

# Robust Groundwater Monitoring



## DID YOU KNOW...

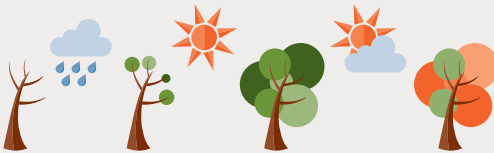
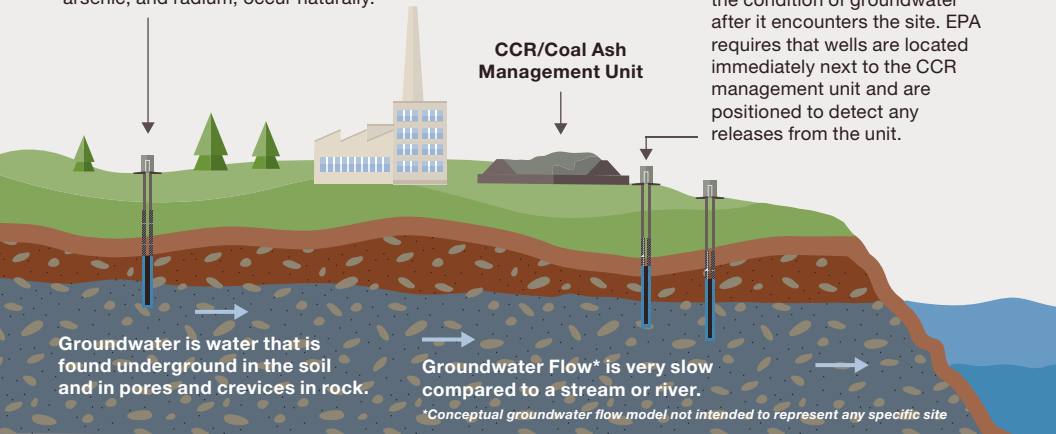
TVA will not waver from our commitment to protecting water resources. We work every day to ensure that drinking water, groundwater, and surface water in our communities are not impacted by our facility operations. Coal combustion residuals (CCR), or what is commonly referred to as coal ash, are generated from burning coal for electricity. TVA works to put these materials into beneficial use, such as in concrete or wallboard. The remainder is placed in CCR management units. We maintain a robust network of groundwater wells around these units that we sample regularly to monitor groundwater quality. We proactively report the results to regulators and post the results on the TVA website.

### Upgradient Groundwater Monitoring Well (Background Monitoring Well)

Upgradient wells monitor the condition of the groundwater before it encounters the site. All of the constituents we monitor, such as iron, arsenic, and radium, occur naturally.

### Downgradient Groundwater Monitoring Well (CCR Monitoring Well)

Downgradient wells monitor the condition of groundwater after it encounters the site. EPA requires that wells are located immediately next to the CCR management unit and are positioned to detect any releases from the unit.



Monitoring is done over periods of time to capture any seasonal fluctuations and changes.



Samples of the groundwater are taken on a regular basis to test for a number of constituents and groundwater quality measures.



TVA tests the groundwater samples for 30 different constituents.



By testing the groundwater regularly, TVA can track compliance with regulatory permits and requirements.

In general, the levels of constituents that are found in groundwater samples are very low, in the parts per billion (ppb) range or lower.

For example, 1 ppb is the same as 1 inch in 15,782 miles – almost the distance you would travel (15,018 miles) if you took a car trip to all of the state capitals on the U.S. mainland!

**1 ppb = 1 inch in 15,782 miles**



Data date: March 2021

# Safe, Responsible Coal Ash Management



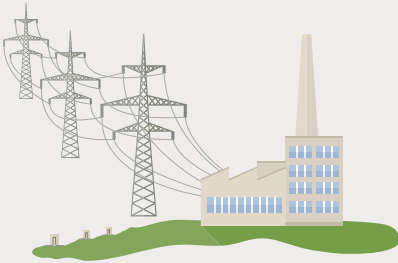
## DID YOU KNOW...

### Our Commitment to You

The Tennessee Valley is our home. We care about our neighbors and about protecting our air, land, and water resources.

TVA is committed to serving our communities through our mission of providing low-cost, reliable power, environmental stewardship, and economic development.

This commitment also includes the safe, responsible management of coal combustion residuals (CCR), or what is commonly referred to as coal ash, which is a byproduct of burning coal for electricity.



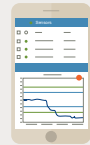
Our state-of-the-art water processing and treatment practices and robust network of groundwater monitoring wells ensure the protection of waterways and natural resources.

We use compaction technology and cutting-edge 3D technology to map each layer of coal ash that is placed into TVA's dry storage landfills to further ensure the safety and stability of our sites.



### TVA Is an Industry Leader in Safe, Secure Monitoring and Management of Coal Ash

TVA is pioneering new technology and using the best science, data, and research to ensure our coal ash sites are safe and secure.



We designed the Advanced Technology for Impoundment Monitoring (ATIM) system, which is the nation's first and only one of its kind, that monitors our coal ash storage sites 24 hours a day, 365 days a year.



### TVA Works with Regulators to Ensure Our Actions Are Safe and Effective

TVA's customized, science-based monitoring and management plans for each of our coal ash sites across the Tennessee Valley meet or exceed regulatory requirements set forth for these plans by the Environmental Protection Agency (EPA) and state regulators.

