

Utility Scale Solar, Soils, and How Do I Protect My Property, My Livestock, and My Family?

With the rise of utility-scale solar projects expanding across rural landscapes here in Ohio, many farmers and property owners are asking critical questions about the potential impact on their soil, water, and overall health. Renewable energy developers purport solar facilities offer clean energy, but seeming they fail to admit that these facilities can also introduce potential risks that may affect groundwater quality—an essential resource for your family, livestock, and crops. This article sheds light on the importance of source point groundwater monitoring, a proactive measure you can take to protect your land and your loved ones.



Understanding Source Point Groundwater Monitoring

Source point groundwater monitoring is a specialized approach to track water quality near specific locations where contaminants might enter groundwater. When solar facilities are constructed, chemicals, heavy metals, and other pollutants can potentially leach into the soil and make their way to groundwater. This could affect your drinking

water, impact soil health, and pose risks to livestock. By setting up a source point groundwater monitoring program, you can identify potential contaminants early, understand their spread, and take timely action to protect your property. Think of it as a safeguard that helps you stay one step ahead, ensuring any adverse effects are detected before they become serious threats.

Why Source Point Monitoring is Essential for Rural Properties

For properties near utility-scale solar projects, groundwater monitoring is particularly valuable. It allows you to:

- **Detect Contaminants Early:** From chemicals used during construction to materials that degrade over time, source point monitoring helps you identify harmful substances before they affect your water quality.
- **Understand Contamination Patterns:** Groundwater monitoring reveals how contaminants move through the water table, giving you insight into potential spread and allowing you to take preventative actions.
- **Safeguard Your Health and Livelihood:** For families, clean drinking water is critical; for farmers, uncontaminated soil and water are essential to livestock and crop health. Monitoring gives you control and peace of mind.

Steps to Develop a Source Point Groundwater Monitoring Program

If you're considering groundwater monitoring to protect your land, here's a practical guide to get started:

- Define Your Goals and Concerns

Start by outlining specific concerns (e.g., potential pollutants from nearby solar projects) and decide on key objectives, such as monitoring drinking water quality or protecting livestock health.

- Evaluate Your Property's Risks

Analyze how close you are to the solar site, the layout of your land, and groundwater flow patterns. Identifying areas most at risk will help focus monitoring efforts.

- Design a Well Network for Monitoring

Place monitoring wells upgradient and downgradient from the solar project to detect contamination before it reaches critical areas, like water wells or

livestock ponds.

- Create a Sampling and Analysis Plan

Decide on a sampling schedule and identify contaminants to test for. Working with a certified lab ensures accurate, reliable results.

- Establish Baseline Data

Conduct initial tests to establish baseline water quality. This provides a reference for detecting any future changes in groundwater composition.

- Interpret and Act on Your Data

Regularly review monitoring results, looking for unusual changes. If contamination is detected, consider consulting environmental experts or alerting local authorities.

Conclusion: Taking Proactive Steps to Protect Your Land

By setting up a source point groundwater monitoring program, rural property owners can take control over their water quality, ensuring that any potential contamination is detected early and managed effectively. Utility-scale solar projects have a role in our clean energy future, but it's essential to balance this with responsible stewardship of our natural resources. Protecting your groundwater through careful monitoring is one of the best ways to secure your family's health, safeguard your livestock, and preserve the quality of your soil.