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**Project Number:** 2017-3

## **FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY**

### **CUMBERLAND FOSSIL PLANT, BORROW AREAS AND ACCESS ROAD ENVIRONMENTAL ASSESSMENT STEWART COUNTY, KENTUCKY**

Tennessee Valley Authority (TVA) is proposing to develop two borrow sites on the Cumberland Fossil Plant (CUF) and develop an access road and bridge over Wells Creek in order to access the borrow areas.

The project is needed to secure soil material that would be used to support partial closure of the existing Dry Fly Ash and Gypsum stacks in accordance with state regulations. The soil from these borrow sites would also be used to support other more routine operation and maintenance activities at the plant, such as minor erosion repair and drainage improvements. If and when such actions are undertaken, they will receive separate NEPA review.

#### **Alternatives**

TVA evaluated two primary alternatives in the EA: Alternative A – No Action; and Alternative B – Develop and Operate Two Borrow Sites, Construct an Access Road and Bridge on CUF Property.

Under the No Action Alternative, TVA would continue current plant operations and would not develop borrow areas on TVA property. As this material is necessary to support current operations, TVA would obtain borrow, when needed, from one or more previously permitted commercial sites within 30 miles of CUF. This would require the use of over-the-road dump trucks rather than the larger articulated dump trucks used under Alternative B, which requires minimal use of public roadways. Based on the estimate of borrow available from the proposed two borrow sites and the volume of an over-the-road dump truck, the number of truckloads needed to obtain an equivalent volume of borrow from offsite sources would increase by 33 percent relative to existing traffic levels.

Under Alternative B, TVA would develop two borrow sites on CUF property located on the west side of Wells Creek. Both areas are primarily pastureland. Construction activities associated with utilization of the borrow sites would start with clearing and grubbing the site. Topsoil would be removed and stockpiled. Borrow material would be excavated and loaded onto trucks for transport and placement as dictated by plant operations. Upon cessation of excavation, borrow sites would be restored using stockpiled topsoil and seeded in accordance with the requirements of the Stormwater Pollution Prevention Plan (SWPPP) developed for this project. The existing tree line along the northern and western edge of the larger (southernmost) borrow site would be maintained as a visual buffer. All elements of the borrow excavation would be performed in accordance with established TVA policies and other applicable federal, state, and local guidelines for earthwork activities.

A two-lane gravel access road would be constructed on CUF property to provide access to the borrow sites. The approximately 0.6-mile-long road would be 40 feet wide with 5-foot wide shoulders, and would extend from Old Scott Road in the west to the CUF perimeter road in the east. Access to the southernmost borrow site would incorporate a portion of the existing Old Scott Road, which is a narrow county road with a gravel surface. TVA would grade and provide regular maintenance to reduce potholes or “wash-boarding” of the gravel surface.

The access route would require the construction of a new bridge over Wells Creek as the existing bridge is not capable of supporting the trucks needed to transport borrow material. The proposed new bridge would be located approximately 30 feet downstream of the existing bridge. The bridge would have a total span of approximately 220 feet and would consist of two sets of piers that would line up hydraulically with the piers of the existing upstream bridge. TVA would extend the rip rap currently in place on both sides of the upstream and downstream banks of Wells Creek near the bridge piers to minimize stream bank erosion. The road would also require a culverted crossing of Scott Branch, a tributary to Wells Creek, near Old Scott Road.

TVA proposes to use an approximate 1-acre laydown area on the east side of Wells Creek for vehicle and equipment parking as well as materials storage. The construction areas for the access road and northernmost borrow site could also be used temporarily for this purpose.

During construction of the bridge and access road (estimated to range in duration from 6 to 9 months), TVA would temporarily use existing public roadways to access the southernmost borrow site. The approximately 7-mile proposed interim route exits the borrow site on Old Scott Road, then proceeds south to Buckeye Road, then east on to State Route (SR) 149, then north on to Old Highway 149, and then west on to SR 233 (Cumberland City Road) where it enters CUF. These roadways would only be used to transport borrow materials to the plant until the access road and bridge are complete, after which the bridge and access road would be the preferred route for transport of borrow material. To minimize potential safety concerns with users of this interim access route, TVA would post flagmen along the temporary route as needed during peak use periods.

### **Impacts Assessment**

Based on the analyses in the EA, TVA concludes that the implementation of Alternative B would not adversely affect geologic resources, natural areas, parks, and recreation, socioeconomic and environmental justice, solid and hazardous waste, climate change, groundwater, cultural and historic resources, or public health and safety. There would be minor impacts to air quality, soils, floodplains, land use, plant and animal communities, surface water and aquatic resources, wetlands, visual resources and the local transportation network.

