

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
BULL RUN FOSSIL PLANT DECONTAMINATION AND DECONSTRUCTION
ENVIRONMENTAL ASSESSMENT
ANDERSON COUNTY, TENNESSEE

Tennessee Valley Authority (TVA) is proposing to deconstruct its Bull Run Fossil Plant (BRF) located in Anderson County, Tennessee. TVA needs to manage the disposition of the BRF site to provide necessary structures and facilities for ongoing site activities while considering capital costs, long-term operations and maintenance costs, environmental risks, safety, and security at the plant site, and making the land available for future economic development. TVA has prepared an environmental assessment (EA) for this proposed action, which is incorporated by reference.

As a large, inflexible coal unit with medium operating costs and a high forced outage rate, BRF does not fit current and likely future portfolio needs. While BRF was designed to provide baseload generation, increases in nuclear generation which produce power at a lower cost per megawatt-hour have displaced BRF for baseload generation. The retirement in 2023 of this inflexible unit with high maintenance costs would facilitate TVA's statutory mission to provide reliable power at the lowest system cost.

TVA evaluated the environmental impacts associated with the retirement of BRF in the Potential Bull Run Fossil Plant Retirement Environmental Assessment and identified retirement of BRF as the preferred action in the Finding of No Significant Impact (FONSI) published in February 2019. In February 2019, the TVA Board of Directors approved the retirement of BRF by December 2023.

Alternatives

TVA evaluated three alternatives in the EA.

Under the action alternatives, the following buildings and structures would remain in place. Any future actions for these facilities would be evaluated under a separate NEPA analysis, if necessary:

- Claxton Community Park
- Claxton Community Center
- Coal Combustion Residuals (CCR) units
- BRF Visitor's Overlook/Entry Monument
- Switchyard

Alternative A – Full Demolition of All Structures to Three Feet Below Final Grade:

Alternative A includes the proposed decontamination and demolition of the powerhouse and buildings and structures within the proposed decontamination and deconstruction project area to 3 feet below final grade. All environmental issues associated with identified structures would be assessed and abated, including the decontamination of all buildings, structures, conveyers, and

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tunnels associated with plant operations, to remove hazardous materials. Demolition could be conducted via mechanical deconstruction and/or explosives. Alternative A could create approximately 7,000 cubic yards of demolition debris and 9,000 cubic yards of asbestos-containing materials (ACM) that would be hauled offsite by truck for disposal at an appropriate facility in accordance with all federal, state, and local laws and regulations. Alternative A could also create approximately 55,000 net tons of scrap metal that could be transported offsite by either truck or rail. Scrap metal could also be sold to local or regional vendors. No specific disposal or recycle sites have been identified at this time, and ultimate disposition site selection would be determined by the contractor.

TVA estimates that approximately 25 trucks per day would utilize local roads and arterial and interstate highways to transport demolition debris and scrap metal to facilities within 20 miles of BRF during the decontamination and deconstruction phase, equating to a temporary (24 months) increased daily traffic count of 50 truck trips in the vicinity of the BRF site. No specific disposal sites have been identified at this time, and ultimate disposition site selection would be determined by the contractor.

All buildings and structures with below grade features would be backfilled, using concrete and masonry from the demolished facilities and, if needed, fill from an offsite borrow source. If there is a need for borrow material from an offsite location, borrow would be obtained from one or more previously developed or permitted commercial borrow site(s) within 100 miles of BRF; the selection of the borrow site would be left up to the contractor. TVA would perform any necessary due diligence and reviews in association with the use of such an offsite borrow source.

Temporary parking and laydown areas would all be located within the project area footprint. Laydown areas would be located within paved or graveled areas to the extent practicable, and parking of construction and personal vehicles would be within existing parking areas and within other paved or graveled areas as structures are removed. All buried utilities would be cut and capped at each building boundary within the project area and abandoned in place if they do not interfere with other ongoing projects that overlap the project footprint. The cooling water intake structure would be decommissioned and sealed. The site would be restored to grade to provide proper drainage. All disturbed areas would be covered with topsoil and seeded to establish a permanent vegetative cover or otherwise permanently stabilized.

