



June 30, 2020

Ben Wade

Project Manager

Colorado Water Conservation Board

1313 Sherman St. Room 718

Denver, CO 80203

RE: Final report

Purchase Order No: POGG12020-2002

Dear Ben,

Please find attached a final report for the Water Efficiency grant we received under Purchase Order No. POGG12020-2002, titled "Follow-Up Education from Colorado Water Conservation Board Adoption of 'Best Practices for Implementing Water Conservation and Demand Management Through Land Use Planning Efforts: Addendum to 2012 Guidance Document.'" Per grant guidelines, this report includes a review of the activities completed, an estimate of actual water savings realized (for covered entities), and other information that is relevant to the Board's record of the Project and future use of the Project outcomes.

This report summarizes the work identified in the grant scope, extending from Jul. 3, 2019 - Dec. 31, 2019. Please let me know if you have any questions or concerns. Thank you for your support!

Sincerely,

A handwritten signature in black ink that reads "Jayla Poppleton".

Jayla Poppleton

Executive Director

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# LAND USE AND WATER EFFICIENCY PLANS

## Final report

JUNE 30, 2020

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Grant POGG1 2020-2002



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# Land Use and Water Efficiency Plans Final Report

Follow-Up Education from Colorado Water Conservation Board Adoption of “Best Practices for Implementing Water Conservation and Demand Management Through Land Use Planning Efforts: Addendum to 2012 Guidance Document”

## CONTENTS

Introduction	
Grant Activities.....	p. 2
Workshops Summary.....	p. 11
Recommendations to CWCB.....	p. 16
Obstacles and Lessons Learned.....	p. 18
Financial Information.....	p. 19
Final Deliverables.....	p. 20
Appendices.....	p. 21

## Introduction

Under a Water Plan grant from the Colorado Water Conservation Board (CWCB) in 2018, the Babbitt Center for Land and Water Policy (“Babbitt Center”), a center of the Lincoln Institute, jointly authored with Anne J. Castle, “Best Practices for Implementing Water Conservation and Demand Management Through Land Use Planning Efforts: Addendum to 2012 Guidance Document” (“Guidance Addendum”) for the CWCB. The entities involved in this effort agreed that follow-up education would make implementation of the Guidance Addendum more successful. Water Education Colorado (WEco) was awarded this Water Resource Conservation Public Education and Outreach Grant to conduct Guidance Addendum education activities with support from the Babbitt Center.

This grant supported WEco and partners to carry out two 60-minute webinars on the Guidance Addendum and its contents. Both webinars followed a similar format, with one focusing on examples on land use integration from special district water providers, and the other focusing on examples on land use integration from municipal water providers. These

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webinars were co-hosted by the Special District Association and Colorado Municipal League respectively. Both webinars were free to participants, and funding came from this grant as well as in-kind staff support from the Babbitt Center.

This grant also supported WEco and the Babbitt Center to carry out four educational workshops on the Guidance Addendum. Workshops were held in Longmont, Durango, Pueblo, and Grand Junction in order to reach a variety of stakeholders all across Colorado. All workshops were free to participants, and funding came from this grant as well as in-kind staff support from the Babbitt Center. WEco worked to market and fill the workshops to a pre-identified capacity that was limited to ensure participants would have a productive environment for peer exchange and co-learning.

In addition to these four workshops, WEco and the CWCB also presented at a technical session of the 2019 Colorado Water Congress Summer Conference in Steamboat Springs and provided a report-out at the 2019 Upper Colorado River Basin Forum in Grand Junction.

## Grant Activities

The original grant request outlined the following plan to accomplish the grant's purpose.

### Task 1: Host 2 Webinars on Guidance Addendum

Host two 60-minute webinars on the Guidance Addendum and its contents. Both webinars followed a similar format, with one focusing on examples on land use integration from special districts, and the other focusing on examples on land use integration from municipal water providers. Both webinars were free to participants, and funding was from this grant as well as in-kind staff support from the Babbitt Center. This included the following steps:

#### Method/Procedure:

1. Work with partners to develop webinar format, length and timing.
2. Research best speakers for the topic, contact and confirm speakers, help guide presentations as needed.
3. Develop presentation content, including slides or other media.
4. Create emails, social media posts, and cross-promote with other organizations.
5. Manage participant registration.
6. Practice run-through of webinars content, test webinar platform, and broadcast the webinar.
7. Thank participants and speakers, share and post the recorded webinars online, conduct post-webinar participant evaluation.

**“Because this is a requirement for larger providers, I think it will eventually translate to smaller providers. Having resources out there to understand many efforts and BMPs was excellent.” – Webinar Participant**

Deliverable	December 2019 Status
Webinar 1	<p>100% complete: Held on August 12, 2019.</p> <p>We co-hosted a webinar focused on “Guidance for Incorporating Land Use Practices into Water Efficiency Plans” in partnership with the Special District Association of Colorado (SDA). We received 151 registrants and 93 attendees. Following its posting, the webinar received 65 views on YouTube. The webinar featured our core team of speakers: Anne Castle of the CU Getches-Wilkinson Center, Erin Rugland of the Babbitt Center for Land and Water Policy, and Kevin Reidy as State Water Conservation Technical Specialist from the CWCB. In addition, Chris Matkins, General Manager from the Fort Collins - Loveland Water District provided a case study. The core team of speakers advised on the format, length, and timing of the webinar. The core team also ran through a practice webinar to prepare. The webinar was geared to water providers and decision makers, particularly those in municipalities.</p> <p><u>Evaluation highlights:</u></p> <p>When participants were asked to rate the overall value of the webinar, 55% indicated a “High Value” and 36% a “Medium Value.”</p> <p>Comments highlighted the desire for more detail in follow-up workshops:</p> <p>“It was a great intro to identifying there is a new Addendum. But not significant depth beyond that. Which is fine because there are Workshops coming.”</p>

Webinar 2

100% complete: Held on Oct. 25, 2019

We co-hosted a webinar focused on "Guidance for Incorporating Land Use Practices into Water Efficiency Plans" in partnership with the Colorado Municipal League (CML). We received 98 registrants and 65 attendees. Following its posting, the webinar received 37 views on YouTube. The webinar featured our core team of speakers: Anne Castle of the CU Getches-Wilkinson Center, Erin Rugland of the Babbitt Center for Land and Water Policy, and Kevin Reidy as State Water Conservation Technical Specialist from the CWCB. In addition, Jeff Tejral, Water Conservation Manager at Denver Water provided a case study. The core team of speakers advised on the format, length, and timing of the webinar. The core team also ran through a practice webinar to prepare. WEco advertised the webinar through emails and through our website. CML promoted the webinar through emails to members. The webinar was geared to water providers and decision makers, particularly those related to special districts.

Evaluation highlights:

When participants were asked to rate the overall value of the webinar, 69% indicated a "High Value" and 31% a "Medium Value."

Feedback from participants included:

"A new concept, very informative."

"Our organization LWV wants to be in a position to advocate for water efficiency in county govt. Now we have some good tools to urge them to use."

"Because this is a requirement for larger providers, I think it will eventually translate to smaller providers. Having resources out there to understand many efforts and BMPs was excellent."

"The webinar sparked several ideas concerning potential implementation in land use planning for subdivisions within the Town's service area."

This task is complete.

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## Task 2: Host 4 Workshops on Guidance Addendum

WEco and the Babbitt Center delivered four educational workshops on the Guidance Addendum. Multiple workshops were held in different geographic locations in order to reach a variety of stakeholders. All workshops were free to participants, and funding was from this grant as well as in-kind staff support from the Babbitt Center. WEco managed workshop registration using a target capacity and an anticipated “no-show” rate so that all workshops were limited in number of participants to ensure people are able to relay their own experiences and get feedback. This included the following steps:

### Method/Procedure:

1. Work with partners to develop workshop format, length and timing.
2. Research best speakers for the topic, contact and confirm speakers, help guide presentations as needed.
3. Develop presentation content, including slides, handouts or other media.
4. Coordinate logistics including venues and catering.
5. Create emails, social media posts, and cross-promote with other organizations.
6. Manage participant registration and communicate logistics to participants.
7. Host the workshops.
8. Thank participants and speakers, conduct post-workshop participant evaluation, send follow up information.

**“It's always great connecting with others in the field and this was a great introduction to the guidance document. Listening to the speakers gave me an opportunity to really think about my community's approach and raised some good questions to ponder.” – Workshop Participant**

Deliverable	December 2019 Status
Workshop 1	<p>100% complete: Held on Sept. 16, 2019 in Longmont</p> <p>We held a workshop at the Southwest Weld County Building in Longmont geared towards water providers, consultants and others in a position to write or approve water efficiency plans. There were 31 participants and three local speakers. The workshop featured our core team of speakers: Anne Castle of the CU Getches-Wilkinson Center, Erin Rugland of the Babbitt Center for Land and Water Policy, and Kevin Reidy as State Water Conservation Technical Specialist from the CWCB. In addition, we brought in two case studies. Chris Matkins, General Manager from the Fort Collins - Loveland Water District spoke about how his organization was working with the various land use jurisdictions in their service area. Drew Beckwith and Amy Johnson from the City of Westminster provided a case study from the municipal perspective. The workshop was promoted on the WEco website, through emails, and through the Water Information Program newsletter. WEco coordinated individual outreach to key entities in the northern front range to ensure a diversity of participants from areas experiencing growth.</p> <p><u>Evaluation highlights:</u></p> <p>89% of respondents rated the workshop as having “High Value” or “Very High Value.”</p> <p>Feedback included:</p> <p>“This was one of the first times I was at a day long workshop and felt like every presentation was helpful, interesting, and engaging. The scavenger hunt style of going through the guide was a very helpful way to get into the content of the guidance addendum.”</p> <p>“It's always great connecting with others in the field and this was a great introduction to the guidance document. Listening to the speakers gave me an opportunity to really think about my community's approach and raised some good questions to ponder.”</p> <p>“There was really great discussion and varying perspectives.”</p>

Workshop 2

100% complete: Held on Oct. 30, 2019 in Durango

We held a workshop at the Durango Public Library geared towards water providers, consultants and others in southwestern Colorado in a position to write or approve water efficiency plans. There were 21 participants and five local speakers. The workshop featured most of our core team of speakers: Erin Rugland of the Babbitt Center for Land and Water Policy, and Kevin Reidy as State Water Conservation Technical Specialist from the CWCB. Anne Castle of the CU Getches-Wilkinson Center was unable to attend because of flight cancellation due to severe winter weather conditions. In addition, we brought speakers for two case studies. Mat deGraaf and Justin Ramsey of the Pagosa Area Water and Sanitation District and James Dickhoff of the Town of Pagosa Springs talked about the history and future of collaboration between the planning department at the Town and the Water and Sanitation District. Phil Johnson and Tracie Hughes from the City of Cortez talked about the City's efforts on several fronts to incorporate water conservation as a priority. The workshop was promoted on the WEco website, through emails, and through the Water Information Program newsletter.

