

DRAFT
FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
GALLATIN FOSSIL PLANT, BORROW SITE ENVIRONMENTAL ASSESSMENT
SUMNER COUNTY, TENNESSEE

Tennessee Valley Authority (TVA) is proposing to develop a borrow site on TVA-owned property near the Gallatin Fossil Plant (GAF). The project is needed to secure soil material that would be used to support operations and maintenance activities at GAF, such as minor erosion repair, site grading, and drainage improvements. Borrow may also be used as needed for potential future actions such as ash impoundment closure projects, landfill development projects, drainage improvement projects, access road improvements and other general maintenance projects for existing facilities. If and when such actions are undertaken, they will receive separate National Environmental Policy Act (NEPA) review.

Alternatives

TVA completed a Soil Management Study to evaluate potential sources of borrow material needed to support projects at GAF. The study was broken into three tasks:

1. Determine project needs and evaluate areas on GAF (onsite) for development of borrow sites.
2. Evaluate local off-site commercial sources that can provide the needed materials.
3. Perform a siting study for off-site properties that could be purchased and developed by TVA as borrow sites.

TVA considered the results of these studies and determined that the development of a borrow area on TVA-owned property at the offsite location is preferred. This option would minimize the number of public roadways subject to the transport of borrow, which reduces the long-term impacts associated with air and noise emissions, increased traffic, and associated long-term safety risks, and disruptions to the public that would be associated with transport from a borrow source located further away.

TVA evaluated two primary alternatives in the EA (Environmental Assessment): Alternative A – No Action; and Alternative B – Develop and Operate a Borrow Site on TVA-Owned Property. The impacts of the alternatives were assessed in the attached EA. The EA is incorporated herein by reference.

Under the No Action Alternative, TVA would not develop a borrow area on TVA property. As this material is needed to support current and future operations, TVA would obtain borrow, when needed, from one or more previously permitted commercial sites within 30 miles of GAF.

Under Alternative B, TVA proposes to develop a borrow site on TVA-owned property located approximately 1.5 miles northwest of GAF. The borrow site limit of disturbance would encompass approximately 178 acres of the 198-acre project site and is expected to contain

suitable soils of sufficient quantity to support ongoing and future borrow requirements at GAF. Preliminary estimates indicate that approximately 164,000 cubic yards (yd³) of topsoil and 987,000 to 1,316,000 yd³ of clay could be obtained from the borrow site. Development of the borrow site would occur in phases (Phases 1 to 4). A Future Reserve Area has also been established within the 178-acre borrow site to support future operations as needed. However, TVA estimates that the entire site would eventually be developed to meet the needs for borrow at GAF.

A two-lane gravel road would be constructed on the project site to access the borrow site from Steam Plant Road. The approximately 0.65-mile-long road would be 40 feet wide with 5-foot shoulders and would extend west from Steam Plant Road and cross Cole's Ferry Road. Culverts would be placed in the roadside ditches on the western side of Steam Plant Road and along both sides of Cole's Ferry Road as well as where the access road crosses the perennial stream located in the northern portion of the borrow site. These culverts would maintain existing storm water drainage flows during initial excavation activities.

Soil excavation would involve the use of heavy equipment including bulldozers, backhoes, excavators, and tri-axle dump trucks. Topsoil in the borrow area would be stockpiled, and borrow soils would be excavated to a maximum depth of approximately 22 feet below ground surface. The majority of the site consists of pastures and fallow cropland. Approximately 37 acres of forested area within the 178-acre site may be removed; however, the existing tree line along the northern edge of the borrow site would be maintained as a visual buffer. Woody debris and other vegetation may be chipped onsite and used as mulch to prevent erosion or sent offsite to an approved solid waste facility for disposal.

Borrow material would be excavated and loaded onto dump trucks for transport and placement as needed to support current and future projects at GAF. Disturbed areas would be limited to 50 acres or less at any given time. TVA would transport the excavated soil from the borrow site to GAF along existing public roads. Depending on the need of individual projects, TVA estimates an average soil use of up to approximately 500 yd³ per day. Using an average truck capacity of 15 yd³, this would equate to approximately 34 truckloads of borrow or 68 truck trips per day along Steam Plant Road during borrow site use.

Existing storm water flow patterns would be maintained during excavation as needed. Sediment basins would be constructed within the borrow site to prevent sediment deposition into adjacent waterways. Upon cessation of excavation, the borrow site would be graded for proper drainage and vegetated with native, non-invasive plant species. All elements of borrow excavation would be performed in accordance with established TVA policies and other applicable federal, state, and local guidelines for earthwork activities.

