WHITNEY LAKE REALLOCATION STUDY

Frequently Asked Questions

What is the Whitney Lake Reallocation Feasibility Study?

The Whitney Lake Reallocation Feasibility Study and Environmental Assessment (Reallocation Study) is an evaluation, performed by the U.S. Army Corps of Engineers (USACE), with the Brazos River Authority (BRA) serving as the non-federal sponsor, to assess the current utility of water stored in Lake Whitney and identify a more publicly beneficial arrangement for future use. The storage proportions and uses of water in Lake Whitney have not been evaluated since the 1970s, over 50 years ago.

The objective of the Reallocation Study is to determine how the current allotments of water stored in the reservoir might be changed or “reallocated” and to identify the alternative that maximizes public water supply benefits while not adversely impacting other purposes of the reservoir.

Why is the Reallocation Study being performed by the USACE?

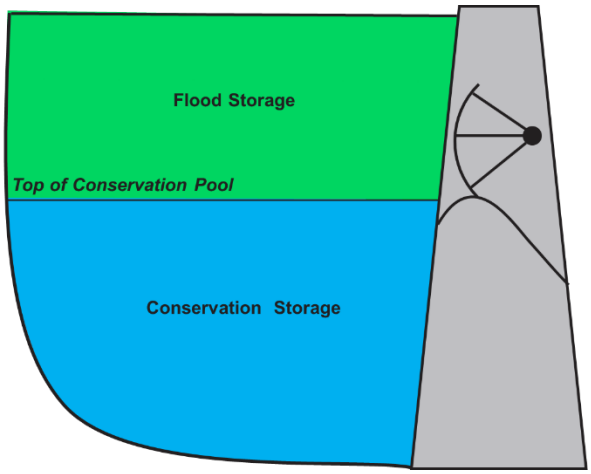
The State Water Planning process has determined that the population of the Brazos River Basin will double by 2080, and current water needs are already greater than the currently available water supplies. The BRA has been charged by the Texas Legislature with developing new water supplies to meet the needs of the growing population.

In recognition of these water needs, the BRA requested the USACE to study how the water stored in Whitney Lake might be used differently than it has been in the past to better benefit water supply needs.

It is the responsibility of the USACE to perform this study because they own and operate Whitney Lake.

What are Federal Reservoirs for?

Federal Reservoirs are man-made bodies of water that are created and operated by the USACE primarily for flood control purposes. Each federal reservoir has federal legislation that authorized its construction and designated its intended uses. Congressionally authorized uses include flood control, water supply, and/or hydropower generation. Whitney Lake is the only federal reservoir in the Brazos River Basin that has both water supply and hydropower purposes as its authorized uses for its conservation storage.



Recreation is also considered a use at federal reservoirs, but it is considered an incidental use as it naturally accompanies the authorized purposes of the reservoir.

What does this Reallocation Study evaluate?

This Reallocation Study examines the reproportioning of the storage volumes designated or 'allocated' for each reservoir purpose to increase the public benefits of the reservoir. At Whitney Lake, these purposes are flood control, water supply, and hydropower. Importantly, any reallocation alternative must be evaluated for impacts to other reservoir uses, including recreation. The objective of the Whitney Lake Reallocation Feasibility Study is to identify a reallocation alternative that maximizes the water supply benefit of the lake while imparting minimal impacts to other lake uses and accruing the least costs.

How does the BRA fit into this study?

The BRA is mandated by the State of Texas to develop, manage, and protect the water resources of the Brazos River Basin. Accordingly, the BRA contracts with the USACE to store water in federally owned, flood control reservoirs throughout the basin. Additionally, the BRA owns and operates three water supply reservoirs within the Brazos River Basin (Possum Kingdom Lake, Lake Granbury, and Lake Limestone).

In total, the BRA contracts for water supply storage in eight federal reservoirs that make up a substantial portion of the BRA's Water Supply System. As part of these agreements, which have been in place for many years, the BRA provided the funds to pay for the initial construction of all eight federal reservoirs within the BRA System, as well as makes annual payments toward the operation and maintenance of each federal reservoir dam.

The BRA currently holds a storage contract with the USACE for a small amount of water in Whitney Lake. Therefore, the BRA is the only entity in the basin that can not only advocate for greater public water supplies in federal reservoirs but also partner with the U.S. Army Corps of Engineers to sponsor a reallocation feasibility study at Whitney Lake.

Why Lake Whitney? Why not another USACE reservoir?

Lake Whitney is a large reservoir in the central-upper region of the Brazos River Basin, and its location is ideally suited to meet a wide variety of the growing local and downstream demands. In addition, the hydropower operations at Whitney Lake have changed within the last ten years, thus resulting in hydropower generation needing and releasing significantly less stored water.

