

INTRODUCTION

We all want safe, clean water in our homes, at our jobs, and in public places. However, recent scientific findings have shown that there are more threats to the safety of our water supply than we once believed. Congress became concerned that we need to do a better job of protecting the quality of our water supply and passed several important environmental laws, including the Safe Drinking Water Act of 1974.

Your water supply will likely be safer as a result, but the costs of additional monitoring and consumer protections may result in higher utility rates.

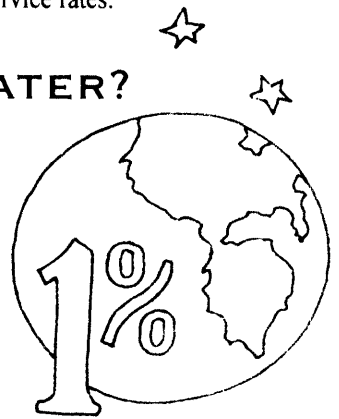
The purpose of this brochure is to provide you with information about the health and safety requirements placed on drinking water and the resulting costs that are passed on to consumers through monthly service rates.

WHAT ABOUT OUR WATER?

Water makes up almost two-thirds of our bodies, and is present in almost every type of food and drink. We cannot live without water. Ninety-seven percent of the earth's water is saltwater in oceans and seas. Only one percent is available for drinking water supplies.

Most water is not drinkable without treatment. Public water system owners are responsible for the quality and availability of drinking water from its source to the consumer. This may involve pumping water out of the ground or diverting a stream, removing contaminants, and pumping the water through miles of pipes. Though it's expensive, water treatment is necessary to provide a safe, reliable supply of drinking water at a reasonable cost.

There are more than 60,000 public water systems in the United States. They process 34 billion gallons of water per day for home and commercial use.



POTENTIAL THREATS TO OUR PUBLIC WATER SUPPLY

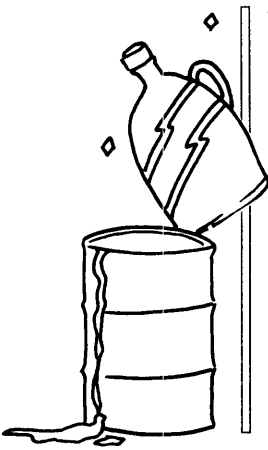
Delivering clean water for public consumption is no easy task. Both the forces of nature and the activities of modern, industrialized society threaten the cleanliness and safety of our lakes, rivers, reservoirs, and groundwater wells.

THREATS FROM NATURE



- ◆ Bacteria, viruses, and other harmful microorganisms;
- ◆ Naturally occurring radioactive materials such as radium and radon;
- ◆ Naturally occurring metals, such as arsenic, cadmium and chromium; and;
- ◆ Nitrates and nitrites from the breakdown of organic materials.

THREATS FROM SOCIETY



- ◆ Chemicals both legally and illegally discharged from industrial and other processes;
- ◆ Runoff from city streets, parking lots, and rooftops;
- ◆ Leakage of chemicals and wastes from underground storage tanks;
- ◆ Runoff of agricultural pesticides and fertilizers;
- ◆ Runoff from landfills and waste dumps;
- ◆ Injection of waste fluids into underground wells;
- ◆ Improper use and disposal of household wastes, such as used oil, cleaning products, and lawn and garden chemicals.

THREATS FROM TREATMENT AND DISTRIBUTION

If sufficient care is not used, water can also be contaminated by the products and processes used to treat water and distribute it to users.

HOW IS OUR WATER PROTECTED?

New Regulations

Concerned by news accounts about toxic waste sites, organic chemicals in municipal water supplies and outbreaks of infectious diseases, Congress has demanded more tighter regulation of water.

Congress enacted the Safe Drinking Water Act in 1974 with the goal of providing safe drinking water to all persons served by public water supplies (water systems serving 25 or more persons on a regular basis or a system with 15 or more service connections.) The purpose of the act is to make sure our drinking water is safe. The U.S. Environmental Protection Agency accomplishes this goal by setting national drinking water standards. Individual states carry out and enforce those regulations for public water systems.