Air quality impacts from onsite construction activities would be temporary, and transportation of borrow material to support CUF construction activities would occur only when borrow material is needed. Accordingly, impacts would be minor.

Development of the borrow sites and removal of soil have the potential to disturb soil stability and increase erosion. BMPs outlined in the project specific SWPPP would be implemented to minimize erosion during land clearing, site preparation, and access road construction. With implementation of these BMPs impacts to soil resources are expected to be minor. Stockpiles of topsoil would be used for borrow site restoration and to help promote native soil biota and re-establishment of soil functions.

Portions of the borrow sites would be located within the 100-year floodplain. Any excavation of soil within the floodplain would increase the floodplain storage capacity slightly. Therefore, impacts to floodplains associated with borrow site construction, operation, or post-operation phases would be positive and minor. Construction of the bridge and access road would also affect floodplains due to the placement of fill. Construction of the access road would require placement of about 1,300 cubic yards (0.8 acre-feet) of fill within the floodplain to size and slope the road. Consistent with EO 11988, minor fill for roads are considered to be repetitive actions in the floodplain that should result in minor impacts.

Under Alternative B, approximately 113 acres of undeveloped land would be converted to industrial use for the borrow sites and access road. The impact to land use is minor due to abundance of undeveloped land within the vicinity and because the land is located on CUF property which already supports industrial use. Approximately 31 acres of land with prime farmland soils would be converted to industrial use; however, this impact is minor when compared to the amount of land designated as prime farmland in the surrounding region. Compliance with the Farmland Protection Policy Act has been concluded with the concurrence by Natural Resources Conservation Service.

Land used for borrow sites and for the access road are previously disturbed areas that lack notable plant and animal communities. Therefore, impacts to vegetation and wildlife would be minor.

Direct impacts to cultural resources have been avoided by the location of the proposed access road and borrow areas. Previously identified potentially eligible archeological sites within the vicinity of the southernmost borrow area will be flagged with a 100-foot buffer to ensure avoidance. In addition, potential visual effects on the Hollister House have been avoided by the location of borrow site outside of the visual area of potential effect. Finally, potential indirect effects to the Hollister House from vibration associated with truck movement will be minimized by adherence to reduced speeds and by roadway maintenance activities.

Alternative B will result in direct permanent impacts associated with excavation activities to 2,851 linear feet of wet weather conveyances/ephemeral streams and the two small farm ponds located on the south borrow site. Existing stormwater flow patterns would be maintained throughout excavation of the proposed borrow sites and upon completion of borrow activities. Construction of the access road, a bridge over Wells Creek and a culvert within Scott Branch would include fill activities that would directly impact approximately 110 feet of Wells Creek and approximately 90 linear feet of Scott Branch. Construction of the proposed bridge and access road, the disturbance of soils and sediment creates the potential for increased turbidity and suspended solids in Wells Creek. Soil erosion and turbidity, as well as other potential water quality concerns, may be reduced due to lower runoff rates. The affected areas are relatively small compared to the Wells Creek watershed area. None of the anticipated activities would result in impacts that could exacerbate water quality concerns within Wells Creek. For all proposed construction and operation activities, TVA would comply with all appropriate state and federal permit requirements. A General Permit for Stormwater Discharges Associated with Construction Activities (TDEC 2016b) would be required for this project, and this permit would require development of a project-specific SWPPP. BMPs would be based on the Tennessee Erosion and Sediment Control Handbook. Additionally, work in conjunction with the bridge and access road development would require a TDEC Aquatic Resource Alteration Permit (ARAP) and USACE 404 Nationwide permit.

Direct and permanent impacts to aquatic biota and their habitats for the development of the access road would be limited to culverting of Scott Branch and construction of a bridge over Wells Creek. Culverts used for Scott Branch would be designed to allow for the movement of mobile aquatic organisms through the culverts. Work performed in Wells Creek would consist of construction related to piers for bridge support, bridge abutments on the creek banks, and bank stabilization (placement of rip-rap) within the area of bank disturbance. These construction activities would be conducted in accordance with applicable Clean Water Act Section 404 permit limit requirements and would utilize appropriate BMPs that would minimize potential indirect impacts associated with downstream transport and accumulation of sediments. Watershed level impacts would be insignificant given the local abundance of similar aquatic resources, the limited aquatic habitat within the borrow sites (ponds and WWCs/ephemeral streams), and the relatively localized area of disturbance for the Scott Branch culvert and Wells Creek bridge.

