



Testimony
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Connecticut Water Works Association (CWWA)
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CWWA supports SB-1117, to ensure that pharmacists inform customers regarding the proper disposal method for unused pharmaceuticals.

As stewards of the state's water resources, CWWA members are committed to supporting efforts to protect the state's water supplies. As such, we are monitoring studies associated with the effect of pharmaceuticals on water quality. Researchers in the United States have begun to survey our nation's waterways following the release of data that indicated trace levels of pharmaceuticals in European streams. An extensive nationwide study by the U.S. Geologic Survey (USGS) has found evidence of pharmaceuticals including antibiotics and hormonal drugs, such as birth control pills, in surface waters throughout the nation.

Although no one has fully answered what the disposal of medications in the waste stream means for the environment and for humans, there is already some evidence of harm to aquatic organisms that is raising concerns among researchers.

For example, in Boulder Creek, Colorado, researchers found that female white suckers outnumber males by more than five to one, and that 50 percent of males have female sex tissue. Similar intersex changes have been found in flat-head chubs and smallmouth bass. In addition, a Baylor University researcher found tiny amounts of Prozac in liver and brain tissue of channel catfish and black crappie captured in a creek near Dallas that receives almost all of its flow from a wastewater treatment plant.

The EPA also reports that antidepressants can have a profound effect on spawning and other behaviors in shellfish and that calcium-channel blockers (used to relieve chest pain and hypertension) can dramatically inhibit sperm activity in some aquatic organisms. Even at extremely low levels, ibuprofen, steroids, and antifibrotics -- a class of drugs that helps reduce the development of scar tissue -- block fin regeneration in fish. According to a report by the Scientific Committee on Problems of the Environment, a worldwide network of scientists and scientific institutions, and the International Union of Pure and Applied Chemistry, more than 200 species -- aquatic and terrestrial -- are known or

suspected to have experienced adverse reactions to such endocrine disruptors as estrogen and its synthetic mimics.

Whether the presence of drugs in water translates into human health impacts is still being studied. The World Health Organization indicates that human risk assessments have shown that low concentrations of pharmaceuticals in drinking water have a negligible health risk. But WHO points out that long-term exposures have not been evaluated, especially in populations with other illnesses or with compromised immune systems.

Fortunately, Connecticut is only one of two states in the nation that prohibits discharges from wastewater treatment plants within public water supply watersheds. This means that, unlike other states, Connecticut's public water supplies are at very little risk of exposure to pharmaceuticals that have been flushed through sewers and into the wastewater stream.

However, we are supportive of the bill which will help further protect the state's water resources and support efforts to inform and encourage consumers to properly dispose of unused prescription drugs, as outlined by a recent state Department of Consumer Protection bulletin.

Preserving and protecting water quality is an ongoing mission and one that our public water supply industry takes very seriously. We are committed to working with state and federal regulators, lawmakers, environmental and watershed organizations, and the public, to ensure that our consumers will continue to have access to an ample supply of high quality water for current and future water supply needs.

CWWA would be happy to work with the committee in moving this proposal forward and developing a solution to the issues regarding disposal of medications.

The Connecticut Water Works Association, Inc. (CWWA) is an association of private, regional and municipal water supply utilities serving more than 500,000 customers, or population of about 2½ million people, located throughout Connecticut. As purveyors of public water supplies, our members have an obligation to provide sufficient quantities of high-quality water at a reasonable cost to consumers of the communities served.