

2022 IN REVIEW

"2022 was an exciting year for Denver Water as construction began for the Gross Reservoir Expansion Project. We have brought together industry experts to build a project that will provide future water security to our customers by increasing redundancy and flexibility in our system to guard against the impacts of climate change."

 Jeff Martin, Gross Reservoir Expansion, Program Manager

FROM PERMITTING AND DESIGN TO THE START OF CONSTRUCTION

After nearly two decades of planning and permitting, Denver Water's work to expand Gross Reservoir northwest of Denver kicked off in April 2022. This project will increase storage in Denver Water's north system to prevent future shortfalls during droughts and correct a serious imbalance in our north-south collection systems.

MAN HOURS WORKED IN 2022

The GRE Project team, which includes staff from Denver Water, Kiewit-Barnard, Stantec, Black & Veatch and other contractors, logged more than 392,000 hours in 2022. The team includes individuals with many years of training and expertise. One example is the excavator operator in the image to the right, who has 20+ years of experience.

THE GROSS RESERVOIR EXPANSION PROJECT TEAM WORKED HARD IN 2022 TO:

- Develop the site for construction activities, including on-site offices and maintenance areas.
- Begin excavation of the area where the on-site quarry will be. The quarry will produce sand and gravel material for the dam concrete placement.
- Prepare the dam foundation, which included hydroblasting, rock excavation and foundation concrete placements.
- Start improvements to both on-site and public roads to ensure public and worker safety while traveling in the vicinity of the project.



ENVIRONMENTAL COMPLIANCE

MIGRATORY BIRD TREATY **ACT AND RAPTOR SURVEYS**

Denver Water hired a consultant to survey trees in areas planned for disturbance between March 1 and July 31, for any active raptor and migratory bird nests to ensure compliance with the Migratory Bird Treaty Act. In 2022, no active nests were identified in areas to be cleared for construction activities. These surveys will continue throughout the project and should active nests be found, measures will be taken to not disturb the birds during nesting.



STORMWATER PROTECTION

Kiewit-Barnard is protecting water quality within Gross Reservoir and South Boulder Creek by adhering to stormwater permits issued by Boulder County and the State of Colorado. These permits require them to control and manage stormwater runoff, transport and discharge using Best Management Practices. Kiewit-Barnard conducts weekly inspections of BMPs, as well as inspections following all storm events, and performs maintenance as needed.





CONSTRUCTION UPDATE



ROUGHING THINGS UP AT GROSS DAM

Using ultrahigh pressure, a specialized team began blasting the front of Gross Dam with water to get the dam ready for its new addition. The process is called hydrodemolition and is part of the prep work needed for Denver Water's Gross Reservoir Expansion Project. About 200,000 square feet of concrete on the surface of the dam will be roughed up by the hydrodemolition process. The contractor was able to complete approximately 60% of this work in 2022.

FOUNDATION CONCRETE PLACEMENT STARTED

Kiewit-Barnard started placing concrete to create the foundation for the expanded dam. This concrete placement is separate from the main dam structure and must be completed prior to the dam concrete placement in 2024. This foundation concrete work took place on both the right and left sides of the new dam foundation. The contractor was able to use a small-scale concrete batch plant on-site to produce the concrete needed for this work. This work also continued through the early winter months. To ensure quality standard were met, the crews used heating blankets and other technologies.

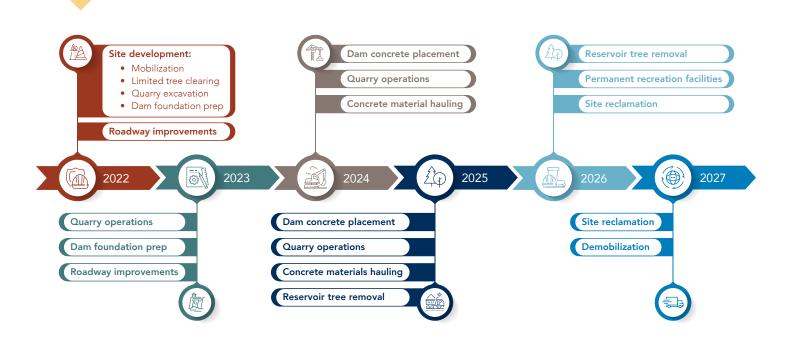


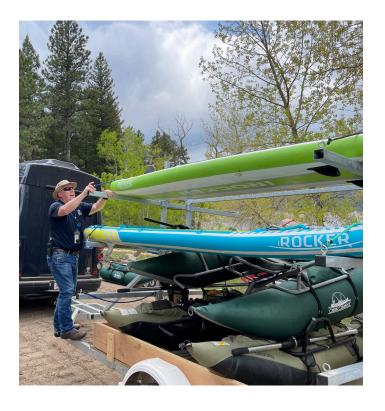


REMOVING ROCK FOUNDATIONS

In 2022, Kiewit-Barnard started drilling and blasting for site development and dam foundation preparation. We received community feedback about this work, acknowledge that it can be disruptive and recognize the need to keep the community informed. As such, we have developed a robust communications approach, which includes sending email notifications and Nextdoor posts prior to blasting, as well as regularly updating the My Map.

ON THE GROUND





COME OUT AND PLAY!

Recreation during 2022, and continuing throughout construction, looks a little different. Access to the water is no longer available from Osprey Point. Instead, visitors visit the North Shore parking lot and launch into the water from that location.

In 2022, Denver Water implemented a recreation shuttle to help visitors bring their boats, gear and themselves from the parking lot to the water's edge. We heard great feedback from the public on this shuttle and are happy to be able to bring it back in the 2023 recreation season.

Beginning with the 2022/2023 winter season, ice fishing is not permitted at Gross Reservoir due to the ongoing construction activities. All other winter recreation activities including hiking, picnicking and shoreline fishing are available to the public.

STAKEHOLDER OUTREACH



Denver Water continues to be active in the community and providing updates through multiple channels.

- My Map: https://bit.ly/368pNSz
- Email: grossreservoir@ denverwater.org
- Hotline: 303-628-6348
- Nextdoor
- (i) Office hours hosted in-person and virtually: grossreservoir.org/contact
- Email newsletter sign up: denverwater.org/GrossEmail



Denver Water continues to participate in community events such as Mountain Fest to keep the local community informed about the project.



Team members from the Gross Reservoir Expansion Project donated \$4,100 and about 200 meals of nonperishables to the Pastor's Pantry at Whispering Pines church at the end of 2022.

KEEPING COMMUNITIES IN THE KNOW

COUNTY COMMUNICATIONS

Denver Water team members and Boulder County staff meet on a regular basis to share information about community concerns and ways the contractor is able to make adjustments to mitigate impacts to local residents. While Denver Water has no control of the mitigation fund process and distribution, we continue to be available to the County as they work with a team to develop the process to distribute those funds to local residents.

Denver Water also provided ongoing project updates throughout 2022 to both Gilpin and Jefferson Counties on the Gross Reservoir Expansion Project.

RESIDENT COMMUNICATIONS

Construction activities continue to shift based on weather, schedules and other factors. Before heading to the reservoir or traveling on roads near Gross Reservoir, we strongly encourage visitors and residents to check the project My Map, https://bit.ly/368pNSz. This interactive map is updated throughout the week with the status of all road closures, restrictions and recreation changes.