Evaluation highlights:

69% of respondents rated the workshop as having "High Value" or "Very High Value" and the remainder noted the workshop as having "Medium Value."

Feedback included:

"It gave myself a better understanding on how to appropriately use the Guidance Document efficiently and effectively."

"I made new contacts and learned about the guide book."

"I learned some new things, but I think they could go more in depth."

Workshop 3

100% complete: Held on Nov. 5, 2019 in Pueblo

We held a workshop at the El Pueblo History Museum geared towards water providers, consultants and others in the southern front range and southern Colorado in a position to write or approve water efficiency plans. There were 21 participants and two local speakers. The workshop featured our core team of speakers: Anne Castle of the CU Getches-Wilkinson Center, Erin Rugland of the Babbitt Center for Land and Water Policy, and Kevin Reidy as State Water Conservation Technical Specialist from the CWCB. In addition, we brought speakers from two case studies. Forrest Neuerburg, City Manager of Monte Vista and Mark Gebhart, Deputy Director of Planning & Community Development in El Paso County. The workshop was promoted on the WEco website and through emails. WEco coordinated direct outreach to a variety of potential speakers and participants.

Evaluation highlights:

92% of respondents rated the workshop as having "High Value" or "Very High Value."

Feedback included:

"Great information, great presentation structure, well-designed day. Well worth my time!"

"For the first time attending, I have to say it was very informative, engaging, and well organized. Overall it was an amazing experience."

"Great information. Very useful document."

Workshop 4

100% complete: Held on Nov. 12, 2019 in Grand Junction

We held a workshop at Colorado Mesa University in Grand Junction geared towards water providers, consultants and others on Colorado's western slope in a position to write or approve water efficiency plans. There were 28 participants and one local speaker. The workshop featured our core team of speakers: Anne Castle of the CU Getches-Wilkinson Center, Erin Rugland of the Babbitt Center for Land and Water Policy, and Kevin Reidy as State Water Conservation Technical Specialist from the CWCB. In addition, Andrea Lopez provided a case study on how Ute Water and other water providers are working together with surrounding municipalities on integrating land use planning and drought response planning into water efficiency plans. The workshop was promoted on the WEco website and through emails. In addition, the workshop was cross-promoted with the Upper Colorado River Basin Forum and Colorado Mesa University's Hutchins Water Center, including a direct link from their registration page. WEco coordinated direct outreach to a variety of potential speakers and participants and actively managed the registration as all workshops, including this one, were on a wait list.

Evaluation highlights:

100% of respondents rated the workshop as having "High Value" or "Very High Value."

Feedback included:

"Great job. It was great to hear about what the Ute Water District is doing with respect to public education and outreach."

"The speakers were all dynamic and worked together well, with each offering complimentary expertise and perspectives."

"Entire seminar well organized and well presented."

"The workshop and topics discussed will assist my District and the City of Steamboat to complete our Water Conservation Plan update."

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Bonus Workshop	<p>100% complete: Held on August 20, 2019 in Steamboat Springs.</p> <p>The project team originally envisioned a workshop adjacent to the Colorado Water Congress Summer Conference in Steamboat Springs. To maximize participation, the project team decided to provide a shorter presentation during the Member Tech Sessions on August 20, 2019. This ended up being in addition to the four workshops that we scheduled throughout the state.</p> <p>This Member Tech Session was geared towards water providers, consultants, and decision-makers who were attending the Colorado Water Congress Summer Conference. Kevin Reidy as State Water Conservation Technical Specialist from the CWCB and KC McFerson, Land Use and Water Planner from the Colorado Department of Local Affairs provided a brief overview of the why and how of integrating land use practices into water efficiency plans. In addition, Kelly Romero-Heaney, Water Resources Manager for the City of Steamboat Springs, and Frank Alfone, General Manager of Mt. Werner Water and Sanitation District, joined the panel to provide the experience from the Steamboat Springs area.</p>
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This task is complete.

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## Workshops Summary - Observations and Themes

### Learning Goals identified by Participants

Before each workshop began, we asked participants to identify goals that they had for the workshop and what they hoped to get out of the experience. There were a variety of goals. Many had a general interest in the topic, from staying current on what is going on with water conservation and efficiency to a desire to learn more about best management practices.

Many management entities were seeking specific tools that they could use. Some entities sought to “augment” their current Water Efficiency Plans while others were seeking to “do their job better.” Generally, consultants who were working on multiple plans were looking to learn more from others and about specific tools in order to improve plans.

There was an overall desire from many to put the water supply and land use conversation in a broader context.

Some general goals that arose from multiple workshops included:

#### **Connecting water efficiency and land use to a broader planning context**

- *Learn more about linking land use planning to water as a priority from Basin Implementation Plans*
- *Looking for ways of protecting Colorado’s water by conserving the water that we have*
- *Concern about a growing population, changing economy, and maintaining sufficient water supplies during these changes*

#### **Addressing the interrelated management of water efficiency for domestic uses and agricultural uses**

- *Interest in informing agricultural producers on where the state is going with development and growth and how it affects water rights*
- *How planning entities can work better with domestic and agricultural providers*
- *Learn how to optimize the application of limited water supplies so that it works for both urban areas and agriculture*

#### **Looking for perspectives and to learn from others**

- *Hear multiple perspectives and to learn from others on how to do their work better and augment current plans*
- *Learn from other communities and organizations about land and water integration activities that have been successful*
- *Use guidance, tools, and resources from the workshop to continue regional conversations*
- *Looking for optimism that local government can manage use of our resources enough to avoid depletion of our water resources*
- *Perspective on how to apply guidance to growth patterns on the West Slope*

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### ***Learning which land use tools are applicable to the jurisdiction of water providers and land use planners, and where collaboration is needed between the two***

- *How land use planning fits into water supply and demand forecasts*
- *Interest in the specific land use tools that are available to water providers and integrate these into regional efforts*
- *Interest in the land use practices that can be incorporated into recently updated Water Efficiency Plans*
- *Learn tools on how to incorporate water efficiency into future community growth policies and practices*
- *How communities are incorporating water efficiency measures into the land use code*

### ***Learning how land use entities are planning for water in their area***

- *Learn more about how land use entities are planning for water in their area (esp. Pueblo)*
- *Integration of water into comprehensive planning*
- *Look for ways for water providers to better collaborate with municipalities*

***Information for specific planning or processes happening now*** (e.g. codes, comp plans, water efficiency plans, drought plans, demand management policies, sustainability plans, stream management plans, park improvement plans, development plan review)

### **Themes shared by Workshop Participants**

Near the end of each workshop, we asked participants to read through the checklist of best management practices featured in the Guidance Addendum and to identify which practices they would consider for implementation and which practices were already in place in their community. The purpose of this exercise was to have participants think through how to determine which practices work best for their community. In groups, participants then discussed opportunities, barriers/challenges, and what practice might have the greatest impact in their circumstance. In each workshop, we then had a report out from the various groups to share the themes of their discussion.

Many of the themes centered around how governmental entities can work better together as leaders and to institutionalize this way of doing business.

*Themes included:*

#### ***Leading by example on water efficiency***

- *Do an audit on government or utility-owned facilities*
- *Demonstration gardens on government or utility-owned land*
- *Government or utility-owned properties follow regulated watering restrictions*

#### ***Consistency of information***

- *Between municipalities*
- *Messaging about drought and aridification - are we in or out of a drought?*

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### ***Incentive to conserve varies by community***

- Existing supply, delivery type, and use impact incentives for conservation
- Some communities still have trouble grasping the value and benefit of water conservation. Benefits to water secure communities (or those that feel water secure) could be more clearly articulated and shared
- Headwaters communities have different values and drivers for undertaking water conservation efforts, including stream health

### ***Need to institutionalize water and land use integration***

- Getting the right people to the table
- Creating ongoing integration that will be sustained past leadership changes or staff turnover

### ***Need for a champion***

- Need an elected official or local leader to help drive collaboration

### ***Need to incorporate concerns of equity***

- Can small businesses pay the cost of water under a “pay your way” philosophy?
- What are the impacts of differences in price sensitivity in low- and high-income neighborhoods?

### ***Need to establish trust with customers***

- Branding is important, public process is everything

### ***What communities do with water savings is important***

- Increasing efficiency can provide more of a drought buffer. But if you’re using the savings to support new development then you’ve used up that buffer.
- Do some thinking on how you use the savings achieved. Maybe part is used to support new development but not all.

## **Needed Steps Identified by Workshop Participants**

During the discussion, participants identified some needed steps in order to incorporate land use practices into water efficiency plans. These next steps are distinguished from the opportunities listed in a separate section because they include approaches that should be in place prior to exploring many of the opportunities identified. Some next steps affirmed the “Foundational Activities” recommended in the Guidance Addendum, while others are expansions upon some of the best practices outlined in the Guidance Addendum.

