



Pennsylvania Governor Rendell Announces Study to Protect Drinking Water Sources

Goal is to Determine Presence of Unregulated Compounds, Identify Treatment Alternatives

HARRISBURG, Pa., May 18 /PRNewswire/ -- Governor Edward G. Rendell today announced the state's partnership with the federal government on a landmark study that will determine the occurrence and concentration of unregulated compounds, such as prescription and non-prescription chemicals, in the waters of central Pennsylvania.

"Safe drinking water is essential," Governor Rendell said. "This study represents the first step in protecting public health: documenting the existence and significance of any potential threats.

"Previous studies in parts of Pennsylvania and from around the world suggest that minute concentrations of unregulated chemicals may occur in our water sources. The effects of these compounds at trace levels on public health and aquatic life have not been determined. But when it comes to our health and the maintenance of trust in such an essential piece of public infrastructure, we cannot afford to wait."

The Department of Environmental Protection launched the joint research with the Pennsylvania Water Science Center at the U.S. Geologic Survey in February. Sampling will be conducted on a quarterly basis, leading to a final report in 2007.

Thousands of prescription and non-prescription chemicals are used by humans and farm animals every year.

Recent research has revealed that pharmaceuticals are present in the environment as a result of improper disposal of regulated drugs and excretion of metabolized and unmetabolized drugs into sanitary sewers.

Other studies indicate an increasing frequency in the detection of these compounds, likely due to a growing awareness among the scientific community, population growth and the constant development of new drugs.

The primary objective of this new research is to screen for pharmaceutical and antibiotic compounds present in streams and groundwater in south central Pennsylvania, and then to determine their concentrations. This reconnaissance study also will suggest the sources of the compounds and determine seasonal variations in their concentrations.

"We need to better understand whether the chemicals we are using to improve our health and agricultural practices may have unexpected consequences," DEP Secretary Kathleen A. McGinty said. "The information will be used to assess any potential public-health risks and guide future policy to ensure our drinking water supplies meet the cleanest, safest standards."

The study was commissioned at this time because laboratory analytical methods are only now evolving to detect chemical concentrations in parts-per-billion or trillion. A part-per-billion can be thought of as one grain of salt in an Olympic-size swimming pool.

The levels of pharmaceuticals found in surface waters by previous studies were far below daily therapeutic doses of the medications.

Although other studies have been done, significant uncertainties remain, including: synergistic or additive effects of the compounds in combination, differences in how the compounds may affect aquatic organisms and humans, and how to eliminate the compounds if necessary.

Beginning in 2007, pending funding approval, DEP will initiate a second phase of the study to expand water sampling across the state and attempt to determine whether existing treatment technologies are adequate to remove identified compounds. As the studies progress, DEP will work with the state

Department of Health to determine the human health effects of any compounds identified in the research.

DEP also will work with other state agencies and partners to develop strategies for collecting and destroying unwanted medications from consumers. In addition, the department will collaborate on best management practices for hospitals, pharmacies and others who are authorized by law to possess controlled substances and prescription drugs.

DEP follows national procedures in the Safe Drinking Water Act for regulating contaminants in public drinking water supplies. The U.S. Environmental Protection Agency develops health advisory values that give an estimate of the acceptable levels for drinking water. EPA has health advisory values for more than 165 chemicals, 95 of which are for unregulated chemicals.

DEP has opened a dialogue with EPA regional staff to request federal funding for more research. If approved, the funding would allow DEP to:

- Develop thresholds that may be used in assessing the impact on designated uses (e.g., public water supply use, aquatic life and water recreation).
- Measure and track the impact of DEP's programs on the occurrence and concentrations of identified compounds in the environment to further protect Pennsylvania's drinking water sources.
- Train Pennsylvania's water system operators and administrators about this issue.

For more information, visit DEP's Web site at

<http://www.depweb.state.pa.us>, Keyword: "Water Quality Standards."

The Rendell Administration is committed to creating a first-rate public education system, protecting our most vulnerable citizens and continuing economic investment to support our communities and businesses. To find out more about Governor Rendell's initiatives and to sign up for his weekly newsletter, visit his Web site at: <http://www.governor.state.pa.us>.

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