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Project Name: KUB Waste Water First Creek
Project Number: 2005-142

FINDING OF NO SIGNIFICANT IMPACT AND ADOPTION OF THE ENVIRONMENTAL ASSESSMENT PREPARED BY THE UNITED STATES ARMY CORPS OF ENGINEERS

TENNESSEE VALLEY AUTHORITY
UPPER FIRST CREEK WASTE WATER STORAGE FACILITY,
KNOX COUNTY, TENNESSEE

Proposed Action and Need

The Knoxville Utility Board (KUB) proposes to construct a waste water storage facility to keep the KUB waste water system from overflowing during heavy rainfall. The proposed Upper First Creek Waste Water Storage Facility project is located near a chronic overflow location in the KUB sewer system. When flows in the system increase beyond the sewer's capacity, flow would be diverted into an influent pipeline, through a screening/grinding facility, and into a below-ground waste water pumping station. The pumping station would fill the 9.8 million gallon below ground storage facility and, at the conclusion of the rainfall/overflow event, would be used to drain the tank at a controlled rate. After the tank has been emptied, an automatic washdown system would be activated to flush the residuals out of the tank and into the collection system. The facility would be provided with an odor control system and standby electric power.

On February 24, 2005, KUB submitted a joint application for a permit from the Tennessee Valley Authority (TVA) pursuant to Section 26a of the TVA Act of 1933, the United States Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA), and the State of Tennessee pursuant to Section 401 of the CWA. The proposed work involves the relocation of approximately 516 linear feet of streams and the filling of approximately 0.05 acres of wetlands, in association with the construction of a submerged waste water tank at unnamed tributaries to First Creek, in Knox County, Tennessee. Of the 0.05 acres of wetlands that would be affected, 0.04 acres are considered fringe wetlands adjacent to affected streams A widening of an existing bridge over First Creek and the construction of three underground utility crossings of First Creek would also be required for operation of the facility.

TVA's action under Section 26a of the TVA Act would be to approve the bridge widening and the fill in conjunction with the stream relocation for the construction of the proposed waste water storage system. TVA has determined that Section 26a approval is not needed for the proposed stream crossings, since there would be no obstruction as a result of the crossings.

The proposed work is associated with the construction of an underground waste water storage tank measuring 160 feet x 260 feet x 32 to 35 feet in depth, and associated driveways, parking areas and support buildings. This project is part of the Partners Acting for a Cleaner Environment's (PACE) 10-year program to improve our waterways, an initiative sanctioned by the U.S. Environmental Protection Agency (EPA). The goal

of PACE is to develop and implement a well-planned, cost-effective waste water system that satisfies regulatory requirements, protects the environment, enhances community and stakeholder relations, and sustains economic development. The program includes making improvements to existing sewer lines, creating additional treatment capacity, and building storage tanks such as the proposed one to keep the waste water system from overflowing during heavy rainfall. The PACE program is locally funded.

The project site was initially evaluated for development by Midpark Development Inc., for three retail facilities, associated parking lots, driveways and detention ponds which would have required stream culverting, fill, and relocation as well as wetland fill. Public Notice 03-97 was issued on December 9, 2003, and the project was subsequently withdrawn on February 9, 2005. Subsequently, Public Notice No. 05-26 for the project as currently conceived was issued on April 22, 2005.

USACE has prepared an Environmental Assessment (EA) to review the impacts of the project to the environment, and issued a Finding of No Significant Impact (FONSI). On September 14, 2005, USACE issued an individual permit for the fill and stream modification and on September 19, 2005, verified that the stream crossings and bridge qualified for a Nationwide permit (see attachments).

Alternatives

The EA considers three alternatives: a no action alternative, the applicant's proposed action, and the applicant's proposed action with special considerations. Because the projected impacts are insignificant, no other alternatives are evident that would have lesser impacts, and since there is agency agreement with the action alternative, TVA believes there is no need to consider additional alternatives.

No Action. Under this alternative the permit to modify the stream would be denied and the proposed environmental impacts would not occur.