### ***Establish relationships between water providers and planners***

- Understand the terminology of water providers and planners; where the same terms mean different things to each entity, and entirely new terms not used by the other entity
- Commit to regular (e.g. quarterly) meetings

### ***Institutionalize water and land use integration***

- Align growth projections between land use authority and water providers

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- Make sure water infrastructure is available to a parcel/area that will support new growth
  - Develop triggers in development review process for water provider review if project (and water use) changes substantially
  - Explore more ways of addressing established developments and HOAs

### ***Develop a phased approach to best management implementation***

- Consider an incremental/"stepping stones" approach to test programs, change if needed, and create water savings over time
- New programs can't be created all at once; communities or water providers may need to be selective and build upon their programs over time
- Consider improving upon existing programs, or first pilot/incentivize a program before regulating it

### ***Develop and implement education for constituents/residents/customers/elected officials***

- Establish trust
- Facilitate conversations within the community
- Explore the potential for regionalized water education (e.g. WIP, DRIP)
- Consider public awareness and water use comparisons between customers (constructive peer pressure) to make people more aware and eager to adopt a culture of conserving

### ***Develop water budgets***

- Develop community water budgets and residential outdoor watering water budgets

### ***Consider approaches taken by other communities***

- El Paso County, a case study during the Pueblo workshop, used the following steps to help inform its Water Master Plan. These steps resonated with the audience and provide a good example for other county-led water initiatives.
  1. *Public Engagement process*- asked the public what they wanted and what was important to them.
  2. *Water Provider Survey*- ask districts how much they use, what are the uses for, how are you planning for the future? (El Paso County's survey had high participation from their water providers, representing nearly 93% of the county by population).
  3. *Current/Projected Demands versus Supplies*- This provided a demand aspect going into the planning. This helped to address closing the gap.
  4. *Sources of water*- counties in particular struggle to account for the sources of water in unincorporated areas, but the Master Plan gathered this information.

## **Challenges Identified by Workshop Participants**

As part of group discussions in each workshop, groups was asked to identify challenges to incorporating land use practices into water efficiency plans. The following list represents a summary of challenges that were identified during group report-outs:

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### ***Staff capacity, institutional knowledge, and institutional structures***

- Personnel in management positions in the planning and water worlds may not have experienced the 2002 drought and may not have the mindset that the next drought or long-term aridification is around the corner
- More staffing and time are needed to better integrate water and land use
- Enforcement of standards and resident knowledge, capacity, and experience can be a barrier in effective landscaping regulations
- Regional collaboration across multiple districts is a challenge when different districts answer to different leadership/constituents/customers.

### ***Keeping the momentum***

- Creating collaboration processes that are iterative, despite existing projects or staff turnover, so they can be improved upon over time
- Keeping the conversation going between planners, water providers, and leadership
- Maintaining effective residential programs in the face of residential turnover or an abundance of second homeowners

### ***What to prioritize***

- Water providers can have trouble deciding where their biggest savings may be, or who to target: New vs. existing development? Largest water users?

### ***Communicating the value of water efficiency***

- Understanding and articulating the incentives for water efficiency when communities or water providers have a sufficient water supply (and haven't seen and don't necessarily predict calls on local rivers)

### ***Competing community needs***

- Maintaining economics of resort communities with an expectation from residents/visitors for a reliance on turf grass
- Aging infrastructure: it is hard to think about spending money on efficiency when there is out-of-date infrastructure

## **Opportunities Identified by Workshop Participants**

In addition to identifying challenges to incorporating land use practices into water efficiency plans, groups were also asked to identify opportunities for better integration. The following list represents a summary of opportunities that were identified during group report-outs:

### ***Taking full advantage of the Water Efficiency Plan development process***

- The Water Efficiency Plan is a great step to create a guiding document that leads to implementation of programs;
- The policies in these documents "trickle down" into other formal processes, such as development review and codes

### ***Being proactive in establishing a development incentives and development review process***

- Explore incentives for developers to build more water-efficient developments
- Negotiating developer by developer can be a constraint on staff capacity

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- Communities feeling like they are in place of being reactive, being proactive can free up staff capacity and lead to more water-efficient outcomes

#### ***Regionalization of education and incentives***

- Regionalization may provide greatest benefit over cost

#### ***Incorporating creative land use codes***

- New codes may appeal to the next generation (e.g. Sterling Ranch)

#### ***Incorporating ecology and adding value with landscape conversions***

- Vegetation corridors/buffers to prevent sediment from flowing into waterways
- A focus on native plants
- Phytoremediation: toxicity-absorbing plants
- Opportunities for best practices during revegetation of disturbed ground
- Work with CSU Extension and Master Gardeners to create more water-efficient landscaping without having to create desert-like xeriscapes

#### ***Exploring landscape program implemented in other communities***

- Turf and native vegetation rebate that is attached to the amount of water that can be used (Colorado Springs)
- Z-zones involves native plantings of large swaths, mostly commercial. Irrigate for 3 years, then developers need to buy a tap if they want to continue irrigating it (Aurora)

#### ***Making best use of raw water supplies***

- Separating indoor/outdoor taps with different water quality to irrigate landscapes with raw water

#### ***Revisiting gallons per capita per day estimates for new units as a tool in water supply planning***

- Other estimates of water use may be more telling; particularly estimates tied to land use type or zoning

#### ***AMI (automatic metering infrastructure)***

- AMI can help with enforcement of some water efficiency programs

## **Recommendations to CWCB from the Project Leads**

After considering the feedback from webinars and workshops, the Project Leads compiled a short list of recommendations for CWCB to consider.

There were requests from workshop participants to keep the conversation going and to maintain a network of individuals who were interested in the topic of land use and water efficiency. This was particularly true in the Longmont workshop. It may be advisable for CWCB to extend another offer to all participants to participate in the Water and Land Use Planning Alliance, as well as to highlight ongoing grant and workshop opportunities, such as the Growing Water Smart workshops.

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CWCB or the Water and Land Use Planning Alliance may also want to consider hosting similar workshops on an annual basis to ensure continued education of participants and to reach new audiences. These workshops may not be a distinct effort like the four conducted as part of this grant; future efforts may be more appropriate at other, existing convenings, like the Colorado Water Congress or other conferences.

In addition to the workshop follow-up, we recommend that:

### ***CWCB Support Water Providers in Incorporating Land Use Practices into Water Efficiency Plans***

- **Provide ongoing education, outreach, and technical assistance to water providers about integrating land use practices and water efficiency**
- **Foster champions, support capacity, and institutionalize best practices:**
  - Encourage and publicize champions who have successfully utilized land use measures or authorities to increase water conservation and efficiency
  - Support the capacity of water providers to collaborate with land use authorities within their service areas by giving scoring points for grant funding or other incentives; include accountability for regular meetings and institutionalized methods for collaboration
  - Support the capacity of water providers to participate in the improvement and implementation of development review processes by giving scoring points for grant funding or other incentives
- **Encourage water providers to lead by example.** *Local government examples include:*
  - Conducting a water efficiency audit on government or utility-owned facilities
  - Demonstration gardens on government or utility-owned land
  - Development of protocols and practices that ensure government or utility-owned properties follow regulated watering restrictions
- **Support communities in identifying a long-range timeline for implementing best management practices for incorporating land use measures into water conservation and efficiency efforts.**
  - Encourage providers to consider what can be done in the short-term and what is planned for the long-term
- **Support collaborations and regionalization of water efficiency education for constituents/residents/customers/elected officials**
- **Encourage water providers to consider equity impacts in the development of their water efficiency plans.**
- **Encourage the development of water budgets for billing purposes**
- **Continue to connect water efficiency and land use to a broader planning context in work across CWCB**
  - Lead with the update to the Colorado Water Plan and opportunities identified in the Demand Management Feasibility Investigations

### ***CWCB Adopt New Requirements Related to Incorporating Land Use Practices into Water Efficiency Plans***

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- Require evidence of alignment of growth and water demand projections between land use authority and water providers in water efficiency plans
  - Require that water providers assess water use according to land use type

### ***CWCB Create New Materials and Programming to Help Water Providers Incorporate Land Use Practices into Water Efficiency Plans***

- **Develop a clear message for communities with competing interests on the importance of water conservation.**
  - Examples include: water-secure communities, communities more concerned with looming costs of aging infrastructure, and communities with an identity associated with highly-irrigated landscaping
- **Improve the quality and availability of resources that visualize best practices for land use and water integration.**
  - Choices of imagery to illustrate compact growth, water efficient landscaping, and other best practices will impact community reactions.

## **Obstacles faced by the Project Team and Lessons Learned**

We had an excellent and committed team to work with from the Babbitt Center, CWCB, and Getches-Wilkinson Center when putting together these webinars and workshops. The expertise of this group was particularly apparent when participants asked specific questions and during the panel discussion at the close of each workshop. Generally, the obstacles that our team faced did not impact our success in achieving the overall goals of this grant.

**Marketing:** We faced the typical obstacles when scheduling and marketing a workshop. It was difficult to make sure that we had diverse representation from a variety of entities that would take value from the workshops. This was particularly true of growing communities along the northern Front Range. We used Water Education Colorado's email distribution list and past graduates of the Water Fluency program as target audiences.

**Free workshop:** Likely because this was a free workshop, we had several no-shows for each of our workshops, but surprisingly fewer in Grand Junction.

**Deciding geographic focus:** Our planning team discussed potential workshop locations. We decided to choose workshop locations spread throughout the state to put the workshops within reach of a wide variety of communities. However, a more intensive targeting of growing communities could have been another approach.

**Finding locally appropriate case studies:** Each workshop had two guest speakers, which we tried to recruit from the geographic region of the workshop in order to facilitate peer learning and exchange. However, it was harder to find guest speakers with expertise in this topic area for some regions; many of the "cutting-edge" communities in this topic are growing Front Range communities.

