

FW: Wastewater Treatment Plants: Pollution Factories

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Subject	FW: Wastewater Treatment Plants: Pollution Factories
From	Patti Dreyer
To	'Steven Dreyer'
Sent	Thursday, June 05, 2008 12:49 PM

From: Laura Orlando [<mailto:orlando@riles.org>]
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Subject: Wastewater Treatment Plants: Pollution Factories

June 5, 2008

Wastewater Treatment Plants: Pollution Factories

It is no surprise that coastal wastewater treatment plants are discharging thousands of pounds of toxic waste into Puget Sound each day (Pollution outflows to Sound routinely allowed, Seattle P-I, June 3, 2008, Robert McClure). What is surprising is that the call for "more treatment" is considered by many to be the solution.

Effluents from sewage treatment plants, regardless of the level of treatment and disinfection, cause pollution that is harmful to life. Treatment plants are designed specifically to reduce conventional pollutants (suspended solids, oxygen-demanding substances, pH, oil and grease, and fecal coliform bacteria.) from wastewater, but not to remove metals and organic chemicals. They do not and cannot address the tens of thousands of chemicals entering the plant each day, not to mention those that are created in the treatment process (NDMA, nonylphenols, and so on). More than 2,200 wastewater treatment plants (WWTPs) are located in coastal counties and they discharge about one-third of the nation's municipal effluent. The plants also produce millions of tons of sewage sludge, a toxic byproduct of wastewater treatment. Wastewater treatment plants are modern pollution factories.

The United States Geological Survey (USGS) found 95 different pharmaceuticals, hormones, and other wastewater related chemicals in streams across the U.S after testing 139 streams in 30 states downstream of sewage outfall pipes.

A particularly problematic family of chemicals coming out the outfall pipe are called endocrine disrupting compounds, which include estrogen from birth control pills and hormone replacements. Exposure has been associated with a range of reproductive impacts, particularly in fish. One result is intersex fish - male fish with female egg cells in their testes. These transgender fish have been documented in wild fish populations downstream from wastewater treatment plants - and at their ocean outfall pipes -- across the U.S. and Europe.

A 2005 Associated Press story reported that, " Scientists have discovered sexually altered fish off the Southern California coast, raising concerns that treated sewage discharged into the ocean contains chemicals that can affect an animal's reproductive system." ('Intersex' Fish Discovered off Southern California Coast, Janet Raloff, Associated Press, November 15, 2005.)

But aren't these plants regulated? The Clean Water Act (CWA) authorizes the EPA to administer the National Pollutant Discharge Elimination System (NPDES) permit program. All municipal wastewater treatment facilities are required to get a NPDES permit to operate.

Pollution control is implemented by "end-of-pipe" limitations, meaning by effluent limitations on specific constituents in the discharge. These are based on "current available technologies" (what the treatment plant is actually capable of doing). The result is "regulated" pollution.

If increasing the level of treatment of sewage cannot resolve the immense pollution from sewers. What can?

Prevention - the cost effective solution - is the place to start: prevent hazardous waste from entering the sewer in the first place, prevent the exploitation of the myth that wastewater treatment and its associated technologies can fix any problem, and prevent the poisoning of our food supply with sewage sludge.

Laura Orlando

Laura Orlando is the Executive Director of the Resource Institute for Low Entropy Systems (RILES). She is an adjunct professor at the Boston University School of Public Health and the Associate Director of the university's Center for Ecological Public Health. A graduate of the University of Michigan and Harvard University, she is the author of numerous publications, including co-editor of "The Sludge Report," a special issue of New Solutions: A Journal of Environmental and Occupational Health Policy, Volume 12, Number 4, 2002.

Resources

"Wastewater Treatment Plants: Pollution Factories" can be found on the web at <http://www.riles.org/musings.htm>

"Pollution outflows to Sound routinely allowed," Seattle P-I, June 3, 2008, Robert McClure http://seattlepi.nwsource.com/local/365545_pugetsound03.html

Barnes et al., Water-Quality Data for Pharmaceuticals, Hormones, and Other Organic Wastewater Contaminants in U.S. Streams, 1999- 2000, <http://toxics.usgs.gov/pubs/OFR-02-94/>

Washington's, King County bags 2-5% its sludge and sells it as "GroCo." For more information, see "Study finds chemicals in biosolids," Susan Gordon, Tacoma News Tribune, September 18, 2006 <http://www.thenewstribune.com/news/local/story/6102777p-5348116c.html>