

What's in your Groundwater Monitoring Plan?

How reevaluating your groundwater monitoring projects can save money.

David Atteberry, Project Director,
SCS Engineers

The events of 2020 have affected the economy, the way we conduct business and even our social interactions. Now, more than ever, streamlining costs is key for public and private sector clients across the country. Enter groundwater monitoring projects. Often overlooked as an opportunity to reduce costs, it's an excellent place to start when examining costly operational processes of a solid waste facility. Groundwater monitoring is often thought as necessary for compliance requirements and overlooked when ways to reduce spending are considered. However, the proactive review of all monitoring projects may offer opportunities to propose monitoring reduction or even cessation.

Have you considered the following questions?

- When you evaluate monitoring data, are you also evaluating the adequacy of your monitoring program? Are the well locations, number of samples, sampling frequency and the monitored constituents approved during the site closure appropriate for current conditions (possibly 10 to 15 years into post-closure monitoring)? Ask yourself if it still makes sense.
- Have you completed a deep dive into the data to look at trends? Have you looked at naturally occurring conditions as potentially skewing constituent concentrations in groundwater? Have you completed

statistical analyses of monitoring data to justify reducing the frequency or scope of monitoring?

- Compare how many years you are into post-closure care with the original required monitoring period. Is there a way to shorten this? Can the zone of



discharge or point of compliance be modified? Are there receptors nearby? Can you demonstrate either waste mass stability or stable/shrinking groundwater contamination?

The SCS Team has successfully employed these strategies at several Florida landfills. For instance, In Marion County, Florida, the team worked to get a cessation in landfill gas and groundwater monitoring at the Martel Closed Landfill. They were hired to conduct routine post-closure monitoring. They observed obvious trends in the data that were favorable to the county. If you consider that monitoring costs average \$10,000 to \$50,000 per year, the potential cost savings over 10 years is \$100,000 to 500,000.

Is it worthwhile to take a fresh look at your monitoring program? Absolutely.

Here's why:

- Potentially significant cost savings can be recognized by early cessation of monitoring. If you have a contaminated site, you could potentially reduce your environmental liability and decrease environmental reserves. For sites requiring financial assurance, the cost estimates that are the basis for the amount of financial assurance required could be decreased, thus decreasing the costs to maintain financial assurance.
- Ending/closing out a consent order requirement also allows for redevelopment of a site, thus turning a liability into an asset and who wouldn't want that?
- By investing a relatively

small amount in evaluating your monitoring programs, you could realize a return on investment within one to two years by reducing or ceasing monitoring.

Bottom line: you should take the initiative to ask a few simple questions to see if further examination is warranted. What if contaminants are naturally occurring? Is the data in the technical reports supporting conclusions that include reduction or cessation when appropriate? Are you simply meeting the minimum requirements of the permit without an eye on the future? So, finally, what's in your groundwater monitoring plan?

David Atteberry is Project Director at SCS Engineers. He can be reached at (904) 431-6901 or e-mail datteberry@scsengineers.com.