Alternative B – Selective Demolition of All Structures to Three Feet Below Final Grade, Retain Turbine Bay of Powerhouse, and Intake Structure: Alternative B includes the actions described under Alternative A, except the turbine bay of the powerhouse and the intake structure would remain in place. The plant staff and regular maintenance activities would be greatly reduced under this alternative from current levels for the active plant, and personnel from other TVA sources would be used, as necessary, to assist with performing operations and maintenance activities for the remaining powerhouse and associated structures.

Alternative C – No Action Alternative: Under the No Action Alternative, TVA would not perform any deconstruction or other disposition activities at BRF. If the facility is left in the “as-is” condition, it likely would present a higher risk than Alternatives A or B for the potential to contaminate soil and groundwater as systems and structures degrade. As such, this alternative is not a reasonable alternative. However, being the No Action Alternative, it is discussed in the EA and used as a basis for comparison to the Action Alternatives.

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Preferred Alternative: TVA's preferred alternative is Full Demolition of All Structures to Three Feet Below Final Grade (Alternative A). Under this alternative, all environmental issues associated with identified structures would be assessed and abated, including the decontamination of all buildings, structures, conveyers, and tunnels associated with plant operations, to remove hazardous materials, and all buildings and structures would be demolished. Implementation of this alternative would meet the purpose and need of the project to enhance future economic development in the area and would avoid the potential environmental and public safety impacts associated with leaving BRF in the "as-is" condition.

Impacts Assessment

Based on the analyses in the EA, TVA concludes that the implementation of any of the action alternatives would not adversely affect or would be negligible for land use, prime farmland, geology, floodplains, threatened and endangered species, and climate change. Impacts to utilities and service systems would be short-term, minor, and limited to the project area.

Activities associated with decontamination and deconstruction have the potential to result in temporary, minor adverse impacts to shallow groundwater, vegetation, wildlife, visual resources, and public health and safety; however, these resources would benefit from the action in the long term, due to the removal of potentially unsafe facilities.

During demolition, there would be short-term increases in employment, payroll, and tax payments, resulting in minor beneficial direct and indirect economic impacts. Implementation of the action alternatives would have short-term, minor impacts to nearby communities if routes to haul construction debris and borrow utilize surrounding local roadways. Environmental justice populations in proximity to the project area may bear greater impacts from air and noise emissions due to the location of the project area within a low-income block group. However, these impacts would be temporary and limited to the deconstruction and decommissioning phase of the project.

Onsite grading and deconstruction activities would potentially disturb soil stability and increase erosion, resulting in temporary, minor impacts to surface water, wetlands, and aquatic ecology due to surface water runoff from the demolition site. These impacts would be minimized through the use of best management practices (BMPs), a site-specific Stormwater Pollution Prevention Plan, and applicable permit requirements. Onsite demolition activities would also result in temporary impacts to recreational boating and fishing activities in the immediate vicinity of BRF.

Under the action alternatives, impacts to solid and hazardous waste would be minor, as these materials would be managed and disposed of in accordance with all applicable local, state, and federal regulations. The action alternatives are preferable to the No Action Alternative in this regard, as the potential degradation of structures and associated hazardous materials remaining onsite would lead to increased risk of soil and groundwater contamination.

The action alternatives would result in an adverse effect on National Register of Historic Places (NRHP)-eligible BRF through the demolition of buildings and structures that contribute to the property's eligibility. Mitigation measures were identified through consultation with the State Historic Preservation Office (SHPO) and listed in the Memorandum of Agreement (MOA) between TVA and SHPO for this project.

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Onsite decontamination and deconstruction activities would result in temporary impacts to air quality, noise, and vibration under the action alternatives. Offsite transportation-related activities such as debris disposal, transport of borrow, and workforce transportation would result in temporary impacts to transportation, noise, and air quality. Increased traffic in the vicinity of BRF could lead to minor impacts to the roadway network, but no impacts are expected to the railway network.

