

Elephant Butte Reservoir

3 languages

ArticleTalk

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Coordinates:

33°14′19.43″N 107°10′26.23″W

Elephant Butte Reservoir or **Elephant Butte Lake** is the largest reservoir in the U.S. state of New Mexico, 130 miles (289 km) from El Paso, Texas, and 5 miles (8.0 km) north of Truth or Consequences.

The reservoir began filling in 1915, and at full capacity became the largest man-made lake in the world.^{[1][2]} Built as part of the Rio Grande Project, it was intended to revive the fertility of farmland soil in the Rincon and Mesilla Valleys.^[3] Today, the reservoir's storage remains crucial to the Rio Grande as it provides power and irrigation water to New Mexico, Texas, and Mexico.^[4]

It is impounded by Elephant Butte Dam and became part of the largest state park in New Mexico, Elephant Butte Lake State Park, in 1964.^[5] Before it was known as Elephant Butte, there were three prospective names: Lake Esperanza, Lake Hall, and Lake Engle.^[6] Ultimately, Elephant Butte Reservoir was named after the Elephant-shaped butte in its territory.^[7]

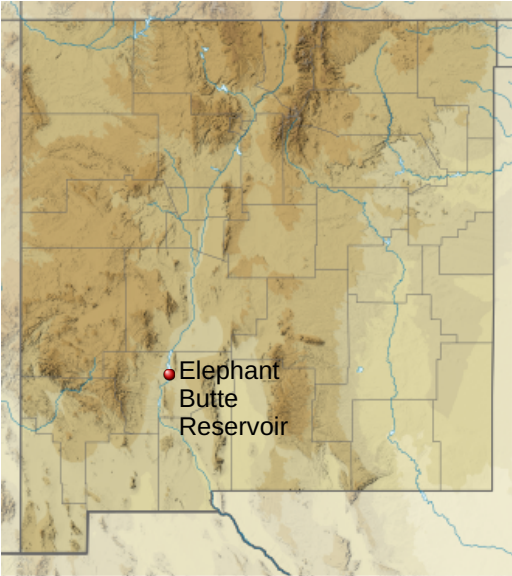
The reservoir can hold 2,065,010 acre-feet (2.54715×10⁹ m³) of water^[1] from a drainage of 28,900 square miles (74,850 km²).^[8] It provides irrigation to 178,000 acres (720 km²) of land.^[1]

Species [edit]

Over one million people visit Elephant Butte annually, making it New Mexico's most popular outdoor recreation destination. Activities include camping, scuba diving, swimming, birding, fishing, and general wildlife watching.^[9]

The reservoir attracts an abundance of waterbirds and shorebirds, particularly during fall and spring migration along the surrounding marinas. Common bird species include American White Pelicans, Gulls, Terns, Waders, Loons, Waterfowl, Grebes and Ducks.^[10]