**Weather and travel:** All of the speakers ended up making plans to fly to Durango given the distance needed to travel. Due to a winter storm, Anne Castle was unable to make the Durango workshop. Respondents in the evaluation noted that the lack of Anne Castle’s perspective and expertise were a reason for not rating the experience as highly.

**Conveying right level of information:** Our webinars had lower scores for participant satisfaction than our work. This was due in large part to the fact that webinars provided a general overview of the topic and did not go in depth on tools, resources, and examples. This raises the question of whether webinars are an effective tool for a narrowly focused topic like this for an experienced audience.

**Narrow focus:** Many individuals were looking for resources related to comprehensive planning and broader planning considerations. While segmenting out the Water Efficiency Plans allowed for more targeted guidance for water providers, we sacrificed some of the broader context of land use and water supply planning, such as drivers and policy related to regional growth patterns and transfers of agricultural supplies.

## Financial Information

CWCB provided \$47,301 in grant funds for the project, and 94.5% of those funds were expended to complete the project. In addition, another \$15,825 in match funds was identified in the grant application, with all of those match funds received and spent on the project, in addition to another \$806 of in-kind than was initially anticipated (see Appendix E).

### Budget vs. Actual

WEGF Grant

Description	WEGF Grant Budget	WEGF Grant Actual
	Cash	Cash
<b>HOST TWO WEBINARS</b>		
Program Planning and	\$ 2,150	\$ 2,494
Marketing and registration	\$ 688	\$ 688
Speaker fee	\$ 1,250	\$ 1,250
Evaluation and follow up	\$ 688	\$ 688
Total Task 1	\$ 4,776	\$ 5,120

Matching Funds

Description	Matching Funds (Babbitt) Budget		Matching Funds (Babbitt) Actual	
	Cash	In-Kind	Cash	In-Kind
<b>HOST TWO WEBINARS</b>				
Program Planning and	\$ -	\$ 3,825	\$ -	\$ 3,983
Marketing and registration	\$ -	\$ 1,125	\$ -	\$ 60
Speaker fee	\$ -	\$ -	\$ -	\$ -
Evaluation and follow up	\$ -	\$ 675	\$ -	\$ 500
Total Task 1	\$ -	\$ 5,625	\$ -	\$ 4,543

Total

Description	Total Budget	Total Actual
	Total	Total
<b>HOST TWO WEBINARS</b>		
Program Planning and	\$ 5,975	\$ 6,477
Marketing and registration	\$ 1,813	\$ 748
Speaker fee	\$ 1,250	\$ 1,250
Evaluation and follow up	\$ 1,363	\$ 1,188
Total Task 1	\$ 10,401	\$ 9,663

Description	WEGF Grant Budget	WEGF Grant Actual
	Cash	Cash
<b>HOST FOUR WORKSHOPS</b>		
Program Planning and	\$ 14,190	\$ 17,566
Marketing and registration	\$ 2,580	\$ 2,838
Supplies	\$ 3,200	\$ -
Catering	\$ 5,200	\$ 2,913
Venue rental	\$ 1,500	\$ 315
Speaker fee	\$ 8,750	\$ 8,750
Travel expenses	\$ 4,525	\$ 2,165
Evaluation and follow up	\$ 2,580	\$ 5,031
Total Task 2	\$ 42,525	\$ 39,578
<b>TOTAL</b>	<b>\$ 47,301</b>	<b>\$ 44,698</b>

Description	Matching Funds (Babbitt) Budget		Matching Funds (Babbitt) Actual	
	Cash	In-Kind	Cash	In-Kind
<b>HOST FOUR WORKSHOPS</b>				
Program Planning and	\$ -	\$ 5,100	\$ -	\$ 7,740
Marketing and registration	\$ -	\$ 1,500	\$ -	\$ 60
Supplies	\$ -	\$ -	\$ -	\$ -
Catering	\$ -	\$ -	\$ -	\$ -
Venue rental	\$ -	\$ -	\$ -	\$ -
Speaker fee	\$ -	\$ -	\$ -	\$ -
Travel expenses	\$ -	\$ 2,000	\$ -	\$ 3,288
Evaluation and follow up	\$ -	\$ 1,600	\$ -	\$ 1,000
Total Task 2	\$ -	\$ 10,200	\$ -	\$ 12,088
<b>TOTAL</b>	<b>\$ -</b>	<b>\$ 15,825</b>	<b>\$ -</b>	<b>\$ 16,631</b>

Description	Total Budget	Total Actual
	Total	Total
<b>HOST FOUR WORKSHOPS</b>		
Program Planning and	\$ 19,290	\$ 25,306
Marketing and registration	\$ 4,080	\$ 2,898
Supplies	\$ 3,200	\$ -
Catering	\$ 5,200	\$ 2,913
Venue rental	\$ 1,500	\$ 315
Speaker fee	\$ 8,750	\$ 8,750
Travel expenses	\$ 6,525	\$ 5,453
Evaluation and follow up	\$ 4,180	\$ 6,031
Total Task 2	\$ 52,725	\$ 51,666
<b>TOTAL</b>	<b>\$ 63,126</b>	<b>\$ 61,329</b>

## Final Grant Deliverables

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## Task 1

*Final Deliverable: Recordings of both webinars that can be co-hosted on CWCB website, the Colorado Water Plan Integrating Water and Land Use Planning page, as well as on WEco and Babbitt Center websites and the sites of other partners or interested entities.*

Webinar postings may be found at the following web addresses:

**Water Education Colorado:**

<https://www.watereducationcolorado.org/programs-events/webinars/>

**Babbitt Center:**

<https://www.lincolninst.edu/incorporating-land-use-planning-water-efficiency-plans>

**CWCB:**

<https://www.colorado.gov/pacific/cowaterplan/integrating-water-land-use-planning>

## Task 2

*Final report that includes:*

- 1) *Agendas, handouts and presentations, and participant lists for each workshop.*
- 2) *Workshop summaries including goals and objectives, observations and themes from the discussions.*
- 3) *Evaluation feedback obtained through post-program surveys.*

**Appendix A - Agendas**

**Appendix B - Handouts**

**Appendix C - Participant Lists**

**Appendix D - Evaluation Summary**

**Appendix E - In-Kind Contribution Letter from Babbitt Center**

**Note:** Workshop summaries, including goals and objectives are described in the body of this final report. Presentations and workshop evaluations will be included as attachments to this report when submitted to the CWCB.

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# Appendix A - Agendas



## Incorporating Land Use Practices into Water Efficiency Plans

### *Regional Workshop - Longmont*

Southwest Weld County Building

Large Conference Room

4209 Weld County Rd. 24 1/2, Longmont, CO 80504

September 16, 2019, 9:00am-3:30pm

**Contact:** Scott Williamson, Water Education Colorado, [scott@wateredco.org](mailto:scott@wateredco.org)

**Background and Purpose:** In January, the Colorado Water Conservation Board (CWCB) adopted “Best Practices for Implementing Water Conservation and Demand Management Through Land Use Planning Efforts.” The purpose of this workshop is to educate water providers and those in a position to draft, influence, guide, or approve the development of Water Efficiency Plans, about the new Guidance Addendum. We will explore opportunities as well as requirements for incorporating land use practices into Water Efficiency Plans.

#### **Draft Goals:**

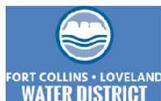
*By the end of the webinar, participants should have an understanding of:*

- The land use requirement specified by §37-60-126 C.R.S that led to this Guidance Addendum
- The benefits of incorporating land use efforts into water conservation
- Using the Guidance Addendum to help write Water Efficiency Plans
- The scope, content, and use of the Guidance Addendum
- The best practices detailed in the Guidance Addendum
- How to determine which practices work best for your community
- Implementation and monitoring options for the land use practices chosen

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Thank you to...

#### **Our Local Partners:**



#### **Our Workshop Sponsor:**



Page 1 of 2

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## Agenda

- 8:30 Doors Open & Check-in**
- 9:00 Group Introductions**  
*Scott Williamson, Education & Outreach Coordinator, Water Education Colorado*
- 9:45 Introduction to the Water and Land Use Guidance Addendum**  
*Kevin Reidy, State Water Conservation Technical Specialist, Colorado Water Conservation Board*
- 10:00 Development of the Water and Land Use Guidance Addendum**  
*Anne Castle, Senior Fellow, Getches-Wilkinson Center, University of Colorado-Boulder*
- 10:15 Format and Using the Guidance Addendum**  
*Erin Rugland, Research Fellow, Babbitt Center for Land and Water Policy*
- 10:45 BREAK**
- 11:00 Splash through the Guide**  
*Erin Rugland*
- 11:40 Case Study 1 - Fort Collins-Loveland Water District**  
*Chris Matkins, General Manager, Fort Collins-Loveland Water District*
- 12:20 LUNCH**
- 12:50 Case Study 2 - City of Westminster**  
*Drew Beckwith, Water Resources Specialist, City of Westminster*  
*Amy Johnson, Senior Planner, City of Westminster*
- 1:30 Choosing Among Best Practices**  
*Erin Rugland*
- 2:00 BREAK**
- 2:10 Table Group Discussions and Report Out**  
*All participants, facilitated by Scott Williamson with support from presenters*
- 2:50 Panel Discussion and Q&A**  
*Facilitated by Scott Williamson*
- 3:20 Wrap Up and Evaluation (Adjourn by 3:30pm) - Scott Williamson**

Page 2 of 2



## Incorporating Land Use Practices into Water Efficiency Plans

### Regional Workshop - Pueblo

El Pueblo History Museum  
301 N Union Avenue, Pueblo, CO  
November 5, 2019, 9:30am-4:00pm

**Contact:** Scott Williamson, Water Education Colorado, [scott@wateredco.org](mailto:scott@wateredco.org)

**Background and Purpose:** In January, the Colorado Water Conservation Board (CWCB) adopted “Best Practices for Implementing Water Conservation and Demand Management Through Land Use Planning Efforts.” The purpose of this workshop is to educate water providers and those in a position to draft, influence, guide, or approve the development of Water Efficiency Plans, about the new Guidance Addendum. We will explore opportunities as well as requirements for incorporating land use practices into Water Efficiency Plans.