Although impacts of the removal of the TVA owned railroad loop track, ties, and ballast are being assessed as part of the proposed action alternatives in this EA, the decision on timing of removal would be made at a future date, pending TVA decisions on other site actions.

The reasonably foreseeable future projects such as the proposed CCR unit closures at BRF could contribute to additional traffic volumes on the local transportation network, depending on the closure method selected. The number of trucks associated with the transport of debris from BRF deconstruction, added to the number of trucks potentially required to remove CCR from units at BRF and the associated transport of borrow to support closure and restoration activities could result in a very large number of trucks entering and exiting the facility on a daily basis. This could lead to cumulative impacts to transportation and environmental justice populations associated with congestion, as well as noise, fugitive dust, and exhaust, along adjacent arterial roadways. TVA would mitigate congestion in the vicinity of BRF with a traffic plan, as needed. Possibilities include staging of trucks, spacing logistics, or timing truck traffic to occur during lighter traffic hours (such as not in the morning or afternoon commute hours). Physical impacts (i.e., noise, dust) would be mitigated through BMPs. With implementation of these mitigation measures, cumulative impacts of the proposed action to transportation and environmental justice communities would be minor to moderate and temporary.

Public and Intergovernmental Review

The Draft EA was released for a 60-day public comment period on December 4, 2022, and was posted on TVA's website (<http://tva.com/nepa>). Comments on the Draft EA were accepted through February 2, 2023. To solicit public input, the availability of the Draft EA was announced in newspapers that serve the Anderson County, Tennessee, area. A news release was issued to the media. TVA's agency involvement included circulation of the Draft EA to local, state, and federal agencies and federally recognized tribes, as part of the review.

TVA received comment submissions from the following:

- Agencies – Anderson County, City of Oak Ridge, U.S. Environmental Protection Agency (EPA), Tennessee Department of Environment and Conservation (TDEC), Tennessee Department of Transportation (TDOT), and Tennessee Department of Agriculture
- Organizations – Tennessee Chapter Sierra Club, Southern Environmental Law Center (SELC), Statewide Organizing for Community Empowerment, Appalachian Voices, and Sierra Club; RSI EnTech, LLC, United Cleanup Oak Ridge (UCOR)
- Individual members of the public (130 submissions)

The most frequently mentioned topics related to future site reuse, transport of materials, environmental justice and community impacts, natural areas and recreation, threatened and endangered species, energy demand, historic properties, and cumulative impacts. In response

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to comments received by TVA from the public, agencies, and other interested parties, TVA has revised text within the Final EA and has included a response to comments in Appendix A.

Mitigation and BMPs

TVA would implement operating permit requirements and the routine BMPs described in the EA to avoid or reduce minor adverse environmental effects associated with the decontamination and deconstruction activities. The following mitigation measures have been identified to reduce potential health, safety, and environmental effects.

Mitigation Measures:

- TVA would conduct extensive presence/absence surveys at least one month prior to demolition of the structures to determine if migratory birds or bat species listed on the U.S. Fish and Wildlife Service (USFWS) Endangered Species list are utilizing these buildings.
- A number of activities associated with the proposed action are addressed in TVA's programmatic consultation with the USFWS on routine actions and federally listed bats in accordance with the Endangered Species Act Section 7(a)(2), originally completed in April 2018 and updated in May 2023. For those activities with potential to affect bats, TVA committed to implementing specific conservation measures.
- If colonies of bats or other protected wildlife species are observed in buildings proposed for demolition, TVA would strive to (and in most cases anticipates being able to) accommodate seasonal modification or removal. Risk to human safety, however, would take priority. For project-specific cases in which TVA is unable to accommodate seasonal modification or removal, and federally listed bat species or other protected species are present, TVA would consult with the appropriate state and federal agencies to determine the best approach in the context of the project-specific circumstance.
- TVA executed a Memorandum of Agreement (MOA) with the Tennessee State Historic Preservation Officer (SHPO) in April 2023 for the mitigation of adverse effects on BRF, which is eligible for listing in the National Register of Historic Places (NRHP). Per the MOA, TVA will complete Historic American Engineering Record-equivalent documentation and will install interpretative signage at a public location near BRF.
- If there is a need for borrow material from an offsite location, borrow would be obtained from one or more previously developed and permitted commercial borrow site(s) within 100 miles of BRF; the selection of the borrow site would be left up to the contractor. However, TVA would perform all necessary due diligence and consultation as required under Section 106 of the National Historic Preservation Act related to any offsite borrow areas.
- If determined necessary, TVA may mitigate traffic impacts by implementing measures such as controlled timing of entry and exit to the facility, establishing alternate ingress/egress routes and possible busing of workers.
- To minimize adverse impacts on natural and beneficial floodplain values, demolition and deconstruction material would be disposed of outside of the 100-year floodplain, and concrete and masonry used as backfill in the floodplain would be placed at-grade or below.

