Lake Hodges Fact Sheet

FRIENDS OF LAKE HODGES

Friends of Lake Hodges – a non-profit organization established in May 2022 to support government efforts to improve Lake Hodges dam safety and capacity, water quality, wildlife habitat, and public access for the benefit of the community.

Lake Hodges Dam – a 107-year-old, 131 ft high, 729 ft wide, multiple-arch dam, designed by John S. Eastwood, built on the San Dieguito River in1916-1918 at cost of $1.1 million (an inflation-adjusted $25 million) financed by the Santa Fe Railroad and named for William Hodges, VP of the railroad company. The City of San Diego purchased the dam and reservoir for $3.5 million in 1925.

Lake Hodges Reservoir – the reservoir captures water from 345 sq. miles of the San Dieguito Watershed, one of the largest in San Diego County.

When full, at an elevation of 315 ft., the Lake Hodges reservoir has 1,234 surface acres, a maximum water depth of 115 feet, 27 shoreline miles and a water storage capacity of 30,251 acre-feet.

Currently, the water level is restricted to 280ft, 35 ft below the spillway crest, due to a Feb. 2023 State Division of Safety of Dams (DSOD) order. As of September 2025, lake storage is 4,165 acre-feet, or 13.6% of capacity.

Lake Hodges ownership – the City of San Diego owns the dam, and the SD Water Authority and the downstream water districts have storage rights to the water in the reservoir. They have been sharing the costs to maintain the dam.

Olivenhain Dam was completed in 2003 at a cost of $203 million as part of San Diego's Emergency Storage Project. It is 318 ft high and 2,400 ft wide and the first roller compacted concrete dam in California. Olivenhain Reservoir has a storage capacity of 24,000 acre-feet and sits 850 vertical feet higher than Hodges. San Vicente dam was raised 117 ft at a cost of $416 million in 2016.

Lake Hodges is connected to Olivenhain Reservoir through a **Pumped Storage Facility**, a 10ft diameter, 1.25-mile pipeline, built by the San Diego County Water Authority in 2012 at a cost of $208 million. During times of low energy demand, water can be pumped uphill from Hodges to Olivenhain, then returned downhill through turbines to generate electricity during high-demand periods generating up to 40 megawatts (MW) of renewable electricity (26,000 homes).

The **Pumped Storage Facility's** intake pipe in Lake Hodges is at 290ft and water from Lake Hodges is no longer available to the San Diego regional water system. It cannot return to operation until a new dam is built, or the water level restored to 290ft.

Hodges Reservoir Hypolimnetic Oxygenation System (HOS) was built to improve the water quality of Lake Hodges reservoir by injecting large amounts of oxygen into the deep water of the reservoir to prevent the lake bottom from becoming oxygen depleted during the hot summer months and to ensure that Hodges' water is good enough for the regional water supply. It was operational in 2020 at a cost of $3.4 million, funded by the CA Dept of Water Resources.

Santa Fe and San Dieguito Water Districts share a pipeline from Lake Hodges to the 850 acre-feet San Dieguito Reservoir.

Dam Repairs – In 2022, a DSOD inspection showing concrete deterioration, cracks, rebar exposure, and a hole in the dam face raised serious safety concerns and an "Unsatisfactory" rating. $14 million of repairs was completed in May 2023, with costs shared by the SD County Water Authority, City of San Diego and Santa Fe and San Dieguito Water Districts.

Water loss – With the water level restrictions, 11 billion gallons of excess rainfall since 2023, at an estimated cost of $21 million, has been released to the ocean. Billions more gallons will be released until the water level can be restored to 290 ft.

Dam Replacement – In 2024, GEI Consultants (GEI) were contracted to begin designing a replacement dam. The first step in the process is a 10% study, followed by 30%, 60%, 90% and then final designs and permitting prior to construction.

