



ADVANCING THE LEGACY

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Ag Water NetWORK

WEBINAR #11 Highlights – Middle Colorado River Ditch and Diversion Structure Assessment (https://www.youtube.com/watch?v=g6m_E_LBqLs)

Recorded September 18, 2020

Presenters: Wendy Ryan, Water Resources Consultant, Colorado River Engineering, and **Sara Dunn**, Attorney, Balcomb and Green, P.C., and Director, Book Cliff Conservation District

Background:

- In 2018, Book Cliff, South Side and Mt. Sopris Conservation Districts spearheaded an inventory of consumptive uses (CU) in the Middle Colorado River watershed.
- The effort led by the conservation districts is focused on quantifying agricultural irrigation consumptive uses and assessing ditch and diversion structure conditions.
- Producer participation is voluntary. Producers and/or irrigation companies must request a ditch and/or diversion structures assessment.
- Funding for the project was obtained through grants from the Colorado Water Conservation Board and the Colorado River Basin Water Supply Reserve Fund (WSRF), Colorado Water Plan, with matching funds from ditch companies, water conservancy districts and the conservation districts.
- Aggregate agricultural consumptive use information obtained through the inventory is being combined with municipal and industrial consumptive use data.
- A separate effort to inventory non-consumptive uses (recreation, environmental and hydro-power) is being completed by the Middle Colorado Watershed Council.
- Data from the parallel consumptive and non-consumptive use inventories are being combined into an Integrated Water Management Plan (IWMP) for the Middle Colorado River Watershed.
- The IWMP considers agriculture, municipal and industrial consumptive use needs and risks, as well as ecological and recreational uses.
- The IWMP process enables access to broader funding for multi-benefit projects.



Diversion structure. Photo: Conservation District

Ditch and Diversion Structure Inventory Details:

- A Conservation District technician conducts the field assessments, and documents the functional condition of the ditch, diversion structures, headgates, measuring devices, and culverts, and notes problems such as sediment / debris accumulation, ditch seepage, invasive vegetation, and potential points of failure. The technician also takes GPS points and photographs of the ditch and structures, which are used to create a map.
- Participating producers are provided a customized report with the map summarizing the condition of the assessed structures, the associated water rights, diversion records, and irrigated acreage tied to their decree(s), as well as any discrepancies identified. The product provides producers with a single packet of information covering all aspects of their water right(s) and the information needed to fix water right record inaccuracies.
- There is no charge for the assessment. The estimated value of the combined ditch and water decree assessment is \$5,000 per producer.
- The inventory also includes an evaluation by Colorado River Engineering of ditch conditions and how water right owners can protect their water.
- About 50 diversion structures have been assessed so far. The first inventory was completed in late 2018. Many were conducted in 2019 and 2020.



Heavy willow growth along ditch.
photo: Conservation district

Findings:

- Discrepancies have been identified when field assessment data is compared with state Division of Water Resources (DWR) water right records.
- Discrepancies include diversion structures being linked to the wrong fields and irrigated acreage of record being less than the actual irrigated acreage.
- Where diversion and ditch structural assessment information is incorrect in the state DWR records, the inaccuracies carry over into the state's consumptive use models.

Other Benefits:

- The Integrated Water Management Plan process provides a means of identifying multi-purpose projects that can improve ditch and diversion infrastructure and provide fish passage, along with riparian and water quality improvements, reduced ditch maintenance and seepage, wildlife habitat, improved ecosystem function, and greater recreational access.

Video Summary of the Project:

- The Colorado Ag Water Alliance (CAWA) and the three conservation districts developed a short video <https://vimeo.com/375936934/d596e14997> which summarizes the project and shares producers perspectives.