRA about reaching out to decision makers.
- **City of Westminster**  
Started integrating land use and water in 2004, now in the beginning stages of our next iteration. During the years, we have integrated a number of city departments. Comp plan amendments are each reviewed for water use. The more efficient the water use, the more vibrant the economy.
- **Colorado State University**  
Researching and modeling. Integrated urban water model that will help decision making by linking water and land use. This NSF funded network looking at the transition to sustainable water management - three focuses: technology, drivers of environmental factors, people and policy. Also, partner in Western redevelopment process, and partnering with Denver Water in the Western Water Resources Center.
- **City of Aurora**  
In 2003, we put water conservation in our comp plan. We are now updating it, and the city council is aligning with the federal government and climate change adaptation is not our highest priority. As of Saturday, we annexed more land on the eastern plains. We have a lot of pavement, but we have incentives to take out bluegrass and good education programs. We're having trouble getting people to buy in and thus the education component is very important.

- **Metro Mayors Caucus**  
Very interested in trying to get a jump on water conservation strategies. We have been waiting and hoping that some of these tools will come through to help.
- **Western Resource Advocates**  
WRA has focused on educational workshops (LULA) and development of research and technical tools for communities. Two reports soon: first provides a guide for communities on how better to integrate land use planning with water use, particularly water recycling. The second is a more detailed technical manual - developed with Pace Law University – that provides detailed case studies and language from communities that have integrated land and water planning.
- **Sonoran Institute**  
Oversees the Resilient Communities and Watersheds project with Lincoln Institute. We initiated first of growing water smart workshop at Keystone - trained six communities – will be conducting second workshop in 2018. Resilient communities workshop - typically in Phoenix - helps communities identify their vulnerabilities and develop an action plan. Focus on tool development and technical assistance, building community capacity to adapt to climate change.
- **Special Districts Association of Colorado**  
Engages in advocacy for Special Districts in Colorado
- **Denver Regional Council of Governments**  
DRCOG covers 5,000 sq. mile territory in nine counties, including 59 municipalities. In January 2016, passed Metro Vision – which plans to 2040 and uses Urban Sim - a land use planning simulation modeling tool. We long have seen the connection between development and transportation. Replacing transportation with water reaches similar conclusions. Urban growth boundaries are now being defined more by water than land limitations. Have participated in UWIN at CSU.
- **North West Council of Governments**  
NWCOG covers Grand, Summit, Eagle, Pitkin and Jackson Counties - membership pays for water district participation from a broader geography - important due to trans basin diversions. Council formed to make sure Western slope has a voice. Ongoing projects: in the 90s, we made a model on water quality standards, recommended that water quality be a separate section in comp plans. Next year, want to do an assessment of NWCOG regional needs, applying for a grant through Colorado Water Plan. Also requesting technical assistance to update land use plans.
- **Colorado Municipal League**  
CML can assist this group by conducting outreach to decision makers in all cities and towns across Colorado. Knowledge Now publication, subject focused - could do a water subject.
- **Water Quality Control Division**  
A regulatory agency that give grants to public water providers to do water quality and source water protection. Have 200 public water systems in scope. We look at best management approaches for transportation and spill response. We also work with local governments on regulations to protect water supplies. Working with APA and others on one-page summary of how land and water use planners can interact on a voluntary basis. Also help coordinate MOUs between water providers and counties.



- **Getches-Wilkinson Center for Natural Resources, Energy, and the Environment**

Land use is such a local process that information related to it tends to be dispersed. We have looked at the assured water supply laws in 11 Western states. These laws require a look at water availability at some point in the land use process. Characteristics for comparison: water conservation, integration between local land use decision and broader regional plan. In Colorado, sometimes local laws don't match up with county laws. Lastly, we did case studies on recent developments in the front range, how laws played out in practice. Potential conclusions: for example, governments that have the land and water planning agencies together tend to work more together. Next up, looking at conservation plans that have to be completed by major water suppliers.
- **Denver Water**

DW serves more than 20 municipalities and over 60 water districts - none of them are alike. The good thing is we've been working with many of those in this room. With Keystone, we worked on modeling how land use decisions, primarily outdoor water use, have an effect on water use. Denver Water serves seven water districts within Lakewood. Lakewood is updating its municipal codes. It's very complex. Trying to prioritize our best use of time.
- **Colorado Water and Growth Dialogue**

Formed to provide information and tools to help land use planners understand the importance of planning for water use. Residential Land Use Tool. XSP process. A final report is coming out early in 2018, now going through an internal vetting process.
- **Colorado Water Conservation Board**

CWCB has been asked to provide trainings to communities through Senate Bill 08 and has also been given guidance through the CWP. The CWP has provided \$1 million to distribute for land use and conservation. The severance tax picture is not looking good for grant money, so take advantage of this funding while it's available.
- **Department of Local Affairs**

DOLA is a champion for local governments, supporting what communities want to do. The more models and best practices we can point to, the more it allows us to make our funding policies tighter. Working with CWCB, five webinars and three training modules in land and water planning integration were developed.

## Appendix B



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### Colorado Land and Water Planning Strategic Coordination Workshop

#### Themes from Pre-survey

December 2017

Thank you for your thoughtful responses and the time and effort you spent in providing them. Below please find the themes from the pre-survey that the group will use during the Workshop and beyond.

#### 1. What services is your organization offering regarding land and water planning integration, and what future events/resources are you planning on developing?

