



DEL PUERTO CANYON RESERVOIR

Water for the Economy
Water for the Environment
Storage for the Future

AT A GLANCE: DEL PUERTO CANYON RESERVOIR

Vision: New, flexible water storage space to benefit farmlands, wildlife refuges, and communities.

Location: On Del Puerto Creek in the Coast Range foothills west of Patterson and south of the Sacramento-San Joaquin Delta.

Funding: Agricultural users of the stored water will pay for the project, and are actively seeking supplemental state and federal funding.

Partnership: Two public entities working together.

- The Del Puerto Water District (DPWD), based in Patterson, provides water to 45,000 acres of farmland adjacent to the Delta-Mendota Canal.
- The San Joaquin River Exchange Contractors Water Authority (Exchange Contractors) consists of four water agencies — Central California Irrigation District, San Luis Canal Company, Firebaugh Canal Water District, and the Columbia Canal Company. They collectively serve 240,000 acres of farmland west of the San Joaquin River, from near Patterson in the north to Mendota in the south.

A NEW RESERVOIR WITH MULTIPLE BENEFITS

The proposed Del Puerto Canyon Reservoir brings the following benefits to the San Joaquin Valley.

Water for the Economy



- Agriculture is a key economic driver for the west side of the San Joaquin Valley. The Del Puerto Canyon Reservoir would establish valuable water storage space, providing a more secure water future for our economy.



- West side communities, including Crows Landing, Dos Palos, Firebaugh, Grayson, Gustine, Los Banos, Mendota, Newman, Patterson, and Westley, rely on groundwater. Water storage for west side agriculture helps restore and sustain groundwater for everyone.



Water for the Environment

- Wildlife refuges south of the Delta support a rich array of birds, animal species, and plant life. Additional water storage and releases from the Del Puerto Canyon Reservoir will help sustain these ecosystems and the riparian corridor for a portion of Del Puerto Creek downstream of the proposed dam.



Storage for the Future

- Del Puerto Creek can create flood conditions during extreme weather. The reservoir will reduce risks by capturing runoff and releasing it in a controlled manner for habitat and groundwater recharge.

HOW DEL PUERTO CANYON RESERVOIR WILL WORK

The Current Picture: DPWD and the Exchange Contractors supply Central Valley Project (CVP) water to highly productive farmlands in Stanislaus, San Joaquin, Merced, Fresno, and Madera counties. CVP water is pumped south from the Sacramento-San Joaquin Delta through the Delta-Mendota Canal. For more than two decades, droughts and pumping restrictions imposed to protect fish habitat and water quality have caused shortages and volatility in water deliveries. As a result, regional economic stability is impacted and the environment is compromised.

The Proposal: DPWD and the Exchange Contractors are partnering to construct and operate the Del Puerto Canyon Reservoir. The project will deliver water from the Delta-Mendota Canal into the new reservoir, where it will be stored and released on a carefully managed basis. The reservoir would allow water to be delivered into storage during wetter periods until it is needed in drier periods for irrigation, wildlife refuges, or groundwater recharge.

FEATURES

- 800-acre reservoir with a 260-foot high earthen dam and three saddle dams
- Storage space for up to 82,000 acre-feet of water
- Off-stream storage, meaning no impediments to river flows
- Pipeline connection to the Delta-Mendota Canal
- Average water yield of up to 60,000 acre-feet per year

BENEFITS

- Improve water supply reliability for agriculture and wildlife refuges
- Capture Del Puerto Creek runoff to increase flood protection
- Support the local and regional economy
- Enhance local management of groundwater and surface water to benefit local communities, which rely on agricultural irrigation to replenish the groundwater supply

COMMUNITY ISSUES

Roadway

- The project requires a portion of Del Puerto Canyon Road to be relocated
- Optimal alignment is being determined with input from the County and the community

Biological Resources

- Through required environmental reviews, the project impacts to all species, including protected species, will be evaluated and mitigation will be provided to avoid and minimize significant impacts
- Environmental flow releases will be maintained to mimic current creek conditions to protect fish spawning habitat in the San Joaquin River

Recreation

- Del Puerto Canyon Reservoir will not be suitable for water-based recreation because of steep shorelines and fluctuating water levels, particularly in the summer
- The land is privately owned; thus no existing public access will be displaced
- The project partners understand the public's recreational interests and would be supportive of future potential County and/or City development of recreational amenities that do not conflict with the project
- Birding will remain a viable recreational pursuit along the road and in park lands

Cultural Resources

- Consultation with the Native American Heritage Commission (NAHC) has determined there are no Sacred Sites in the project area, although there are archeological features in Del Puerto Canyon. Additional studies will be conducted, along with continued Tribal outreach efforts.