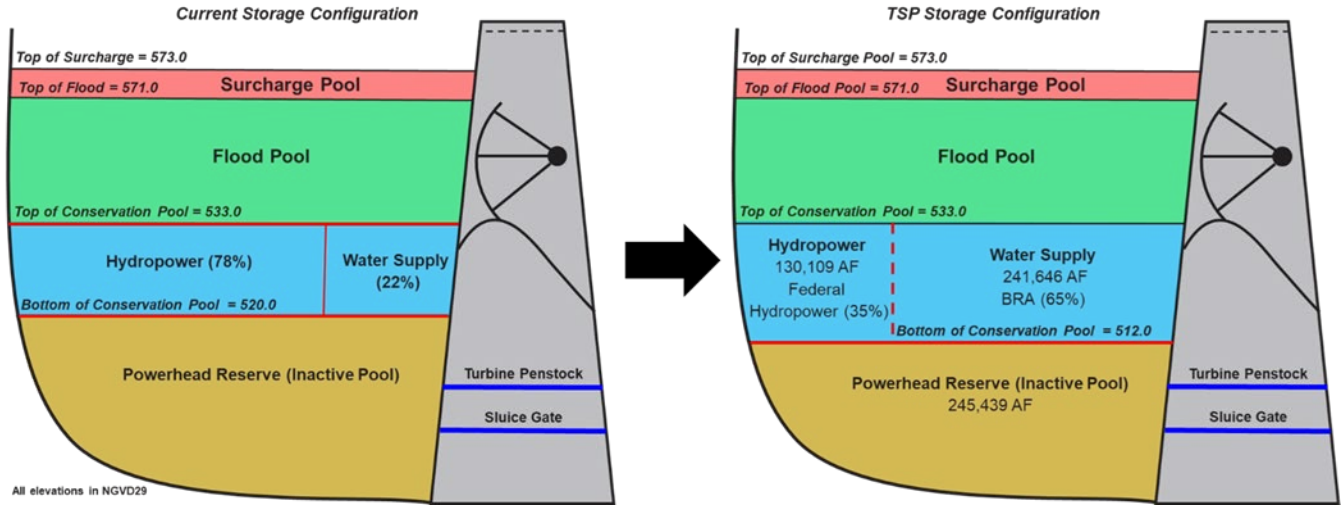
Whitney Lake is unique compared to the other federal reservoirs in the basin because there is additional water supply already available for reallocation within the conservation storage space. Therefore, the top of conservation pool does not have to change for a beneficial reallocation to occur. In the other federal reservoirs, the entire conservation storage space is already dedicated to water supply, so any reallocation study would have to evaluate flood control storage. At Whitney Lake, water supply can be developed with significantly less cost and impact by using the current conservation storage rather than flood control storage in another federal reservoir.

What does the Study recommend?

The USACE developed eight different alternatives that examined reallocating water from the flood control pool, within the existing conservation pool, and from the currently inactive pool (conservation storage below the conservation pool) in various combinations. "Alternative 6" was

chosen to be the Tentatively Selected Plan (TSP) and represents the reallocation alternative that meets the objective of the study in maximizing public benefit and minimizing impacts to other uses.

Under the TSP, the share of water allotted to hydropower generation would be scaled back to make more water available for public benefit while also preserving enough storage for continued hydropower use. The TSP would make approximately 241,646 acre-feet of existing water storage space below the top of the conservation pool available to fulfill water supply needs both within the local area and throughout the Brazos River Basin.



What does this mean for lake levels at Lake Whitney?

There are two important lake level conclusions about the TSP:

1) The TSP would result in lake levels that are on average less than 1 ft lower than current conditions only when compared to current reservoir operation over the past 10 years. This is because hydropower generation releases significantly decreased in 2015, so the lake has remained higher than normal since then.

2) Lake elevations with the TSP in place will actually be higher than those experienced from the early 1970s up until about 2015 because hydropower was used to meet peak energy demands during that time and released substantial amounts of water to generate electricity.

Should the TSP be approved, Lake Whitney's level would fluctuate somewhat similarly to the period when hydrogeneration was most active, from 1973 – 2014, and lake levels with the TSP in place will on average be higher than they were during that period.

Is the study recommending a change that would lower the lake level from 533 feet to 512 feet?

No, the top of Lake Whitney's conservation pool will remain the same, at 533 feet, with the TSP.

What does the 512-foot level signify?

Part of the TSP proposes reallocating a portion of the current “inactive” pool between the bottom of the conservation pool, at 520 feet, to 512 feet. The inactive pool is designated as Powerhead Reserve and provides hydraulic head (or potential energy) for hydropower use.

