

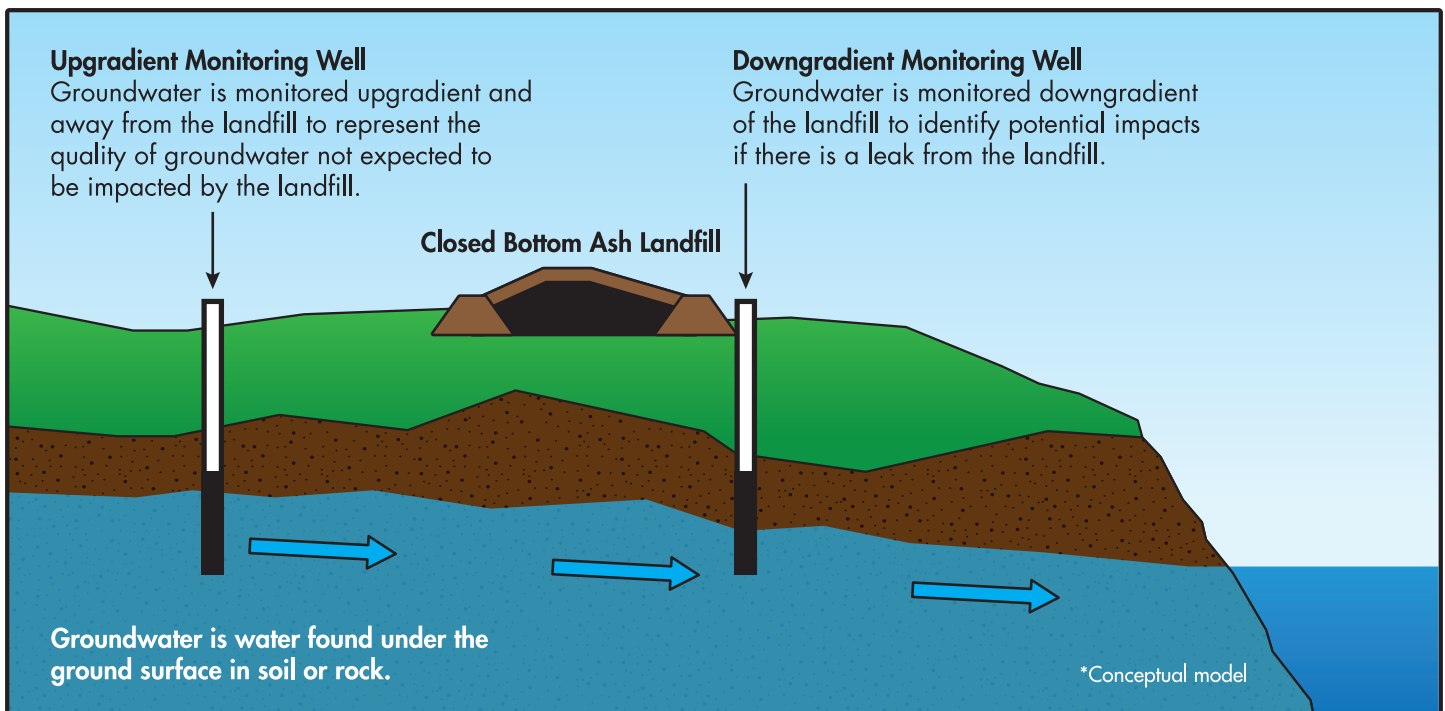
## The Site

Great River Energy owned and operated the Stanton Station Power Plant located approximately 4 miles southeast of Stanton, North Dakota. Throughout the operation of Stanton Station and since closure, Great River Energy has been a partner with the local community and an environmental steward complying with all regulations and ensuring that the site is managed in a way to protect human health and the environment. Coal ash (also referred to as coal combustion residuals or CCR) produced during operation was placed in impoundments and landfills regulated by the North Dakota Department of Environmental Quality. The Bottom Ash Landfill\* is one of these regulated units.

