

WATER PLANNING FOR OUR FUTURE

By State Representative Marilyn Giuliano

Across the United States, planning is underway to protect and conserve a vital resource — our nation's freshwater supply. Government forecasts warn that 36 states will face water shortages within the next five years due to a combination of drought, population growth, urban sprawl and waste. In particular, waste and mismanagement of water contribute substantially to growing water shortage problems. According to the latest figures available from the U.S. Geological Survey, nationally we used more than 148 trillion gallons of water in the year 2000 for residential, commercial, manufacturing and agricultural purposes. That represents almost 500,000 gallons per person.

In Connecticut, the legislature has created the Water Planning Council to coordinate the activities of four agencies of state government - the departments of Environmental Protection (DEP), Public Utility Control (DPUC), Public Health (DPH), and the Office of Policy and Management (OPM) — to address issues of water utilities, resources and future water supply.

The goal of the Water Planning Council is to manage high quality water supply sources, treatment facilities and delivery systems to meet our current and anticipated freshwater needs. Good water management policy is critical to keeping the taps flowing. Conservation, recycling, controlled development and desalination are all potential parts of comprehensive water planning.

Conservation is a pivotal part of water supply planning to protect against water shortages, and to lessen the costs of developing new water supplies. It is also the cheapest of alternatives in protecting freshwater drinking supplies. Promoting public education that supports the wise use of surface and groundwater resources can help to reduce water waste and inefficiency. Public water suppliers can adopt policies for efficient water metering and auditing, and provide consumer incentives for water saving plumbing retrofits.

Water shortages, though, are largely driven by our use of freshwater for agriculture and industry. These uses have the effect of turning good water into bad. In response to this, water-recycling technologies have been adopted by a variety of states to offer cost effective water reuse. Graywater — as it is known, is generally defined as wastewater from residential and other sources excluding wastewater from toilets and garbage disposals. Graywater is of lower quality than potable water, but of higher quality than sewage (blackwater). It is commonly used for irrigation and toilet flushing. In these recycling applications, it replaces the use of potable freshwater for agricultural and industrial purposes, effectively creating a new water source.

There are now approximately 1,200 desalination plants in the United States which produce in excess of 300 million gallons per day of water. Florida and California are

national leaders in desalination initiatives. Desalination has been a less attractive option for states like Connecticut because of the relative abundance of our existing water supplies, and the high energy costs associated with pumping cold sea water through desalination plants. But as costs rise for procuring conventional water supplies rise and water technologies improve, desalination has become more competitive. There are, however, environmental concerns about placing seawater desalination plants in ecologically sensitive coastal regions.

Traditional water conservation and recycling practices while good may be insufficient to stem potential water shortages. The need to reduce water waste is more urgent now than ever before. To keep the taps flowing, public policy, water management and technology must focus on reducing water waste and inefficiencies. Smart use of water is the wave of our future.

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