



CLEAN WATER

Safe Drinking Water for Everyone

The Pacific Northwest and Alaska are known for clear, clean, fresh tasting water. Our major rivers and lakes are found in the high desert, coastal rainforest, arctic glaciers and valleys separating mountains. Such varied landscapes offer a challenge when balancing economic and population growth with protecting the quality of these water resources. Since 1970, the EPA has worked with many partners to improve sewage treatment, reduce industrial waste discharges, and preserve habitat in our Northwest ecosystems.

Improved Sewage Treatment

In the past, raw or inadequately treated sewage was routinely released into our region's waters. As sewage decomposed, these wastes consumed large amounts of oxygen from the water. Over time, the continuous supply of sewage consumed so much oxygen that many lakes, rivers and streams could no longer sustain aquatic life.

To reverse this trend, the EPA developed a major sewage treatment program to eliminate the harmful effects of human wastes on aquatic ecosystems. Millions of dollars were provided to local governments to support the construction of new wastewater treatment plants. Additionally, the EPA required wastewater plants to treat and remove oxygen consuming wastes. In Oregon, these clean-up efforts doubled the oxygen levels in the Willamette River, revitalizing an important waterway.

Seventy-three million more people, in thousands of communities across the nation, have upgraded sewage treatment, compared to 25 years ago. The water quality improvements associated with these efforts are impressive. Releases of oxygen consuming wastes have declined by 36 percent (from 6,700 metric tons a day in 1970 to 4,300 metric tons a day in 1992) even though the amount of sewage being treated has increased by 28 percent. Even more significant, levels of life-giving dissolved oxygen have increased in regularly monitored waters across the country.

Safe Drinking Water

Most people in the United States simply turn on the kitchen tap to fill a glass with clean, safe drinking water.

Sewer Clean up

Between 1972-1990, the Clean Water Act provided \$1.9 billion to build wastewater treatment facilities and improvements in the states of Alaska (\$234 million), Idaho (\$246 million), Oregon (\$578 million), and Washington (\$843 million).

Water quality improvements in the Pacific Northwest have lead to great public health benefits. For example, EPA funds enabled the City of Yelm, Washington, to upgrade its collection and wastewater treatment facility and deal with failing or inadequate septic tank systems. Now the nitrate levels in the groundwater supply, which once were rising above the allowable drinking water standards, are under control.

For the City of Boise, Idaho, improvements to its Lander Street wastewater treatment facilities reduced the amount of nutrients and bacteria taking oxygen from the Boise River. Wastewater flows increased by seventy percent from 1995 to 1999. Consequently, the oxygen depleting nutrients and bacteria entering the plant increased by sixty percent. The changes to the facility reduced the detrimental nutrients and bacteria leaving the plant by eighteen percent over the same four years. The result was more oxygen available for the river's fish and plants.

It's probably even fair to say that most Americans assume that the 34 billion gallons of tap water we use each day will always be pure and close at hand. To ensure that this would always be true, Congress enacted the Safe Drinking Water Act in 1974.

Since that time, preserving the safety of our nation's public drinking water supply has been, and continues to be, one of the EPA's top priorities. Over the last 25 years the EPA has issued numerous drinking water standards protecting the public from the effects of harmful chemicals and microbial pollutants. In addition, the EPA and each state monitor the quality of drinking water supplies and develop strategies to prevent contamination. Together these

efforts constitute a comprehensive program providing the American public with safe and reliable water.

Special protection programs are being implemented in about 4,000 communities across the Northwest region. The success of these efforts is shown by the fact that in 1999 more than 90 percent of the population in community water systems received water meeting all health-based standards.

Reduced Industrial Pollution

Prior to 1970, wastewater discharges from industry went largely unchecked. The Clean Water Act, however, made it illegal for any industry to discharge pollutants directly to national waters without a permit specifying appropriate pollution limits. Those limits are based on balancing our economy's need for production and the ecosystem's natural ability to compensate for some amount of pollution.

The EPA developed standards for more than 50 different industries and currently oversees more than 57,000 industrial water pollution permits. Currently, these permits prevent more than one billion pounds of toxic pollution from entering our nation's waters each year.