Impacts Assessment

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

Air emissions from construction and operation of the borrow site would have, at most, a minor transient impact on onsite and offsite air quality, which would remain well below the applicable ambient air quality standard. Noise from development and operation of the borrow site would

only occur during specific construction periods (when borrow is needed at GAF) during normal working hours which would minimize noise impacts. Given the intermittent nature of construction noise, the impact of noise generated from construction activities would be minor. During periods when borrow is transported to GAF, haul trucks would cross over Cole's Ferry Road and eventually enter open traffic lanes on Steam Plant Road. Traffic entering and exiting the borrow site would yield to through traffic on Cole's Ferry Road and TVA would place proper safety and warning signs to inform drivers to be alert of construction traffic entering and exiting the access road, which would reduce the localized and intermittent transportation effects and the impact would be minor. It is anticipated approximately 34 truckloads of borrow would be transported to GAF when needed to support operation. This would result in a truck trip count of 68 trucks per day on Steam Plant Road which would increase the existing traffic volume by 3.4 percent, but the existing level of service would remain unchanged.

Large volumes of surface soil and subsoil would be removed from the borrow site to support the future construction projects at GAF. When the need for borrow ceases, the excavated areas would be graded and reseeded with grass to help promote soil stability, native soil biota, and re-establishment of soil functions. Soil functions in these areas would be adversely impacted until restoration is completed. BMPs (Best Management Practices) outlined in the project specific Stormwater Pollution Prevention Plan (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.

Proposed excavation areas are expected to terminate at or near bedrock and are not expected to encounter groundwater. During operation of the borrow site, BMPs would be implemented to avoid contamination of shallow groundwater, if present in the project area, and control sediment infiltration from storm water runoff during borrow site development. Sinkholes are present on the proposed borrow site. TVA will develop a work plan for the identification and mitigation of these features. The plan will identify procedures to be followed when a sinkhole is identified which includes avoiding the area until the extent of the feature can be adequately characterized. Appropriate engineering measures designed to mitigate impacts associated with sinkholes would be implemented. In addition, the State of Tennessee requires that any sinkhole to be affected by construction activities are repaired under the jurisdiction of a Class V Injection Well Permit. Therefore, impacts to groundwater are expected to be minor.

The development of the borrow area in Phases 1-4 would have a direct or indirect impact to all or a portion of 208 linear feet of streams and 1,281 linear feet of wet weather conveyances (WWCs). If borrow needs expand into the use of the Future Reserve Area, then the majority of the streams would be directly impacted by encapsulation of the streams or the use of rip rap as part of the stream bed. Avoidance and minimization measures would however, be considered during the detailed design phase to reduce potential impacts to the extent practicable. The use of borrow in the future reserve area would be expected to have a direct or indirect impact to an additional 1,486 linear feet of stream(s), 261 linear feet of WWCs and potentially a portion of a 0.7 acre pond.

Aquatic ecosystems and associated aquatic biota within the perennial stream and intermittent streams within the project area would be impacted in conjunction with the progressive development of the borrow site. Stream alteration would require a Tennessee Department of Environment and Conservation (TDEC) ARAP, 401 Water Quality Certification and U.S. Army Corps of Engineers (USACE) 404 permit. The streams documented within the proposed project footprint would require mitigation from the project activities and TVA would work with both the

TDEC and USACE to purchase stream mitigation credits as necessary. TVA would comply with all appropriate state and federal permit requirements.

A General Permit for Storm Water Discharges Associated with Construction Activities would be required for this project, and this permit would require development of a project-specific SWPPP. TVA would use applicable BMPs as described in the project-specific SWPPP, TDEC's Erosion & Sediment Control manual and the *Tennessee Erosion and Sediment Control Handbook-4th Edition, 2012* to minimize the potential for impacts to water quality and instream habitat for aquatic organisms. These measures would be implemented until the use of lands containing the perennial and intermittent streams is necessary by the progressive development of the borrow site. Additionally, all construction and operation activities would be conducted in a manner to ensure that waste materials are contained and managed appropriately (e.g., refueling, maintenance activities, and storage of equipment) to ensure that the introduction of pollutants to the receiving waters would be minimized. The affected area is relatively small compared to the entire watershed area. Therefore, in consideration of the disturbance to surface water systems under Phases 1-4 and potentially the Future Reserve Area, coupled with the commitment to avoid and minimize impacts during design to the extent practicable, implement appropriate BMPs, and compensate for unavoidable adverse effects both direct and indirect impacts to surface water and aquatic ecology resources are considered to be minor.

