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ADOPTION AND FINDING OF NO SIGNIFICANT IMPACT

TENNESSEE VALLEY AUTHORITY

CITY OF HUNTSVILLE, AERIAL SEWER LINE

LIMESTONE COUNTY, ALABAMA

The city of Huntsville, Alabama (City), proposes to construct an aerial sanitary sewer line across Limestone Creek in Limestone County, Alabama. The proposed sewer line would be a part of a new sewer line to extend sanitary sewer service to property recently annexed by the City.

The proposed work would consist of a 12-inch diameter ductile iron pipe supported by three concrete piers. Two piers are in the normal flow of the creek and the third is located in the overbank area of the creek out of the creek bed. The pipe would span Limestone Creek, approximately 86 linear feet, supported by the piers, spaced 46 feet on center. The bottom elevation of the proposed sewer line pipe would be at elevation 630.80 feet, which is 2.03 feet above ordinary high water. Sheet piling would be used to construct cofferdams to provide dry work areas during construction of each pier. The total disturbed area of the streambed will be approximately 680 square feet. This is the area of the cofferdams plus a buffer around each cofferdam. In order to protect the piers and creek banks, approximately 15 cubic yards of Class 2-size riprap were proposed to be placed around the two piers and would extend to the top of bank on each side of the creek. At the request of United States Fish and Wildlife Service (USFWS), the City agreed to use native creek rocks and stones removed from the impact area for stabilization around the piers and native vegetation for shoreline stabilization.

On January 27, 2011, the City applied for Section 26a approval for the proposed sewer line stream crossing over Limestone Creek Mile 16.9, a tributary to the Tennessee River. Section 26a of the Tennessee Valley Authority (TVA) Act of 1933, as amended, requires that TVA approval be obtained prior to the construction, operation, or maintenance of a structure or construction activity across, along, or in the Tennessee River or its tributaries affecting navigation, flood control, or public lands. Therefore, TVA's action would be to make a decision on the City's request for Section 26a approval to construct the sewer pipeline across the stream.

To address the potential environmental impacts of the issuance of a necessary permit under Section 10 of the Rivers and Harbors Act, the United States Army Corps of Engineers (USACE) completed an Environmental Assessment (EA) on February 8, 2012. TVA was a cooperating agency in the preparation of the EA. TVA hereby adopts the EA, which is incorporated by reference.

Alternatives

From the standpoint of the National Environmental Policy Act, two alternatives were considered in the EA: the No Build (or No Action) Alternative and the Action Alternative, which considers the construction of the aerial sewer line over Limestone Creek.

Adoption of the No Action Alternative would result in the denial or withdrawal of the applicant's request for a Section 26a approval for construction of the new aerial sewer line across Limestone Creek. Environmental impacts associated with the construction and operation of the sewer line would not occur, and no impacts to those resources currently under jurisdiction of the

state of Alabama, USACE, and TVA would occur. However, selection by TVA of this alternative would not meet the needs of the applicant. If the existing sanitation sewer service capacities are not expanded, the City would not be able to meet future customer demands for the property recently annexed into the City.

Under the Proposed Action Alternative, TVA would issue a Section 26a approval for an aerial sewer line crossing of Limestone Creek. As conditions of the Section 26a approval, the applicant would be required to implement measures to minimize or reduce the environmental effects of the proposed project to levels of insignificance. This is TVA's Preferred Alternative.

Other alternatives were considered that were not practicable or reasonable. The City could realign the proposed sewer line upstream or downstream of the proposed crossing. However, this would result in the sewer line potentially encroaching on and directly impacting endangered species habitat identified by previous surveys. It would not be economically feasible with the increased cost of extra materials and time to complete the project, and it could result in decreased efficiency of the sewer line. Also, the City could perform a directional bore to avoid all impacts to Limestone Creek and listed aquatic species. However, this would also not be economically feasible because it would require the construction of a pump station (approximately $845,000) and yearly maintenance costs (approximately $100,000). There is also a possibility of direct impact to endangered species from leakage of a lubricant through fracture of bedrock and habitat disturbance during clean-up activities.

Public and Intergovernmental Review

A joint USACE/TVA and State of Alabama public notice was issued on March 15, 2011. Comments were received from the USFWS, the Alabama Historical Commission (AHC), the Alabama Department of Environmental Management (ADEM), and the Alabama Department of Conservation and Natural Resources (ADCNR). USFWS stated there were three federally listed endangered snail species in the vicinity of the impact area: the armored snail (*Marstonia pachyta*), slender campeloma (*Campeloma decampi*), and Anthony's riversnail (*Athearnia anthonyi*). The USFWS indicated that boring or directional drill construction method would avoid stream impacts and would not require additional Endangered Species Act (ESA) consultation. Alternatively, construction within the stream bed would require a survey of the impact area and formal consultation pursuant to the ESA. USFWS also requested that native creek rocks and stones removed from the impact area be used for stabilization around the piers and native vegetation for shoreline stabilization rather than quarry limestone riprap. ADEM notified the applicant of processing fees for permit and certification actions. ADCNR stated that the project may impact several state and federally protected species in Limestone Creek and recommended a survey and contact with the USFWS. The AHC letter indicated that the project activities would have no effect on any known cultural resources listed on or eligible for the National Record of Historic Places. Thus, requirements under Section 106 of the National Historic Preservation Act have been fulfilled. All other issues raised by the comments were addressed in the EA.

