Colorado Springs Utilities

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Penrose Water Supply Project

FAQ

We are committed to providing reliable water service while keeping our community informed throughout the planning and construction process. This FAQ addresses common questions about the proposed Penrose Water Supply Project and will continue to be updated as new information becomes available.

Project need

Why are new water storage tanks being proposed at the Penrose Reservoir site?

The existing reservoir and dam require significant investment to continue operating and would remain subject to ongoing dam safety requirements.

We evaluated multiple alternatives and determined that replacing the reservoir with water storage tanks best addresses the project's long-term operational, maintenance and regulatory needs.

The proposed tanks are expected to have a service life of approximately 50+ years.

Why are customers paying for this project?

The project is intended to support the operational needs of the entire water system, help make better use of existing water rights and mitigate system risks.

Like other water system investments, the project is evaluated based on its ability to support safe, reliable service for customers and meet long-term system needs.

Does this project primarily benefit The Broadmoor?

No. The project is being developed to meet the needs of our water system and remove overall system risks.

The Broadmoor receives water from the system and pays for that service. The additional storage capacity included in this project was not requested by The Broadmoor.

Why is storage capacity increasing?

The proposed tanks would increase storage capacity from approximately 14 million gallons to 17.6 million gallons.

The size of the reservoir, which was originally built by The Broadmoor, limited our use of existing water rights. The tanks are the safest and most future-forward option for making the best use of these water rights.

The additional capacity will support operational needs and emergency response.

The increase in storage capacity was not requested by The Broadmoor.

What alternatives were considered?

We completed an alternatives analysis in 2024 that evaluated four options, including rehabilitation or replacement of the existing dam and reservoir.

The analysis compared costs, operational considerations and long-term requirements. Based on that evaluation, water storage tanks were selected as the preferred alternative.

Cost estimates were preliminary and assessed using estimated lifetime cost. Alternatives included:

- **Repair the outlet now and build storage tanks later**
  This option would have repaired the infrastructure needed to move water out of the reservoir while keeping the existing high-hazard dam in service for the short term. New water storage tanks would still need to be built in the future, resulting in two separate major projects.
  Estimated 40-year lifecycle cost: $69.7 million.

- **Replace the reservoir with storage tanks (preferred alternative)**
  This option replaces the reservoir with enclosed water storage tanks and

eliminates the need to continue maintaining the high-hazard dam.
Estimated 40-year lifecycle cost: $61.2 million.

- **Build a new dam and replace the outlet infrastructure**
  This option would have completely replaced both the outlet infrastructure and the existing dam. Even with a new dam, the facility would still be classified as a high-hazard dam and would remain in an area affected by landslide concerns.
  Estimated 40-year lifecycle cost: $113.2 million.

- **Repair the existing dam and replace the outlet infrastructure**
  This option would have repaired the existing dam and replaced the outlet infrastructure. The dam would have remained in service as a high-hazard dam, requiring ongoing inspections, maintenance and regulatory oversight.
  Estimated 40-year lifecycle cost: $82.2 million.

Was a pipeline or tunneling alternative considered?

Yes. A previous project would have installed a new outlet pipeline through the reservoir's left abutment using tunneling and conventional trench construction methods.

That project reached final design but was ultimately canceled because of the high cost associated with constructing the pipeline and risks posed by an aging dam.

What is the estimated project cost?

The current estimated project cost is approximately $54 million. This estimate includes planning, engineering, construction, site restoration, contingency and related infrastructure improvements. The estimate does not include lowering the slope of the tank dome or raising grading/sloping.

Site selection and design

Why was this location selected?

Several configurations were evaluated during project planning.

The selected site was chosen after considering engineering, environmental, operational and permitting factors.

The location also allows the project to use much of the existing reservoir footprint while minimizing disturbance where possible and meeting water system requirements.

Why are the tanks located partly within the existing dam area instead of farther back into the hillside?

The design seeks to limit excavation into the natural hillside, which helps reduce disturbance to existing slopes.

Using portions of the existing reservoir and dam footprint also supports dam decommissioning requirements and helps reduce the visual prominence of the tanks.

How much of the tanks will be below ground?