This reassignment would change the *bottom* of the conservation pool, making an additional 8 feet of water available for water supply. The TSP does not mean the lake level would be permanently lowered to 512 feet. It would simply mean that, in the event of extreme drought, should the lake level ever drop to 512 feet, no additional water may be used for either hydroelectric generation or for water supply.

Is the reallocation due to the construction of data centers in the Brazos River Basin?

No, the BRA has no current or future pending contracts directly with data centers in the basin, and we have had no discussions to date with anyone about developing such contracts.

Reallocation decisions are guided by federal law, hydrologic modeling, and stakeholder input to balance the needs of all users equally, including residents, municipalities, and industry.

Under the TSP, in drought periods, could the lake level drop to lower levels than before?

Since the current Top of Conservation Pool elevation of 533 feet was established at Whitney Lake in the early 1970s, the Lake has never drawn down to 512 feet. The lowest level the Lake reached was 516.7 feet in 2011 due to extreme drought conditions. The Draft Feasibility Report shows that the lowest lake level over the period of record with the TSP is 517.7 feet. So, with the hydrological conditions that the Lake has experienced, the TSP model does not anticipate the lake reaching 512 feet.

No two droughts are alike, and droughts will continue to occur in the future. It is possible that a new future drought could be worse than any drought experienced before. It is for this very reason that water supplies are stored in reservoirs – so that water is available for use even during drought conditions. Should future extreme drought occur, lake levels will decline regardless of reservoir operations and the proposed TSP.

Why not build a new lake on the Brazos further south to keep up with the demand?

New reservoir development is exponentially more expensive in terms of construction, permitting, and impact mitigation costs than reallocation of existing reservoir conservation storage. Additionally, new reservoir construction typically takes much longer to implement due to lengthy construction and permitting processes. However, new reservoir construction remains a relevant and essential water supply strategy in the State Water Planning process.

The BRA is currently in the permitting process for the construction of an off-channel reservoir in Austin County, located northwest of Houston. However, even with the addition of the potential water available from this proposed reservoir, there are still substantial water supply needs in the Brazos River Basin due to the expanding population and economic growth in the state.

Why don’t you block future development to reduce the need for water?

The BRA does not have jurisdiction to block future development. Decisions concerning growth are controlled and regulated at the local government level.

How does this affect flood control operations?

Flood control remains a top priority. No storage designated for flood mitigation will be reduced.

Is this proposal finalized?

No, this proposal is not finalized. Additional stages of USACE review will occur later this year and into 2026 and will consider all of the comments for and against the project sent to the USACE.

Will there be opportunities for public input?

Yes. The formal public comment period garnered substantial feedback for the study. While the formal public comment period has closed, USACE and the BRA continue to welcome feedback through phone, email, or written correspondence.

If the reallocation study is approved, who will this water go to?

Should the reallocation be approved, the BRA must then apply to the Texas Commission on Environmental Quality for authorization to make the water available within the Brazos basin for beneficial use. Should that authorization be approved, the BRA would make the water available through multi-year contracts to cities, water supply districts, businesses, industry and agricultural interests.

How is this going to affect recreational opportunities, tourism, and the local economy?

Changes in lake elevation associated with the TSP would not require closure of recreation access points and facilities, including boat ramps and docks. Most boat ramps and recreation facilities do not close until pool elevations are several feet lower, which occurs during periods of drought when the closures would likely occur regardless of the proposed storage reallocation. Therefore, the surrounding businesses, reservoir fishery, recreational businesses, and tourism will not be jeopardized.

Moreover, the additional water supply benefits in the region can have positive effects on the area and local economy by supporting growth and maintaining an affordable, reliable water supply.

Why doesn’t the Corps just raise the lake level and hold more water?

Raising the conservation pool would result in a loss of flood storage, which is the primary authorized purpose of the project. It would also result in water being continuously on the 17 Tainter (flood) gates. Water in Whitney Lake has an elevated salt content and would accelerate deterioration of the gates and increase maintenance costs. Additionally, the Whitney Dam was not designed to have water continuously on the Tainter gates. Costly studies, in addition to the Reallocation Study, would be required before the conservation pool could be raised. These studies could result in a finding that raising the conservation pool is not viable or would require the dam to be modified. There would also be negative impacts to recreation, requiring the closure or relocation of marinas, boat ramps, and other facilities. When compared to the other alternatives, raising the lake level is a more costly option for a similar volume of water and with greater uncertainty on negative impacts to the dam. Therefore, it was not recommended as the Tentatively Selected Plan.

For additional information, go to https://www.swf.usace.army.mil/Missions/Civil-Works/Whitney-Lake-Reallocation-Study/