- Train and assist communities to better integrate water and land use planning
- Design and deliver assistance programs that result in the implementation of “water smart” community plans, programs, and policies
- Integrated land use planning technical assistance, workshops and training, and resources to local governments, including water/land use, natural hazards, climate resilience planning integration
- Funding work in this area as well as conducting our own research and technical assistance
- Municipality that:
  - Ties the Comp Plan and the Water Plan together generating water demands for comp categories and reviewing new development for water use.
  - Reviews all proposed Comp Plan amendments for changes to water use
- Legal research, compilation of comparative information on land use and water policies for municipal suppliers and on state laws on assured water supply examination
- Tailored services toward local governments-- an educational forum, offer technical assistance if members are updating their land use codes or comp plans, and are developing model standards for members to use in their updates. We provide statewide advocacy to educate and push for additional integration of water and land use.

#### 2. What tools and resources are you aware of that help communities to integrate water and land use planning?

- DOLA/CWCB trainings (3 training modules and 5 webinars)
- Growing Water Smart Workshops - Sonoran/Lincoln Institute trainings
- Western Resource Advocates /Pace - Land Use Leadership Alliance trainings
- Getches/ Wilkinson Natural Resource Center at CU white paper on possible next steps

- Colorado Water and Growth Dialogue resources including the Residential Land Use and Water Demand Tool
- Sonoran Institute - Resilient Communities and Watersheds
- DOLA is partnering with the Babbitt Center for Land and Water Policy - developing "how-to" planning guidance for integrating water into comprehensive/long-range plans
- Integrating Water Efficiency into Land Use Planning in the Interior West: A Guidebook for Municipal Planners (end of 2017) - WRA
- CWCB's Municipal Water Efficiency Plan Guidance Document
- Water Research Foundation's Integrating Land-Use and Water Resources Planning Project
- WRA's 2 forthcoming reports provide concrete examples and ideas - a "Coordinated Planning Guide" done by WRA and Brendle Group funded by Water Research Foundation; also a "Land Use Manual" by Pace Law University written for WRA, which will be out sometime in 2018.
- CSU's Integrated Urban Water Model (A GIS model that incorporates Billing data, Weather data, State demographer data, Satellite imagery)
- American Planning Association's Water Planning PAS report

**3. What tools or resources may need to be created or supplemented to support better integration of water and land use planning?**

- Map the land development process and have a good understanding of where water should be integrated into it.
- A broader understanding of how land use decisions influence water use. A good understanding of where water should be integrated into the land planning and development process
- Better data, or access to existing data, on current and forecasted water supply and demand
- How to measure impact/progress in meeting State Water Plan goals
- Resources and training to support state and local level staff capacity
- Clear direction and definition of what it means for local governments to integrate water and land use planning
- Scalable set of criteria that can be used in land use and water planning processes (e.g., define key elements of a water section, or water integration in a comp plan)
- Dissemination of Best Practices and research into the effectiveness of various best practices
- Professional opportunities and trainings to increase interaction between water and land planners
- Identification of state enabling authority that would support new tools, data, and mapping to better understand and communicate issues

**4. What do you think are the strategic areas of focus that can help us better coordinate and maximize efforts?**

- Communities need to know what to do. (Research + Training). They need help doing it. (Technical Assistance). They need political will and public support. (Communications +

Engagement). They need to track Performance (Monitoring + Evaluation; informs Training) And they need to talk/brag about it so others aware of the benefits (Broadcasting/Storytelling).

- Develop a coordinated strategic plan between partners for guidance documents, training, technical assistance, funding, policy/legislation, and research
- Provide clear step-by-step "how-to" guidance for local governments to take action
- Take a holistic "One Water" approach, connecting all the different ways which we can integrate water plans (e.g., water conservation, watershed master plans, stream management, storm water, wastewater, etc.)
- Meetings such as this one to ensure folks are aware of each other's efforts and how to best be of assistance
- Show-me-the-water type requirements for securing supplies prior to approval of new development
- Improved ability to understand and address uncertainty related to water supply and demand and how this is impacted by land use decisions
- Understanding the land development process and the economic impact of development
- Maybe a CWCB webpage can be a central repository for tools and resources that can assist local communities with implementation while still giving them the space necessary to determine their own long-term goals and objectives.
- Best practices and outreach on how much water is saved by different types of conservation. Comparisons of municipal gpcd. Working with home builders. Better education on the types of master plans that have been effective at reducing overall water use.
- Connecting regional planning efforts to water planning

**5. How can efforts to provide training, technical assistance, and funding to communities be better targeted to maximize results?**

- Focus on areas of high projected population growth and/or where demand is already projected to outstrip supply
- Develop a typology of communities (high vs. low risk, high vs. low capacity, etc.) that can help prioritize communities
- Coordinate existing partner efforts and resources to be more strategic (i.e., meetings quarterly or twice a year)
- Consider a dedicated staff person in DOLA and/or CWCB to provide technical assistance to local governments to incorporate best practices
- Develop cross-training. Have water professionals educate land use planners and developer about the consequences of land use decisions on water. Have land use planners and developer educate water professionals on the process they go through.
- To have a clearinghouse for all the efforts, tools and resources, and lessons learned for communities, developers, policy makers, and others
- Determine a prescribed curriculum; develop materials; and distribute to all who have the ability to affect the future water landscape and resources in the state
- Give more of a role in this to Roundtables—identifying regional priorities

- Help fund consulting assistance to individual communities to help them through the process the first time
- Offer workshops custom tailored to small, medium and large municipalities
- Aim the the general/master plan information at the policy makers (county commissioners, city council) and the implementation techniques should be aimed at planning staff
- An acknowledgement program for those doing it well always helps.
- Partnerships with local governments (state could offer reduced services or grants specifically for technical assistance to update land use codes); additional focus on water conservation and land use integration in the Water Plan grants, since storage and water supply projects already have so many other pots of money
- Need to assess who is doing what in terms of integration of planning; define what integration of planning means then fund those organizations who need assistance to make it work; more state level staff capacity could help