Impacts Assessment

Based on the analyses in the EA, TVA has concluded that implementation of the Action Alternative would result in no impacts to terrestrial endangered species; wetlands; prime or unique farmland; groundwater; unique or important terrestrial plant and wildlife habitats; recreation; parks or natural areas; visual resources; environmental justice; air quality; noise; transportation; solid waste; Wild and Scenic Rivers; or cultural resources. The Action Alternative would not contribute to the spread of invasive species.

The installation of the sanitary sewer line to property recently annexed into the City would result in beneficial effects to socioeconomics for the city of Huntsville with new job and commercial growth from the proposed industrial park. Effects to floodplain functions are anticipated to be insignificant, and the Action Alternative is consistent with Executive Order 11988.

Two of the three endangered snail species (the armored snail and the slender campeloma) have been determined to be in the area of the proposed project. Recent surveys near the proposed project indicated the presence of these species upstream and downstream of the project area. Therefore, at the request of USFWS, the USACE initiated consultation in accordance with Section 7 of the ESA in July 2011. On December 8, 2011, the USFWS issued a Biological Opinion (BO). The BO noted that the construction would result in take of the two endangered snails; consequently, USFWS identified measures to minimize impacts and reduce this incidental take, along with terms and conditions for carrying out these measures. USFWS concluded that the project was not likely to jeopardize the existence of the endangered snails, provided conservation measures and other conditions were implemented.

A National Pollutant Discharge Elimination System (NPDES) general permit was issued by ADEM in a letter dated August 4, 2011.

Potential impacts to surface water quality in Limestone Creek would be offset by use of native creek rocks and stones, instead of limestone riprap rock, around the concrete piers will deter any drastic change in pH of the creek. There may be a possibility of debris accumulation on the concrete piers during high water events. If not routinely inspected, there is a possibility that the endangered snail species could colonize the debris. Removal of any accumulated debris within a reasonable time frame, a condition of the BO, will deter this from happening.

Mitigation

To address potential impacts to threatened and endangered species and water quality from the proposed project, USACE would impose general and special conditions in its permit, as described in the EA, including compliance with the requirements of the December 8, 2011, BO, which minimizes or reduces the adverse environmental effects. By the Terms and Conditions of the BO, the City will restrict the streambed impact to 680 square feet, implement Best Management Practices (BMPs) during construction, remove accumulated debris at least once a year, and provide an annual report through written and photo documentation of debris removal and any newly observed streambed scour or bank erosion in the vicinity of the piers. The USACE will also require that the City use native creek rocks and stones removed from the impact area for stabilization around the piers and native vegetation for shoreline stabilization rather than quarry limestone riprap. Further, the City will prepare a spill response plan for this pipeline crossing in the event of a rupture and spillage of raw sewage in the creek, and install upstream warning signs for boaters.

TVA Section 26a approval will require the City to implement construction BMPs and to comply with standard and general conditions of the Section 26a Permit. Further, the TVA Section 26a Permit will be conditioned to require the City to adhere to the following special conditions and requirements:

To minimize the take of the armored snail and the slender campeloma, the City shall implement the Terms and Conditions, and other stipulations and requirements of the BO (see Appendix E of the EA), issued by the USFWS on December 8, 2011.

1. Limit the dewatered and excavated instream area to the construction area encompassed by the cofferdam at the two instream pier construction locations. This area should not exceed 680 square feet of stream bottom.

2. Clearing and snagging will be conducted at a regular interval (minimum annually) in order to minimize the chance of colonization on debris by listed snails (future take) and to prevent excessive debris jams which would threaten the structural integrity of the construction. If a debris jam is minor (less than 10 percent channel blockage), the debris can be dislodged into stream flow. Large debris jams should be removed from the stream channel.

   Conditions of Operation:

   A. Remove debris at least annually, but more frequently if needed.

   B. Methods to remove flow obstructions include sawing, cabling, winching, lifting, or dragging.

   C. No heavy equipment will be permitted within the stream.

   D. All heavy equipment will operate from beyond the top of stream banks.

   E. Provide written and photo documentation of this action annually to the lead action agency (Corps) and USFWS. Also, document any newly observed streambed scour or bank erosion in the vicinity of the piers within the annual report.

3. The City will also provide TVA with the written and photo documentation described in Condition 2.E., and will make all records pertaining to the maintenance of the pipeline crossing available to TVA on request.

Conclusion and Findings

TVA has independently reviewed the USACE EA and found it to be adequate. TVA is therefore adopting the USACE EA. Based upon the analyses documented in the EA, TVA concludes that the construction of the proposed aerial sewer line, as described under the Action Alternative, would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required. This finding of no significant impact is contingent upon adherence to the mitigation related to federally threatened and endangered species and stream mitigation measures described above and in the EA.

April 20, 2012

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Date Signed