Public Notice - Tennessee Valley Authority (TVA)
Floodplains No Practicable Alternative Analysis for
Proposed Fill to Elevate Groundwater Performance Monitoring Wells in the 100-Year Floodplain

January 28, 2021

Notice is hereby given that TVA is planning to modify the installation of groundwater performance monitoring wells on the Allen Fossil Plant reservation, at about McKellar Lake mile 2.2 in Shelby County, Tennessee. TVA issued a Floodplains Public Notice for the proposed installation in October 2020, and no comments were received. Since that time, the design of the performance monitoring wells changed to include elevating the well casings on fill to further reduce flooding impacts. Design of the extraction wells has not changed; therefore, the October 2020 public notice is still valid for them. Represented in Figure 1 by the yellow dot, the fill to elevate eight performance monitoring wells would be located on the bank of McKellar Lake, within the limits of the 100-year floodplain, and is therefore subject to analysis under Presidential Executive Order 11988, Floodplain Management.

Less than about 400 cubic yards of fill would be placed to elevate the well casings, and an example of the finished grade is shown in Figure 2. This quantity of material in the McKellar Lake floodplain is negligible and would result in no changes in McKellar Lake 100-year flood elevations. In order to provide a level surface for technicians to work at the wells without requiring fall protection, there is no practicable alternative to placing the fill around the performance monitoring wells within the 100-year floodplain. All work will be completed in coordination with the Tennessee Department of Environmental Quality – Division of Remediation.

All practicable design measures to minimize harm to the floodplain have been identified by TVA. These measures include:

- Placing the minimum amount of fill necessary to provide access to elevated well casings.
- Implementing standard erosion and sediment control best management practices during placement of the fill.

TVA has therefore concluded that the proposed fill is consistent with Executive Order 11988 because:

1. There is no practicable alternative to locating the fill in the floodplain.
2. The proposed project will be designed to minimize to the extent practicable harm to or within the floodplain.
3. The proposed project would conform with applicable state and local floodplain protection standards.
4. Identifiable impacts to the floodplain are negligible.

Any party wishing to comment on the proposal should email comments to ccwilliamson@tva.gov no later than 14 calendar days from the date of this notice.
Figure 1. Location of Proposed Fill for Monitoring Wells in the 100-Year Floodplain

Legend

- Proposed fill for monitoring wells
- FIRM Panels
- Cross-Sections

Flood Hazard Boundaries
- Other Boundaries

Line Type
- Limit Lines
- SFHA / Flood Zone Boundary

Flood Hazard Zones

Zone Type
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
Figure 2. Example of fill placed to elevate well casing.