#### Draft Goals:

*By the end of the webinar, participants should have an understanding of:*

- The land use requirement specified by §37-60-126 C.R.S that led to this Guidance Addendum
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#### Thank you to...

##### Our Local Partners:



##### Our Workshop Sponsor:



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## Agenda

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- 9:30 Group Introductions**  
*Scott Williamson, Education & Outreach Coordinator, Water Education Colorado*
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*Kevin Reidy, State Water Conservation Technical Specialist, Colorado Water Conservation Board*
- 10:15 Development of the Water and Land Use Guidance Addendum**  
*Anne Castle, Senior Fellow, Getches-Wilkinson Center, University of Colorado-Boulder*
- 10:30 BREAK**
- 10:45 Format and Using the Guidance Addendum**  
*Erin Rugland, Research Fellow, Babbitt Center for Land and Water Policy*
- 11:30 Splash through the Guide**  
*Erin Rugland*
- 12:10 LUNCH**
- 12:40 Case Study 1 -Monte Vista**  
*Forrest Neuerburg, City Manager, Monte Vista*
- 1:20 Case Study 2 - El Paso County**  
*Mark Gebhart, Deputy Director of Planning & Community Development, El Paso County*
- 2:00 BREAK**
- 2:10 Table Group Discussions and Report Out**  
*All participants, facilitated by Scott Williamson with support from presenters*
- 2:50 Choosing Among Best Practices**  
*Anne Castle and Erin Rugland*
- 3:20 Panel Discussion and Q&A**  
*Facilitated by Scott Williamson*
- 3:45 Wrap Up and Evaluation (Adjourn by 4:00pm) - Scott Williamson**

Page 2 of 2



## Incorporating Land Use Practices into Water Efficiency Plans

### Regional Workshop - Durango

Durango Public Library

Program Room #2

1900 E 3<sup>rd</sup> Ave, Durango, CO

October 30, 2019, 9:30am-4:00pm

**Contact:** Scott Williamson, Water Education Colorado, [scott@wateredco.org](mailto:scott@wateredco.org)

**Background and Purpose:** In January, the Colorado Water Conservation Board (CWCB) adopted “Best Practices for Implementing Water Conservation and Demand Management Through Land Use Planning Efforts.” The purpose of this workshop is to educate water providers and those in a position to draft, influence, guide, or approve the development of Water Efficiency Plans, about the new Guidance Addendum. We will explore opportunities as well as requirements for incorporating land use practices into Water Efficiency Plans.

#### Draft Goals:

*By the end of the webinar, participants should have an understanding of:*

- The land use requirement specified by §37-60-126 C.R.S that led to this Guidance Addendum
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- The scope, content, and use of the Guidance Addendum
- The best practices detailed in the Guidance Addendum
- How to determine which practices work best for your community
- Implementation and monitoring options for the land use practices chosen

#### Thank you to...

##### Our Local Partners:



##### Our Workshop Sponsor:



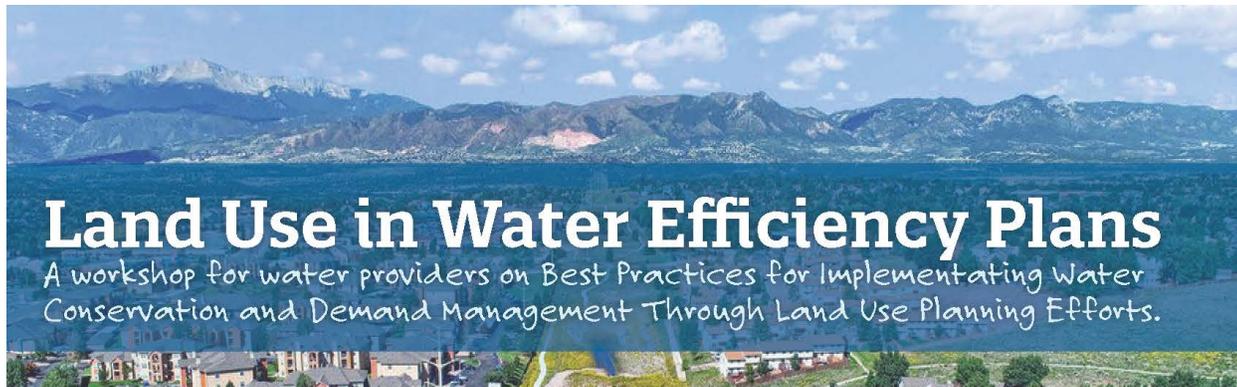
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- 9:30 Group Introductions**  
*Scott Williamson, Education & Outreach Coordinator, Water Education Colorado*
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*Kevin Reidy, State Water Conservation Technical Specialist, Colorado Water Conservation Board*
- 10:15 Development of the Water and Land Use Guidance Addendum**  
*Anne Castle, Senior Fellow, Getches-Wilkinson Center, University of Colorado-Boulder*
- 10:30 Format and Using the Guidance Addendum**  
*Erin Rugland, Research Fellow, Babbitt Center for Land and Water Policy*
- 11:15 BREAK**
- 11:30 Splash through the Guide**  
*Erin Rugland*
- 12:10 LUNCH**
- 12:40 Case Study 1 - Pagosa Area Water and Sanitation District**  
*Mat deGraaf, Water Treatment Plant Operator, Pagosa Area Water & Sanitation District*
- 1:20 Case Study 2 - City of Cortez**  
*Phillip Johnson, Director of Public Works, City of Cortez*  
*Tracie Hughes, City Planner, City of Cortez*
- 2:00 Table Group Discussions and Report Out**  
*All participants, facilitated by Scott Williamson with support from presenters*
- 2:40 BREAK**
- 2:50 Choosing Among Best Practices**  
*Anne Castle and Erin Rugland*
- 3:20 Panel Discussion and Q&A**  
*Facilitated by Scott Williamson*
- 3:45 Wrap Up and Evaluation (Adjourn by 4:00pm) - Scott Williamson**

Page 2 of 2

## Appendix B - Handouts



# Land Use in Water Efficiency Plans

A workshop for water providers on Best Practices for Implementating Water Conservation and Demand Management Through Land Use Planning Efforts.

### Learn from Examples in Your Area!



**Anne Castle**  
Getches-Wilkinson Center

Are you a water provider, a consultant or someone in a position to write, guide or approve Water Efficiency Plans? Water Education Colorado and the Babbitt Center for Land and Water Policy invite you to join us for a workshop. This free workshop will focus on opportunities, requirements, and new guidance for incorporating land use practices into Water Efficiency Plans.

#### Speakers:

Anne Castle, Getches-Wilkinson Center  
Erin Rugland, Babbitt Center for Land and Water Policy  
Kevin Reidy, Colorado Water Conservation Board  
Local Special Districts (varies by location)  
Local Municipalities (varies by location)



**Kevin Reidy**  
CWCB

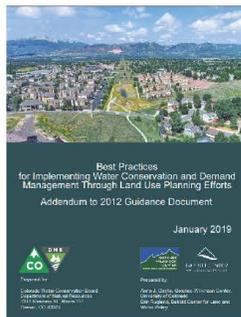
#### Workshop Details:

This workshop will take participants through the new guidance in detail, with examples of how different land use practices can be implemented. Each workshop will include case studies of land use integration from a special district and a municipality in the region.



**Erin Rugland**  
Babbitt Center

Registration is open! Registration will be capped at 30 participants. The event is free. Lunch is included.



## FREE

**Longmont - September 16**  
SW Weld County Building  
9:00am-3:30pm

**Pueblo - November 5**  
El Pueblo Museum  
9:30am-4:00pm

**Durango - October 30**  
Durango Public Library  
9:30am-4:00pm

**Grand Junction - November 12**  
Colorado Mesa University  
10:30am-5:00pm

**303-377-4433**  
**scott@wateredco.org**

### REGISTER TODAY!

Visit [WaterEdCo.org/LU-WEP](http://WaterEdCo.org/LU-WEP)

In partnership with:



**COLORADO**  
Colorado Water Conservation Board  
Department of Natural Resources

**BABBITT CENTER**  
FOR LAND AND WATER POLICY  
A Center of the Lincoln Institute of Land Policy



[WaterEdCo.org](http://WaterEdCo.org)



## C. Checklist of Best Management Practices

Each of the practices in this checklist is addressed in further detail in this guidance addendum. While the Foundational Activities should be pursued by all water providers in some form, the subsequent sections contain a wide variety of strategies that can be narrowed down to those most appropriate to community needs. Water providers may wish to examine this checklist first to determine which of the many techniques described might be most useful given their particular circumstances, and then review the detail provided for the techniques selected.