The Applicant's Proposed Action. Under this alternative, the relocation of approximately 516 linear feet of streams and the filling of approximately 0.05 acres of wetlands would occur. The proposed action would result in minor adverse environmental impacts as well as substantial public health and water quality benefits.

The Applicant's Final Proposed Action with Special Conditions. Under this alternative the relocation of approximately 516 linear feet of streams and the filling of approximately 0.05 acres of wetlands would occur with the inclusion of additional recommended special conditions that would minimize unavoidable environmental impacts. To minimize impacts to the maximum extent practicable, special permit conditions were developed to ensure that the work being performed is the work that was permitted, and that all of the contractors are aware that the work to be performed must conform to the approved plans and conditions. These conditions include minimizing the impact on aquatic life and water quality, and minimizing the amount of disturbance in the work area and surrounding areas. Providing environmental protection and mitigation of unavoidable impacts, and maintaining the chemical, physical and biological integrity of waters of the United States through the control of discharges of dredged or fill material are included as conditions of the USACE permit (see attachments). This is the preferred alternative selected by the USACE for permitting.

Affected Environment and Impacts

The proposed project would be on approximately 8.2 acres of partly forested land northwest of Old Broadway near the Broadway and I-640 interchange in Knoxville, Tennessee. The site is characterized by relatively flat topography covered with a mixture of grasses, low growing shrubs, and wooded areas. First Creek, which borders the eastern side of the property, runs between the proposed site and Old Broadway. An unnamed tributary to First Creek bisects the site. A cemetery borders the back of the project area while the properties fronting the project area are all commercial in nature.

Placement of fill in the existing channel would permanently eliminate 516 linear feet of the existing substrate consisting of silt, sand, gravel and rock. The new channel would be 628 linear feet and would mimic the old channel as closely as possible with the addition of mitigation features such as cross vanes and J-hook structures along its width. Along with the establishment of vegetation buffers along the new channel, trees and shrubs will be planted, which will eventually provide canopy that is currently lacking along some of the impacted streams.

The stream fill and modification would have no impact to unique soils or air quality. No historic properties or cultural resources would be affected. There are no federal or state listed species indicated or found in the project area; therefore, the project would have no effect on endangered or threatened species. Also, there would be minor or temporary impacts to water quality, aquatic habitat, terrestrial habitat and the general visual characteristics. The increase in noise from operation of the storage facility is also expected to be minor.

Some of the impacts from the stream relocation would be mitigated by the new vegetation planted along the new stream bed and the establishment of buffers. Short-term economic benefits will be realized in the form of local labor and materials purchased during the construction of the storage tank. The overall impacts to water quality and aquatic habitat would be beneficial with the eventual improvement to downstream waters with the containment of untreated waste water.

The areas impacted by construction of the new stream bed would be planted with wildlife enhancing species. There are 0.19 acres of fringe wetlands on the site with a small amount (0.04 acres) impacted by the proposed project; and 0.06 acres of new wetlands are proposed near the new stream bed. Erosion controls by the use of Best Management Practices (BMP), as described in the attached EA, would be implemented to minimize impacts to water quality.

TVA also evaluated the enlargement of the existing bridge over First Creek which provides access to the site. No historic properties or cultural resources would be affected. The bridge expansion would have no effect on endangered or threatened species as no Federal or State listed species are found in the vicinity. There would be minor or temporary impacts to water quality, surface water, aquatic habitat, and terrestrial habitat.

Long-term water quality effects from the bridge enlargement and stream relocation, with mitigation as proposed, would be negligible. Adherence to erosion control conditions and BMPs required by USACE and Tennessee Department of Environmental Conservation (TDEC) in their permits would ensure that this project does not contribute

to a worsening of conditions in First Creek and downstream waters. A stabilized stream bank, mitigative plantings, and reduced waste water overflow impacts would over time provide improved water quality, terrestrial habitat diversity, and enhanced aquatic ecosystem functions in the vicinity of this project. Considering past, present, and future proposals, there would be only minimal adverse cumulative impacts associated with the stream relocation and reclamation while the overall cumulative impacts would improve the watershed.

