

Colorado Water Conservation Board
Colorado Water Loss Control & Management Committee

July 28, 2025
12:00pm-1:30pm Mountain

Location:

Remote meeting.

Microsoft Teams

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Meeting Minutes

Meeting Summary

The July 28, 2025 Colorado Water Loss Committee meeting focused on updates from the Colorado Water Conservation Board (CWCB), upcoming events, and a detailed presentation by guest speaker **Michael Thompson** from the Delaware River Basin Commission (DRBC). **Drew Blackwell** opened the meeting with announcements and introduced new members, including **Amanda Khalil** from DRBC. **Kevin Reidy** provided CWCB updates, highlighting a record number of grant applications and the integration of water loss audits into annual reporting. **Michael Thompson** then delivered an in-depth presentation on DRBC's decade-long water audit program, emphasizing data quality, trends in water loss, and the use of infrastructure leakage indices for planning. The committee discussed challenges in meter calibration, data validity, and the need for improved validation and regulatory standards. The meeting concluded with plans to follow up on committee goals and preparations for the upcoming Rocky Mountain Water Conference panel.

1. Welcome

- **Drew Blackwell** opened the meeting by welcoming attendees. The agenda was introduced and agreed upon by attendees.
- New members were welcomed, including **Amanda Khalil** from the Delaware River Basin Commission (DRBC).
- An orientation of committee resources for new members was referenced and shared on the committee's website (coloradowaterloss.org/committee).
- Key upcoming events discussed:
 - **Rocky Mountain Water Conference (Aug 24–27)**: A panel of committee members will present on transitioning from audits to actionable water loss control.
<https://api.sessionboard.com/embed/fa715048-580a-473b-bd55-b3228bf9ca86/agenda.html?c=1750354170341>
 - **Colorado WaterWise Symposium (Sept 18)** in Westminster.

- **AWWA North American Water Loss Conference (Dec 2–4)** in Louisville, KY [2025 North American Water Loss \(NAWL25\)](#)
 - **Castle Rock, CO** was selected to present at the conference!
- Drew emphasized the importance of these events in promoting Colorado's leadership in water loss control.

2. CWCB Updates

- **Kevin Reidy** provided updates from the Colorado Water Conservation Board (CWCB), noting a record number of grant applications this cycle—22 in total—many related to water efficiency and infrastructure planning. He highlighted:
 - The June 30, 2025 deadline for submitting AWWA v6 water audits with 1051 reports, marking a milestone in statewide water loss tracking.
 - The December 1, 2025 deadline for the next round of water planning grants, though funding is limited due to the high volume of recent requests.
 - A few applications focused on water loss control, including a significant one from Loveland, though participation in the Colorado Water Loss Initiative (CWLI) remains a key criterion for competitiveness.
- Kevin also discussed the future of audit validation in Colorado. While not yet mandatory, CWCB is planning to develop validator training and expand the pool of certified validators.

3. Guest Speaker: Michael Thompson, Delaware River Basin Commission

- Michael Thompson, Senior Water Resource Engineer at DRBC, delivered a comprehensive presentation on the DRBC's water audit program, which has collected data from ~300 systems annually since 2012. Key highlights included:
 - **Program Overview:** DRBC's audit program is based on AWWA's Free Water Audit Software and focuses on sustainable water use across a densely populated, multi-state basin. The program has achieved high compliance and data quality over time.
 - **Data Insights:** Michael shared trends from 10 years of audit data, showing relatively stable real losses but a need for improved data validity. He emphasized the importance of accurate pressure and source meter data, noting that many systems still rely on estimates or outdated equipment.
 - **Infrastructure Leakage Index (ILI):** DRBC uses ILI to assess real loss reduction potential. Michael presented visual tools comparing observed losses to unavoidable losses, helping identify where improvements are most feasible.
 - **Planning Applications:** The audit data is being integrated into DRBC's drought resilience and water availability modeling. This helps assess whether systems can meet demand during droughts and informs future allocation decisions.
 - **Small System Challenges:** Michael discussed the limitations of the UARL equation for small systems and introduced the System Correction Factor, a newer approach tailored to smaller utilities.
- The presentation sparked a robust discussion on data accuracy, meter calibration, and the need for regulatory standards in Colorado:

Applicability of Water Loss Equations to Small Systems

- **Angela Green Garcia (CDPHE)** asked about the limitations of the Unavoidable Annual Real Loss (UARL) equation for small systems.
- **Michael Thompson** explained that the original UARL equation was developed using data from larger systems and may not be accurate for systems with fewer than 5,000 connections.
- He introduced the System Correction Factor, a newer approach developed by Alan Lambert and Kate Stanton Davis, which adjusts for pipe material and break

distribution in small systems. DRBC piloted this method with five small systems in New Jersey.

Impact of Pipe Material and Pressure on Leak Behavior

- Angela followed up with questions about how pipe material affects leak detection and loss rates.
- Michael clarified that flexible materials like PVC can expand under pressure, increasing leak volume, whereas rigid materials like cast iron maintain a consistent break profile.

Compliance with Version 6 of AWWA Audit Software

- Drew Blackwell asked about the slight drop in compliance with the release of version 6.
- Michael attributed this to the lingering effects of COVID-19 rather than software complexity. He noted that most utilities transitioned smoothly, with only one expressing frustration.

Outreach Opportunities Based on Data Validity

- Drew asked about other areas, besides pressure, where DRBC sees opportunities for outreach.
- Michael emphasized source water meter testing as a major issue. He shared an example of a small Pennsylvania utility with a 70% loss rate due to a meter over-registering by 64%. This highlighted the need for better calibration and testing practices.

Regulatory Gaps in Colorado

- Angela and **Scott Winter** raised concerns about the lack of state-level requirements for source meter calibration in Colorado.
- **Kevin Reidy** confirmed that Colorado has minimal regulations, especially for master meters, and acknowledged the need for improvement.
- Scott suggested that establishing a data validity score threshold could be a logical next step, potentially leading to mandatory meter testing.

Validator Training and Future Planning

- Michael and Kevin discussed the need for expanding validator capacity in Colorado.
- Kevin mentioned plans to develop validator training and noted that CWCB lacks the resources to validate all audits statewide.
- Drew emphasized the importance of building a self-sufficient pool of validators and integrating validation into future program phases.

4. Committee goals review and action

- This agenda item was deferred until the next meeting

Minutes prepared by:

Drew Blackwell, Cavanaugh