Chatfield Storage Reallocation Project
Water Storage Remains High to Start 2024 Season

May 24, 2024

In May 2023, the Chatfield Storage Reallocation Project (Project)reached a significant milestone by meeting its full multi-purpose water storage capacity of 20,600 acre-feet (Reallocation Pool) in Chatfield Reservoir. Due to longer than normal and sustained precipitation as well as cooler temperatures throughout the rest of 2023 and into 2024, Chatfield Reservoir has continued to be full for longer than anticipated.

With Chatfield Reservoir and the Reallocation Pool filling and remaining full, we have received a number of questions that we think would be helpful to address in this update. Some of our responses include aspects of Colorado water rights and their administration. If you desire additional information on these topics we have included links to some helpful resources at the end.

FREQUENTLY ASKED QUESTIONS

How did Chatfield Reservoir reach full capacity in 2023?

Annual precipitation from summer 2021 through spring 2022 was at its lowest in Douglas County in more than 10 years, and then beginning on May 10, 2023, several significant storm events brought heavy rains to Chatfield and its watershed. In the course of 10 days, all of Chatfield Reservoir, including the Reallocation Pool and all remaining available operational storage space, was filled to capacity. During this period, over 17,000 acre-feet of water was able to be stored at Chatfield Reservoir. While unexpected, these storms both allowed the Reallocation Pool to be filled and tested the Project's recreational modifications and stream improvements. The Project successfully operated as designed during these storms.

Not only did this record precipitation lift Douglas County out of long-term drought conditions, but 2023 is documented as the fifth wettest year to date over the past 129 years (National Integrated Drought Information System 2024).

Why did Chatfield Reservoir stay at such a high capacity throughout 2023?

The May 2023 storms happened before spring runoff from mountain snowpack. So not only did we have the May 2023 storms, but that was followed by spring runoff, and steady precipitation and mild temperatures also stayed throughout the spring and summer months. In fact, starting on May 12, 2023, the South Platte River basin experienced 61 consecutive days of "free river" conditions, meaning there was enough water to satisfy all water rights in the South Platte River Basin.

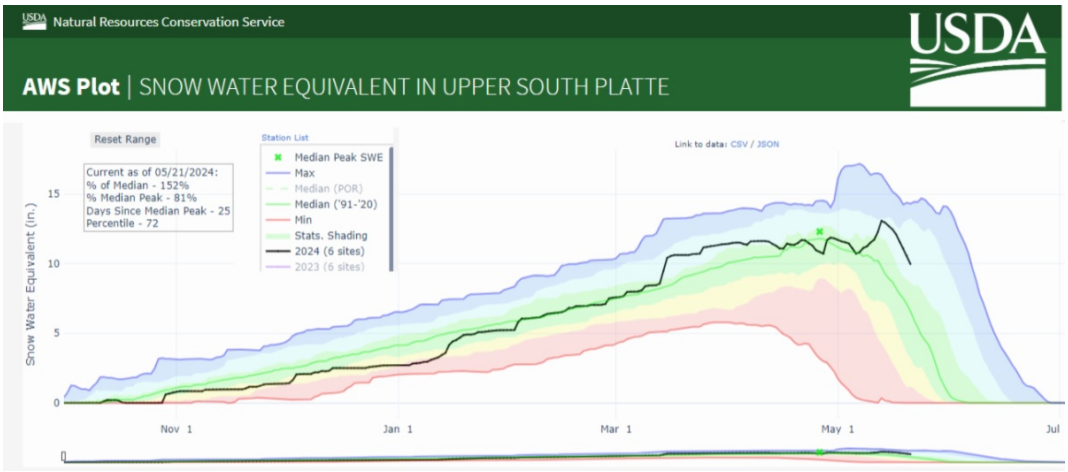
The surplus of water, coupled with low irrigation demands, allowed for nearly all South Platte River reservoirs upstream and downstream of Chatfield Reservoir to fill to capacity. While the filling of these water storage facilities is a huge victory for satisfying and managing water supplies on the Front Range, it also limited the ability of the Project participants to release water from Chatfield Reservoir because there was no place to use or store the water.

While the Project participants were limited in their ability to release water from Chatfield Reservoir, efforts were made to minimize impacts to tree health in the Reallocation Pool. Between August 15, 2023 and October 22, 2023, the Project participants were able to collectively release about 3,000 acre-feet, lowering the water storage level from 5,444 feet in elevation to 5,441.50 feet in elevation.

