

2023 YEAR IN REVIEW



DENVER WATER'S GROSS RESERVOIR EXPANSION PROJECT
This report provides a snapshot of recent activities and accomplishments as well as a look ahead for planned activities in 2024.

2023 OVERVIEW



“In 2023, the project team completed the abutment excavation, hydrodemolition of the dam face and a full-scale roller-compacted concrete test placement. We also nearly completed the foundation grouting and erection of the crusher and batch plants. In addition to the dam foundation work, the team also rebuilt the intersection of Highway 72 and Gross Dam Road and improved several miles of Gross Dam Road to facilitate safe travel for the cement and fly ash deliveries scheduled for 2024 and 2025 during the dam raise. In short, the preparatory work is almost complete, and the project is on track to start the dam raise in the spring of 2024.”

– Jeff Martin,
Denver Water Gross Reservoir Expansion Program Manager

WORK COMPLETED IN 2023

2022



2023



WORK COMPLETED IN 2023 (CONT)



WORKED 471,019 HOURS

Between on-site labor, inspectors, project and construction staff, 471,019 hours were worked in 2023.

We are expecting over 2.5 million workforce hours to complete this project.

FINISHED EXCAVATING THE DAM ABUTMENTS AND FOUNDATION

Excavation ensures the rock the new dam concrete will be placed on is a solid foundation that is not weathered or prone to shifting.

You can learn more about foundation excavation in our article that explains how [raising a dam starts by building a strong base](#).



PLACED FOUNDATION CONCRETE

Foundation concrete creates a stable base for the expanded dam.

You can learn more in our article about [the foundation concrete and grouting process of the Gross Reservoir Expansion Project](#).



WORK COMPLETED IN 2023 (CONT)



SEALED THE FOUNDATION WITH GROUT

Grout is injected into the rock foundation to fill tiny gaps in the rock and strengthen it to support the new, larger dam.

You can learn more in our article about [the foundation concrete and grouting process of the Gross Reservoir Expansion Project](#).

FINISHED HYDRODEMOLITION OF THE DAM FACE

Hydrodemolition roughens the surface of the dam by using high-pressure water to remove two-to-three inches of concrete. This ensures the new concrete establishes the best bond with the existing structure.

You can learn more in our article about [roughing things up at Gross Dam](#).



FULL-SCALE ROLLER-COMPACTED CONCRETE TEST PLACEMENT

This activity allowed the project team to refine the approach to producing and delivering roller-compacted concrete on-site, and to train workers to safely place the concrete and work in confined spaces.

You can learn more in our article about how [practice makes perfect when putting concrete in place](#).



WORK COMPLETED IN 2023 (CONT)



IMPROVED ACCESS TO THE RESERVOIR

To ensure trucks can make deliveries during the dam raise, we rebuilt the intersection of Highway 72 and Gross Dam Road and made improvements along more than three miles of Gross Dam Road. This work improves safety for residents, visitors and workers.

You can learn more in our blog posts about [Gross Dam Road and Highway 72 new intersection alignment opening](#) and [Gross Dam Road roadway improvements](#).

PILOTED TWO ENVIRONMENTAL PROJECTS

Biochar Pilot Project: We partnered with Charm Industrial and Biochar Now to explore the process of creating bio-oil and biochar, respectively, as alternatives to traditional methods of biomass disposal. We are awaiting final reports from both companies detailing process efficiencies and potential quantities of carbon capture. The data will inform how the project transports and disposes of the biomass resulting from tree clearing around the expanded reservoir.

Ranch Creek Study: We completed a statistical analysis to evaluate the benefits of releasing bypass flows in Ranch Creek. This analysis was provided to [Learning by Doing](#) and showed a direct correlation to temperature improvements with higher streamflow.



WORK COMPLETED IN 2023 (CONT)



MAINTAINED REGULAR OPERATIONS

Gross Dam and Reservoir has year-round recreation and hydropower production. During construction, recreation includes paddleboarding, kayaking and picnicking, amongst other recreation opportunities. And Gross Dam produces 25,000 KWh of hydropower in the 7.6 MW power plant.

Learn more about the recreation opportunities at Gross Reservoir on our recreation webpage: [Gross Reservoir | Denver Water](#).

COMMUNITY AND STAKEHOLDER OUTREACH

We had almost 200,000 touchpoints with neighbors, recreators, local elected officials and many others interested in the project in 2023. To keep stakeholders informed throughout the project, we have dedicated staff who offer in-person meetings and attend a variety of events, communicate directly via email, mailers and phone calls, post [articles to TAP](#), send [e-newsletters](#) and maintain the [project MyMap](#) and [website](#) regularly. Additionally, we support the community through event sponsorships, providing local business support and donations to Canyon Cares and Whispering Pines Church.