Best Management Practices	Consider	In Place
<b>Foundational Activities</b>		
1. Establish Regular Contact and Information Sharing	✓	
A. Initiate discussions between the water provider and planning department		
B. Do a self-assessment		
C. Establish a procedure for regular meetings		
D. Convene joint meetings among elected decision-makers		
E. Participate in training or educational programs		
F. Coordinate with other water providers and land use authorities in the region		
2. Align Data and Information Used	✓	
A. Align population and growth projections		
B. Estimate water demand for new development		
C. Measure, utilize, and communicate data on water use and savings		
3. Establish Coordinated Procedures for Post-Occupancy Monitoring and Enforcement	✓	
A. Allocate responsibility for monitoring for compliance		
B. Allocate responsibility for pre- and post-occupancy inspections		
C. Track and coordinate pre-occupancy estimates		
D. Require post-occupancy documentation		
E. Determine consequences of exceeding post-occupancy estimates		
F. Coordinate enforcement of water use violations		
4. Integrate Water Considerations into the Development Approval Process	✓	
A. Water provider participates in pre-application meetings with developers		
B. Water use is consistent with the final approved development plan		
C. Development agreements impose water conservation requirements		
5. Integrate Long Term Land Use and Water Planning	✓	
A. Include water in the comprehensive or master plan		
B. Adequate water supply demonstration		
C. Water dedication requirements		
D. Integrate planning efforts		



Best Management Practices	Consider	In Place
<b>Targeted Technical Assistance and Incentives</b>		
1. Developer Incentives to Reduce Water Demand		
2. Conservation-Oriented Tap Fees		
3. Water Efficient Land Development Patterns		
A. Encourage compact development through developer incentives		
B. Encourage cluster unit development		
C. Development offsets for water efficiency measures		
4. Model Landscape Plans		
5. Incentives for Reduced Irrigation		
A. Turf replacement programs		
B. Low water use vegetation list		
C. Outdoor fixture rebates		
D. Relief from otherwise applicable regulations		
6. Water-Smart Home Options		
7. Become a WaterSense Partner		
8. Low Water Use Demonstration Homes		
9. Water Audits		
10. Rainwater Reuse		
<b>Ordinances and Regulations</b>		
1. Examine Existing Land Use Regulations for Barriers and Conflicts		
2. Adopt or Strengthen Water-Related Ordinances or Regulations		
A. Ordinance prohibiting water waste		
B. Watering or irrigation restrictions		
3. Water Conservation in New Development, Re-Development, and Annexation		
A. Require water conservation for new development or re-development		
B. Annexation includes water demand and conservation		
4. Incorporate Water Efficiency into Zoning Codes and Rezoning Procedures		
A. Condition rezonings or discretionary reviews on low water use commitments		
B. Zone for more varieties of multi-family and attached housing		
C. Designate zoning categories to reflect water use		
D. Adopt an overlay zone		
5. Subdivision or Site Plan Regulations that Include Water Conservation		
6. Implement Requirements that Contribute to Water Efficiency and Compact Infrastructure		
A. Water demand offset requirement		
B. Prioritize infill development		
C. Adopt stormwater management policies		
D. Enable use of graywater		



<b>Best Management Practices</b>	<b>Consider</b>	<b>In Place</b>
<b>7. Water Efficient Landscape Code</b>		
A. Landscape code provisions		
B. Require certification or registration of landscape professionals		
C. Adopt a model landscape ordinance		
<b>8. Building and Plumbing Codes</b>		
A. Codify water efficiency standards in green building codes		
B. Establish sustainable development bonuses		
<b>9. Ordinances Promoting Efficient Fixtures in Existing Buildings</b>		
A. Retrofit on resale		
B. Retrofit requirements for new building permits		
<b>10. Regional Coordination of Water Policy and Procedures</b>		
A. Water conservation requirements are consistent		
B. Uniform landscape codes		
C. Uniform landscape and irrigation contractor certification		
D. Coordinate education and outreach		
E. Collaborate to adopt or promote green building standards		
F. Designate a growth management area		
<b>Education Activities</b>		
<b>1. Consistent Online Information</b>		
<b>2. Water Provider and Planning Department Work Together to Educate the Public</b>		
A. Provide public information on water conservation		
B. Develop water budgets and information		
C. Provide landscape efficiency evaluations		
D. Hold public meetings		
E. Conduct a public survey		
F. Provide information on water conservation to developers		
G. Communicate benefits of water conservation		
<b>3. Lead by Example</b>		
A. Water efficiency in buildings owned by the provider or land use authority		
B. Build demonstration gardens		
<b>4. Jointly Engage with the Development Community and HOAs</b>		
<b>5. Share Success Stories and Case Studies with Other Communities and the Public</b>		
<b>6. Coordinate Education and Outreach Across the Region</b>		

# Appendix C - Participant Lists



## Integrating Land Use Practices into Water Efficiency Plans Workshop September 16, 2019 - Longmont, CO - List of Attendees

First Name	Last Name	Job Title	Current Employer	City	Email or Phone
Tom	Acre			Eastlake	acresgreenco@gmail.com
Hanna	Anderson		Leonard Rice Engineers, Inc.	Denver	hanna.anderson@lrewater.com
Jason	Berg		Town of Frederick	Frederick	jberg@frederickco.gov
Courtney	Black	Water Resources Engineer	INTERA	Lafayette	cblack@intera.com
Stephanie	Blochowiak		City of Fort Collins	Fort Collins	sblochowiak@fcgov.com
Larry	Brandt	Board Member	Little Thompson Water District	Milliken	brandtlarr@aol.com
Lisa	Buchanan		LRB Hydrology & Analytics	Boulder	lrbuchanan55@comcast.net
Lori	Catalano	Associate Chair and Senior Instructor	CSU		lori.catalano@colostate.edu
Sean	Chambers	Deputy Director of Water Resources	Greeley Water	Greeley	sean.chambers@greeleygov.com
Ashley	Green		City of Longmont	Longmont	ashley.green@longmontcolorado.gov
Catherine	Harris	Water Resources Analyst	City and County of Broomfield	Broomfield	charris@broomfield.org
Wayne	Herrick		Town of Stratton	Stratton	assistanttownclerk2017@gmail.com
Brian	Hood		CSURF	Fort Collins	brian.hood@colostate.edu
Kim	Hutton	Water Resources Specialist	City of Boulder	Boulder	huttonk@bouldercolorado.gov
Francie	Jaffe		City of Longmont	Longmont	francie.jaffe@longmontcolorado.gov
Melissa	James	Engineer I	Brendle Group	Fort Collins	mjames@brendlegroup.com
Larry	Lempka	District Manager	Big Thompson Conservation District	Berthoud	info@bigthompson.org
Isabelle	Lheritier	Water Resources Administrator	City and County of Broomfield	Broomfield	ilheritier@broomfield.org
Peter	Mayer	Principal	Water Demand Management	Boulder	peter.mayer@waterdm.com
Abbye	Neel		Fort Collins Utilities	Fort Collins	aneel@fcgov.com
Megan	O'Grady		Lynker	Boulder	mogrady@lynkertech.com
Nicole	Opalinski		Parker Water and Sanitation District	Parker	nopalinski@pwsd.org
Cristy	Radabaugh	Senior Project Engineer	Martin and Wood Water Consultants	Golden	cradabaugh@martinandwood.com
Meagan	Smith		City of Fort Collins Utilities	Fort Collins	mesmith@fcgov.com
Annie	St. John	Founder	Wild Brilliance	Longmont	anniestjohn2000@gmail.com
Kevin	Wilks		Foothills Park & Recreation District	Denver	kevinw@fhprd.org
Holiday	Wirrick		U.S. EPA	Denver	wirrick.holiday@epa.gov



**Integrating Land Use Practices into Water Efficiency Plans Workshop  
September 16, 2019 - Longmont, CO - List of Attendees**

<b>Workshop Team</b>					
Anne	Castle	Senior Fellow	Getches-Wilkinson Center	Golden	
Jayla	Poppleton	Executive Director	Water Education Colorado	Denver	jayla@wateredco.org
Scott	Williamson	Education and Outreach Coordinator	Water Education Colorado	Denver	scott@wateredco.org
KC	McFerson	Land Use & Water Planner	Colorado Department of Local Affairs	Denver	kc.mcferson@state.co.us
Kevin	Reidy	State Water Conservation Specialist	Colorado Water Conservation Board	Denver	kevin.reidy@state.co.us
Erin	Rugland	Research Fellow	Babbitt Center for Land and Water Policy	Phoenix	erugland@lincolninst.edu
<b>Regional Speakers</b>					
Drew	Beckwith	Water Resources Specialist	City of Westminster	Westminster	doeckwith@cityofwestminster.us
Amy	Johnson	Senior Planner	City of Westminster	Westminster	ajohnson@cityofwestminster.us
Chris	Matkins	General Manager	Fort Collins - Loveland Water District	Fort Collins	cmatkins@fclwd.com



**Integrating Land Use Practices into Water Efficiency Plans Workshop  
October 30, 2019 - Durango, CO - Attendee List**

"X" If Present	First Name	Last Name	Job Title	Current Employer	City	Email or Phone
	Kara	Armano		Trout Unlimited	Hesperus	kara.armano@tu.org
	Deacon	Aspinwall		City of Alamosa	ALAMOSA	daspinwall@ci.alamosa.co.us
	Rebecca	Balboni		Wells Group of Durango	Durango	rebecca@wellsgrourdurango.com
	Elaine	Chick	Program Manager	The Water Information Program	Durango	elaine@waterinfo.org
	Clyde	Church	County Commissioner	La Plata County	Durango	jan.mayergawlik@co.laplata.co.us
	Melanie	Davey		Fort Lewis Mesa Planning Group	Hesperus	melanie.davey22@gmail.com
	Jordan	Dimick	Senior Engineer	SGM		jordan@sgm-inc.com
	Peter	Foster		Wright Water Engineers	Durango	pfoster@wrightwater.com
	Eric	Hassel		Purgatory Metropolitan District	Durango	hasselcmd@outlook.com
	Roy	Horvath		La Plata West Water Authority	Hesperus	horvath.r.lpwwa@gmail.com
	Chris	La May		Town of Bayfield	Bayfield	clamay@bayfieldgov.org
	Richard	Landreth		City of Cortez		rlandreth@cityofcortez.com
	Louis	Meyer		SGM	Mancos	louism@sgm-inc.com
	Mae	Morley		Fort Lewis Mesa Planning Group	Hesperus, Co	morleygw@aol.com
	Molly	Morris		CSU	Bayfield	mollidani@gmail.com
	Danielle	Nelson			Durango	dnelson@wrightwater.com
	Jeni	Nicovich	Engineer	City of Durango	Durango	jeni.nicovich@durangogov.org
	Neal	Starkebaum		La Plata County	Durango	neal.starkebaum@co.laplata.co.us
	Andrew	Straub-Heidke	Water Resource Specialist	Southern Ute Indian Tribe	Durango	astraub@southernute-nsn.gov
	Edward	Tolen	General Manager	La Plata Archuleta Water District	Ignacio	etolen@laplwd.org
	Julie	Westendorff	Commissioner	La Plata County	Durango	julie.westendorff@co.laplata.co.us
<b>Workshop Team</b>						
	Jayla	Poppleton	Executive Director	Water Education Colorado	Denver	jayla@wateredco.org
	Kevin	Reidy	State Water Conservation Specialist	Colorado Water Conservation Board	Denver	kevin.reidy@state.co.us
	Erin	Rugland	Research Fellow	Babbitt Center for Land and Water Policy	Phoenix	erugland@lincolnst.edu
	Scott	Williamson	Education and Outreach Coordinator	Water Education Colorado	Denver	scott@wateredco.org
<b>Regional Speakers</b>						
	Mat	deGraaf		Pagosa Area Water and Sanitation District		mat@pawsd.org
	James	Dickhoff		Town of Pagosa Springs	Pagosa Springs	jdickhoff@pagosasprings.co.gov
	Tracie	Hughes		City of Cortez	Cortez	thughes@cityofcortez.com
	Phil	Johnson		City of Cortez		pjohnson@cityofcortez.com
	Justin	Ramsey	District Manager	Pagosa Area Water and Sanitation District	Pagosa Springs	justin@pawsd.org



