

**WAL-MART LOVE CREEK - REQUEST FOR SECTION 26A APPROVAL  
FOR STREAM RELOCATION AND WETLAND FILLS BETWEEN  
LOVE CREEK MILE 3.2 AND 3.4, TRIBUTARY TO HOLSTON RIVER AT  
MILE 5.0R, KNOX COUNTY, TENNESSEE – ADOPTION OF THE  
ENVIRONMENTAL ASSESSMENT (EA) PREPARED BY THE UNITED  
STATES ARMY CORPS OF ENGINEERS (USACE) AND  
FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

**Purpose and Need**

Wal-Mart Stores East, L.P. (Wal-Mart) proposes to expand its existing store at 3051 Kinzel Way, Knoxville, Tennessee, to a larger super center. To accomplish the planned expansion, Wal-Mart would relocate 1,096 linear feet of Love Creek between Miles 3.2 and 3.4 and 263 linear feet of an unnamed tributary to Love Creek at Mile 3.3. The store expansion would also affect three adjacent wetlands due to alteration or fill activities.

Wal-Mart evaluated alternatives that would not impact waters of the United States or TVA jurisdiction, including expansion of its existing store in directions away from Love Creek and relocation to a new site. Wal-Mart determined that the alternatives considered were economically infeasible or, for other reasons, impractical (see Section 2.2(d) Upland Alternative in the attached EA). Wal-Mart proposes to provide improved services to the community and derive economic benefits by expanding their current retail facility at its existing location. The expansion would also benefit the local economy and increase area job opportunities.

USACE conducted site inspections on March 1, 2004, and on August 19, 2004. A community meeting, in which the Tennessee Valley Authority (TVA) participated, was held on November 8, 2004, to address the public concerns. Because the wetland and stream impacts would exceed the thresholds for a Nationwide Permit, USACE, in cooperation with TVA, prepared the attached EA. Construction of a permanent obstruction and placement of fill in wetlands in the Love Creek floodplain require a TVA Section 26a approval.

**Alternatives**

USACE considered three alternatives: no action, applicant's proposed action and approval of the project with modifications or conditions. As described in the attached EA, TVA believes these alternatives cover a reasonable range of actions that address the applicant's purpose and need for the project. Wal-Mart proposes to mitigate the affects of its expanded development.

**Affected Environment and Impacts**

The general surrounding environs are characterized by commercial and business developments, road and railway transportation corridors, city parkland and urban residential areas, intermingled with some open lands, pastureland, and young to near mature mixed hardwood woodlots and old fields. The project expansion site lies within the floodplain of Love Creek with Love Creek Road to the north, Buffat Mill Road to the south, and Millertown Pike to the west. These roadways serve a mixture of sparse residential and somewhat more intensive commercial development, including retail stores, Knoxville Center Mall, several restaurants, and entertainment venues. Nearby Interstate 640, the Knoxville by-pass, serves as the major artery connecting travelers and area residents with Interstate-40.

Love Creek generally flows in a northwest to southeast direction within a relatively flat floodplain, flanked by a steep embankment on the south side at the toe of the existing Wal-Mart store parking lot. Wal-Mart presently owns approximately 15.85 acres within the surrounding retail community and is acquiring several additional tracts of land north-northwest along Love Creek Road in order to construct the expansion. These additional tracts (5.5 acres) encompass a section of Love Creek, its unnamed tributary and three adjacent wetlands, which would require alteration to complete the project. An artesian well is located approximately 0.5 mile downstream from which many residents frequently obtain fresh drinking water.

The stream channel substrate of Love Creek and its unnamed tributary generally consists of coarse gravel, medium-sized cobble, mud, and silt/clay mix. Adjoining land use (urban), siltation and other habitat alterations have contributed to the degraded water quality of Love Creek, a state Section 303(d) listed stream, and its unnamed tributary. Wal-Mart expansion, including building and grounds excavation and landscaping, as well as Love Creek and its tributary relocation, would result in both short-term and permanent impacts on the aquatic and terrestrial environment and water quality. There may be some erosion and riparian vegetation loss and resultant impacts upon water quality and aquatic organisms during construction activities. Strict erosion controls via a Storm Water Pollution Prevention Plan (SWPPP) and use of Best Management Practices (BMP) would be implemented to minimize impacts to water quality. These impacts are described in more detail in Section 3.2 of the attached EA and would be further mitigated in accordance with a plan provided in Section 2.2(b).

