

# John Sevier Fossil Plant



ROGERSVILLE, TENNESSEE



## QUICK FACTS



**Commissioning Date:** 1955

**Site Information:** Four coal-fired were retired in June 2014. An 870-megawatt natural gas plant continues to operate at the site.

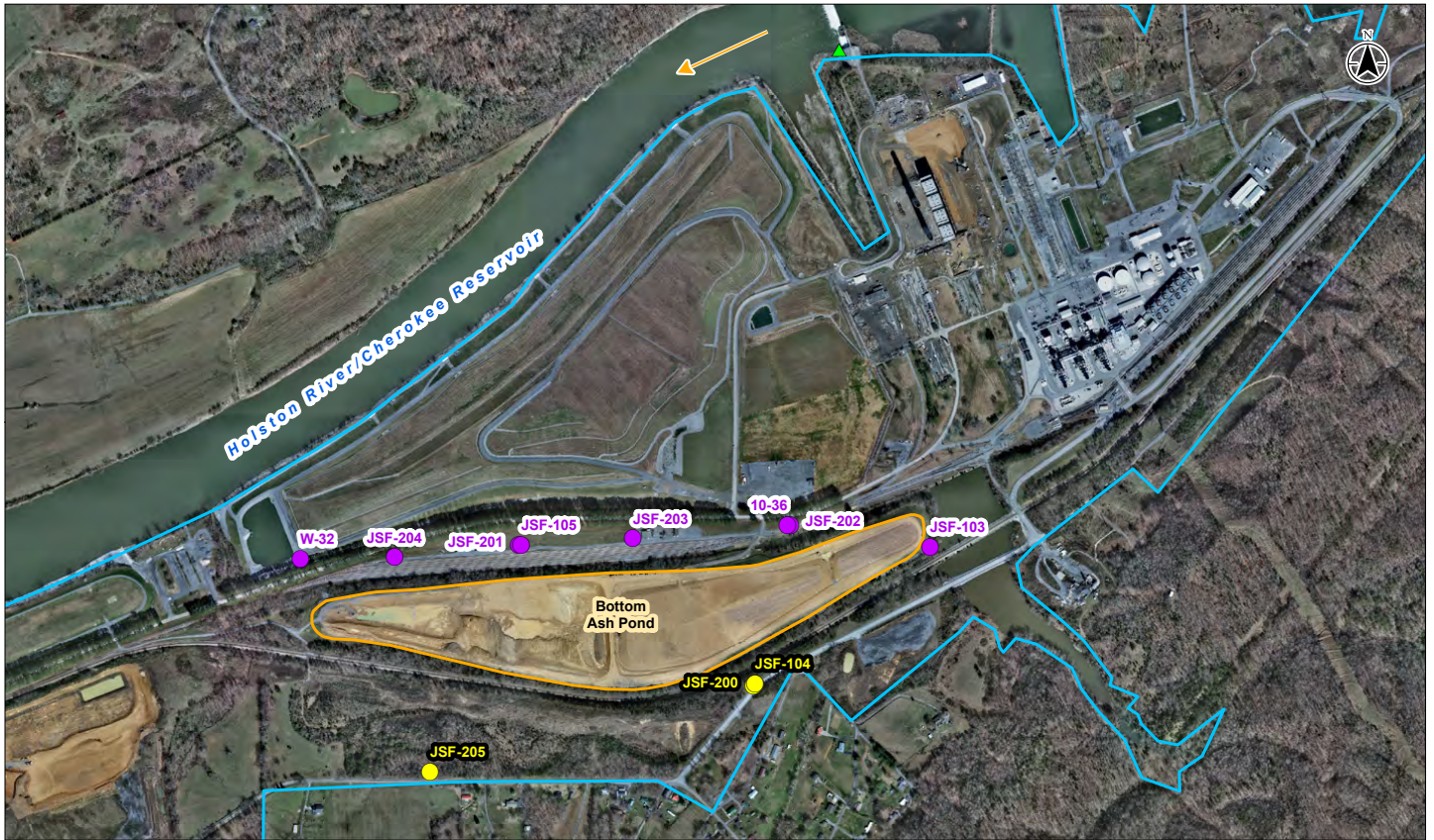
## EPA CCR Rule Groundwater Monitoring for 2019-2020

This fact sheet summarizes groundwater monitoring conducted by TVA for the former John Sevier Fossil Plant, as required by the U.S. Environmental Protection Agency (EPA) Coal Combustion Residuals (CCR) Rule. The EPA published the CCR Rule on April 17, 2015. It requires companies operating coal-fired power plants to study whether constituents in CCR have been released to groundwater from active, inactive and new CCR impoundments, as well as active and new CCR landfills. In accordance with CCR Rule revisions effective on October 4, 2016, inactive units previously exempted from the requirements for a groundwater monitoring program were required to complete initial annual groundwater monitoring and corrective action reports by August 1, 2019.

