

**VULCAN CONSTRUCTION MATERIAL, LP - REQUEST FOR SECTION 26A
APPROVAL TO EXTEND CULVERT ON LITTLE WOLF CREEK, CONFLUENT TO
WOLF CREEK, BIRDSONG CREEK, AND TENNESSEE RIVER AT MILE 103.5L
(KENTUCKY RESERVOIR) – BENTON COUNTY, TENNESSEE – ADOPTION OF THE
ENVIRONMENTAL ASSESSMENT (EA) PREPARED BY THE UNITED STATES ARMY
CORPS OF ENGINEERS AND FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

Purpose and Need

On November 19, 2004, the Vulcan Construction Materials, LP (Vulcan) submitted an application to the Tennessee Valley Authority (TVA) for Section 26a approval to place 200 feet of 96-inch I.D. corrugated metal pipe (culvert) into Little Wolf Creek in order to facilitate the ongoing operations of the Benton County Rock Quarry. The new pipe would connect to an existing 96-inch culvert and extend nearly to the confluence of Wolf Creek. During installation of the new culvert, the flow in Little Wolf Creek would be temporarily impounded and the stream flow pumped around the construction site. Installation of an additional culvert into this section of the creek would maximize Vulcan's use of the existing work area, providing more flexibility to move equipment and vehicles as well as create more room to stockpile quarried rock.

Alternatives

The U.S. Army Corps of Engineers' (USACE) EA considers two alternatives: No action and the Applicant's Proposed Action. Under the No Action Alternative, TVA would deny Vulcan's request to perform the work. Under this alternative, the proposed stream encapsulation (and proposed stream mitigation) would not be performed and no additional stream impacts would occur. Vulcan would continue to operate on its existing work areas within the quarry boundaries. Under the Applicant's Proposed Action, TVA would also approve encapsulation of the remaining 200 feet of Little Wolf Creek across the quarry site contingent upon implementation of the proposed downstream mitigation. There would be the loss of 200 feet of existing stream bed, which would add to the cumulative loss of the entire stream reach across the quarry property. However, this last reach of stream has been severely degraded by quarry operations and is a source of erosion and sedimentation into Wolf Creek. TVA concurs with the USACE decision to approve the project with mitigation.

Affected Environment and Impacts

Vulcan's Benton County Rock Quarry is located along State Route 192 (Old SR 69) between the Chaseville and Holladay Communities in rural Benton County. It is surrounded by farmland and forested ridges that drain toward Birdsong Creek. The existing site, which appears to be a few hundred acres in size, is highly disturbed from many years of previous operations and it is predicted to remain in operation until at least 2035.

Little Wolf Creek traverses the Vulcan site and has become degraded by quarry operations that have raised the elevation of the top of bank, created steep almost vertical banks, reduced the channel depth and width, removed the majority of riparian vegetation and eliminated the creek's floodplain (see Section 1.0 Proposed Activity in the attached USACE EA for more detailed site description and photographs). These activities have already resulted in the total encapsulation of approximately 600 feet of

Little Wolf Creek. This last 200-foot section of creek is the only free-flowing portion of creek left within the quarry boundaries. Little Wolf Creek, in the immediate vicinity, has been straightened (i.e., channelized) and impacted by the accumulation of gravel and rock that has fallen from the quarry above. There is some shade provided by a few saplings at the top of the bank.

Observations suggest that Little Wolf Creek does not contain sufficient water depth to support viable fish habitat or populations. The streambed appears to possess limited habitat for frogs, crayfish and other small aquatic organisms; however, the majority of the habitat in the proposed stream reach is of poor quality. This stream habitat would be permanently displaced until the quarry is closed and the entire stream reach restored. The creek provides little to no terrestrial wildlife habitat, and no aquatic or terrestrial species listed as state or federally endangered or threatened would be affected by the project. No National Register listed or eligible historic properties would be affected by this undertaking. Culverts are considered to be a repetitive action in the floodplain; therefore, the project would comply with Executive Order 11988 (Floodplain Management). TVA anticipates that impacts on local flooding would be insignificant and this project would not encourage incompatible floodplain development. No air or land emissions of pollutants, hazardous waste or waste requiring special handling and disposal, or negative social or socioeconomic impacts are anticipated.

Increased turbidity levels downstream into Wolf Creek would occur during new culvert installation. Water quality would likely be improved in the future by eliminating the erosion of gravel and sediments into the creek. To reduce turbidity levels, Little Wolf Creek would be temporarily impounded upstream and the flow pumped around the site. Culvert installation would also reduce the chance of future downstream sedimentation by eliminating future stream bank failures.

Public Review

On December 1, 2004, USACE released Public Notice 04-83 advertising the proposed work. Comments were received from one federal and two state agencies. No other comments were received. By letter dated December 28, 2004, the U.S. Fish and Wildlife Service (FWS) indicated that there were no listed federally threatened and endangered species identified at the project site. FWS expressed concerns with several aspects of the proposed stream mitigation and felt there was not enough detailed information to evaluate and make appropriate recommendations. They recommended that the permit be denied based on the mitigation plan. According to the USACE analysis in the attached EA, FWS did not conduct an inspection of the site, nor take into account the degraded condition of the affected stream. Further, the mitigation plan was developed after a joint on-site inspection of the proposed mitigation area by the applicant, Tennessee Department of Environment and Conservation (TDEC) and the Natural Resources Conservation Service. Based on its own February 2005 site visit and examination of the Wolf Creek mitigation sites, TVA agrees with USACE and TDEC that the mitigation plan is adequate to protect water quality and other sensitive resources.

