

## Chatfield Storage Reallocation Project Reaches Full Pool

*May 31, 2023*

The Chatfield Reservoir Mitigation Company (CRMC) proudly announces that it has achieved its full multi-purpose water storage capacity of 20,600 acre-feet in Chatfield Reservoir. This significant milestone marks the first time the Chatfield Storage Reallocation Project (Project) has reached its new operational high level of 5,444 feet following the final authorization by the U.S. Army Corps of Engineers (Corps) in May 2020.

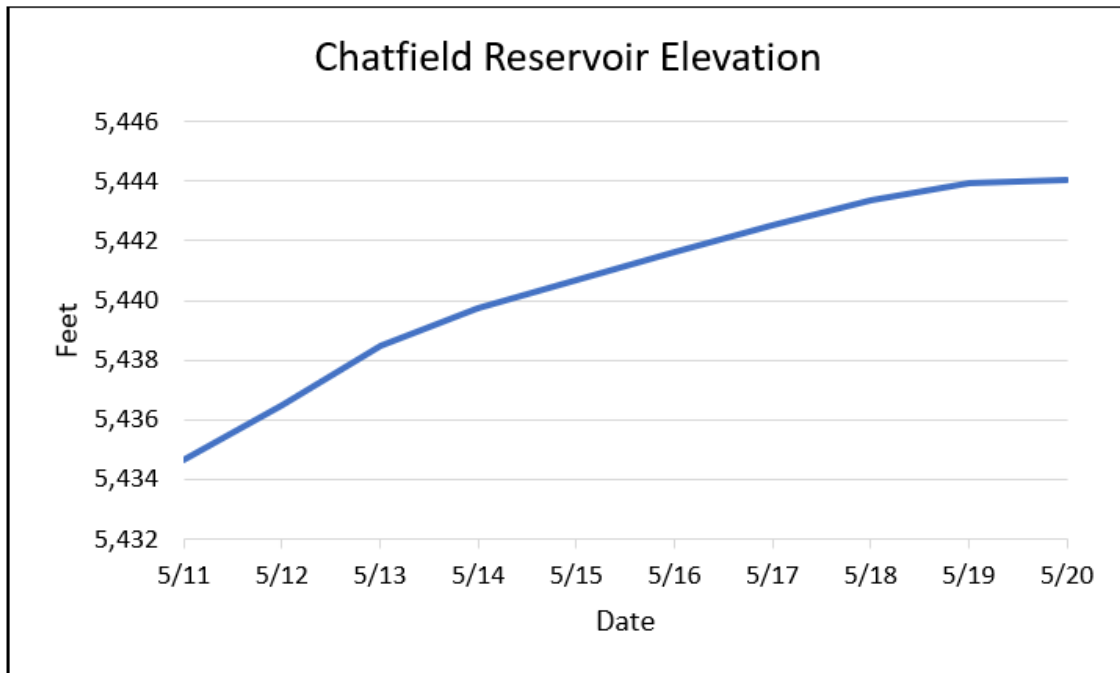


Thanks to the implementation of the Project, Chatfield Reservoir was prepared to effectively handle the influx of floodwaters resulting from the intense rainstorms that hit eastern Colorado from May 10 to May 13, 2023. During this period, an average of 5.5 inches of rainfall was recorded upstream of Chatfield Reservoir. Rather than reaching a flood state, the reservoir successfully captured these excessive flows, serving its purpose as a multi-purpose water storage facility and averting the occurrence of massive flooding downstream. Within a span of less than 36 hours, the flows on Plum Creek surged from 30 cubic feet per second (cfs) to 2,300 cfs.

Implementation of environmental mitigation measures, such as riffle drop structures, side channels, and sloughs along Plum Creek and the South Platte River, proved to be highly effective. These Project features demonstrated their resiliency and ability to manage high flows, minimizing the adverse effects of scouring and destruction in these areas.