**Integrating Land Use Practices into Water Efficiency Plans Workshop  
November 5, 2019 - Pueblo, CO - Registration List**

"X" if Present	First Name	Last Name	Job Title	Organization	City	Email or Phone
	Ryan	Bouton		IOUf/UCN/UA	Colorado Springs	waterresourceryan@gmail.com
	Donald L.	Sruetste		Pueblo County Planning Commission	Pueblo	kokomo57@msn.com
	Scott	Campbell	Principal	ICS Consulting	Colorado Springs	scott@icsconsulting.biz
	Jennifer	Charles		Tri-County Health Department	Greenwood Village	jcharles@tchd.org
	Justin	DiSanti		Bessemer Irrigating Ditch Company	Pueblo	unafarmer@gmail.com
	Annemarie	Fortune		Tri-County Health Department	Greenwood Village	aheinrich@tchd.org
	Matt	Heimerich		Palmer Land Trust	Colorado Springs	matt@palmerlandtrust.org
	Katie	Helm	Conservation & Sustainability Program Manager	City of Fountain	Fountain	khelm@fountaincolorado.org
	Andy	Hill		DOLA	Denver	andy.hill@state.co.us
	Michael	Hill		Bessemer Irrigating Ditch Company	Pueblo	mikehill97@yahoo.com
	Lori	Lovato		Italian Lateral	Pueblo	ampactivemedia@gmail.com
	Lee Anne	Martinez		Colorado State University - Pueblo	Pueblo	leeanne.martinez@csupueblo.edu
	Israel	Ortega		City of Aurora	Is Junta	iortega@aurora.gov
	Lisa	Pace	Water Conservation Specialist	Colorado Springs Utilities	Monument	lpace@csu.org
	Lor	Pellegrino		City of Woodland Park	Woodland Park	lpellegrino@city-woodlandpark.org
	Vince	Peikosek		Italian Lateral	Pueblo	vicmagnum0225@yahoo.com
	Greg	Smith		Round Mountain Water and Sanitation District	Westcliffe	greg@imediasth.com
	Doctor jim	Valenzuela		Pueblo Urban Renewal, et al	Pueblo	dr.jimvalenzuela@gmail.com
	Alan	Ward		Pueblo Water	Pueblo	award@pueblowater.org
	Earl	Wilkinson		Colorado Springs Utilities	Colorado Springs	ewilkinson@csu.org
	Scott	Winter	Technical Project Manager	Colorado Springs Utilities	Colorado Springs	swinter@csu.org
<b>Workshop Team</b>						
	Anne	Castle	Senior Fellow	Getches-Wilkinson Center	Golden	
	Kevin	Reidy	State Water Conservation Specialist	Colorado Water Conservation Board	Denver	kevin.reidy@state.co.us
	Erin	Rugland	Research Fellow	Babbitt Center for Land and Water Policy	Phoenix	erugland@lincolininst.edu
	Stephanie	Scott	Leadership Programs Manager	Water Education Colorado		stephanie@wateredco.org
	Scott	Williamson	Education and Outreach Coordinator	Water Education Colorado	Denver	scott@wateredco.org
	KC	McFerson	Senior Planner	Colorado Department of Local Affairs	Denver	kc.mcferson@state.co.us
<b>Regional Speakers</b>						
	Mark	Gebhart	Deputy Director of Planning & Community Development	El Paso County	Colorado Springs	MarkGebhart@elpasoco.com
	Forrest	Neuberburg	City Manager	Monte Vista	Monte Vista	CityMgr@d.monte-vista.co.us



**Integrating Land Use Practices into Water Efficiency Plans Workshop  
November 12, 2019 - Grand Junction, CO - Registration List**

First Name	Last Name	Job Title	Current Employer	City	Email or Phone
Frank	Alfone	General Manager	Mt. Werner Water	Steamboat Springs	faifone@mwwater.com
Steve	Anderson	Manager	UWWUA	Montrose	sanderson@uwwua.com
Mike	Berry	General Manager	Tri-County Water Conservancy District		mike@tricitywater.org
Kimberly	Bullen	Regional Manager	Colorado Department of Local Affairs	Grand Junction	kimberly.bullen@state.co.us
Keith	Caddy	County Commissioner	Montrose County	montrose	kcaddy@montrosecounty.net
Andrea	Clark	Mediator/Paralegal	French Law Office	Mesa	frenchmgt@service.aol.com
Chris	Collins		White River Conservation District	Meeker	ccollins20@yahoo.com
Cheryl	DeJulio	Business Manager	UWWUA	Montrose	cdejulio@uwwua.com
Rick	Dorris	Development Engineer	City of Grand Junction	Grand Junction	rickdo@gjcity.org
Marc	Etchart	Board President	White River and Douglas Creek Conservation Districts	Meeker	marcetchart@msn.com
George	Gatseos II	Planning Commissioner	Grand Junction Planning Commission	Grand Junction	g_gatseos@yahoo.com
Lance	Gloss		City of Grand Junction	Grand Junction	lanceg@gjcity.org
Ken	Haynes	Town Manager	Town of Ophir	Ophir	manager@ophir.us
Callie	Hendrickson	Executive Director	White River and Douglas Creek Conservation Districts	Meeker	callie.districts@gmail.com
Bill	Jochems		Pitkin County Healthy Rivers	Redstone	wjochems@centurylink.net
Ron	LeBlanc	City Manager	City of Durango	Durango	citymanager@durangogov.org
Michael	Melneck	Field Representative	Office of Congressman Scott Tipton	Grand Junction	michael.melneck@mail.house.gov
Ken	Neubecker	Assoc. Dir., Colorado Basin Program	American Rivers	Glenwood Springs	eagleriver@sopris.net
Mark	O'Meara		Town of Carbondale	Carbondale	momeara@carbondaleeco.net
Rachel	Pence	Water Resource Engineer	Denver Water	Denver	rachel.pence@denverwater.org
Jim	Pokrandt	Communication & Education Director	Colorado River District	Leadville	jpokrandt@crwdc.org
Kenneth	Scissors	Planning Commissioner	Grand Junction Planning Commission	Grand Junction	scissorsgj@gmail.com
D Randall	Spydell			Grand Junction	rspydell@gmail.com
Lisa	Tasker	Chairman	Pitkin County Healthy Rivers and Streams	Carbondale	lisatasker@earthlink.net
David	Thornton	Principle Planner	City of Grand Junction	Grand Junction	davidt@gjcity.org
Chris	Treese				ctreese@colorado.gov
Aiden	Vanden Brink		Rio Blanco Water Conservancy District	Rangely	ai@rioblanco.wcd.org
Joy	von Guerard		BLM	Clifton	tregj@msn.com

## Appendix D - Evaluation Summary

We sent anonymous evaluation surveys through Survey Monkey to all participants at the end of each webinar and workshop. Survey response rates were around 50% for workshops and less for webinars.

### Survey respondents

	Webinar with SDA	Webinar with CML	Longmont Workshop	Durango Workshop	Pueblo Workshop	Grand Junction Workshop
Survey Respondents	11	16	18	13	12	11
Total Participants	93	65	31	21	21	28

### Value of Webinars

Generally, participants in our first webinar with the Special District Association of Colorado (SDA) desired more details. There was an anticipation that workshops would bring this detail. When participants were asked to rate the overall value of the webinar, 55% indicated a "High Value" and 36% a "Medium Value." One respondent noted, "It was a great intro to identifying there is a new Addendum. But not significant depth beyond that. Which is fine because there are workshops coming."

Participants in our second webinar reported more learning from the webinar. When participants were asked to rate the overall value of the webinar, 69% indicated a "High Value" and 31% a "Medium Value." Several participants noted that the webinar sparked new ideas and they walked away with information that would be helpful for advocating for water efficiency in their jurisdiction. For example, one participant noted that, "The webinar sparked several ideas concerning potential implementation in land use planning for subdivisions within the Town's service area."

### Value of Workshops

The following chart shows the percent of respondents rating the workshop as having "High Value" or "Very High Value."

	Longmont	Durango	Pueblo	Grand Junction
% rating the workshop as having "High Value" or "Very High Value."	89%	69%	92%	100%

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One thing that can explain the lower rating for the Durango workshop was a lack of a full set of speakers due to a winter weather event. Because of flight cancellations, Anne Castle, part of the workshop core team and one of the key speakers, was unable to attend.