By letter dated December 20, 2004, the Tennessee Historical Commission (THC) stated that there are no National Register of Historic Places listed or eligible properties

affected by this undertaking. THC has no objections to the implementation of this project. By letter received December 21, 2004, the Tennessee Wildlife Resources Agency (TWRA) stated that a representative from its agency had conducted a field investigation of the site and felt it did not require restoration and enhancement. TWRA later requested that the permit be held in abeyance until an acceptable mitigation plan is provided to the reviewing agencies (see Appendix A in the attached EA). After further review and communication with Mr. Dave Turner, TDEC, about the actual locations of the mitigation sites, TWRA retracted their objections to the mitigation plan and permit issuance.

Comments received from government agencies are adequately addressed in the analysis included in the USACE EA.

Mitigation

The proposed mitigation will occur on private property downstream of the Vulcan Quarry and impact site. The property owner has signed an access agreement for the proposed mitigation. TDEC worked closely with Vulcan on development of the project off-site mitigation plan. The jointly developed strategy ultimately considers reclamation of the stream functions and values of Little Wolf Creek after closure of all mining operations.

To mitigate impacts of the loss of 200 feet of Little Wolf Creek, Vulcan will begin by rehabilitating internal quarry drainage features. This will primarily involve removing accumulated sediment from existing culverts and placing the material where it can be vegetated or in an overburden storage area depending on the constituents of the material.

During the second phase of mitigation (off-site), Vulcan will enhance and restore four sites within a 1,000 feet reach of Wolf Creek downstream from the proposed culvert location and its confluence with Little Wolf Creek. A minimum of 500 feet of creek bank will be stabilized and the entire stream reach would be cleared of debris. Unstable trees will be cut and removed while leaving root wads in place in the bank. Vegetated gabion structures will be used to stabilize the banks. A gravel bar, consisting of about 200 cubic yards of accumulated silt and cobble material just upstream of Site 4, will be removed. Large downed trees that are obstructing the channel will also be cleared from the stream leaving the root-wads in place to provide aquatic habitat and stabilize banks. The first and second phases of mitigation will address the current proposal and ongoing impacts of quarry operations on the Wolf Creek watershed. In accordance with the TDEC permit Condition #6, off-site mitigation must be completed within one calendar year of permit issuance. The mitigation area would also be protected with a perpetual deed restriction or conservation easement (see attached USACE EA).

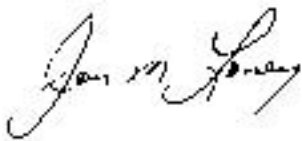
Upon cessation of gravel mining operations at the quarry, presently projected for the year 2035, TDEC will require a final phase of mitigation. At that time, Vulcan will remove all culverts (575 feet) from the quarry's processing plant yard. A section of culvert will remain at one 25-foot wide road crossing of Little Wolf Creek to provide access for the landowner. The remainder of the Little Wolf Creek stream reach, day-lighted within the quarry boundaries, will be restored following a riparian restoration and

stream habitat improvement plan that will be submitted to all regulatory agencies at a minimum of one-year prior to the cessation of quarry related activities. This will ensure that there are no long-term cumulative effects of the mine operation on the Wolf Creek watershed. The TDEC permit also has been conditioned to include annual surveys and reports, annual channel morphology surveys and a post-project habitat assessment. In addition to rehabilitating internal quarry drainage features, Vulcan will be required to inspect and maintain existing culverts on Little Wolf Creek to reduce downstream sediment levels.

USACE has conditioned its permit to require strict adherence to erosion control practices that avoid and minimize sedimentation. All disturbed areas will be stabilized as soon as practicable during and after construction in order to minimize turbidity impacts to Wolf Creek. Vulcan will also strictly adhere to all conditions of the TDEC, Division of Water Pollution Control, Mining Section, Section 401 Water Quality Certification/Aquatic Resources Alteration Permit #M2004-08 issued on May 16, 2005.

Conclusion and Findings

TVA has independently reviewed the USACE EA and found it to be adequate. Further, TVA believes that mitigation measures to be implemented along Wolf Creek downstream of the proposed culvert location are adequate to offset anticipated impacts and reduce cumulative impacts to Little Wolf Creek. Therefore, TVA adopts the USACE EA. Based on the attached EA prepared by USACE, including the described stream impact mitigation measures, TVA concludes that approval of this minor stream obstruction proposal and stream loss would not be a major federal action significantly affecting the quality of the environment. Accordingly, an environmental impact statement is not required.



July 13, 2005

Jon M. Loney
Manager, NEPA Administration
Environmental Policy and Planning
Tennessee Valley Authority

Date