

# RE:SOURCECES

Newsmagazine of the Environmental Task Force



## SPECIAL ISSUE: DRINKING WATER

Safe Drinking Water:  
It's the Law

The Latest on Lead &  
Other Pipeline Poisons

Testing the Waters—  
a "How To" Guide

Fuel Tanks Foul  
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Salvation in a Bottle?

...And More



# ACTIVISTS' TOOLBOX

## Water, Water Everywhere But Not a Drop to Drink?

by Velma Smith

**IS THE WATER SAFE TO DRINK?** A question to ask only when crossing the borders of the U.S.?

Surely, we need not concern ourselves with the safety of such a basic need. Surely, if the water at the home tap appears clean, colorless and odor-free, there can't be a real problem. Surely, this is one area in which people agree on the need for government regulation.

A survey by the American Water Works Association indicates that the American public is, overall, satisfied with the product provided by the nation's water utilities. We appreciate the ready availability of an often modestly priced water supply. Relatively few communities have heard of "boil orders," and outbreaks of acute and fatal diseases appear to have been relegated to a place in remote history.

But while we appreciate our relative good fortune, we now need to consider the scope of the problems we face. From 1971 through 1983, there were 427 reported outbreaks of waterborne disease in the United States affecting over 106,000 individuals. Over 20,000 of these cases occurred in 1983 alone. In 1986, an infant in South Dakota became the country's first reported fatality from "blue-baby syndrome" in some thirty years. She drank baby formula diluted with water from a nitrate-contaminated well.

Still these statistics alone do not tell the whole story. Experts believe that many outbreaks, if not the majority, go unreported. According to a study conducted for the Environmental Protection Agency (E.P.A.) we might conclude that for each person we know of that has suffered from waterborne viruses, debilitating Giardia or life-threatening legionnaires' disease, there may be three more uncounted persons who have had some health problems associated with their water source.

And what if we look beyond those illnesses which strike relatively quickly? How does our water supply stand up under scrutiny when we consider long-term health effects such as cancers or birth defects?

In 1985, the State of California released a report on birth defects and miscarriages in a community that had drawn

### HOW TO FIND OUT WHAT'S IN YOUR WATER

If you are on a community water supply that serves more than fifteen connections your water supplier is obligated by Federal law to run certain tests and, if standards are violated, to inform both you and the Environmental Protection Agency. The requirements of the Federal law do not, by any means, include all probable water contaminants for all communities, but they will provide you with valuable basic information about your water quality. Many water suppliers are diligent in their monitoring and reporting program; others are not. Inquiries by the public may strengthen the utility's interest in meeting or even going beyond the law's requirements.

**Make sure you know who supplies your water.** If you don't have a water bill on hand to give you a clue, your local Mayor's office will probably be able to help you. A portion of the nation's water supplies are privately owned and the remainder are under the jurisdiction of public authorities — generally operated by a water authority or other entity which reports to the local town council or board of county supervisors. In many areas there are several water suppliers, so don't presume that the information that is correct for your neighbor across town necessarily applies to you.

Once you have that information, call or write the responsible party and ask for Federally required monitoring information from the previous year — or previous several years. Also ask your water supplier if any monitoring other than that required by Federal law has been done. Ask to see that data as well.

Many water utilities will be very anxious to provide you with as much information as possible. Others may be unaccustomed to calls from consumers. The utility operator may work only part time and feel you are troubling him or her unnecessarily. The operator's frustration may be understandable, but by law you have a right to data on required monitoring. Be firm. If necessary, ask your state or E.P.A. regional office for help. If you seem to hit a dead-end, call Environmental Policy Institute. We'll try to help.

Remember that test results taken from a given water sample at a given point in time provide useful information but not necessarily a complete picture of your local water quality. Single sample test results offer a "snapshot" of water quality. Looking at several test results from sampling done over a long period of time will give you a better assessment of local water quality issues. The frequency of testing requirements varies with such factors as the size of the utility, the source of the water — groundwater or surface water — and special State-imposed regulations.

**If your water is supplied by a private well:** Contact your local or state health department and explain your interest in finding out what contaminants may be present in your water. In some areas, these types of government agencies will test your water for certain contaminants for free or at a reduced cost. The trade-off here may be a slow turn-around time for testing, but if you are not suspicious of a problem, it may be worthwhile to be patient. Since government agencies often have limited budgets, you may find that there is a hesitancy to help you out unless you suspect that something may be wrong with your water. Be honest and as specific as possible about any suspicions or concerns.

If you strike out with local government agencies, try the local university's chemistry or environmental sciences department. Again, they may be able to help you at no or low cost. If none of the above options work, ask the county or state health department for a list of certified analytical laboratories. If possible, get a price list that will allow you to find the best bargain.

**What you should have your water tested for:** We live in a world with naturally-occurring substances such as arsenic, asbestos, radon and nitrates and tens of thousands of man-made chemicals, many of which may work their way into our drinking water. The Office of Technology Assessment reports that over 200 pollutants have been found in groundwater, and many hundreds more have been found in streams and rivers.

Unfortunately, there is no one test that will determine the type and amount of all the chemicals that may be present in your tap water. So, when you talk with someone about testing your water, make sure you get good specific information about what they are testing for. And try to get information about the reliability or the level of resolution provided by the particular tests which they have run or propose to run.