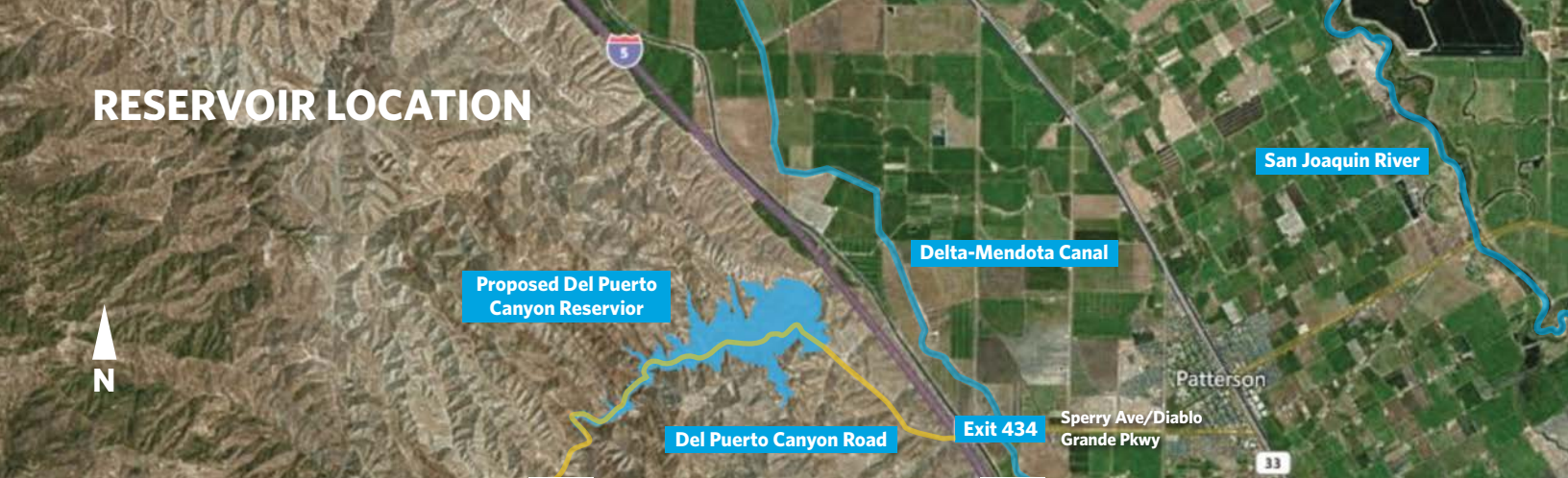
Seismic Safety

- Design and construction of the reservoir will meet all state and federal dam safety requirements. The earthen fill design provides for the greatest flexibility and safety. A seismic hazards analysis will be conducted prior to construction to ensure safe design, and a seismic monitoring system will be built into the facility and remain in service throughout its life.