## Groundwater Monitoring

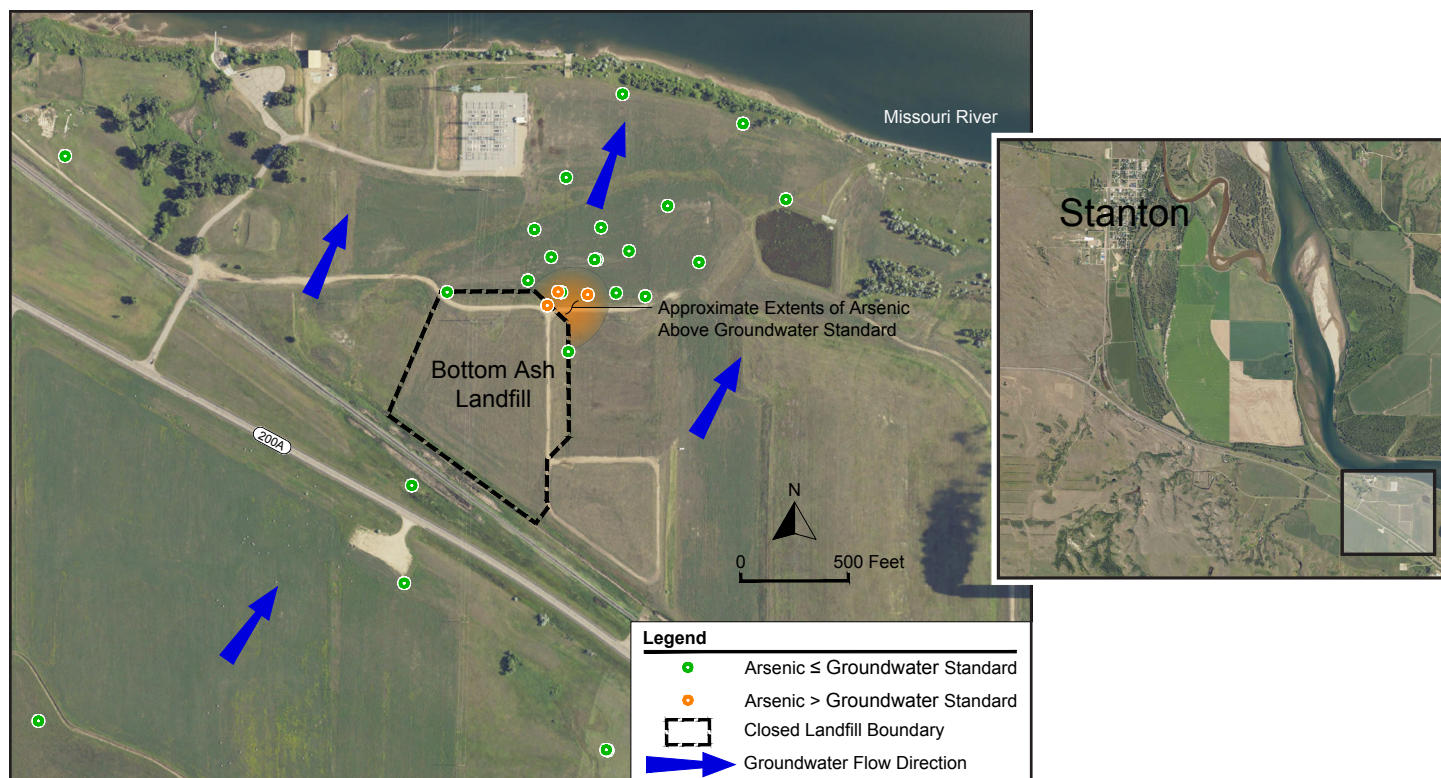
Groundwater quality around the Bottom Ash Landfill is monitored to identify potential concerns and prompt corrective actions if necessary.

Groundwater samples are routinely collected from wells surrounding the Bottom Ash Landfill. Some of these wells are located “upgradient” where water flows towards the landfill and therefore are not expected to be impacted by the landfill. Other wells are located “downgradient” where groundwater flows away from the landfill and would potentially be impacted if there is a leak from the landfill.



Water samples are evaluated by a laboratory for chemicals with established groundwater standards. Statistics are performed on the groundwater data to determine if downgradient groundwater quality is changing. Changes could indicate a potential leak from the landfill or that the groundwater downgradient of the landfill is above established groundwater protection standards.

Groundwater quality monitoring near the Bottom Ash Landfill identified arsenic concentrations above the groundwater standard, which initiated a process called an assessment of corrective measures, to determine how to respond to the identified issue.



## Assessment of Corrective Measures

Great River Energy has done a significant amount to evaluate appropriate steps to address the arsenic identified in the groundwater including:

1. Constructed an engineered final cover during decommissioning of the facility to minimize infiltration and reduce the potential for releases from the landfill.
2. Installed 19 new wells to further characterize the groundwater flow direction and define the area impacted by arsenic downgradient of the Bottom Ash Landfill.
3. Measured arsenic levels across these wells indicating a small impacted area (see map) confined to GRE property.
4. Assessed potential corrective measures that could reduce arsenic levels in downgradient groundwater. This effort included literature reviews, geochemical modeling, field sampling and testing, and laboratory material testing. Potential options include geochemical injection, hydraulic containment, monitored natural attenuation, permeable reactive barriers, and phytoremediation.

Great River Energy is now at the step of presenting the findings of the assessment of corrective measures and subsequent investigations in a public meeting. Following this public meeting and any additional required investigation or evaluation, a corrective measure will be selected, approved by the North Dakota Department of Environmental Quality and implemented at the site. Importantly, groundwater will be monitored to track the effectiveness of the remedy with results being periodically posted on GRE's CCR website [ccr.greatriverenergy.com](http://ccr.greatriverenergy.com).

*\*Bottom ash is the coarse material left after burning coal that falls to the bottom of the boiler.*



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