On May 15, 2023, the Corps [reported](#) that due to the increased inflows, Chatfield, Bear Creek, and Cherry Creek Reservoirs had experienced a rise in

water levels of approximately 6.3 feet, 23 feet, and 10 feet, respectively. These three reservoirs constitute the Corps' Tri-Lakes Projects. Had it not been for the controlled operations of these reservoirs, the estimated water levels on May 12, 2023 alone would have surpassed an additional 2.5 feet at the Denver stream gage on the South Platte River. Overall, Chatfield Reservoir experienced a cumulative rise in water level of 9.4 vertical feet from May 11 to May 19, 2023.



Source: Colorado Division of Water Resources' [Chatfield Reservoir CHARESCO Station](#) ([disclaimer](#))

## FREQUENTLY ASKED QUESTIONS

### What is the Chatfield Storage Reallocation Project?

The Chatfield Storage Reallocation Project (Project) is a collaborative effort involving federal and state entities, as well as water providers in the Denver metro area and northeast Colorado. In 1975, the U.S. Army Corps of Engineers (Corps) constructed Chatfield Reservoir with the aim of managing flood risks in the vicinity of the South Platte River and Plum Creek confluence. Recognizing the need for additional water resources due to Colorado's rapid population growth, the Corps and Project stakeholders embarked on a comprehensive study during the 1980s. Their objective was to explore the potential benefits of "reallocating" a portion of Chatfield Reservoir's flood storage for the purpose of multiuse water storage.

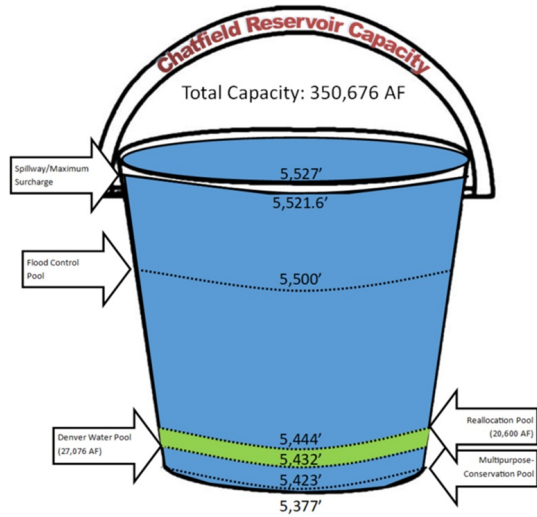
After careful evaluation, the Corps concluded that Chatfield Reservoir could accommodate an extra 20,600 acre-feet of water storage, equivalent to a vertical increase of approximately 12 feet from the existing operational pool elevation of 5,432 to 5,444 feet. This expansion would facilitate multipurpose water storage to meet the rising demand for water while ensuring the reservoir's continued effectiveness in flood control.

The Corps signed the Record of Decision for the final Feasibility Report / Environmental Impact Statement (FR/EIS) on May 29, 2014. The FR/EIS detailed the necessary recreation modifications and environmental mitigation measures that the Project needed to undertake for the Project participants to receive authorization to store water in the newly allocated pool.

To oversee the design and implementation of these modifications and

mitigation efforts, the Project participants established the Chatfield Reservoir Mitigation Company (CRMC). Design work commenced in late 2015, followed by construction starting in late 2017. Construction of the recreation modifications and environmental mitigation projects was completed in April 2020.

On May 12, 2020, the Corps announced that the Project had successfully fulfilled all the requirements for recreation modification and environmental mitigation. Consequently, the Project participants were granted the right to store available water in the newly reallocated pool.

