

FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY

VALLEY LAND COMPANY LLC

SECTION 26a APPROVAL FOR DEPOSITION OF FILL ASSOCIATED WITH
STREAM ENCAPSULATION OF UNNAMED TRIBUTARY TO ISBILL BRANCH
NEAR TENNESSEE RIVER MILE 459.9, LEFT BANK
HAMILTON COUNTY, TENNESSEE

Proposed Action and Need

On June 17, 2008, Thomas Austin of Valley Land Company LLC submitted to the Tennessee Valley Authority (TVA) a permit application, required under Section 26a of the *TVA Act*, for approval to encapsulate (with a 24-inch corrugated pipe) a 460-foot section of an unnamed perennial tributary to Isbill Branch. A. D. Engineering Service Inc. of Chattanooga, Tennessee, prepared the application on behalf of Mr. Austin. Isbill Branch is a tributary to Black Creek (in the Lookout Creek watershed), near Tennessee River Mile 459.9, left bank, in Hamilton County, Tennessee. The site and stream are located adjacent to U.S. Highway (US) 41 (3820 Cummings Highway), approximately 5 miles west of Chattanooga. The project consists of filling a ravine (an area presently occupied by an unnamed tributary to Isbill Branch) on the east side of the 43.7-acre site. Site grade will be increased approximately 70 feet in the ravine upon completion of stream encapsulation. The proposed fill and encapsulation would allow the developer to improve his property for the construction of a contiguous building pad for future light commercial development. The surrounding area is progressing with similar developments including new retail stores, hotels, and other light commercial properties along US 41.

The proposed action would also include restoration of a portion of Isbill Branch and the preservation of another segment of Isbill Branch as compensatory mitigation. Proposed mitigation would consist of removing an existing 30-foot culvert in an unnamed tributary to Isbill Branch (replacement credit at a 1:1 ratio) and restoring the remaining 130 feet of this section (at a 1.5:1 ratio). The preservation of 700 feet (a 10:1 ratio) of the southern portion of Isbill Branch within the subject property boundary is also included. The remaining 243.33 feet of impact is to be mitigated with restoration (a 1.5:1 ratio) of 425 feet of Isbill Branch. A 50-foot-riparian buffer would be planted with native plants on each side of this section of stream. A portion of the unnamed tributary of Isbill Branch to be restored would be restricted on the right bank by concrete barrier walls; therefore, the left buffer is to be extended (100 feet) to compensate for those limitations.

The U.S. Army Corps of Engineers (USACE) has prepared a final environmental assessment (FEA) and finding of no significant impact (FONSI) dated February 17, 2009, for the proposed stream encapsulation and fill of the unnamed tributary of Isbill Branch. The FEA also addressed compensatory mitigation for the proposed action. A copy of the USACE FEA and FONSI are attached. The FEA looked specifically at potential impacts to water quality, aquatic ecology, and wildlife habitat, and discussed compliance with threatened and endangered species and cultural resource requirements.

Alternatives

The alternatives considered for the proposed action include a No Action Alternative and an Action Alternative as proposed by the applicant, including the associated mitigation plan that describes specific restoration, replacement, and preservation activities. A second Action Alternative is similar to the first with the addition of special permit conditions to minimize environmental impacts from the proposed action.

Under the No Action Alternative, the permit would be denied, the applicant would not encapsulate several hundred feet of stream channel, and the benefits associated with the proposed action would not occur. The applicant could develop the part of the property previously filled that would not require agency permits, and the existing stream could be impacted due to development. Under the No Action Alternative, the full development potential of the applicant's property may not be realized.

Under the Action Alternative, the applicant would perform the proposed work. Approximately 460 feet of an unnamed tributary to Isbill Branch would be encapsulated, and the encapsulated stream channel would be filled to the grade of the previously improved property. Stream mitigation efforts would stabilize, restore, or replace portions of Isbill Branch and result in better-than-existing conditions. Additional segments would be preserved under a conservation easement. Stream mitigation features would include grading and establishing a stream riparian buffer including planting of native species to promote aquatic and wildlife habitat. The applicant would be able to fully utilize his property for the proposed commercial development.

The second Action Alternative would add recommended special permit conditions (listed in Section 5.5 of FEA) to further minimize adverse impacts to the environment. This alternative has the least adverse impacts of the options under consideration and is the preferred alternative.

Impacts Assessment

Approximately 40 percent of the project site has either been previously cut or filled for future commercial development to match existing road grades on US 41. The proposed land use is consistent with the development on adjacent properties and is in accordance with local government land use zoning. Because adjacent properties are being developed similarly, impacts to aesthetics would be insignificant. There are no wetlands on the property. No archaeological resources or properties listed or eligible for listing in the National Register of Historic Places (NRHP) have been identified in the project area of potential effect (APE), and the Tennessee State Historic Preservation Officer concurred with this determination in a letter dated September 15, 2008.

The proposed action would facilitate the commercial development of the site. Adjacent property values may slightly increase with new construction and provide for new property tax income to the county. The economic benefit to support businesses, restaurants, and retail shops may also be improved as a result of the new development. There is no disproportionate concentration of minority or low-income persons in the vicinity of the project site.