Elephant Butte Reservoir



Location within New Mexico

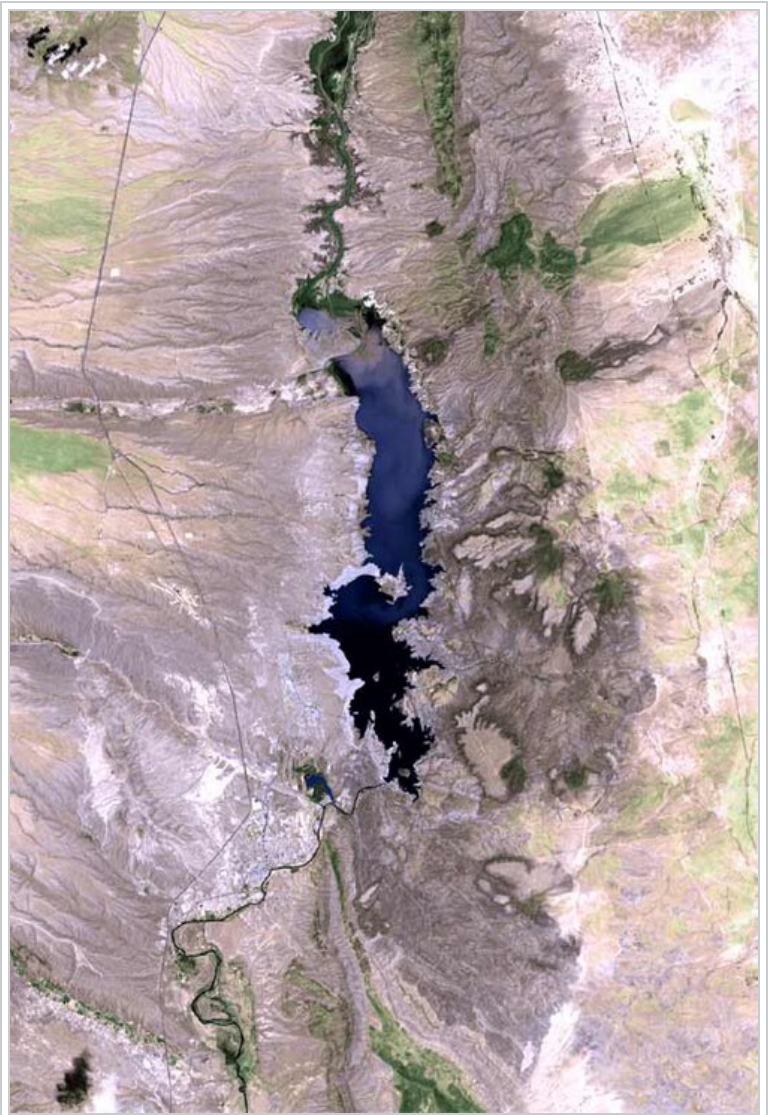
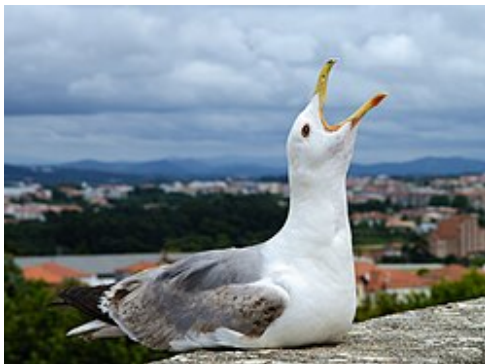
- Show map of New Mexico

Show map of the United States

Show both

Location	Sierra County, New Mexico
Coordinates	 33°14′19.43″N 107°10′26.23″W
Lake type	Hydroelectric reservoir
Basin countries	United States
Surface area	36,500 acres (14,800 ha)
Water volume	2,065,010 acre·ft (2.54715 km ³)
Surface elevation	4,414 ft (1,345 m)

Shorebirds found in Elephant Butte Reservoir



Satellite Image of Elephant Butte Reservoir.



The reservoir is a popular fishing spot, home to a variety of species including [Striped bass](#), [White bass](#), [Largemouth bass](#), [Smallmouth bass](#), [White Crappie](#), [Bluegill](#), [Walleye](#), [Channel catfish](#), [Blue Catfish](#).^[11]



Etymology [[edit](#)]

The reservoir, dam, and surrounding area are named after a nearby volcanic core, "[Elephant Butte](#)," similarly to [Devils Tower](#), in [Wyoming](#). It is now an island in the lake when the water levels are high.

Dam Construction and History [[edit](#)]

Main article: [Elephant Butte Dam](#)

Before the construction of the reservoir and dam in 1911, [Spanish settlers](#) built the first [acequias](#), an irrigation ditch, near today's [Española](#), [Santa Fe](#), [Las Cruces](#), [Doña Ana](#), and [Mesilla](#). In 1848, The [Treaty of Guadalupe Hidalgo](#) upheld Mexican citizens property rights, which included the acequias.^[6] In 1906, the

reservoir features in the 1906 Boundary Waters Convention between the United States and Mexico, which specified how much water should be delivered to Mexico after the dam's completion.^[12]

Elephant Butte Dam was constructed between 1911 and 1916, with the reservoir fill starting in 1915. It was a major engineering feat in its day, and the enormous concrete dam is the major feature of the [Elephant Butte Historic District](#).

