

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
BELLEFONTE SITE UTILITY IMPROVEMENTS
JACKSON COUNTY, ALABAMA

The Tennessee Valley Authority's (TVA) Bellefonte Nuclear Plant (BLN) is being maintained and preserved in construction-deferred status after halting construction in 1988 in response to decreased power demand. Currently, employees are located at the site for site maintenance and operations. TVA's Power Systems Operations (PSO) Training Center, used year round, is also located on the BLN reservation. After a 2014 inspection of the site's utility infrastructure, TVA found that a portion of the existing waterline serving BLN is leaking. TVA also found that the sewer system for the BLN and the PSO Training Center require improvements. TVA's BLN sewer system is connected to the Jackson County wastewater treatment plant (WWTP), which is above capacity. The PSO Training Center's sand filtration sanitary waste system has experienced increasing levels of total suspended solids and bacteria, which may indicate degradation within the system. The system has a direct outfall to the Tennessee River.

TVA proposes to remedy the situation by improving the sewer and water connections at its BLN site. This proposed action is the subject of an environmental assessment (EA) prepared by TVA. This EA is incorporated by reference. Two feasible alternatives, i.e., the No Action Alternative and the Proposed Action Alternative, were evaluated in the EA.

Under the Proposed Action Alternative, TVA would undertake various utility improvements at the BLN site. These improvements would include the replacement of an existing waterline, the installation of a sewer line to connect BLN's current system to the Scottsboro WWTP, and installation of a sewer line to connect the PSO Training Center to the BLN sewer system. For all projects, TVA would use a previously disturbed area for construction laydown to minimize impacts to the surrounding area. All disturbed areas would be revegetated with non-invasive species.

TVA would install approximately 3,400 linear feet of 8-inch waterline along Bellefonte Road to replace the existing leaking 8-inch waterline. The proposed waterline would be installed using a cut and fill method. The proposed line would be encased in concrete when it crosses an existing culvert on Bellefonte Road. All work would occur within the right-of-way (ROW) of Bellefonte Road and County Road (CR) 33. A new 4-inch master meter, wet tap and valve, and fire hydrant would be installed along CR 33 to maintain the tie into Jackson County Water Authority system. The existing galvanized steel waterline would be de-watered and abandoned in place once the installation of the new line is complete.

TVA would install the proposed sewer line on TVA property only. TVA currently has an agreement with Scottsboro Water, Sewer, and Gas (WS&G), in which Scottsboro WS&G would be responsible for installing the proposed sewer line from its pump station, along the railroad ROW to Bellefonte Road. Scottsboro WS&G and TVA would each maintain and own the section of the sewer line it installs. TVA would provide the new 6-inch high-density polyethylene pipe to the Scottsboro WS&G and enter into a construction agreement, which would require Scottsboro WS&G to follow TVA mitigation measures. TVA owns the abandoned railroad and railroad ROW and would grant an easement to Scottsboro WS&G for installation of the sewer line on TVA property and future access for maintenance activities.

TVA would install approximately 2,700 linear feet, and Scottsboro WS&G would install 7,100 linear feet of a new 6-inch force main sewer line connecting TVA's existing system to the Scottsboro pump station north of the BLN site. The sewer line would be installed using the trench and cover method. The new sewer line would be installed in the existing railroad ROW before crossing CR 113 and continuing along the CR 113 ROW. Before installation of the proposed sewer line, the railroad tracks along 4,050 feet of the railroad ROW would be removed. The proposed sewer line would be encased in concrete when it crosses an existing culvert on Bellefonte Road. The sewer line would be installed using a cut method when it crosses Bellefonte Road. The piping would be encased in concrete, and the roadway would be repaired to existing conditions once complete.

To install the sewer line at the railroad intersection with CR 113, Scottsboro WS&G would remove all railroad ties and tracks. When completed, all railroad crossing signage would be removed, and Scottsboro WS&G would repave CR 113 per Alabama Department of Transportation standards. Approximately 1 acre of trees would be cleared by Scottsboro WS&G along CR 113 in order to install the proposed sewer line.