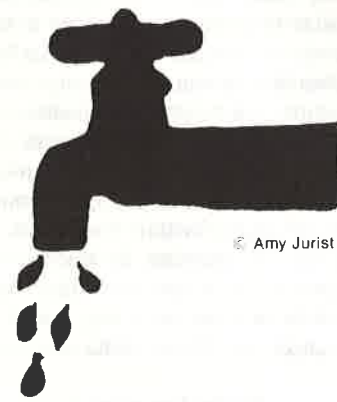
*If you do decide to use a lab, see the article by Gene Rosov in this issue.*

water from a source polluted with a common industrial chemical. The chemical, which had leaked from an underground tank, had never been associated with these particular health effects. After three years of investigation, the State verified parents' fears, concluding that the community did indeed have unusually high numbers of miscarriages and certain birth defects. They ruled out other possible causes of the miscarriages, such as smoking and alcohol use.

On the other side of the country, people in a Massachusetts community learned that their community water supplies had been tainted with industrial solvents. Three wells were eventually closed. In 1984, the Harvard School of Public Health concluded that an increased incidence of leukemia in the community was statistically associated with exposure to the contaminated water. In 1986, the corporate giant, W.R. Grace settled out of court with families who had brought suit — on behalf of five children and one adult who died from leukemia and on behalf of two children living today who have been stricken with leukemia. The reported settlement was for eight million dollars.

The families that find themselves asking, "was it the water?", find no easy answers. They only find more questions. What chemicals polluted the water? What was their source? What are the known toxic effects of various chemicals - alone or in combination with other chemicals? Have studies of human exposure been undertaken? Were the studies large enough to yield any conclusions? What other chemical exposures might have threatened a victim's health?

Those who wonder "is our water safe to drink?" may ask similar questions and will find the same difficulties in uncovering clearcut answers. But perhaps, by asking now "is our water safe to drink?" we may later avoid the situations in which we have to ask "was it the water?"



### Who Decides What Is "Safe" To Drink?

Under the Federal Safe Drinking Water Act, the E.P.A. has developed regulations to limit the amount of certain health-threatening contaminants in public drinking water supplies.

Currently there are twenty-two contaminants for which enforceable limits, called maximum contaminant levels, have been set. With a few exceptions, those standards were adopted from Public Health Service guidelines developed in 1962 and reflect the status of knowledge and technology available at that time.

These limits do not necessarily represent a level at which there is no health threat. Rather, they are set "as close as is feasible" to a concentration which E.P.A. believes a person can drink without suffering adverse health effects. In looking at the feasibility question, E.P.A. considers what technologies are available for removal of contaminants and how much those technologies will cost the public water utilities.

Thus, the enforceable standards are not necessarily "ideal" from a solely health-based perspective. They reflect, instead, what appears to be the best that we can expect our public water suppliers to do at the time at which the standard is set.

These standards are "enforceable" only for public water utilities. Private well owners may wish to have their water tested and compared with these Federal standards, but they are not obligated in any way to do so. Some states, however, do provide assistance to private well owners who wish to have some testing run on their water supplies.

In addition to setting numerical limits on the quality of public water supplies, E.P.A. also develops "health advisories" which provide information on chemicals for which no M.C.L.'s exist. These advisories offer guidance on concentrations of chemicals which would be considered "safe" to drink over short-term and long-term periods. Since there is generally no level of a cancer-causing agent which is recognized as "safe," the health advisory numbers generally do not incorporate concerns with cancer risk.

Unfortunately, there are literally hundreds of additional contaminants which have been found in drinking water supplies and for which the E.P.A. has not yet set enforceable standards. What that means in terms of public health protection is not only that there is some confusion as to how to respond to contamination by a non-regulated chemical but also that most systems are not moni-

### National Water Testing Labs

**Aqua Associates, Inc.**  
P.O. Box 1251  
West Caldwell, N.J. 07006  
(201) 227-0422

**Hydro-Analysis Associates, Inc.**  
R.D. 1, Noble St. Extension  
Kurtztown, P.A. 19530  
(215) 683-7474

**National Testing Labs, Inc.**  
6151 Wilson Mills Rd.  
Cleveland, O.H. 44143

**Suburban Water Testing**  
4600 Kutztown Rd.  
Temple, P.A. 19560  
(215) 929-3666

**Watertest**  
33 S. Commercial St.  
Manchester, N.H.  
(603) 623-7400

Also check your yellow pages for local testing labs.

toring for these unregulated chemicals.

In the public arena, the absence of standards often fosters distrust and anger where contamination is revealed after potentially lengthy exposures to pollutants which pose uncertain negative health effects. For the utility operator, the absence of standards leaves unanswered questions regarding response: such as which treatment techniques should be chosen and what removal efficiencies should be used for making design plans and cost calculations. For public officials, the lack of standards undermines credibility and complicates decision-making in instances in which the public demands decisive action.

In light of the Federal government's inaction, many states have taken the initiative in adopting their own drinking water standards. At least eleven states have set standards for phenols and for cyanide in drinking water or groundwater, for example, and at least eight states have set standards for trichloroethylene and for tetrachloroethylene. Among the states which have been most active in setting standards or action limits are New York, Florida, New Jersey, California and Wisconsin.

*Please contact the Environmental Policy Institute for more detailed information about your state.*