Because the project would be constructed in the floodplain of First Creek, TVA evaluated the floodplain impacts. The project does not involve fill in the floodway except in a very incidental manner for an existing roadside ditch. The bridge widening will improve the ability of the structure to pass water. In addition, the project has some detention effects due to the planned wetlands and excavated floodway areas. As a result, the project was able to avoid construction of stormwater detention and achieve a "no-rise" certification from the city of Knoxville. Other alternatives to construction of the waste water tank within the floodplain were also evaluated by KUB prior to construction at the Adair Drive site. These involved construction of a new sewer line through the gap in the ridge cut by First Creek and constructing the waste water tank downstream. Also, an above grade alternative was evaluated at the Adair Drive site. These alternatives would have had greater environmental impacts and would not as effectively meet the sewer overflow detention objectives of the project. As a result, TVA concludes that there is no practicable alternative to construction of the waste water tank at the proposed location.

Public and Intergovernmental Review

On April 22, 2005, joint Public Notice 05-26 was issued to solicit comments on the proposal. The United States Fish and Wildlife Service (USFWS) responded with a May 20, 2005 letter, stating that their records indicated no federally listed or proposed endangered or threatened species were in the impact area, and that no significant adverse effects to fish and wildlife were expected. The Tennessee Historical Commission (THC) responded by a letter dated April 28, 2005, requesting a detailed archaeological survey report on the project location. A Phase I Survey was conducted in June 2005, and forwarded to THC on July 13, 2005. In a July 21, 2005 letter, THC said that no historic properties will be affected by the proposed undertaking and they had no objection to the project proceeding. However, THC also requested a Phase II Survey report. THC was sent a Phase II Survey report on September 7, 2005, and in a September 15, 2005 letter, THC concurred there were no archeological resources eligible for the National Register of Historic Places within the project areas. The Tennessee Wildlife Resources Agency (TWRA) in a May 20, 2005 letter requested a 50 foot vegetated riparian buffer on each side of the relocated stream channel. After discussions between KUB, USACE, and TDEC, KUB proposed an increase in the riparian buffer along the northeast side of the relocated stream to an average width of approximately 75 feet to match the collective requirements of the agencies, and this proposal was agreed to by TWRA on July 15, 2005.

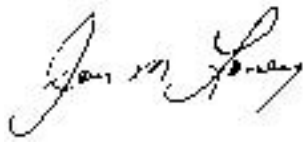
Mitigation

As indicated in the EA, USACE will require adherence to BMPs, and sound engineering and construction standards and practices as provided in the Special Permit issued September 15, 2005, for the Waste Water project and Nationwide Permit issued September 19, 2005, for the bridge expansion. Appropriate general and standard conditions for TVA Section 26a approval, including adherence to BMP requirements, will

also be required to minimize water quality impacts. To minimize impacts to wetlands 0.06 of an acre of wetlands will be constructed as a result of project design along with the implementation of good construction practices. No additional Special commitments have been identified as necessary by TVA.

Conclusion and Findings

Based on independent review, TVA has concluded that the USACE-prepared EA is adequate; the impacts on the environment and agency comments have been adequately addressed; and necessary mitigation has been identified. TVA has decided to adopt the USACE EA. It is attached and incorporated by reference. For compliance with Executive Order 11988, the bridge is considered to be a repetitive action in the floodplain for which there is no practicable alternative. As indicated above, the applicant has considered alternative actions and taken steps to minimize floodplain impacts. Due to the topography and location constraints in the area, there is no practical alternative to construction of a waste water tank in the floodplain. For compliance with Executive Order 11990, TVA has determined that there is no practicable alternative to construction in wetlands. Impacts to wetlands would be mitigated through construction of wetlands and use of good construction practices. Based on the USACE EA, we conclude that the Section 26a approval for the waste water facility and bridge expansion would not be a major federal action significantly affecting the environment. Accordingly, an Environmental Impact Statement is not required. This FONSI is contingent upon successful implementation of the conditions as identified in the USACE EA and the identified General and Standard Conditions in TVA's Section 26a approval.



December 7, 2005

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Date Signed