A new pump station (North Pump Station) would be installed by TVA in a previously disturbed area adjacent to the current pump station. All of the proposed equipment would be located within a compacted gravel pad area surrounded by a chain-link fence. A 10 foot by 30 foot aluminum canopy would be installed to cover the electrical equipment. Once the new pump station is in service, the flow would be diverted from the existing pump station which would then be abandoned and filled with concrete.

TVA would install approximately 2,500 linear feet of new 2 or 3-inch force main sewer line connecting the PSO training center to the new North Pump Station. The new sewer line would be installed within the Bellefonte Road ROW before crossing a maintained lawn to connect to the Training Center pump station. If necessary, the existing pump station would be replaced. Installation activities would have a disturbance area of 7 feet in width (3.5 feet from center of proposed sewer line). The trench and cover method would be utilized to install the sewer line. No trees would be cut down during these activities. The existing sand filtration sanitary waste system and associated piping would be abandoned.

Under the No Action Alternative, TVA would not replace the portion of the waterline along Bellefonte Road. TVA would also not install a new sewer line to the Scottsboro pump station. The BLN site would continue to use the Jackson County WWTP, which is currently above capacity. The BLN site would therefore have an unreliable sewer system serving its on-site employees. The PSO Training Center would continue to use its sand filtration sanitary waste system; however, TVA would need to limit its use in order to maintain compliance with its NPDES permit.

Potential effects related to wild and scenic rivers, recreation, land use, surface water, groundwater, terrestrial ecology, aquatic ecology, geology, natural areas, socioeconomics and environmental justice, noise, hazardous and nonhazardous waste, floodplains, visual resources, health and safety, and global climate change would be absent or minor. There would be minor, short-term impacts from the temporary closure of CR 113 to the public during installation of the sewer line. A one to three mile detour is available for traffic that would otherwise travel CR 113. Portions of Bellefonte Road within the BLN Reservation would be temporarily impacted during utility installations, but no significant long-term transportation impacts would occur. There would be minor, temporary effects during installation activities to air quality (fugitive dust), but no long term significant impacts would occur.

The project area contains no archaeological or architectural properties listed in, or eligible for inclusion in the National Register of Historic Places. However, a Phase 1 archaeological survey completed in 2005, along the north side of CR 113 from the railroad crossing to US Highway 72, identified one site, 1JA1073, adjacent to the project area. TVA would avoid impacts to 1JA1073 by confining the proposed sewer line to the existing CR 113 ROW. To ensure avoidance of site 1JA1073, TVA will flag the boundary of site 1JA1073 and provide a map of the area to be avoided prior to Scottsboro WS&G installing the sewer line. TVA will also require Scottsboro WS&G to certify that the site has been avoided once the project is complete. By routing the sewer force main within the road ROW, avoiding any physical work in the site boundary, and following the above avoidance measure, the proposed action would not affect 1JA1073.

The installation of the waterline would temporarily impact approximately 0.073 acre of wetlands during construction. The wetlands would be converted to scrub-shrub emergent wetlands. Given the temporary and minor nature of these impacts, the overall direct and indirect wetland impacts would be insignificant. TVA has determined that the proposed action would have no effect on gray bat, northern long-eared bat or Indiana bat. No federal or state-listed aquatic or plant species or habitat to support them is known to occur in or around the project area. Therefore, no direct or indirect impacts to threatened or endangered species are expected.

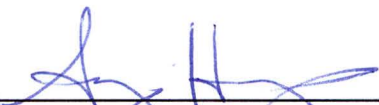
Mitigation

TVA will implement routine best management practices and the following compliance measure listed in the EA for reducing adverse environmental effects of implementation of the Proposed Action Alternative.

- To ensure avoidance of site 1JA1073, TVA will flag the boundary of site 1JA1073 and provide a map of the area to be avoided prior to Scottsboro WS&G installing the sewer line. TVA will also require Scottsboro WS&G to certify that the site has been avoided once the project is complete.

Conclusion and Findings

Based on the findings in the EA, TVA concludes that the proposed action of upgrading water and sewer lines at its BLN site (Proposed Action Alternative) 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