

EXECUTIVE SUMMARY

This Supplement to the Final Environmental Statement (FES) for Wister Lake (1973) describes the potential environmental consequences resulting from operating the Wister Lake project with a conservation pool at 478.0 feet and from raising the conservation pool from 471.6 to 478.0 feet. This Supplemental FES has been prepared in compliance with 33 CFR Part 230 and Part 320 and 40 CFR Parts 1500-1508 for implementation of NEPA.

The Wister Lake project was authorized by the Flood Control Act of 1938 and completed in 1949. The project consists of the lake, dam, and downstream stations on the lower Poteau River to its confluence with the Arkansas River in southeastern Oklahoma. It provides substantial flood control, municipal and industrial water supply, flow augmentation, water conservation, and sediment reduction. Wister Lake and its adjacent lands are also used for recreation, hunting, and wildlife management.

PURPOSE AND NEED FOR THE ACTION

The purpose and need for the action are to comply with Water Resources Development Act of 1996 (WRDA 1996). Since 1973, the authorized conservation pool levels at Wister Lake have been changed by federal law, modifying the amount of storage in the lake allocated for flood control, water supply, and other purposes. The 1973 FES evaluated impacts to the environment from operations with a conservation pool level at 471.6 feet. However, impacts to resources in the surrounding area have not been analyzed since the early 1970s. In order to comply with NEPA, this Supplement to the 1973 FES focuses on the impacts associated with maintaining the permanent pool level at 478.0 feet, as directed by Congress, and continuing current management practices. It also examines the historical impacts associated with raising the permanent conservation pool from its original level of 471.6 to 478.0 feet.

PROPOSED ACTION AND ALTERNATIVES

The proposed action is to operate and maintain the Wister Lake project at the congressionally mandated conservation pool level of 478.0 feet and to provide mitigation measures for resources affected by operations. The no-action alternative is to operate and maintain the Wister Lake project at the present conservation pool level of 478.0 feet, however, adverse effects to resources from raising the pool level or operating the project at 478.0 feet would not be mitigated.

The affected environment for this study consists of Wister Lake and surrounding areas below 511.0 feet elevation and the area along the Poteau River within the 100-year floodplain from Wister Dam to its confluence with the Arkansas River near Fort Smith, Arkansas. Flooding of the downstream areas could

be directly affected by storage at Wister Lake and the release of water at the dam into the lower Poteau River.

ENVIRONMENTAL CONSEQUENCES

This Supplemental FES provides an analysis of the potential environmental consequences resulting from implementing the proposed action. Eleven resource categories received an interdisciplinary analysis to identify potential impacts. Table ES-1 summarizes the results of the analysis according to each resource. According to the analysis, adverse effects occurred to biological and cultural resources. Raising the conservation pool to 478.0 feet resulted in a loss of approximately 3,254 acres of wildlife habitat and approximately 300 acres of waterfowl marsh and greentree reservoirs. Raising the conservation pool has inundated at least 10 archaeological sites. Pool fluctuations and wave action between 471.6 and 478.0 feet have disturbed at least 18 sites and may have affected as many as 36 sites.

MITIGATION MEASURES

Mitigation measures would be implemented for those resources that have had negative impacts from the raising of the conservation pool to 478.0 feet. These impacts are limited to biological and cultural resources. Mitigations for biological resources are based on a USFWS resource study and USACE response (Appendix E) and would include reconstruction of greentree reservoirs and reimbursement to the ODWC for construction of new greentree reservoirs. USACE, Tulsa is consulting with the Advisory Council on Historic Preservation, Oklahoma State Historic Preservation Officer, the Caddo Tribe of Oklahoma, and the Wichita and Affiliated Tribes of Oklahoma to develop mitigation measures to minimize adverse effects of the proposed action on historic properties.

Table ES-1 Impacts from Proposed Action

Resource Chapter	<i>Potential Impacts of Proposed Action</i>	<i>No Action</i>
Hydrology and Water Supply	<ul style="list-style-type: none"> • Increase in conservation pool level to 478.0. • Minimal change in water flow releases. • Minimal change in downstream flooding. • No change to surface or groundwater. • Minor loss in flood control storage (37,532 acre/feet). • Increase in available conservation storage. 	Same
Water Quality	<ul style="list-style-type: none"> • Raising conservation pool has a negligible effect on water quality. 	Same
Air Quality	<ul style="list-style-type: none"> • No change in air quality. 	Same
Biological Resources	<ul style="list-style-type: none"> • Inundation of 3,254 acres of terrestrial wildlife habitat. • Increase of 3,254 acres of aquatic habitat for waterfowl and fisheries. • Loss of 288 acres of waterfowl marsh and greentree reservoirs. • Disturbance and relocation of wetlands and increase of approximately 6,000 acres of open water. • Loss of 2,600 acres of habitat over 100 years. • Increase in the inundation frequency of the original floodplain adjacent to Wister Lake. • <i>Mitigation Measures:</i> reimbursal for loss of greentree reservoirs and construction of new reservoirs. 	Same Impact/No Mitigations
Land Use	<ul style="list-style-type: none"> • Potential increase in recreation use. 	Same
Recreation	<ul style="list-style-type: none"> • Temporary inundation of lower elevation picnic facilities and boat ramps. 	Same
Socioeconomics	<ul style="list-style-type: none"> • Minimal loss of grazing revenue. • No change to socioeconomics. 	Same
Transportation	<ul style="list-style-type: none"> • Temporary flooding of roads. 	Same
Cultural Resources	<ul style="list-style-type: none"> • 18 sites disturbed or destroyed and 10 sites submerged within the 471.6 to 478 level. 18 unevaluated sites may be affected. • 32 sites potentially effected by shoreline erosion between 478 and 485 feet. • 19 sites disturbed or in poor condition above 485 feet elevation by recreational use, vandalism. • <i>Mitigation Measures:</i> On-going consultation would identify appropriate mitigation measures. 	Same Impact/No Mitigations
Hazardous, Toxic, Radioactive Wastes	<ul style="list-style-type: none"> • No change in current operations, will remain in compliance. 	Same
Environmental Justice	<ul style="list-style-type: none"> • No disproportional affects to minorities or low-income populations. 	Same
Protection of Children	<ul style="list-style-type: none"> • Proposed action does not represent health or safety risks to children. 	Same
Cumulative Impacts	<ul style="list-style-type: none"> • No cumulative effects anticipated from other ongoing or proposed actions. 	Same