

**FINDING OF NO SIGNIFICANT IMPACT
PROPOSED WATER SUPPLY REALLOCATION
AT AQUILLA LAKE
HILL COUNTY, TEXAS**

Description of Action: The United States Army Corps of Engineers (USACE) has prepared an Environmental Assessment (EA) to assess the potential environmental consequences resulting from implementation of proposed reallocation of 4.5-feet of storage from the flood pool to the conservation pool at Aquilla Lake in accordance with the National Environmental Policy Act of 1969. Aquilla Lake is located in the Brazos River Basin in rural Central Texas approximately seven miles southwest of the City of Hillsboro in Hill County. The primary inflows of the lake are Aquilla Creek and Hackberry Creek, with discharges from the lake flowing into Aquilla Creek below the dam. The Water Supply Act of 1958 (43 United States Code § 390b), as amended, provides for storage and makes it available for municipal and industrial water supply.

The purpose of the Proposed Action is to address future water supply needs for the Central Texas region. According to the Water Supply Agreement between the U.S. Government and Brazos River Authority (BRA), dated April 5, 1976, BRA has the right to the total useable storage below elevation 537.5 feet-mean sea level, after adjusting for expected future sedimentation in Aquilla Lake for Municipal and Industrial water supply, subject to availability of water. Aquilla has sufficient supply to meet existing water supply contracts. Increased demand due to population growth, which is driving the need for additional water, is projected to result in water supply shortages of 2,800 to 3,700 acre-feet per year beginning as early as 2020 with the shortage in 2070 forecasted to be approximately 7,500 to 30,000 acre-feet per year.

Alternatives evaluated in the reallocation study include 2.5-foot, 4.5-foot, and 6.5-foot raises of the conservation pool at Aquilla Lake, a “no action” alternative, and a pipeline alternative that would divert water supply from Whitney Lake to the existing Barkman pipeline that runs from Aquilla Lake to Pat Cleburne Lake near Cleburne, Texas. The pipeline alternative would require construction of an intake structure and pump station at Whitney Lake to facilitate water pumpage.

As a result of evaluation and comparison of the alternatives, the Proposed Action would be to increase the top of the conservation pool 4.5 feet into the flood pool. This would reallocate approximately 15,043 acre-feet of storage from the flood pool to the conservation pool with an increased yield of roughly 2,463 acre-feet per year. The proposed reallocation would require placement of two-foot thick rock riprap along the upstream shoreline to protect the dam embankment from bank erosion, but would not require any modifications to the dam or spillway.

Anticipated Environmental Effects: Implementation of the Proposed Action would result in no significant geological, water resources, air quality, socioeconomics and environmental justice, or climate impacts. No adverse impact on any species that are proposed or listed as threatened or endangered under the Endangered Species Act would occur. Also implementation of the Proposed Action would not require either a Section 404 permit or a State of Texas’ Water Quality Certificate. The Proposed Action would adversely impact recreation, vegetation, especially riparian bottomland hardwoods, and cultural resources. Currently used recreation features including restrooms, boat ramps, parking areas, and picnic tables impacted by the Proposed Action would either be

relocated or extended (i.e. boat ramps). Additional investigations would be required for three cultural resources sites that are potentially eligible for listing in the National Register of Historic Places (NRHP). Prior to implementation of the pool raise, additional testing would be completed in coordination with the State Historic Preservation Office. Impacts to sites determined eligible for nomination to the NRHP would be mitigated below the threshold for significance. Finally, mitigation would be required for the loss of riparian bottomland hardwood habitat values. Following implementation of the pool raise, approximately 110 acres of existing riparian woodlands would be improved and 72 acres of grasslands converted to riparian woodlands by planting native tree, shrub and grass species, controlling invasive species, and adding bird nesting boxes. Monitoring and adaptive management activities would be required to ensure success of the riparian bottomland hardwood mitigation actions undertaken.

Facts and Conclusions: Based on a review of the information contained in this EA, it is concluded that the implementation of the 4.5-foot pool raise at Aquilla Lake is not a major federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969, as amended.

Calvin C. Hudson II
Colonel, U.S. Army
District Engineer

Date