The project would impact 0.37 acres of wetland (fill) at three locations along Love Creek. Substrate of the three existing wetland areas consists of inundated or saturated silty loam soil. During Wal-Mart expansion and new stream channel construction, there would be mechanized land clearing, grubbing, and excavation within these areas. Wetland functions and values in these areas would be lost, as well as aquatic organisms inhabiting these sites due to soil compaction and short-term water quality disturbances. These impacts are also described in more detail in Section 3.2 of the attached EA. The mitigated wetland would be constructed within the floodplain at a 3:1 mitigation ratio resulting in 1.11 acres of wetland near the newly relocated stream mitigation area. Hydric topsoil from the original wetland sites would be excavated and stockpiled for use in the mitigation area.

Wal-Mart would mitigate the affects of stream loss caused by its project by reconstructing 1,275 feet of Love Creek and 223 feet of its unnamed tributary. Various in-stream structures would be placed to regulate and direct flows, and create riffle-pool sequences in both streams. This work would involve creating wider stream banks and shallow channels. A low flow channel would be created for normal flows. Relocation of Love Creek and its tributary would result in a 138-foot increase in stream length. In order to sustain wetland hydrology, bank cuts would be made strategically along the stream channels to allow overflow during high-flow periods. See Section 2.2(b) for a detailed description of the mitigation plan.

Mitigation would also include planting selected species of tree and shrub buffers along 750 feet of the stream on the western portion of the site on both sides of the relocated streams. Trees and shrubs would also be planted within the mitigated wetland, along the streams and in clusters throughout the mitigation area. Wal-Mart would ensure a 75 percent survival rate on all plantings. Annual reports would be submitted to USACE during a five-year monitoring

period. See Appendix C in the attached EA for more details of the mitigation plan and monitoring proposal. Wal-Mart would place the mitigated area in a conservation easement or under restrictive covenant for perpetual protection. See Appendix D of the attached EA for a November 19, 2004 commitment letter. Wal-Mart would also allow an easement for construction of a public greenway on their property along the south side of the mitigated stream and wetland area. A portion of the proposed East Knoxville Greenway Trail System would include a 1.3 mile segment in the vicinity to meander along Love Creek. The city of Knoxville would be responsible for design and construction of the proposed greenway. See Section 2.2(b) in the attached EA for a description of the public greenway.

Re-establishment and enlargement of the wetland ecosystem (from three smaller ones to one larger one) would provide improved habitat and viability. The wetland and stream mitigation area would be protected by legal restrictions to minimize further impacts to this portion of Love Creek. With construction of the greenway trail on the applicant's property, secondary benefits would be derived including opportunities for environmental awareness programs, wildlife observation, and recreation. Therefore, impacts associated with the expansion and use of the Wal-Mart property would be minimized and offset through onsite mitigation and conservation.

Based on local area knowledge, there is no evidence that water loss has occurred to the streams, springs, or the artesian well downstream of the proposed construction site as a result of previous development in the area. A geotechnical assessment was conducted on the proposed corridor of the new stream channels. Borings were taken along the corridor to assess current subsurface materials and the depth to bedrock for construction of the new channels. Based on the findings of the assessment, bedrock is anticipated at the base of the cut on the northwestern portion of the site. Along the rest of the corridor, construction would take place within the residuum overlying bedrock. Therefore, no water loss is anticipated. The proposed work would be a minor site-specific temporary impact overall.

Since Love Creek is on the state's Section 303(d) list, it is imperative that Wal-Mart observe all conditions in the Section 401 Water Quality Certification (WQC) issued by Tennessee Department of Environment and Conservation (TDEC) to the applicant on January 7, 2005, certifying that water quality standards will not be violated if the work is conducted in accordance with the certification. Both long-term water quality effects from wetland fill and stream relocation, with mitigation as proposed, would be negligible. Strict adherence to erosion control conditions and BMPs required by USACE and TDEC would ensure that this project does not contribute to a worsening of conditions in Love Creek.

USACE and TVA have issued several permits in this general area in the past requiring adequate compensatory mitigation to reduce project impacts to levels of insignificance. A stabilized stream bank, mitigative plantings, buffer zones, and increased wetland acreage would over time provide improved water storage and 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 cumulative impacts associated with the wetland fill and stream relocation associated with the Wal-Mart proposal.

## **Public Review**

On September 17, 2004, Public Notice 04-68 was issued to advertise the proposed work and to determine the overall public interest. Twenty-one (21) letters were received from the public. Generally, objections were associated with stream alteration, wetland losses, protection of water quality and possible loss of water supply. Many cited their concerns specifically for potential impacts to the artesian well. Representatives of the city of Knoxville Greenways Commission, Fountain City Town Hall, and Town Hall East, Inc. voiced concerns, but were not opposed to the project. Some requested varying forms of mitigation. There were no requests for a public hearing; however, a community meeting was conducted to address the public concerns. Wal-Mart did not respond individually to the written objections, but agreed to attend a community meeting. See Section 4.1 for details of discussions at a community meeting held on November 8, 2004. This proposal is consistent with applicable current land use planning or zoning ordinances.