Will Chatfield Reservoir remain high in 2024?

With Chatfield Reservoir starting the spring nearly full, gate changes are often occurring on a daily basis to match inflows. The timing and coordination of these gate changes are no easy task, which means that quick moving rainstorms can temporarily raise the water in Chatfield Reservoir above its operational storage capacity. The U.S. Army Corps of Engineers (Corps), the Colorado Division of Resources (DWR), and the Project participants work very closely together to manage the operations of the Reallocation Pool.

As of May 21, 2024, Douglas County and the South Platte River Basin remain drought-free (U.S. Drought Monitor). The snowpack of the Upper South Platte River Basin is currently well above median, with runoff only in its early stages. As nearly all reservoirs along the South Platte River and its upstream tributaries are at or near capacity, it is likely Chatfield Reservoir, including the Reallocation Pool, will remain full throughout the spring and early summer.



How are the trees managed?

Existing trees in the Reallocation Pool's fluctuation zone (the elevations between 5,432 and 5,444 feet) of Chatfield Reservoir are expected to be impacted as a result of the increased water storage. Dead or unhealthy trees in the fluctuation zone are a potential hazard to boaters, park visitors, and dam

operations.

The loss of existing trees within the fluctuation zone is not a surprise and is to be expected. The Project was required to account for this loss by conducting certain environmental mitigation activities. As part of those environmental mitigation activities, the Project planted thousands of cottonwood and willow trees in other areas of Chatfield State Park that are suitable for the establishment of healthy and resilient tree stands.

The Project is required to manage the trees impacted by the Chatfield Reallocation Pool, in coordination with the Corps and Colorado Parks and Wildlife (CPW), through an Adaptive Tree Management Plan.

The objectives of the Adaptive Tree Management Plan include:

- Protecting visitor safety by removing trees that will be navigation hazards at higher water levels.
- Preserving dam safety by removing wood debris that can lodge in the dam outlet.
- Conserving as many healthy trees as possible in the fluctuation zone.
- Maintaining important bird and wildlife habitat.
- Removing invasive tree species.

Beginning in October 2016, the Project participants, through Chatfield Reservoir Mitigation Company, Inc. (CRMC), contracted with the Colorado State Forest Service (CSFS) to inventory and determine the likelihood of survival for all trees in the fluctuation zone. Following CSFS's inventory, Markit! Forestry was contracted in late 2018 to perform vegetation removal and thinning of 286 acres in the fluctuation zone. These efforts included removing dead and dying cottonwood and willow trees, as well as the removal of nonnative species.

During the winter of 2022-2023, CRMC engaged Markit! Forestry to perform another round of removal of the identified dead and dying trees in the fluctuation zone.

These vegetation removal efforts have been performed in compliance with the

Adaptive Tree Management Plan.

What will happen to the trees?

The extended duration of the high-water storage likely will have health impacts to the trees in the fluctuation zone. CRMC is working closely with environmental consultants to monitor tree health throughout 2024.

As current conditions do not allow for tree removal to be performed in an effective way, CRMC must wait until the water storage level drops and the ground conditions stabilize. Tree removal activities are typically performed in the winter months when storage is typically lower and the ground freezes, park visitation decreases, and the work can be done in compliance with the Migratory Bird Treaty Act.

As paddling through the trees has become a popular activity at Chatfield State Park, we recommend using caution when recreating in and near the trees.

CPW encourages all paddlers to keep a close watch on changes in the weather. High winds not only can quickly blow a paddler from one side of the reservoir to the other but can also dislodge limbs and other debris from the trees they are under. As always, be sure to wear your life jacket. If you do get separated from your vessel, you will easily stay afloat until you can swim to the shore or help arrives.

HELPFUL RESOURCES

There are several organizations that do an incredible job explaining water rights and administration here in Colorado. Please check out the resources available below:

- Colorado Division of Water Resources: https://dwr.colorado.gov/
- Colorado Water Conservation Board: https://cwcb.colorado.gov/focus-

areas/supply/water-supply-planning
- Water Education Colorado: https://www.watereducationcolorado.org/
- Colorado State University – Colorado Water Center: https://watercenter.colostate.edu/

For questions contact us at info@chatfieldreallocation.org.
For detailed information on the Chatfield Storage Reallocation Project, or to view the project video, please go to our website

Visit our Website

Chatfield Reservoir Mitigation Company (CRMC) | 8156 S Wadsworth Blvd., Unit E-458 | Littleton, CO 80128 US