The tanks are being designed so that a measurable portion of their height is located below the existing reservoir grade.

The existing reservoir site ranges from approximately **6,531 feet to 6,555 feet in elevation**, with the maximum current design tank height at 6,596 feet, not including safety systems. We are exploring an option to lower the tank dome height and reduce the visibility of the exposed tank roof.

The bottom of the tank (slab) will be approximately 6,531 feet in elevation. The tank site can be excavated to approximately **6,529 feet**, allowing a substantial portion of the tanks to be built below the existing ground level and within the current reservoir footprint. This approach was selected to help reduce the visual impact of the tanks on the surrounding area.

Has Springs Utilities evaluated different tank sizes or configurations to reduce height?

Yes. Our design team evaluated alternatives while maintaining key system requirements, including storage volume, operating elevations and overall system performance.

These requirements influenced the final tank dimensions and configuration.

What type of tanks are being proposed?

The proposed tanks are manufactured by DN Tanks and are AWWA D110 Type III prestressed concrete tanks.

What permits and approvals are required?

The project requires several reviews and approvals, including:

- City land-use approvals
- Hillside Plan approvals
- Grading and Erosion Control permits
- Building permits
- City planning and wildfire mitigation reviews

We are working with all the permitting entities to ensure the process is followed and all the required approvals are obtained prior to starting construction.

Construction and traffic

How long will construction take?

Construction is expected to take approximately three years.
Major project activities include:

- Dam decommissioning
- Site excavation
- Foundation installation
- Tank construction
- Yard piping installation
- Site restoration
- Testing and commissioning

Additional schedule information will be shared as plans are finalized.

What are the anticipated construction hours?

Construction is currently planned around a normal weekday work schedule.

Most activities are expected to occur Monday through Friday during daytime hours. Some activities, such as large concrete placements, may occasionally occur outside normal working hours.

What construction activities may generate the most traffic and noise?

Activities expected to result in increased traffic and noise include:

- Site excavation and grading
- Foundation drilling
- Concrete placement
- Delivery of construction materials
- Tank construction

A construction noise assessment will be completed before construction begins. Please note that many of these activities are not constant throughout construction.

What will construction traffic look like?

A Traffic Routing Plan is being developed and will be available before construction begins.

The plan will identify approved truck routes, secondary traffic control measures and safety requirements. Road conditions will be documented before construction and reviewed again after construction is complete. Impacted roadways will be returned to their prior condition.

Will construction affect traffic to Cheyenne Mountain Zoo?

We understand there are existing concerns related to Zoo traffic and our goal is to do everything possible to not add to these concerns. Reducing impacts to residents, businesses and visitors is an important project consideration.

We are evaluating access routes and traffic-control measures and are considering community input and coordination efforts during project planning.

Will Marland Road South be used by construction vehicles?

Typical field personnel vehicles will access the site via a newly designated access point located behind the Broadmoor 4 Finished Water Tank. Personnel will travel along Cheyenne Mountain Zoo Road and access the site from Marland Road South, near where the two roads intersect.

Heavy equipment will access the site from Marland Road South, using the temporary construction access road that will be located near the Broadmoor Pump Station.

How will pedestrians, cyclists and students be protected?

Construction activities will be required to comply with applicable laws, permit requirements, traffic-control standards and safety regulations.

With a legacy of successfully and safely constructing large projects within our community, we are committed to doing our part to protect pedestrians, students and cyclists during construction.

Environmental and neighborhood impacts

Will trees be removed?

Protecting existing vegetation is an important consideration in the design process.

The project team has proposed a site walk to identify trees that may be affected and will continue working to minimize impacts where possible. Information regarding potential tree impacts will be shared with the community as designs are refined.

What is being done to reduce the visual impact of the tanks?

Several measures are being evaluated, including:

- Partially burying the tank
- Landscaping for visual screening, including planting trees
- Backfill and grading alternatives
- Lowering tank dome
- Tank coating and color selection to blend within the environment
- Access hatches and stairs located away from the direct view of Marland Rd
- Utilize existing access roads to minimize tree removal

Will visual renderings be available?