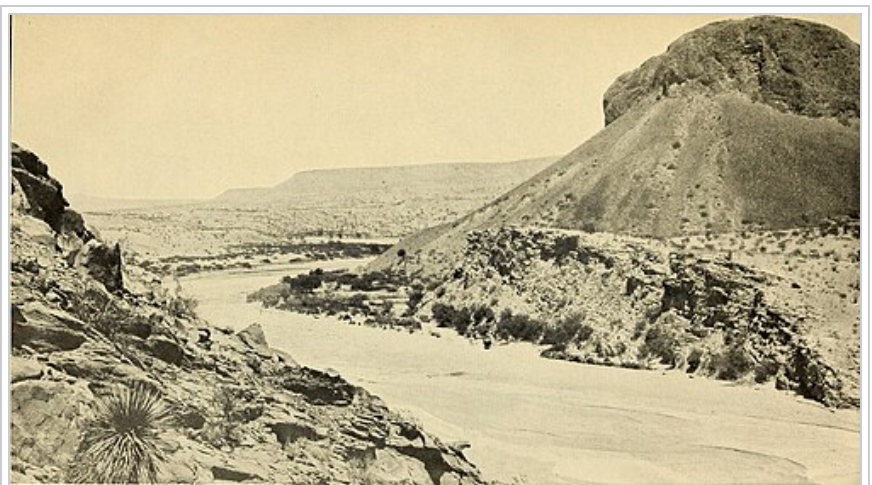
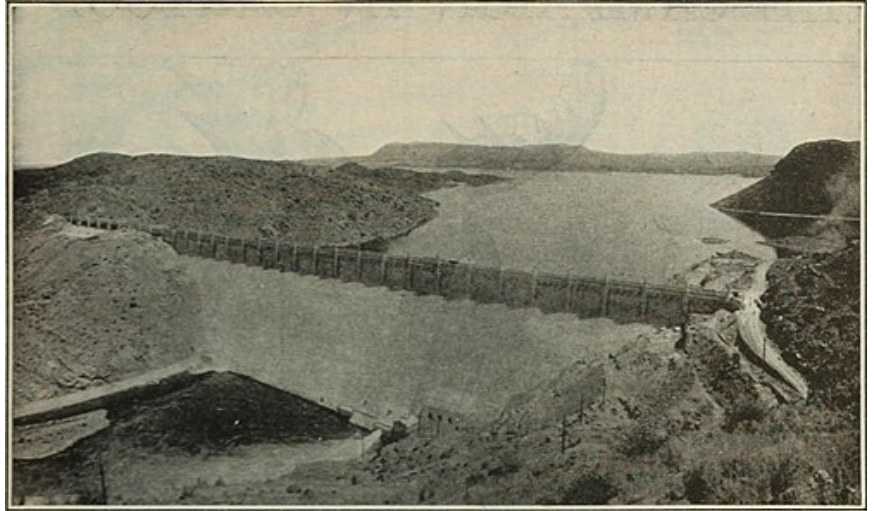
New Mexico State Parks operates a visitor center, which contains information on the construction of the dam. It was the second-largest irrigation dam ever built at the time of its construction and was surpassed only in 1970 by the [Aswan Dam](#) in [Egypt](#), and the reservoir was the largest man-made lake on earth.^[2]

A large construction community sprang up, which included two worker camps, [railways](#), water tanks, [cableway systems](#), and the former administration building of the [Bureau of Reclamation](#). The "camps" housed American and Mexican workers throughout the dam's construction. One of the former camps ended up under the reservoir itself; the other disappeared altogether. Moreover, many centuries-old communities and farming villages were "obliterated" by the filling of the reservoir and now lie at the bottom, including complete stone structures. Over 2,000 people were displaced by the filling of the reservoir.^[2]

Water Storage ^{[[edit](#)]}

When the reservoir filled in 1915, irrigation use downstream was much more limited than today, which allowed the lake to remain relatively full. In May 1942, the lake experienced a highstand for the first time. Another longer-lived highstand occurred in July 1985 and lasted with the spillway in use until 1988.^[13]

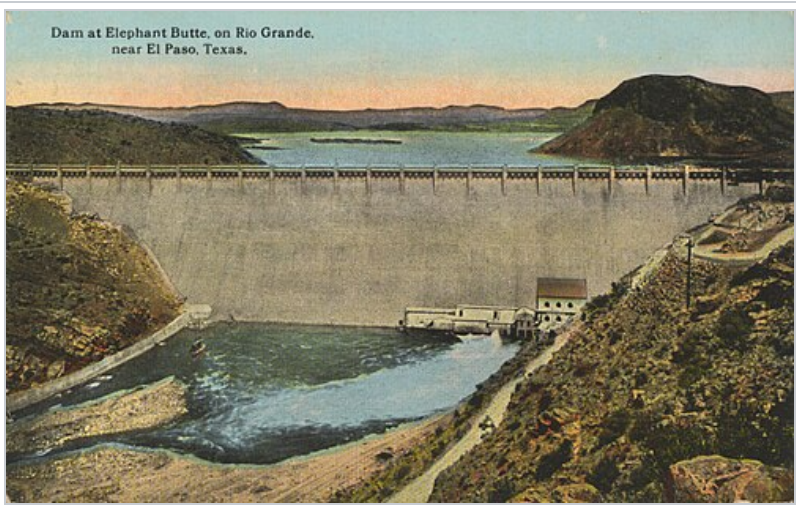
By 1950, the "full production" use, prolonged droughts, and low snowpack melt from Coloradoan mountains caused water levels to fall below the 1915 levels, in both the reservoir and Upper [Rio Grande](#).^[14] In recent years, Elephant Butte stores just 3% of its 2-million acre-foot capacity. Consequently, the drought effects are permanent for farming and local water sources. For example, the village of [Magdalena](#), 100 miles north of the reservoir, was forced to use bottled water after its wells ran dry.^[15] Similarly, farmers in the surrounding area of El Paso are beginning to rely on costly groundwater sources instead of irrigation runoff to save crops like pecans and chiles.^[16]



