

DAM Failure Risk (0.1%) vs. Wildfire Risk (50%)

www.raiselakehodges.org

2025

Latest Updates: Raising the Water Level Will Prevent Wildfires!

- Increased Brush Exposure: Dropping the water level by 25-35 feet below the spillway exposes 308.5 to 540 acres of dry brush, significantly increasing fuel loads for potential fires.
- Elevated Fire Risk: A 25-foot drop raises wildfire risk by 25-30%, and a 35-foot drop raises it by 40-50%. This creates a heightened threat to nearby communities, including Rancho Santa Fe and Escondido, particularly during dry seasons.
- Fire Zone Trends: Comparisons of fire risk maps from 2011 to 2024 show expanded high-risk zones (red areas), underscoring the need for higher water levels to reduce exposed brush.

Enhancing Dam Stability

- Importance of Hydrostatic Pressure: A stable water level at 290 feet provides essential pressure against the dam, reducing the risk of structural issues such as sliding or cracking.
- Low-Level Risks: Water levels that are too low can weaken hydrostatic pressure, reducing frictional stability at the dam base and increasing susceptibility to seismic activity or gradual erosion, which could threaten dam integrity. Due to its multiple-arch design the dam withstands seismic forces better than solid concrete dams. See Dam History.









Fire risk in 2011 vs. 2024 per CALFIRE has increased by 50% as visualized in RED (very high severity zone) around Lake Hodges.

Community Rallies for Water Security, Economy, Wildlife

Increased Water Storage

Raising the water level to 290 feet would add approximately 10 billion gallons of storage, strengthening the regional water supply, particularly valuable in drought-prone Southern California.

Economic Benefits

Additional water storage can stabilize and reduce water costs, benefiting local districts and supporting economic growth. Furthermore, the lake's hydroelectric potential at higher levels could power approximately 26,000 homes annually, contributing to renewable energy initiatives.

Wildlife Habitat Restoration

Higher water levels provide expanded habitats for fish, birds, and other wildlife, including species like the Grebes which are down from hundreds to only 13 nesting pairs.. These ecosystems are crucial for biodiversity and water purification.

The wildlife on Lake Hodges, specifically birds, are adversely affected by lower water levels. With less water and less shoreline, historical large populations of water fowl have declined. Most bird species are already feeling the pressure of increased urbanization and farming, leading to decreased wetlands, and Lake Hodges is an important stopover on the Pacific Flyway for many migratory species of bird.

Ecological Balance

Maintaining a robust wetland environment at Lake Hodges helps control algae blooms, support fish populations, and foster a balanced, resilient ecosystem essential for long-term water quality.

~ Dam History ~

Lake Hodges Dam in Escondido, California, is a multiple-arch concrete structure built in 1918. Designed by John S. Eastwood, this type of dam uses a series of curved, arched sections that direct water pressure against sturdy buttresses, distributing the load efficiently across each arch. The multiple-arch design reduces the amount of concrete needed while maintaining structural integrity, which is both cost-effective and durable. Reinforced with steel rebar and built to follow the natural contour of the surrounding landscape, Lake Hodges Dam withstands seismic forces better than traditional solid concrete dams, contributing to its longevity in an area prone to earthquakes. Regular maintenance and seismic retrofits have also ensured that it remains a resilient structure over a century later.

San Diego Gas & Electric

Recommends fire borders enhanced by raising lake levels

Current Level Down to 272 Feet

Santa Fe Irrigation District raises rates by 40%

11 Billion Gallons Released in 2023-4

Enough water for Escondido for 5 years of drought