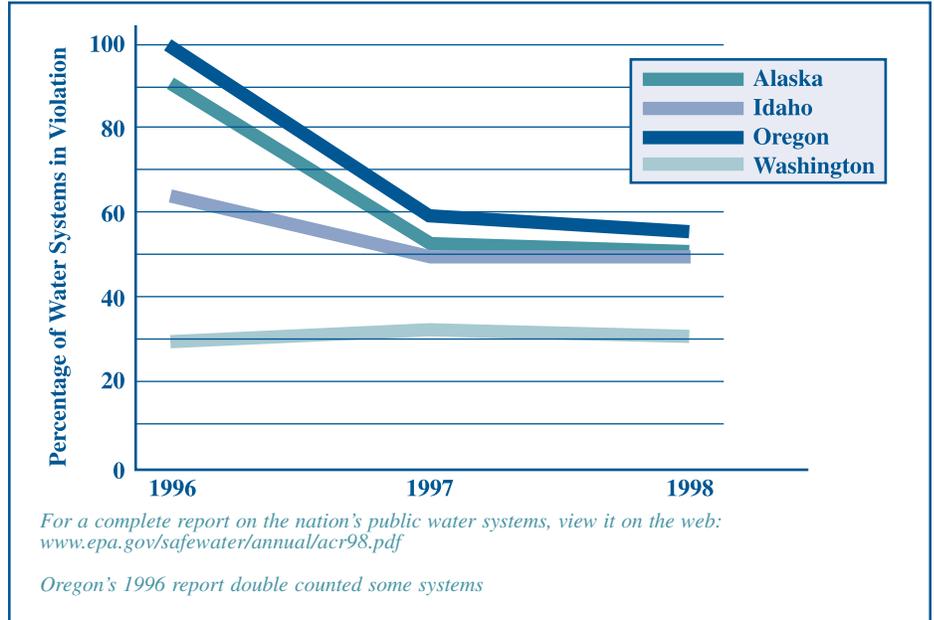
A related water pollution control program focuses on companies dumping liquid wastes down their drains into the public sewer system. The Clean Water Act contains special provisions that require these dischargers to "pretreat" their waste before it enters the sewer. More than 30,000 major industrial dischargers are now covered by pretreatment standards. As one of the EPA's most successful programs, pretreatment standards have reduced toxic discharges to public sewers by an estimated 75 percent.



Yaquina Bay Bridge, Newport Oregon

Public Water System Violations

Since the Safe Drinking Water Act Amendments of 1996, States have submitted annual reports. The percentage of water systems in violation of federal rules has declined steadily since that time.



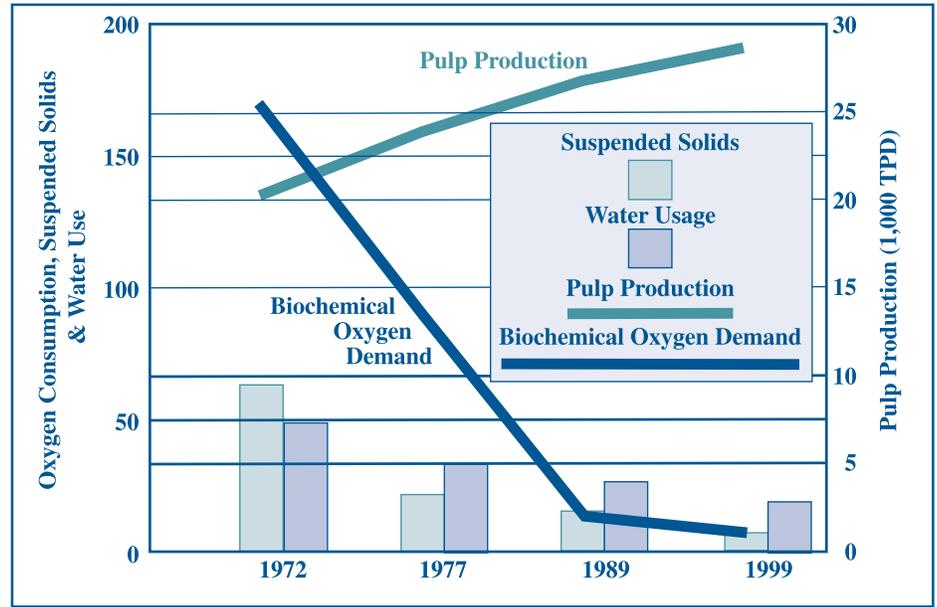
The Pulp Industry

Many industries affect Pacific Northwest water quality either by using or discharging water. Under the authority of the Clean Water Act, some of the most dramatic environmental progress has occurred in cleaning up Region 10's pulp & paper industry.

The manufacturing process uses far less water today than 30 years ago. Consequently, water pollution from these facilities has declined. For example, the water discharged consumes much less oxygen in the water. The suspended solids that cloud the water and hurt aquatic water life have also been reduced. The net improvement in water discharged by mills has been remarkable.

To achieve this pollution reduction, the industry made increased efficiency and waste reduction a top priority. There is an amazing downward trend in discharge and water use since 1967. And yet this streamlined industry has seen a steady net increase in production. That translates into a stronger economic base while releasing much less pollution - a real success story.

Pulp & Paper Wastewater Discharge Improvements in the Pacific Northwest & Alaska



How much has the water quality improved? Monitoring data tell of a 98 percent reduction in oxygen consumption, 89 percent reduction in Total Suspended Solids and 63 percent reduction in water use.

The graph above shows this compelling story of an efficient industry working to meet EPA water quality limits.

The Non Point Source Pollution Story

In the 1990's the EPA began looking at water quality problems on a watershed basis (the area from which water drains into a river system). Nearly every human activity within a watershed has some impact on its water quality.

As pollution from stationary sources such as factories and sewage treatment plants declined, the water quality was still impaired from the effects of many non point sources of pollution. Agricultural and logging activities, urban runoff and homeowner actions were still affecting water quality. Reductions in these non point source impacts are succeeding because of cooperation between other agencies, organizations and individuals. Perhaps the most significant impact has been when all of these interested

parties joined together to form Watershed Councils. The councils take an active role in protecting their own community's watershed.

Enforcement of environmental regulations alone will get us only

part way toward our goal of cleaner water. The citizens in each community must band together to preserve these precious water resources.