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- To minimize potential adverse cumulative impacts to environmental justice communities if other projects in the vicinity occur concurrently with the proposed action, careful consideration would be made by the contractor to identify and select haul routes and borrow site locations that are not within environmental justice communities, when possible.

Best Management Practices:

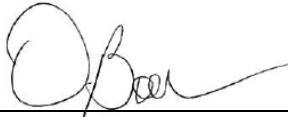
- TVA would minimize one-time emissions of fugitive dust from facilities expected to produce large volumes (such as demolition of the stacks) by working with the demolition contractor on a site-specific plan. The demolition contractor would be required as practicable to implement dust control measures during demolition to prevent the spread of dust, dirt, and debris. TVA would continue to follow dust control BMPs in accordance with its Title V permit and SWPPP.
- Surface water quality indirect impacts resulting from disturbance during demolition would be minimized by the use of stormwater pollution prevention BMPs to reduce the extent of disturbance and erosion as described in the project-specific SWPPP, the Tennessee Erosion and Sediment Control Handbook (latest version), and by compliance with the requirements of the USACE permitting process. The installation of bulkheads would be conducted in accordance with BMPs intended to avoid release of sediments or contaminants to surface water. BMPs and wastewater treatment would be employed, as needed, to mitigate any pollutant discharge.
- To the extent practicable, TVA would establish an average 30-foot buffer around delineated wetlands and streams within and adjacent to the project area and preclude any ground disturbing actions within the buffer to avoid placing fill material into the resource and to minimize sedimentation.
- Any temporary or permanent outdoor lighting would be angled downward and away from suitable bat habitat to minimize light pollution impacts to listed bats.
- TVA would notify Anderson County prior to any demolition activities that have the potential to mobilize dust offsite. Notifications to the public would be issued prior to the use of explosives for demolition. Prior to the demolition, the area would be prepared, and the explosives contractors would establish a fall exclusion zone. During the blast event, no personnel would be allowed in the fall exclusion zone.
- To mitigate the potential for impacts to public safety, TVA would work with the demolition contractor to create a detailed site-specific plan for explosive demolition activities.
- TVA would ensure the proper management of all solid waste and hazardous wastes generated from construction activities in accordance with applicable federal, state, and local laws and regulations.
- Construction debris and wastes would be managed in accordance with federal, state, and local requirements. Efforts would be made to divert any recyclable materials (e.g., concrete, steel, and asphalt) away from landfills and repurpose the material when possible. Prior to demolition activities, hazardous materials would require special removal, handling, and disposal by appropriately trained and licensed personnel and contractors. Dust suppression and environmental control BMPs would be employed to minimize or prevent releases of hazardous materials.

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- Though not anticipated, if deconstruction activities have the potential to emit pollutants greater than acceptable thresholds in BRF's existing Title V permit, mitigation could include a request to modify the permit.

Conclusion and Findings

Based on the findings in the EA, TVA concludes that implementing the action alternatives for the Bull Run Fossil Plant Decontamination and Deconstruction would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



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06/07/2023

Date Signed