Congress expanded and strengthened the Safe Drinking Water Act in 1986. The 1986 amendments require EPA to regulate more contaminants, define maximum contaminant levels, set compliance deadlines, regulate surface water treatment, remove lead, require disinfection and protection for wells, and strengthen enforcement.

The Safe Drinking Water Act gives the EPA the authority to develop specific regulations to assure the safety of public drinking water. Currently, public water systems must test for more than 80 contaminants. Results of those tests are studied by water professionals within the water utility, and they are also sent to state Drinking Water Program offices. Both utility and state personnel compare the results with the drinking water standards. If the amount of a certain substance in the water exceeds the standard, both the utility and state administrator spring into action to solve the problem.

Some water providers perform more than 18,000 tests each year on their “raw” and “finished” water to assure its safety. All tests are a matter of public record and are accessible to consumers.

The Safe Drinking Water Act not only requires water quality standards, it also presents rules for notifying the public about water problems. These rules differ from substance to substance, as do the levels considered harmful for each contaminant.

IMPROVED CONTAMINANT DETECTION

Many of these standards established to protect drinking water will control chemical contaminants to very low levels. As the ability to monitor has grown more sophisticated, research has suggested that more subtle types of health effects, such as certain forms of cancer, may result from long term exposure to very low levels of chemical contamination.

Similarly, the understanding of microbiological contamination of drinking water has also grown. In the early 1900s, drinking water treatment was revolutionized through the widespread introduction of chlorine for disinfection purposes. This resulted in dramatic reductions in the incidence of waterborne diseases such as typhoid fever, cholera, dysentery, and hepatitis. With the removal of these very visible health threats, there is a perception that the problem of assuring safety in drinking water has been solved.

A number of waterborne diseases may remain, characterized by symptoms such as diarrhea, nausea, and abdominal distress. Improving water filtration and disinfection and upgrading water treatment facilities will make substantial progress toward eliminating these more subtle disease agents.



IMPROVED TREATMENT

New regulations under the Safe Drinking Water Act Amendments will require utilities using surface waters to install filtration and disinfection treatment to remove viruses, cysts, bacteria, and other microorganisms. Although many surface supplies have been considered safe in the past, increasing population and the resultant pollution of watershed lands has rendered many of these systems unable to produce safe reliable water on a continual basis. Groundwater systems will also be required to provide disinfection.

Upgrading water treatment to remove chemical contaminants to low levels and to assure that disease-causing microorganisms remain inactive may increase the cost of water.

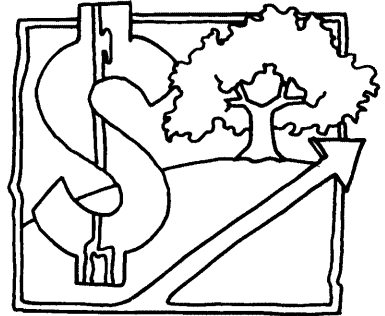
BUT HOW MUCH WILL “SAFE” WATER COST?

Safe water and the regulation to ensure it is going to cost money ... money that consumers will pay in higher water rates. Every new contaminant that is regulated means more work and more expense for public water systems.

Small systems will be hardest hit because they have fewer customers to share the costs.

For example, additional water testing costs of \$5,000 per year would mean \$200 per family served by a system with only 25 customers connected. However, for a larger system of 2,000 connections, the same \$5,000 expense would amount to only \$2.50 per family.

In some cases, customers may find that rates will be increased substantially to cover the costs of assuring a safe water supply.



WHAT ARE THE BENEFITS ASSOCIATED WITH PAYING FOR “SAFE” WATER?