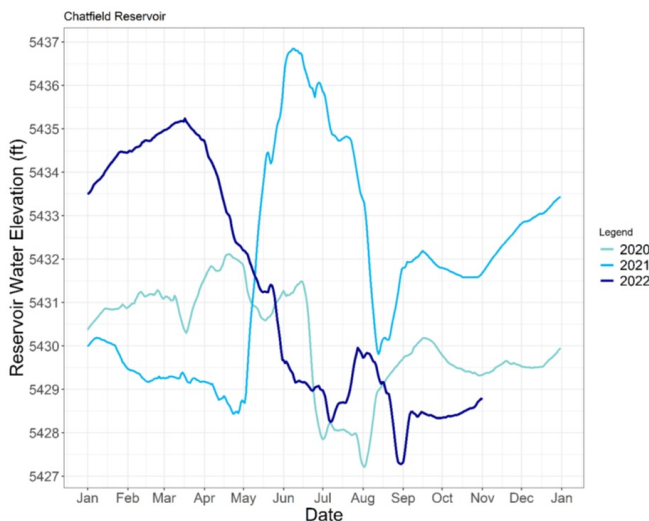


North Boat Ramp following construction that was completed in June 2018.

Chatfield Reservoir Capacity

### How fast will Chatfield Reservoir be filled to the full pool elevation of 5,444 feet each year?

Several factors are involved in how fast and how much Chatfield Reservoir stores each year, including snowpack, drought conditions, precipitation, the rate of flows from Plum Creek and the South Platte River, and the priority status of the Project participants' water rights. In 2021, two of the Project participants were able to store native flows under their decreed water rights. In total, about 7,368 acre-feet of water was stored in the reallocation pool in 2021, which resulted in about a 5 vertical foot rise in elevation. Since 2020, several participants have also been able to store their fully consumable effluent water. The graph below shows Chatfield Reservoir's elevation from 2020 to 2022.



The rate of storage in Chatfield Reservoir in May 2023 (over 1 vertical foot/day) is atypical. Under average storage conditions, Chatfield Reservoir experiences a more gradual increase of about 1 vertical foot per one to two weeks.

### What will happen to the trees surrounding the reservoir?

Existing trees in the fluctuation zone (between the elevations of 5,432 and 5,444 feet) of Chatfield Reservoir are expected to be impacted as the result of



recreation modification construction activities and the increase in water elevation resulting in inundation changes under the reallocation. Dead or unhealthy trees in the fluctuation zone are a potential hazard to boaters, park visitors, and dam operations.

The FR/EIS originally proposed that all trees below an elevation of 5,439 feet would be cleared, but CRMC, in coordination with local experts, Colorado Parks and Wildlife (CPW), and the Corps, determined this would be too destructive to the environment. Therefore, a new approach deemed the “Adaptive Tree Management Plan” was implemented to manage the trees. Beginning in October 2016, CRMC contracted with the Colorado State Forest Service (CSFS) to inventory and determine the likelihood of survival with inundation and water storage 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, in coordination with CSFS and CPW, engaged Markit! Forestry to perform another round of removal of the identified dead and dying trees in the fluctuation zone.

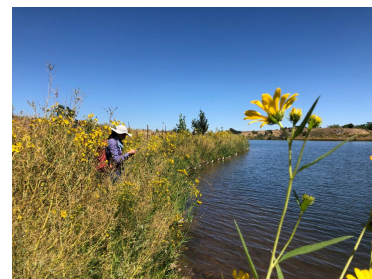
CSFS will continue to annually evaluate and mark trees around the reservoir post-inundation. Trees marked with blue paint are slated for removal. Trees marked with aluminum tags are being monitored over time under the objectives of the Adaptive Tree Management Plan. CRMC is responsible for engaging qualified experts to evaluate the viability and health of those trees. Future tree removal activities will be determined based on tree mortality rates, reservoir and ground conditions, and dam and visitor safety concerns.

*Before and after pictures of tree thinning and forest floor clean up along Plum Creek.*



### **What is left to do on the Project?**

While all the recreation modifications and environmental mitigation have been implemented, you may see ERO Resources Corporation (ERO) out at the park from time to time. ERO will continue monitoring for the next several years to confirm all Project requirements have been met. Some of the monitoring activities include noxious weed and vegetation establishment mapping, confirmation of target habitat protection and enhancement, tree health observation, and channel and Project feature monitoring.



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

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