### **Feedback from Workshops**

*Note: the quotes below are also included by workshop in the "Review of Activities Completed Section."*

"This was one of the first times I was at a day long workshop and felt like every presentation was helpful, interesting, and engaging. The scavenger hunt style of going through the guide was a very helpful way to get into the content of the Guidance Addendum."

"It's always great connecting with others in the field and this was a great introduction to the guidance document. Listening to the speakers gave me an opportunity to really think about my community's approach and raised some good questions to ponder."

"There was really great discussion and varying perspectives."

"It gave myself a better understanding on how to appropriately use the Guidance Document efficiently and effectively."

"I made new contacts and learned about the guide book."

"WECO does a great job of organizing the right information to reach the right people. Always great pertinent information!"

"I learned some new things, but I think they could go more in depth."

"Great information, great presentation structure, well-designed day. Well worth my time!"

"For the first time attending, I have to say it was very informative, engaging, and well organized. Overall it was an amazing experience."

"Great information. Very useful document."

"Great job. It was great to hear about what the Ute Water District is doing with respect to public education and outreach."

"The speakers were all dynamic and worked together well, with each offering complimentary expertise and perspectives."

"Entire seminar well organized and well presented."

"The workshop and topics discussed will assist my District and the City of Steamboat to complete our Water Conservation Plan update."

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## Meeting Defined Learning Objectives

Goals for each workshop were detailed in the grant proposal to CWCB as follows:

### Project Goals:

1. Expose Covered Entities and other parties writing Water Efficiency Plans to new Guidance Addendum, "[Best Practices for Implementing Water Conservation and Demand Management Through Land Use Planning Efforts: Addendum to 2012 Guidance Document](#)" ("Guidance Addendum").
2. Educate Covered Entities and other parties writing Water Efficiency Plans about the new guidance. Ensure understanding of:
  - a. The land use requirement specified by §37-60-126 C.R.S that led to this Guidance Addendum
  - b. The benefits of incorporating land use efforts into water conservation
  - c. Using the Guidance Addendum to write Water Efficiency Plans
  - d. The scope, content, and use of the Guidance Addendum
  - e. The best practices detailed in the Guidance Addendum
  - f. Implementation and monitoring options for the best practices specified in the Guidance Addendum

As the workshop team discussed evaluation results from each webinar and workshop, changes were made to the remaining webinar and workshops to improve performance on each of the goals. Generally, the average rating from program participants increased over time.

**On average, participants rated that the workshop increased their understanding to a *great extent* of:**

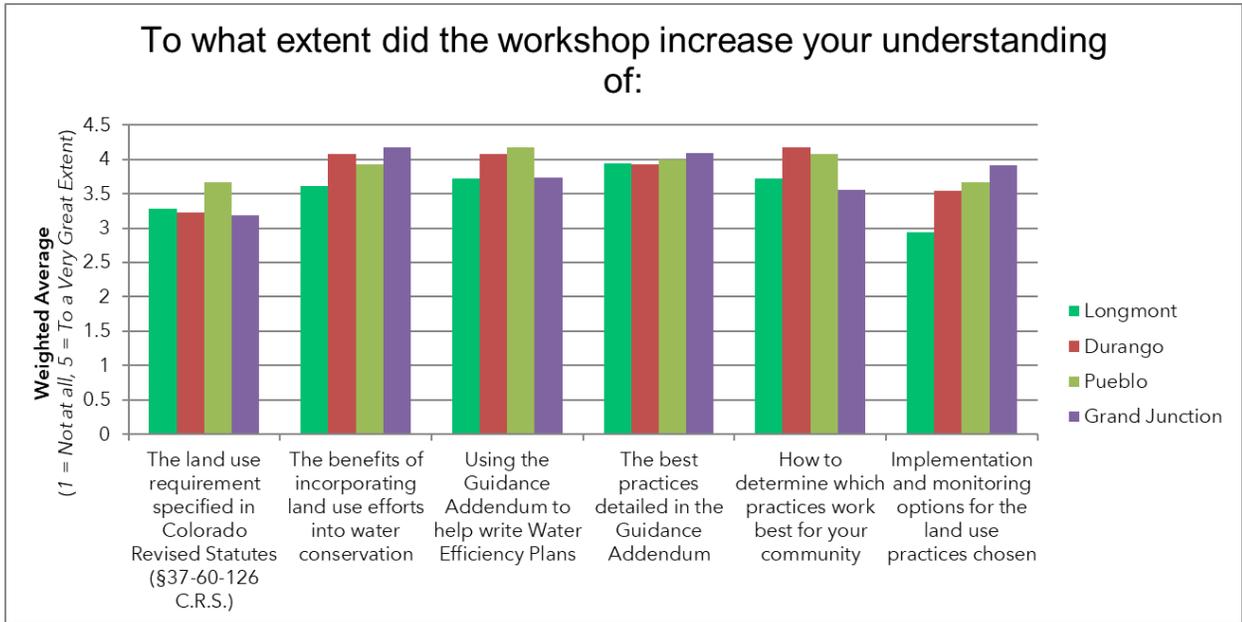
- The benefits of incorporating land use efforts into water conservation
- The best practices detailed in the Guidance Addendum

**On average, participants rated that the workshop increased their understanding to a *moderate to great extent* of:**

- Using the Guidance Addendum to help write Water Efficiency Plans
- How to determine which practices work best for your community
- Implementation and monitoring options for the land use practices chosen (*for Durango, Pueblo, and Grand Junction workshops*)

**On average, participants rated that the workshop increased their understanding to a *moderate extent* of:**

- The land use requirement specified in Colorado Revised Statutes (§37-60-126 C.R.S.)
- Implementation and monitoring options for the land use practices chosen (for the Longmont workshop)



### Marketing Reach

Water Education Colorado served as a key marketer for the workshops, with about 60% of the audience hearing about the workshops from WEco emails. Similarly, webinar participants were much more likely to report that they heard about webinars, which were co-hosted with SDA and CML, from WEco emails. While local information sources, such as the Water Information Program or Hutchins Water Center at Colorado Mesa University helped get the word out to one or two participants in Durango and Grand Junction, word of mouth from colleagues was more important in Longmont, Durango, and Pueblo and equally important in Grand Junction.

	Webinars		Workshops			
	SDA	CML	Longmont	Durango	Pueblo	Grand Junction
Water Education Colorado email	64%	75%	61 %	62%	58%	60%
Babbitt Center email	0%	0%	0%	N/A	0%	N/A
Colleague	36%	6%	33%	23%	33%	10%
Event speaker and/or sponsor	0%	0%	11%	0%	0%	0%
SDA email	9%	0%	0%	15%	8%	0%
CML email	N/A	6.25%	0%	8%	0%	20%
Colorado Water Center at CSU email	N/A	N/A	0%	N/A	N/A	N/A
Water Information Program email	N/A	N/A	N/A	15%	N/A	N/A
Hutchings Water Center Email	N/A	N/A	N/A	N/A	N/A	10%
Other	0%	19%	0%	0%	17%	10%

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## Appendix E - In-Kind Contribution Letter from Babbitt Center



LINCOLN INSTITUTE  
OF LAND POLICY

May 6, 2020

Jayla Poppleton  
Executive Director  
Water Education Colorado  
1600 N Downing St.  
Denver, CO 80218

Re: Documentation of In-Kind Contribution for Follow-Up Education from Colorado Water Conservation Board Adoption of “Best Practices for Implementing Water Conservation and Demand Management Through Land Use Planning Efforts: Addendum to 2012 Guidance Document”

Dear Jayla:

Lincoln Institute’s Babbitt Center is pleased to have worked with Water Education Colorado and Anne Castle on the Follow-Up Education from CWCB Adoption of “Best Practices for Implementing Water Conservation and Demand Management Through Land Use Planning Efforts: Addendum to 2012 Guidance Document”.

Attached please find details on Lincoln’s in-kind contribution of \$16,631.

We look forward to working on future projects with Water Education Colorado.

Sincerely,  
Jim Holway

Director, Babbitt Center for Land and Water Policy  
Lincoln Institute of Land Policy

**Enclosure**

Lincoln Institute's In-Kind Contribution for Follow-Up Education on Water Efficiency Planning					
Task No.	Description	Matching Funds (Babbitt Projected)		Matching Funds (Babbitt Actual)	
		Cash	In-Kind	Cash	In-Kind
<b>1</b>	<b><u>HOST TWO WEBINARS</u></b>				
	Program Planning and Delivery	\$ -	\$ 3,825	\$ -	\$ 3,983
	Marketing and registration	\$ -	\$ 1,125	\$ -	\$ 60
	Speaker fee	\$ -	\$ -	\$ -	\$ -
	Evaluation and follow up	\$ -	\$ 675	\$ -	\$ 500
	<b>Total Task 1</b>	\$ -	\$ 5,625	\$ -	\$ 4,543

Task No.	Description	Matching Funds (Babbitt Projected)		Matching Funds (Babbitt Actual)	
		Cash	In-Kind	Cash	In-Kind
<b>2</b>	<b><u>HOST FOUR WORKSHOPS</u></b>				
	Program Planning and Delivery	\$ -	\$ 5,100	\$ -	\$ 7,740
	Marketing and registration	\$ -	\$ 1,500	\$ -	\$ 60
	Supplies	\$ -	\$ -	\$ -	\$ -
	Catering	\$ -	\$ -	\$ -	\$ -
	Venue rental	\$ -	\$ -	\$ -	\$ -
	Speaker fee	\$ -	\$ -	\$ -	\$ -
	Travel expenses	\$ -	\$ 2,000	\$ -	\$ 3,288.06
	Evaluation and follow up	\$ -	\$ 1,600	\$ -	\$ 1,000
	<b>Total Task 2</b>	\$ 0	\$ 10,200	\$ -	\$ 12,088
	<b>TOTAL</b>		\$ 15,825	\$ -	\$ 16,631