

Benefit From Pro-active Environmental Data Acquisition (Newsletter)*

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Regulated industries need environmental data to support complex and contentious permit applications, demonstrate that operations do not adversely affect the natural environment, and effectively address concerns of regulators, other stakeholders, and the public.

Environmental data are ephemeral: if they are not acquired at a given time they are gone forever. The costs of sampling, measuring, and counting are minor compared to their potential value. Unfortunately, such early actions are not the norm.

For example, a closed municipal landfill in Portland, OR, has a single up-gradient monitoring well. The site has an intact liner built to code, but the down-gradient water quality generates complaints from users. The landfill manager cannot demonstrate that the water quality issues originate up-gradient and pass under or around the liner because there is only a single measurement point above the site. It is a no-win situation: without more data there is no way to determine the source of the high chemical concentrations.

The value of acting early was demonstrated by an industrial hog farm in Utah in the mid-1980s. As the farm was planned, the company drilled a ring of wells outside the perimeter and started monthly water quality monitoring. Several years later, regulators received complaints about odors and bad tastes in potable water from farm neighbors. The neighbors also filed a lawsuit against the farm. The operator presented the history of monitoring for each well to the regulators and the court. The data documented that their operations had no adverse impacts on ground water quality. The lawsuit was dismissed and the regulators started looking elsewhere for the problems. The amount of money invested in the wells and monitoring was much less than they would have spent trying to prove they were not responsible for the problems if they had not had historic data.

Surface waters and biota also benefit from extensive and continuous environmental data collections and analyses.

Until the early 1990s there was an operating aluminum smelter about two miles above the John Day Dam on the Columbia River. National Marine Fish-

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eries Service biologists alleged that high river fluoride concentrations from the plant were harming returning salmon adults. They based their claim on observations that some adult fish were remaining just below the dam for several weeks rather than moving upriver using the fish ladder. The issue went away when it was pointed out to the NMFS biologists that the fish were waiting for cooler water temperatures and higher flows in the John Day River before passing the dam on their way to spawn in their natal tributaries.

Although commodity prices are low and obtaining funding is a challenge, investing in properly planned environmental data collection and storage is insurance for future operations. Eventual permitting and compliance reporting are easier because of the sound descriptions of inherent natural variability. The effort is not a wasted expense, but peace of mind and assurance that development and operations have a technically sound and legally defensible foundation.

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