Alternative B would require clearing of approximately 139 acres of early successional vegetation and up to 37 acres of forested habitat. Virtually all forests in the project area have been previously cleared and the plant and animal communities found there and within the early successional habitat are common and well represented throughout the region. Therefore, project-related effects to plant and animal communities would be minor when compared to the total amount of forest land and early successional habitat occurring in the region.

Forested areas within the potential borrow site provide potential suitable summer foraging and roosting habitat for the federally listed Indiana bat, northern long-eared bat, and gray bat. No survey records have indicated that these species have historically occurred within the project limits. Impacts are expected to be minor given the lack of recorded occurrences onsite, the amount of suitable habitat in the project vicinity and TVA's commitment to remove trees between August 1 and March 31 to avoid the non-volant season (time when juvenile bats are unable to fly). Impacts to these species are within the bounds of impacts analyzed in TVA's Bat Strategy Programmatic Section 7 ESA consultation.

Habitat for streamside salamander exists along perennial streams within the project footprint. Field surveys for streamside salamander were performed jointly by subject matter experts from TDEC and TVA on March 22, 2018. No individuals or egg masses of this species were found despite the presence of suitable habitat along the perennial stream. Despite the fact that surveys did not show the presence of salamanders, TVA nevertheless would use BMPs along all remaining streams and wet weather conveyances onsite. In conjunction with any potential impacts to streams, TVA would avoid and minimize impacts during design to the extent practicable, implement appropriate BMPs, and compensate for unavoidable adverse effects.

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 the 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.

Under Alternative B, approximately 178 acres of undeveloped land and approximately 93 acres of land with prime farmland soils would be converted to industrial use. The impacts to land use and prime farmland are minor due to the abundance of undeveloped land and land designated as prime farmland within a 5-mile radius of the site. Per the Farmland Protection Policy Act manual (523.11, C., viii), surface mining where restoration is planned is not subject to the provisions of the FPPA. Therefore, no further coordination with the Natural Resources Conservation Service is needed.

There are three natural areas located within 0.5 mile of the proposed borrow haul route. The additional truck traffic, noise and dust from the transport of borrow to GAF may indirectly impact these areas. However, traffic along the haul route is characterized by frequent truck traffic so that the relatively low number of trucks anticipated to be used to transport borrow material, and the intermittent frequency of this additional truck traffic would be insignificant.

Potential safety issues under Alternative B are related to transport of borrow material for a short distance on the existing roadway network. Due to the transport of borrow on public roads there would be a minor potential impact to public health and safety. However, construction and borrow activities would adhere to TVA guidance and be performed consistently with standards established by OSHA so as to maintain public health and safety during construction and borrow transportation.

Alternative B meets the purpose and need of the project as it would allow TVA to secure soil material to support ongoing operations and maintenance activities at GAF. Implementation of this alternative would minimize the transport of borrow material from offsite sources to GAF along public roads, which reduces 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.

Public and Intergovernmental Review

The Draft EA was released for public review and comment for 30 days beginning on July 9, 2018. TVA notified local, state, and federal agencies and federally recognized Indian tribes of its availability through their required consultations. 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 May 14, 2018, and the Shawnee Tribe agreed by email sent on May 8, 2018 to TVA's Tribal Liaison.

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 potential suitable summer roosting habitat for the northern long-eared bat and Indiana bat would be mitigated as required in accordance with ESA during Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS). Any tree removal would be scheduled so that all tree clearing would be conducted between

August 1 and March 31. Only limited tree removal would occur during the period from August 1 to October 1, and the majority of the tree removal would be conducted between October 1 and March 31. No tree removal would occur between June 1 and July 31 to avoid any potential direct impact to juvenile bats at a time when they are unable to fly. The majority of tree removal is expected to occur between October 15 and March 31, when bats are not on the landscape.

- The existing tree line along the northern edge of the borrow site would be maintained as a visual and noise buffer to avoid impacts to nearby residences.
- Previously identified potentially eligible archeological sites identified within the vicinity of the southernmost borrow area would be flagged with a 100-foot buffer to ensure avoidance during the use of the borrow area.
- If human remains are encountered or accidentally uncovered by earthmoving activities, all activities within the immediate area will cease and the county coroner or medical examiner, a local law enforcement agency, and the state archaeologist's office will be notified at once (Tennessee Code Annotated 11-6-107d). TVA will add contact information for the county coroner or medical examiner, a local law enforcement agency, and the state archaeologist's office to the site risk plan to facilitate adherence to this procedure.

Conclusion and Findings

Based on the findings in the EA, TVA concludes that implementing Alternative B – Develop and Operate a Borrow Site on TVA-Owned 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