Tennessee Historical Commission (THC) and U.S. Fish and Wildlife Service (USFWS) responded with comments. By letter dated September 27, 2004, the THC indicated that there is no National Register of Historic Places listed or eligible properties affected by the undertaking. By letter dated October 13, 2004, USFWS stated that no federally listed or proposed endangered or threatened species occur within the project area. USFWS also recommended ways to reduce impacts on water quality and fish and wildlife habitat such as use of silt barriers during construction and re-vegetation of disturbed areas with native species beneficial to wildlife. Following further discussion and clarification (e.g., tree species selection, monitoring, etc.) of the mitigation plan, except for the wetland mitigation ratio, USFWS agreed to the proposal (see Appendix H in the attached EA). In letters dated May 20, 2004, and October 13, 2004, the USFWS indicated that no federally listed or proposed endangered or threatened species occurred within the impact area of the project; however, the USFWS expressed concern with 3:1 ratio for wetlands mitigation. After further consideration, the agencies believe that this mitigation ratio would be adequate because the new larger enhanced mitigation wetland would provide greater overall functions and values compared to the individually smaller altered wetland sites. A "No-Rise Certification" was issued on October 8, 2004, verifying that the work would not impact the 500-year base flood elevations, floodway elevations and floodway widths at this location on Love Creek (see Appendix E in the attached EA). All comments have been considered and addressed in the attached EA. Also, see the TDEC, Section 401 WQC in Appendix I in the attached EA.

A letter, dated September 30, 2004, was received from U.S. House of Representative Congressman John J. Duncan, Jr., inquiring about the proposal on behalf of a constituent. A response, dated October 15, 2004, acknowledged Congressman Duncan's concerns and informed him of USACE's intent to carefully evaluate all potential impacts that may result from the proposal (see Appendix H in the attached EA for letter and response).

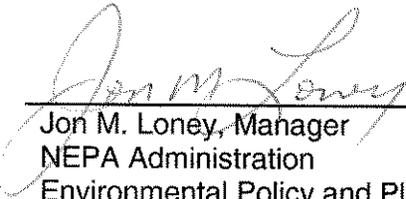
## **Mitigation**

Wal-Mart will minimize impacts by increasing flood control capabilities, maintaining adequate wetland hydrology and preserving the mitigation area in perpetuity. The mitigation plan would maintain resource integrity, promote habitat and population diversity, and provide conservation of natural resources, while meeting the needs and increasing demands of the community. With the greenway addition, the opportunity for resource awareness, appreciation and management would be a benefit to residents of the city of Knoxville and region.

USACE will require strict adherence to BMPs and sound engineering and construction standards and practices. Discharge of fill material into the existing stream channel shall be performed in the dry after the new channel has been established and the water has been diverted (see Section 5.0 in the attached EA). The proposal also includes a SWPPP to be utilized during and after Wal-Mart expansion related construction and landscaping. This would involve diverting surface runoff from the construction site to downstream detention basins, utilizing low-water separation baffles for hydrocarbons and floating materials, basket-type trash filtering screens, and check dams for containing the runoff. The SWPPP will be submitted to TDEC under separate cover prior to commencement of construction. TDEC will monitor and enforce any SWPPP requirements. TDEC will also ensure that Wal-Mart abides by all conditions in its January 7, 2005, WQC. Appropriate general and standard conditions for TVA Section 26a approval, including adherence to BMP requirements, will also be required to minimize water quality impacts.

### **Conclusion and Findings**

TVA has independently reviewed the USACE EA and found it to be adequate and, therefore, TVA adopts the USACE EA. Because there is no upland alternative for Wal-Mart's proposed expansion, TVA concludes that there is no practicable alternative to wetland fill and relocation of Love Creek and its unnamed tributary. With mitigation mentioned above, the project would be consistent with Executive Orders 11988 (Floodplains Management) and 11990 (Protection of Wetlands). Based on the attached EA, including the described wetland and stream impact mitigation measures, TVA concludes that approval of this minor wetland fill and stream relocation proposal, would not be a major federal action significantly affecting the quality of the environment. Accordingly, an environmental impact statement is not required.

  
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Jon M. Loney, Manager  
NEPA Administration  
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Date Signed