The proposed action would encapsulate an open perennial stream channel approximately 460 feet long and 2 to 4 feet wide. Some trees that line the existing stream channel are likely used by wildlife as habitat for small mammals, songbirds, and other animals and would be lost through the stream encapsulation and filling of the ravine. The habitat for aquatic organisms within the encapsulated segment would also be lost, although the stream habitat in this section is presently in a degraded condition. The stream compensatory mitigation, including restoration,

riparian planting with native plant species, and stream preservation through conservation easements, should benefit and enhance both aquatic and terrestrial wildlife habitats in this area and therefore reduce impacts to insignificant levels. There are no federally or state-listed threatened or endangered species in the project area.

The proposed work would be conducted in the dry, and the existing stream channel would be diverted around the work area until the culvert is installed. Sedimentation controls would include straw bales and silt control fences, brush barriers, berms, and other proven sediment control devices. Short-term increases in turbidity may occur, but utilization of construction-related best management practices would reduce water quality impacts to insignificant levels.

Impacts to noise and air from construction-related activities would be short term and temporary, and therefore insignificant. Minor short-term construction-related impacts to wildlife in the area might also occur, but wildlife activity should return to near normal after construction is complete.

Improvements to the property may enhance the possibility of future development in the area, which may result in a cumulative impact. Changes in land use in the area to a more commercial setting with increases in local traffic, noise, and utilization of utilities (water, electric, gas) could result from the new development. New development in the area could also potentially impact other local streams and wildlife habitat as the extent of the commercial development grows.

Mitigation

Stream mitigation ratios were derived from the Tennessee Department of Environment and Conservation (TDEC) "Stream Mitigation Guidelines for the State of Tennessee." The mitigation plan includes a native vegetation planting plan, success criteria, a riparian buffer, reporting protocols, and monitoring for five years. The proposed stream mitigation would be protected through a perpetual deed restriction and conservation easement. TVA has not identified the need for additional mitigation to further reduce impacts.

Public and Intergovernmental Review

The USACE issued Public Notice 08-48 on August 8, 2008. No public comments or requests for a public hearing were received.

The U.S. Fish and Wildlife Service (USFWS) responded by letter dated September 4, 2008, stating that the project area may impact the federally listed large-flowered skullcap (*Scutellaria montana*). USFWS recommended that a qualified biologist survey the project area to determine if the proposed project may adversely affect the species. On October 22, 2008, the applicant submitted to USFWS a species and habitat assessment for the proposed project. USACE made a no-effect determination and forwarded the finding to the USFWS for concurrence. In an e-mail dated December 31, 2008, the USFWS concurred with USACE's no-effect determination for the skullcap and stated that requirements under Section 7 of the *Endangered Species Act* have been fulfilled.

The Tennessee Historical Commission (THC) responded by letter dated August 19, 2008, that a detailed cultural resource survey for the area was warranted. The APE was determined to be the entire project area. The applicant provided additional information pertaining to cultural resources to THC on September 11, 2008. By letter dated September 15, 2008, the THC determined that no NRHP-listed or -eligible properties would be affected by the undertaking. The THC had no objection to proceeding with the project.

The Tennessee Wildlife Resources Agency (TWRA) responded to the public notice by letter dated September 3, 2008, stating that the proposed mitigation is not in accordance with the "Stream Mitigation Guidelines for the State of Tennessee." TWRA requested that the applicant provide a mitigation plan that is compliant with the TDEC, Division of Water Pollution Control, Natural Resource Section to agencies for review. After a review of the guidelines, TDEC 401 Water Quality Certification, and on-site investigation, it was determined by USACE that the proposed mitigation plan adheres to the Tennessee Stream Mitigation Guidelines. Additionally, TDEC reviewed and approved the mitigation proposal including the use of preservation as a component.

TDEC issued Public Notice NRS08.155 regarding the proposed stream encapsulation and fill of 460 feet of the unnamed tributary to Isbill Branch. The notice also described the compensatory mitigation proposed by the applicant. TDEC issued a 401 Water Quality Certification for the proposed stream encapsulation and fill on January 14, 2009. The certification also defines the compensatory mitigation and special conditions for certification.

Conclusion and Findings

TVA has independently reviewed the impacts assessed in the USACE FEA and determined that the scope, consideration of alternatives, and contents are appropriate and that the impacts on the environment have been adequately addressed. Based on the review, there are no significant adverse impacts, either individually or cumulatively, on the project impact area or its environment. TVA has evaluated the project for compliance with Executive Order 11988 on Floodplain Management and determined that construction of a culvert within the 100-year floodplain is considered a repetitive action in the floodplain. No wetlands or threatened or endangered species have been identified in the project area under review. No historic properties would be affected by the current undertaking. TVA has decided to adopt the USACE FEA. The FEA incorporates special conditions to minimize environmental impacts to the greatest extent possible. The USACE FEA and FONSI are attached and incorporated by reference.

Based on the USACE FEA, we conclude that issuance of a Section 26a permit for the stream encapsulation and fill described in the applicant's June 17, 2008, application would not be a major federal action significantly affecting the environment. The FONSI is contingent upon successful implementation of the USACE and TDEC permit special conditions, on-site restoration and stream preservation efforts, and TVA's Section 26a standard conditions for water quality protection.



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Date Signed