The CCR Rule establishes multiple phases of protective groundwater monitoring including baseline sampling, Detection Monitoring and Assessment Monitoring. Corrective action may be necessary at the completion of this process. For more information on the CCR Rule Groundwater Monitoring requirements, refer to the Executive Summary that can be found by clicking on the following hyperlink [www.tva.com/ccr](http://www.tva.com/ccr).

## John Sevier CCR Rule Groundwater Monitoring Network

In addition to ongoing groundwater monitoring required under State regulations, TVA established a monitoring well network for the Bottom Ash Impoundment at John Sevier consisting of “background,” or upgradient, wells in locations that were not expected to be affected by the management of CCR and wells around the edge of the areas where CCR is managed. These wells are sometimes referred to as “downgradient wells” and placed in locations to monitor for releases to groundwater. This CCR Rule groundwater monitoring well network is monitored in accordance with the CCR Rule during the baseline, Detection Monitoring, and Assessment Monitoring phases. The locations of the wells are shown on the figure on the next page.



## John Sevier Fossil Plant CCR Rule Assessment Monitoring Results

The Assessment Monitoring results are contained in the **Annual Groundwater Monitoring and Corrective Action Report for 2019-2020\***. The report can be found on the CCR Rule website at [www.tva.com/ccr](http://www.tva.com/ccr).

For the initial assessment monitoring sampling events, no statistically significant levels (SSLs) above the groundwater protection standards (GWPS) were recorded at monitoring wells for the Bottom Ash Pond. Given no SSLs were recorded, the unit remains in assessment monitoring and an Assessment of Corrective Measures is not needed.

\*The results in this report reflect quality of groundwater beneath the CCR unit and are not necessarily an indication of impacts beyond TVA property. Local utilities are required to test public drinking water supplies to ensure that they are safe for consumption. Monitoring data consistently shows that surface water quality is not being adversely impacted by TVA's operations of its coal plants, including ash management practices.

The following table shows the reported statistical exceedances of GWPS, as reflected by the red dots. Out of the 11 wells sampled, none of the wells contain an SSL. Refer to Appendix A – Statistical Analysis Report of the 2019 Annual Groundwater Monitoring and Corrective Action Report for more information.

| 2020        |           | GROUNDWATER QUALITY MONITORING WELL LOCATIONS |         |         |                           |         |      |       |                          |         |         |         |
|-------------|-----------|---|---------|---------|---------------------------|---------|------|-------|--------------------------|---------|---------|---------|
|             |           | Background Wells                              |         |         | Residuom CCR Vacatur Unit |         |      |       | Bedrock CCR Vacatur Unit |         |         |         |
| Constituent | GWPS mg/L | JSF-104                                       | JSF-200 | JSF-205 | JSF-103                   | JSF-105 | W-32 | 10-36 | JSF-201                  | JSF-202 | JSF-203 | JSF-204 |
| Antimony    | 0.006     | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Arsenic     | 0.01      | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Barium      | 2         | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Beryllium   | 0.004     | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Cadmium     | 0.005     | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Chromium    | 0.1       | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Cobalt      | 0.006     | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Fluoride    | 4         | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Lead        | 0.015     | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Lithium     | 0.04      | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Mercury     | 0.002     | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Molybdenum  | 0.1       | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Rad226+228  | 5 pCi/L   | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Selenium    | 0.05      | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |
| Thallium    | 0.002     | ●   | ●       | ●       | ●                         | ●       | ●    | ●     | ●                        | ●       | ●       | ●       |

**Color Coding Key**

- Monitoring data results are below groundwater protection standards (GWPS)
- Monitoring data results are below GWPS, but results are 65% or more of the GWPS
- Monitoring data results exceed GWPS (TVA has initiated and completed assessment of corrective measures report)

**Next Steps for John Sevier Fossil Plant CCR Rule Groundwater Monitoring**

TVA will continue to monitor and evaluate the groundwater at the John Sevier Fossil Plant site. Because no SSLs were recorded, the Bottom Ash Pond CCR Unit remains in assessment monitoring and an Assessment of Corrective Measures Report is not needed.