Yes. Additional visual simulations are being developed from several nearby viewpoints, including locations along Marland Road South and surrounding residential areas.

Updated renderings are planned before future community meetings and outreach events.

How much of the property will be affected by construction?

The reservoir property contains approximately 14.87 acres. About 7.5 acres are currently anticipated to be disturbed during construction activities.

What environmental studies have been completed?

Project studies include:

- A Land Suitability Analysis including the following:
  - Wildlife surveys
  - Vegetation surveys
- Geotechnical investigations
- Other site analyses required to support project design and permitting

Additional project documents will be available through the public review process.

What stormwater and erosion-control measures will be used?

Construction-phase measures will follow City of Colorado Springs Stormwater permitting requirements, and may include:

- Vehicle tracking pads
- Straw wattles
- Silt fencing
- Other erosion-control measures as needed and required

Were previous tree removals along Marland Road South related to this project?

Tree removal that occurred as part of the previous 2023-2024 Penrose Dam Project was related to that project – a project that has since been canceled.

Safety and reliability

Will drilling for the tank foundations affect groundwater, aquifers or nearby wells?

Based on current engineering evaluations, construction activities are not expected to affect residential wells or significantly alter groundwater movement.

The foundation shafts will be temporarily cased during installation and then filled with reinforced concrete. The completed shafts are not expected to impede groundwater flow.

What geotechnical studies have been completed?

Geotechnical investigations and site analyses required to support the project design have been completed.

Technical reports will be submitted as part of the development review process and made available to the public as part of that process.

What engineering measures are being used to address site conditions?

The tank foundation system is being designed based on detailed geotechnical investigations.

The foundation system is intended to transfer tank loads deeper below the surface rather than placing those loads primarily on near-surface soils.

What safety protections are built into the tanks?

The tanks will be designed by licensed professional engineers and constructed in accordance with applicable industry standards.

Project safeguards include:

- Engineered structural design
- Construction inspections
- Overflow protection systems
- Design requirements addressing wind, snow and water loads

What happens if a tank leaks, overflows or experiences a failure?

The tanks are being designed with multiple layers of protection. In the event of an emergency overflow, dedicated overflow piping would direct water to the existing stormwater conveyance system. Our operators will control flows into and out of the tanks.

Additional operating procedures and emergency response plans will be developed before the tanks are placed into service.

Why does part of the existing dam need to be removed?

The project includes dam decommissioning activities as part of tank construction.

Portions of the existing embankment need to be removed so it no longer functions as a dam.

Additional information regarding final decommissioning requirements will be shared as engineering and permitting reviews continue.

Will there be an emergency response plan?

Yes. A Standard Operating Plan will be developed before the tanks are placed into service.

The plan will include operational procedures and emergency response measures and will replace the existing operating plan associated with the reservoir and dam system.

Community engagement and next steps

How are residents being notified about the project?

For the first public meeting on Aug. 10, 2026, notifications were sent to 169 properties within a one-mile radius of the project site.

Outreach methods included:

- Postcards
- Nextdoor post
- Email notifications
- Automated phone calls

- Text messages
- Project website information

For the Oct. 14, 2026, public meeting, we sent text and automated phone calls to more than 2,400 customers in the Cheyenne Mountain/Broadmoor area. A targeted email was sent to approximately 16 key residents who attended a September site walk.

Will outreach continue as the project moves forward?

Yes. Ongoing communication with residents, businesses and community stakeholders is an important part of the project.

We recognize that residents have expressed a strong desire for regular updates throughout planning and construction. The project team is committed to sharing information, answering questions and providing opportunities for feedback as the project progresses.

Has Colorado Springs Utilities coordinated with local organizations?

We continue to communicate with community stakeholders including The Broadmoor, Cheyenne Mountain Zoo and El Pomar regarding the project.

Coordination efforts will continue as planning, design and permitting move forward.

Where can residents find project documents and studies?

Project documents, studies, renderings and permit application materials will be made available through permitting review processes as they become available.

Residents are encouraged to review project information, attend public meetings and participate in future outreach opportunities.

This FAQ reflects current project information and may be updated as engineering, permitting and community engagement activities continue.