Lahontan Water Board Approves Report on Use of Natural Remediation for Contaminated Groundwater Sites

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SOUTH LAKE TAHOE – The Lahontan Regional Water Quality Control Board (Regional Water Board) has approved a report for evaluating and implementing the processes of natural attenuation – a form of natural, non-chemical-based cleanup -- for contaminated groundwater sites.

The Monitored Natural Attenuation and Evaluation and Application Report explains how natural attenuation should be properly evaluated, instituted and monitored at cleanup sites throughout the Lahontan Region. Among the recommendations the report explains minimum requirements for determining if monitored natural attenuation is appropriate for certain sites, and achieves cleanup within a reasonable timeframe; and develops a remedial selection process that meets state and federal requirements.

“Having this report, the first of its kind among the state’s Regional Water Boards, is an important tool in making sure the use of natural attenuation at cleanup sites throughout our region is properly monitored and conducted,” said Amy Horne, Ph.D., chair of the Lahontan Regional Water Board. “With several Department of Defense cleanup sites in our region using monitored attenuation already, and at least another half dozen projects expected to apply for use of it, we need to have clear and concise guidelines for making sure these projects are following the appropriate steps needed to properly complete remediation in a timely manner.”

Some of the natural attenuation processes include biodegradation (soil and water break down the pollutant); sorption (contaminants’ movements stopped in soil; they are not destroyed); evaporation (constituent may turn from liquid to gas); chemical reaction (naturally-occurring substances may transform pollutants into less harmful forms); and dilution. One or more of these processes may take place at a single cleanup site.
Monitored natural attenuation is considered a passive remediation option due to its dependence on naturally-occurring events, and has been an accepted practice since the 1990s after the U.S. Environmental Protection Agency and the U.S. Air Force began issuing guidance documents on its use. Other standard forms of cleanup include pump and treatment practices.

Natural attenuation can be an ideal tool for certain cleanup projects, based on site conditions and overall environment. However, this form of remediation is not considered a default remedy. Other viable remedial options, such as standard water treatment and pumping, must be considered along with natural attenuation, and the specific site must be thoroughly evaluated to see if natural attenuation can achieve the desired cleanup goals.

While natural attenuation is dependent on passive techniques -- in many instances it is paired with active cleanup protocols (e.g. pumping and treatment) -- it is not considered a “do-nothing” approach. Through the Regional Water Board’s established reporting and technical requirements, cleanup of sites throughout the Lahontan Region with natural attenuation will be actively monitored. Some of the benefits of using natural attenuation include lower costs and a smaller environmental footprint when it comes to generated waste, surface disturbance and energy use.

The Lahontan Regional Water Quality Control Board is a California state agency responsible for the preservation and enhancement of the quality of California’s water resources in eastern California. For more information about the Lahontan Water Board visit its website.

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