Water Resources of the Rio Grande Valley in New Mexico and their Development (1907).

The reservoir's low water levels are detrimental to the vitality of the Rio Grande, specifically the [Lower Rio Grande](#), which has been considered one of the nation's most endangered bodies of water for decades.^[17] Per the 1906 Treaty Convention, the reservoir must provide 60,000 acre feet of water annually to Mexico's Acequias and Rio Grande,^[18] however climate change factors, like the rise in global temperature, prevent those measures from happening.^[16]

In 2014, a group celebrating a bachelor party on the exposed sediments of the lake discovered the head and tusks of a 3.2-million-year-old [stegomastodon](#), a relative of true elephants, in excellent condition. That is one of the most complete finds of a stegomastodon in the area. The skull is on display at the [New Mexico Museum of Natural History and Science](#).^[2]



Elephant Butte Dam, on the Rio Grande.

Gallery [edit]



Panoramic view of Elephant Butte Reservoir in 2005



The dam at Elephant Butte Reservoir in 1916, before the 1944 highstand.



Elephant Butte Reservoir in 1946 after the highstand. Note the mineral stains on the hillsides created just two years prior.

References [edit]

1.

[^] ^{[a](#)} ^{[b](#)} ^{[c](#)} "Elephant Butte Powerplant" . *Rio Grande Project*. Bureau of Reclamation. December 28, 2005. Archived from [the original](#) on September 26, 2006. Retrieved October 11, 2006.

2.

[^] ^{[a](#)} ^{[b](#)} ^{[c](#)} ^{[d](#)} Briseño, Elaine D. (July 5, 2020). "Elephant Butte looks the part, but a long, storied history is at the center of how the dam got and kept its name" . *Albuquerque Journal*. Retrieved February 2, 2021 – via [abqjournal.com](#).

3.

[^] "The Elephant Butte Dam" . *Scientific American*. **111** (5): 73–74. 1914. [ISSN 0036-8733](#) .

12. [^] <https://www.ibwc.gov/Files/1906Conv.pdf> text of 1906 Boundary Waters Convention
13. [^] ["Elephant Butte Lake Water Data"](#) . *Albuquerque Journal*. February 1, 2021. Retrieved February 2, 2021 – via Water Data for Texas.
14. [^] ["Elephant Butte Reservoir Five-Year Operational Plan"](#) (PDF). *Reclamation: Managing Water in the West*: 3, 4. February 2009. Retrieved February 9, 2021.
15. [^] ["Water Scarcity: Elephant Butte Water Reservoir | Sierra County"](#) . *The Architectural League of New York*. Retrieved October 13, 2025.
16. [^] [a b](#) Scientists, Union of Concerned (2016). [Confronting Climate Change in New Mexico: Action needed today to prepare the state for a hotter, drier future](#) (Report). Union of Concerned Scientists.
17. [^] ["Lower Rio Grande"](#) . *America's Most Endangered Rivers® of 2025*. Retrieved October 13, 2025.
18. [^] ["Wayback Machine"](#) (PDF). *www.usbr.gov*. Archived from [the original](#) (PDF) on May 23, 2025. Retrieved October 13, 2025. {{cite web}}: Cite uses generic title (help)

External links [[edit](#)]

- [Elephant Butte Lake State Park](#)
- [Elephant Butte Chamber of Commerce](#)
- [Historic American Engineering Record \(HAER\) No. NM-20, "Elephant Butte Reservoir, Elephant Butte, Sierra County, NM"](#), 3 data pages



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