A total of 0.83 acre of jurisdictional wetlands would be impacted by placement of fill under this alternative. Wetland impacts are minimal when viewed in the context of wetland resources within the surrounding region. In terms of EO 11990, there is no practicable alternative that would avoid impacting such wetlands given the operational constraints associated with the proposed projects. Such unavoidable direct impacts to wetlands would be mitigated as required by both state and federal agencies in accordance with the Tennessee Water Quality Control Act and Section 404 of the Clean Water Act.

There would be a long-term change in visual integrity of the landscape which would result in a minor impact to the local viewshed. However, after borrow materials are exhausted from within each site, the area would be graded and seeded or sodded to support the establishment of herbaceous vegetation. Therefore, it is not expected that the existing scenic class would be significantly reduced based on the U.S. Forest Service scenic management system used to assess visual impacts.

Traffic generated during construction of the access road and bridge and development of the borrow sites would affect the local transportation network. This impact would be minor and would occur only during the estimated construction period (6 to 9 months). Once the access road is completed, trucks would transport borrow from the southern borrow site along Old Scott Road to the new onsite access road to the CUF perimeter road. Traffic volume on Old Scott Road is assumed to be very low, likely less than 100 vehicles per day as there are only two residences along the road. Therefore, the effects on traffic Levels of Service on Old Scott Road is expected to be negligible. Because the northern borrow site can be directly accessed from the new access road, truck traffic would not use public roadways to access the northern borrow site.

Forested areas within the access road and borrow sites provide potential suitable summer roosting habitat for the Indiana bat and northern long-eared bat. The USFWS concluded that the project may affect, and is likely to adversely affect, the Indiana bat and northern long-eared bat. TVA committed to implement conservation measures established in the USFWS 2015 Conservation Strategy for Forest-Dwelling Bats in Tennessee, as well as mitigation through Tennessee's Imperiled Bat Conservation Fund to compensate for the proposed clearing of 11.9 acres of potentially suitable roosting habitat for the Indiana and northern long-eared bats. Therefore, the USFWS determined on July 10, 2017, that the proposed action is not likely to jeopardize the continued existence of these two bat species.

Alternative B meets the purpose and need of the project as it would allow TVA to secure borrow material to support the partial closure of the Dry Fly Ash and Gypsum stacks as well as support future routine operation and maintenance activities at CUF. Implementation of this alternative

would optimize existing TVA assets and minimize long-term use of public roadways to transport borrow material to CUF. As such, the long-term impacts associated with air emissions, increased traffic and associated long-term safety risks, and disruptions to the public that would be associated with the use of public roadways under the No Action alternative are avoided.

### **Public and Intergovernmental Review**

The Draft EA was released for public review and comment on July 21, 2017. TVA notified local, state, and federal agencies and federally recognized tribes of its availability. Pursuant to Section 106 of the National Historic Preservation Act, TVA consulted with the Tennessee State Historic Preservation Officer (SHPO) requesting concurrence that the proposed action would have no effect on cultural resources. The SHPO concurred with this determination in a letter dated June 21, 2017.

### **Mitigation**

TVA would implement routine best management practices listed in the EA to avoid or reduce minor adverse environmental effects from the construction of the projects as described in the EA for Alternative B. In addition, TVA has identified the following non-routine mitigation measures to reduce potential impacts further:

- TVA will comply with the terms and conditions of the TDEC ARAP and USACE 404 permits, including any compensatory mitigation credits that may be required, prior to the start of clearing and construction.
- Unavoidable impacts to habitat suitable for northern long-eared bat and Indiana bat will be mitigated through implementation of conservation measures established in the USFWS 2015 Conservation Strategy for Forest-Dwelling Bats in Tennessee, as well as mitigation through Tennessee's Imperiled Bat Conservation Fund in accordance with Endangered Species Act mitigation guidelines during Section 7 consultation with USFWS. Any tree removal will be conducted between August 16 and March 31, outside the breeding season.
- Previously identified potentially eligible archeological sites within the vicinity of the southernmost borrow area will be flagged with a 100-foot buffer to ensure avoidance.
- TVA will ensure that the gravel portion of Old Scott Road fronting the Hollister House is well maintained and speed of the trucks is kept to a minimum in order to minimize any indirect effects from increased vibrations to the Hollister House.
- The existing tree line along the northern, western, and southern edges of the larger (southernmost) borrow site will be maintained as a visual buffer to avoid impacts to the viewshed of the Hollister House.
- TVA will use existing public roadways to access the southernmost borrow site while the bridge over Wells Creek and access road is constructed (estimated duration to be 6 to 9 months). TVA will post a flagman along these public roadways as needed during peak use periods to minimize potential safety concerns.

**Conclusion and Findings**

Based on the findings in the EA, TVA concludes that implementing Alternative B – Develop and Operate Two Borrow Sites, Construct an Access Road and Bridge on CUF Property, would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



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Date Signed