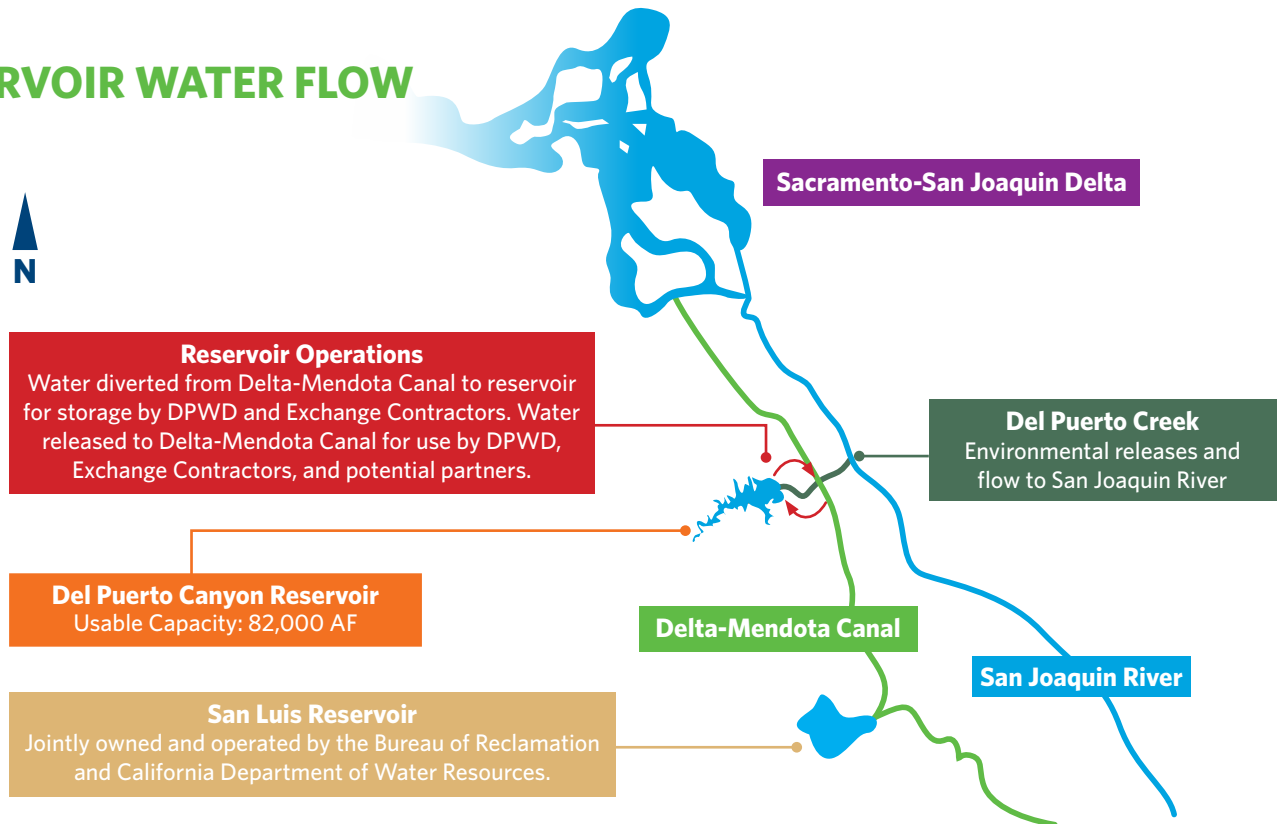
TIMELINE



RESERVOIR LOCATION



RESERVOIR WATER FLOW



THE PROJECT PARTNERS ARE COMMITTED WATER STEWARDS

The development of Del Puerto Canyon Reservoir for surface water storage continues the project partners' legacy of water stewardship for multiple benefits in the region. The partners have been collaborative leaders in addressing water challenges in the San Joaquin Valley, supporting multiple projects to further irrigation efficiencies and groundwater storage.

DPWD implemented the innovative North Valley Regional Recycled Water Program, making recycled water from the Cities of Modesto and Turlock available for irrigation and delivery to south-of-Delta wildlife refuges.

The Exchange Contractors are implementing a water conservation program to conserve more than 20,000 acre-feet of water each year, a portion of which would be available to these same refuges.

The 2014 Sustainable Groundwater Management Act imposes a strict, locally driven regime to protect and sustain groundwater resources. Both project partners are working closely with neighboring communities to develop long-term Groundwater Sustainability Plans (GSP). The Exchange Contractors are working with the historically disadvantaged communities of Dos Palos, Firebaugh, Gustine, Los Banos, Mendota, Newman to develop joint strategies for stabilizing groundwater. Similarly, DPWD is collaborating with its neighbors in the surrounding communities to develop a multi-agency GSP.

Today, groundwater can no longer be the backstop that it once was in the absence of adequate surface water. Storage in Del Puerto Canyon Reservoir will be an important tool for improving water supply conditions in the area.



WATER FOR THE ECONOMY

- The west side's communities are surrounded and supported by a strong agricultural economy.
- Agriculture is a key driver to the area economy and quality of life, pumping \$7.15 billion into the Stanislaus County economy alone in 2017 (more than \$19 million per day).¹
- Among the gifts of the land: Fruits, nuts, vegetables, livestock, poultry, dairy, and other products, many of which are organic.
- Employees engaged in agriculture numbered more than 34,000 in 2017, holding nearly one in eight jobs in Stanislaus County alone. Total agricultural employment in region is in excess of 100,000 employees.
- Food production is dependent on water. Without a reliable supply, agriculture cannot survive. Droughts, climate change, and competing uses of existing water sources make it difficult to keep supplies flowing when needed. Storage provided by Del Puerto Canyon Reservoir is a key component to addressing this challenge for the future.

1 <http://www.stanag.org/pdf/cropreport/cropreportplus2018.pdf>

WATER FOR THE ENVIRONMENT

- Wildlife refuges south of the Delta support a rich array of birds, animal species and plant life, all of which depend on water. These refuges lack adequate water for habitat and food production. The primary refuges include the Kern and San Luis National Wildlife Refuges; Los Banos, Mendota, North Grasslands, and Volta Wildlife Areas; and Grassland Resource Conservation District. Expanded storage space within Del Puerto Canyon Reservoir creates potential for the refuges to become future contracting partners and receive more robust, reliable flows.
- Managing Del Puerto Creek flood flows in a more controlled way allows for groundwater recharge, which would benefit the riparian corridor east of Interstate 5.
- Additional water storage and releases from the Del Puerto Canyon Reservoir will help sustain these ecosystems.



STORAGE FOR THE FUTURE

- **Flood Safety.** Typical of west side streams, Del Puerto Creek will flood adjacent lands when runoff occurs during high rainfall events. This flooding impacts orchards, farm structures, roads, residential areas, and commercial developments. The Del Puerto Canyon Reservoir will capture flood flows, which can be stored and released so as to minimize flood risks, while increasing groundwater recharge and maintaining natural habitats in the creek.
- **Groundwater Management:** Increasing the availability and reliability of surface supplies will reduce groundwater pumping and stabilize groundwater levels. This improved groundwater management benefits all the communities in the area that rely on groundwater, including Crows Landing, Dos Palos, Firebaugh, Grayson, Gustine, Los Banos, Mendota, Newman, Patterson, and Westley. Many of these are disadvantaged communities with limited resources to secure new supplies. In addition, continued groundwater recharge in Del Puerto Creek will protect future water supplies in the region.