



Unregulated Contaminants in Drinking Water Part I

NJEF Fact Sheet
2008

New Jersey Water Facts (Scary—But You Have a Right to Know)

- Roughly 90% of NJ's largest drinking water suppliers draw water from polluted rivers like the Raritan and the Passaic, which during droughts approaches **100% treated sewage discharge**.
- This pollution requires treatment by water purveyors which results in higher costs for drinking water and the formation of **disinfectant by-products (DBPs)** that have been linked to increased risk of cancer, greater incidence of birth defects, and higher rates of miscarriage.
- **Overdevelopment** (sprawl) is a constant threat to drinking water supplies. It puts additional strain on our actual supply of water and contributes greatly to both point source (direct discharge) and non-point (runoff) pollution, which eventually drain into drinking water sources.
- NJ has confirmed over **17,000 toxic waste sites**, leaking potentially hundreds of unregulated contaminants into water supplies. There are currently no regulations requiring unregulated contaminants to be tested for at contaminated sites or in drinking water. One example: Cornell Dubilier Electronics Inc Superfund Site has leaked PCBs in the Bound Brook near South Plainfield (See Public Integrity report: <http://www.publicintegrity.org/Superfund/report.aspx?aid=857>)
- NJ has more **Superfund sites** than any state in the U.S. That does not include sites that have been remediated ("cleaned up"). NJEF believes some of those remediated Superfund Sites may still pose health risks because the clean-up standards may be inadequate. (See Public Integrity report: <http://www.publicintegrity.org/Superfund/report.aspx?aid=870>)



What Contaminants Could Be in My Drinking Water?



The **Safe Drinking Water Act** requires testing of 84 contaminants in drinking water (NJ law requires testing and treatment of 91 contaminants), even though thousands of chemicals are commonly in use today and hundreds of these chemicals are present in drinking water supplies throughout the state. The Superfund law requires testing for 105 "priority pollutants". There is some overlap, but to date, there is no requirement that drinking water be tested for contaminants found at toxic sites.

A 2003 USGS study of New Jersey's ground, surface and tapwaters, has found previously undetected levels of hundreds of **Volatile Organic Compounds (VOCs)**, which include disinfectant by-products and household, pharmaceutical and industrial by-products such as antibiotics, prescription medications for diabetes and other health problems, caffeine, antacids, codeine, pain killers, flame retardants, pesticides, detergents, fossil fuel residual, etc. Many of the VOCs found were tentatively identified compounds (TICs) for which there are no regulatory standards or testing requirements. TICs were identified in virtually all tests run for organic compounds. A 2001 US Geological Survey (USGS) found only 29% of the 50 plus pesticides (SOC's) and only 34% of the VOC's it detected in NJ ground and surface water had established drinking water standards or guidelines.

Precautionary Principle Approach & Drinking Water

- NJEF strongly recommends that the NJDEP employ the **precautionary principle** (using a better safe than sorry approach) that requires water supplies to have carbon filters under certain circumstances such as when levels of VOCs or treated sewage are high.
- Since the governor's appointment of NJEF to the Drinking Water Quality Institute (DWQI), NJDEP has appropriated \$2 million for a pilot project to install **activated carbon filters** on two major water supply facilities that are likely, but not confirmed, to have unregulated contaminants and/or negative health affects. This project will give NJDEP a better understanding of how well carbon filters work. If the results are favorable, NJEF will press the NJDEP to implement this type of filtration on a broader scale. NJEF believes the polluters, not taxpayers and ratepayers, should pay for installing the new filtration systems.
- Unlike most water treatment techniques, carbon filters, effectively reduce levels of virtually all types of organic (carbon-based) chemicals, regardless of volatility including synthetics (or SOC's) such as pesticides). These chemicals make up the vast majority (the exceptions being radiological and microbial) of unregulated water contaminants.



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Toms River: A Case Study

The Toms River Cancer cluster provides a tragic example of the potential consequences of contaminated drinking water not being adequately tested. Styrene Acrylonitrile (SA), a trimer, was discovered in the local drinking water supplies in 1996. It is believed to be a potential cause of the cancer cluster. The chemical was illegally dumped in at least two different locations in the municipality—The Toms River Landfill and the Reich Farms Superfund Site. Both of these locations contaminated local drinking water with SA. The contaminant was leaching into drinking water for potentially 20 years before it's discovery. **Why didn't anyone know??** Testing was done at Reich Farm Superfund Site in the 1980s. Unfortunately, neither these test results nor the drinking water were analyzed for SA. This occurred because SA was not one of the 105 "priority pollutants" covered under Superfund nor one of the 84 contaminants covered by the Safe Drinking Water Act.

Why Should I Care About Toms River...It Can't Happen Here, Right?



- A USGS study found **pharmaceutical drugs in the drinking water** for over 850,000 North Jersey residents. A Rutgers University study found epilepsy drugs, antibiotics, deodorants, and fuel additives in minute amounts in 30 of NJ's brooks and rivers, including the Passaic and Ramapo Rivers, which supply water to more than 1 million customers in North Jersey. In addition, a 2003 study by a Rutgers University chemist and the state of New Jersey found prescription drugs, preservatives, and caffeine in tap water around the state.
- A January 2001 USGS Study reported that only 29% of 50 different pesticides and only 34% of **cancer-causing volatile organic compounds** found in NJ ground and surface water were regulated or tested for in drinking water.
- A February 2000 Natural Resources Defense Council (NRDC) report of USEPA/NJDEP water supplier data found at least 750,000 NJ residents in 20 counties drank tap water from 161 public systems containing arsenic at levels that pose an **unacceptable cancer risk**.
- A 1998 USGS study of wells in South Jersey (Kirkwood-Cohansey Aquifer) found 33% of wells tested violated the drinking water standard for the **radioactive isotope radium 226/228**. A new isotope, radium 224, which has an extremely short half-life (3.7 days) was discovered in the Toms River drinking water. This prompted NJDEP to start testing statewide for radium 224 and led to the discovery of 37 towns in 11 counties with **unhealthy levels of radiation**.

NJEF Solutions

- Ensure stronger implementation of the **NJ Highlands Act** to protect over 1/2 the state's drinking water supplies.
- Adopt the **strongest water and land use laws and rules**, including the state's sewer, septic, storm water, and critical habitat rules, to effectively address sprawl, overdevelopment, and drinking water.
- **Strengthen protections for drinking water sources** (category 1 waterways) and clean up NJ's most polluted waters.
- **Stop overdevelopment (sprawl)** in environmentally sensitive areas by funding open space and not sprawl..
- Support research and developing standards to **improve drinking water and wastewater treatment technology**.

Take Action Today!

Contact NJEF below or visit: www.cleanwateraction.org/njef



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NJEF, the NJ Chapter of Clean Water Action, has 100,000 members and 100 member groups that work for environmental justice, sustainable communities and safe and affordable drinking water for all.