CCCIA Sponsor Spotlight



Our gratitude to **Denver Water** for their support as Platinum Level sponsors of the CCCIA 4th of July Celebration!



As **Denver Water** works to increase water supply to Denver through the Gross Dam Expansion Project, they will have a strong presence in our canyon and wish to give back to our community.

Learn more about the project here:
<https://www.denverwater.org/grossreservoir>



WHAT'S COMING IN 2024?



FINAL PREPARATION

In 2024, we anticipate finishing the grout work and foundation concrete, continuing development of our on-site quarry and constructing the conveyors and other mechanisms needed to move the roller-compacted concrete to the dam.

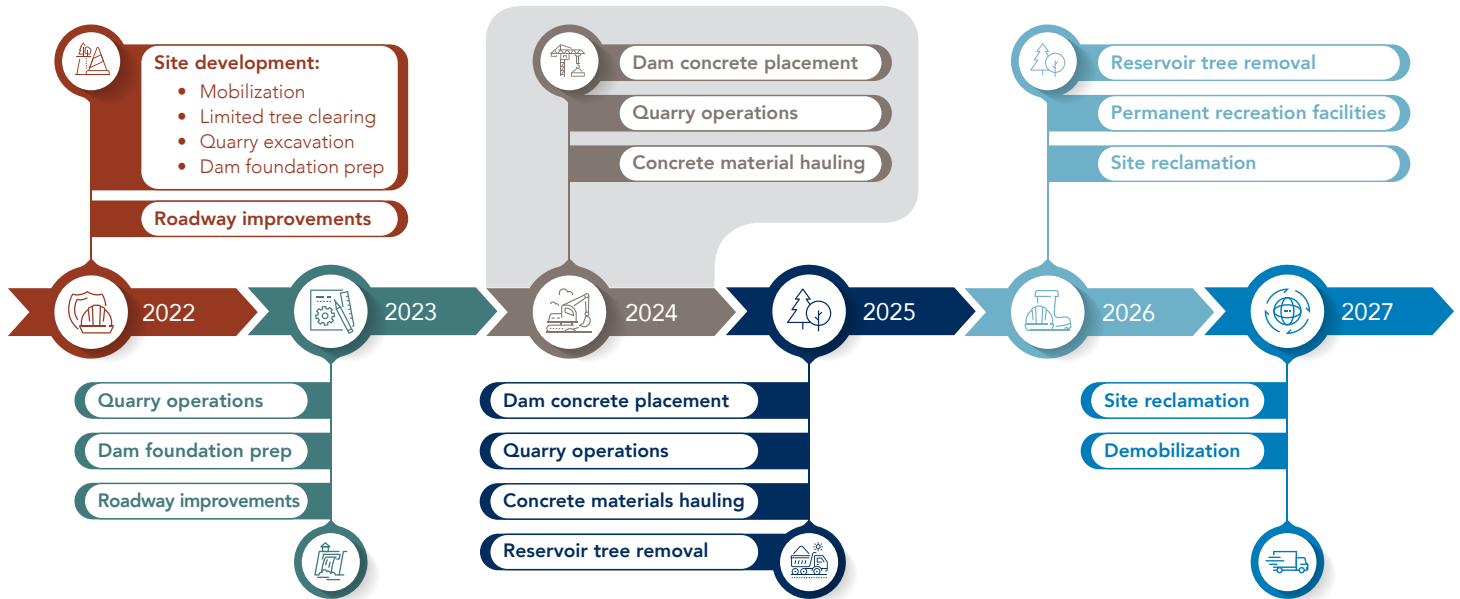
BEGINNING THE DAM RAISE

We will use roller-compacted concrete to raise the dam, which gets its name from the way it is applied in the construction process. Workers will put the concrete in place with mini-dump trucks, spread it with a small bulldozer and roll and compact it into place with a smooth drum compactor.

You can learn more in our video about [testing roller-compacted concrete at Gross Reservoir](#).



PROJECT TIMELINE & CONTACT



Sign up for our [e-newsletter](#) or check out our [website](#) to get updates and more information on the work going on in 2024!



The [Project MyMap](#) is updated Monday – Saturday with information regarding public access, road closures and blasting information.



Please email grossreservoir@denverwater.org or call 303-628-6348 with any questions.

