Drinking Water Contamination

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Your drinking water may come from a flowing river, a reservoir or from groundwater. We put great confidence in our ability to treat raw water to make it safe to drink. Nevertheless, the exposure of source water to pollution may result in long-lasting or permanent problems with your drinking water quality.

The 1996 reauthorization of the Safe Drinking Water Act required that all drinking water systems evaluate the quality of and risks to the raw "source water" before it is treated. The intention was to better understand and guard against threats to the source water, and ultimately to reduce the cost of treatment by improving the quality of the source water.

Common threats to source water used for drinking include leaky underground storage tanks at gas stations, runoff or leaching due to excessive pesticide and fertilizer application, bacteria or pathogens, sediment that can clog filtration systems, and urban stormwater pollution (metals, grease, oil and petroleum byproducts).

Impairments in source water may have an affect on drinking water depending on how much treatment occurs and how good that treatment is.

FOR MORE INFO

Clean Water Action (www.cleanwateraction.org)
U.S. EPA (www.epa.gov/safewater/dwh/)

Using the Clean Water Act

- **Water quality standards** — Identify where public water supply or drinking water is a designated or existing use in your watershed. To protect those uses, identify water quality criteria for sediment (total suspended solids), bacteria, pathogens, heavy metals, petroleum by-products (PAHs), pesticides, fertilizer and bioaccumulative toxic pollutants. Evaluate whether the criteria are stringent enough to protect water supply uses. (Chapter 1)
- **303(d)** — Do the waters designated as public water supply support uses and meet water quality criteria? If not, or if they are threatened in any way, make sure they are on the 303(d) list for the appropriate pollutants, problems and threats. (Chapter 3)
- **TMDL** — Is there a TMDL scheduled or in progress in your watershed? Is it addressing pollutants that might threaten drinking water quality and treatability? Is maintaining or restoring the safety of drinking water sources addressed in the TMDL? Is the TMDL coordinated with the Source Water Assessment process (SDWA on this page)? (Chapter 3)
- **NPDES** — Are there any permitted discharges upstream or near drinking water intakes? Do permits include mixing zones that suspend water quality standards around and beyond the drinking water intake? No such variance is legal if it is likely to jeopardize existing or designated drinking water uses. (Chapter 2)
- **Antidegradation** — Before a state can issue a permit for an activity that might degrade water quality, an antidegradation analysis must be performed and be subjected to public review. In this analysis, the state must examine whether all existing uses and all outstanding waters would be protected, and, to protect high quality waters, whether all alternatives have been considered with respect to their social and economic impact (such as on drinking water sources). (Chapter 1)

Using other laws (Chapter 10)

- **SDWA** (p. 183) — Is the surface water or groundwater in your watershed used or designated for drinking? Identify the risks and talk to the agency in charge of developing the Source Water Assessment for your watershed. Be sure that all the risks to drinking water sources are included in the assessment and considered by your drinking water provider.
- **CZMA/CZARA** (p. 187) — Amendments to the Coastal Zone Management Act require control of nonpoint source pollution in the "coastal zone." If you are in a coastal watershed that is used for drinking purposes, make sure that protections for drinking water are built into coastal nonpoint source control plans and actions. Many states are applying this law broadly beyond immediate coastal areas.
- **CREP/Farm Bill** (p. 188) — The Conservation Reserve Enhancement Program provides federal money to farmers willing to set aside farmland for conservation and protection. These resources can be instrumental in protecting drinking water from agricultural runoff. Find out whether any money has been directed toward your watershed; encourage use of the program, and introduce the added incentive of protecting surface or ground water quality for drinking.
- **ESA** (p. 186) — Are there threatened or endangered species in your watershed? If so, you have another tool to protect against pollutants that might both negatively affect species and contaminate drinking water. The Endangered Species Act prohibits any activity that would result in harmful impacts to the species or its habitat.
- **Local land-use laws** — Is rapid development resulting in pollution of surface waters used for drinking or contamination of groundwater wells by too many septic systems? Use the land-use approval process to protect drinking water resources.