The benefits of new water treatment techniques will result in a decreased number of diseases related to our drinking water. Benefits may not, however, be immediately apparent to many consumers since many of these benefits will be spread over several generations. The health benefits are nonetheless real.

WHAT WILL THIS MEAN TO ME?

Water can no longer be used frivolously, but must be conserved. It means that water rates may go up to cover the costs of assuring safe drinking water.

Drinking water is a precious resource, but most people take it for granted. Many of us assume that water will always come out of our kitchen taps and that it will always be safe. Water in the ground may be free, but getting water from the source to people's homes and making sure that it is safe when it gets there costs money.

The new regulations being developed under the Safe Drinking Water Act Amendments are intended to protect the public health of all Americans. These regulations also have been designed to give the consumer “peace of mind” regarding the water consumed from the tap.

Since safe, potable water is a precious natural resource in scarce supply, we must conserve water to the extent possible. Enhancing water quality has costs that consumers share. Conserving our water supply can help to hold costs in check, as well as assuring a supply for future generations.

HOW ARE INVESTOR-OWNED UTILITIES COMPLYING WITH THE SAFE DRINKING WATER ACT?

More than 30 million people in the United States are served by private investor-owned systems, which are regulated by state public utility commissions. In addition, some public utility commissions have rate-setting jurisdiction over municipal or other governmentally-owned systems.

As regulators of investor-owned water and wastewater facilities, public utility commissions are charged by law with setting rates that allow utilities an opportunity to earn an adequate return on their investment while ensuring that consumers' rates are kept at a reasonable level and requiring safe and reliable service.

But public utility commissions are economic regulators only. Environmental regulation of water and wastewater utilities in areas such as water withdrawal permits, sewage disposal, and health and safety standards, are enforced strictly by the state environmental departments, health and human services departments, water management districts, and local county health agencies.

The National Association of Regulatory Utility Commissioners and the state public utility commissions it represents strongly and consistently have supported the purposes of the Safe Drinking Water Act to improve the quality and safety of the nation's drinking water supplies.

But as regulators who are responsible for determining utility rates to pay for necessary remediation efforts, state public utility commissions are also aware of the economic impact of utilities' compliance costs resulting from regulatory mandates and that such costs can directly impact human health. For example, utilities may need to charge higher rates to fund mandatory improvements to their current systems, so they will be in compliance with current regulations. But a utility's increased rates may not be covered by their customers' normal discretionary income. Instead, higher utility rates may force low income persons or those on fixed incomes, who are trying to meet their monthly obligations, to

cut back on other essential services that directly affect their health and welfare such as medical care, nutrition or education.

Out of concern for consumers, the National Association of Regulatory Utility Commissioners and the state public utility commissions have maintained that universal water service, defined as high quality drinking water at affordable rates for every consumer, should be a national policy goal.

The Safe Drinking Water Act does allow regulatory agencies to issue “Variances and Exemptions” from some of the requirements for water utility systems that are having major technical or financial problems in meeting the Safe Drinking Water Act requirements. These are legal means by which a system that does not meet the requirements can supply water to the public for a limited time. The public water supplier must prove to the regulatory authorities that there is no undue risk to health by allowing the Variance of Exemption.

While it is not possible to determine the exact dollar increases in residential utility rates that may be considered “affordable,” the National Association of Regulatory Utility Commissioners and the state public utility commissions have asked the Environmental Protection Agency to affirm a commitment to affordable water rates. The Environmental Protection Agency has done so.

The Environmental Protection Agency believes government has a responsibility to see that expenses required of utilities are those expenses which are reasonably necessary to protect and improve consumers’ health. The Environmental Protection Agency also believes regulations should be designed to achieve the benefits of safe drinking water in an efficient and least-costly manner.

CONCLUSION

The National Association of Regulatory Utility Commissioners and the Environmental Protection Agency encourage consumers to learn more about safe drinking water, health and safety requirements, and the resulting costs. We encourage you to write your individual state’s drinking water office in your state’s public utility commission for more information!