10% Study – A new dam will be constructed 100 yds downstream from the current dam. It is planned to be 125 ft high and 740 ft wide, less than one half the height and one third the width of Olivenhain dam. The estimated design and construction cost is $230 million, with an additional $92 million contingency. The total in 2033 dollars is $474 million, using an annual inflation rate of 4.32%. This was more than expected.

The San Diego County Water Authority has withdrawn its support for the Lake Hodges Dam Replacement due to the increase in cost estimates. The City of San Diego has hired GEI consider alternatives. Their report is expected in the summer of 2026.

Funding – $240.6 million in low interest loans for the dam replacement project were allocated in 2024 from the Biden Infrastructure bill.

Recreation – Lake Hodges is a popular spot for hiking, biking, bird watching, kayaking and picnicking.

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Lake Hodges Habitat – People come from all over the world to see the **Western and Clark's Grebes**, iconic birds that run on water and were featured in San Diego: American's Wildest City and the BBC's Secret Lives of Animals

Bass Fishing Mecca – Lake Hodges is known for its Florida strain largemouth bass which can grow up to 20lbs. Bass fishing boats cannot currently reach the lake since the boat ramp, at 292ft, is above the current water line for the lake. The lake is also home to catfish, crappie and bluegill fish

The Audubon Society considers Lake Hodges an **Important Bird Area (IBA),** hosting over 200 bird species, including the **endangered species,** least Bell's vireo and **threatened species** California gnatcatcher and coastal cactus wren make their homes at Lake Hodges.

The David Kreitzer Lake Hodges Pedestrian Bridge, named for a much-loved local environmental advocate, is the world's largest stress ribbon bridge at 990ft long.

The Kumeyaay People have a long and rich history around Lake Hodges since at least 7,000 B.C.

TABLE 8.1
SUMMARY OF ESTIMATED COSTS
LAKE HODGES DAM REPLACEMENT PROJECT

Item	2024 Base Cost[1] ($)	2033 Escalated Cost[2] ($)
CONSTRUCTION CONTRACTOR COSTS - OPCC	**122,958,000**	**190,748,000**
General Conditions	7,906,000	12,264,000
Site Development	6,259,000	9,710,000
Dam Foundation Excavation and Improvements	15,913,000	24,686,000
RCC Dam and Spillway	34,243,000	53,123,000
Spillway Side Chutes and Stilling Basin	21,348,000	33,118,000
Outlet Works Facilities	14,778,000	22,926,000
Appurtenances	3,724,000	5,776,000
Partial Demolition of Existing Dam[3]	6,233,000	9,669,000
General Site Restoration	1,376,000	2,135,000
Miscellaneous	11,178,000	17,341,000
SOFT COSTS	**106,664,000**	**140,556,000**
Designer[4]	45,184,000	45,184,000
City Labor Cost	6,148,000	9,537,000
Program Management	6,148,000	9,537,000
PLA Administration	1,230,000	1,907,000
Environmental Permits	4,918,000	7,630,000
Environmental Mitigation Cost	6,148,000	9,537,000
Environmental/Cultural Monitoring During Construction	2,459,000	3,815,000
DSOD Permit, Application Fees	2,459,000	3,815,000
Construction Easements	1,230,000	1,907,000
CM, Inspection, Material Testing, QA/QC	18,444,000	28,612,000
Reserves for Unforeseen Costs	12,296,000	19,075,000
CONTINGENCY[5]	**92,218,000**	**143,061,000**
TOTAL	**321,839,000**	**474,367,000**

Notes:
1) Costs rounded to $1,000.
2) Escalation rate equals 5% per year.
3) Assumes demolition of the top of the existing dam to El 315 and demolition of leftmost five bays. Additional demolition of the top of the existing dam to El 300 would increase the total project cost by about $3,000,000, and was considered in establishing the contingency percentage.
4) Designer cost includes contingency and escalation.
5) Contingency equals 50% of construction contractor and soft costs, except designer cost.