



Water Conservation Buoys A Reliable Water Supply

In this country water often is taken for granted. It's relatively inexpensive. Compare your annual water bill with your annual cable TV bill and you'll likely find that H₂O is cheaper than HBO and the other premium channels. Television provides entertainment. Water sustains life. Yet for years we've undervalued water and wasted it in vast quantities.

Consequently, the Delaware River Basin Commission (DRBC) has invested heavily in water conservation initiatives in an effort to cut down on the demand side, convinced that it makes sense to save water during wet years as well as dry ones.



The commission's ambitious water conservation program to reduce water demand is an integral component of its strategy to manage water supplies in the basin. The program has resulted in significant cost savings, enhanced environmental protection, and improved drought preparedness.

Here are some examples:

****The commission has never had to curtail water use by business or industry during droughts.***

Its drought management plan, based on the conservation doctrine, has been successful in avoiding such drastic measures. In the drought of 1991, for instance, a drought emergency would have kicked in by November had it not been for the commission's conservation initiatives. Mandatory restrictions most likely would have been imposed. With the DRBC's operating plan in place, over 45 billion gallons of water was saved in reservoir storage that year. The reservoir releases that still took place at times more than doubled the amount of water in the Delaware River, ensuring an adequate supply for municipal and industrial use. The DRBC's operating plan saved approximately 43 billion gallons in reservoir storage during the drought of 2001-2002.



****Commission actions have helped prevent salty water from infiltrating potable water supplies and fouling industrial and municipal intakes along the Delaware River.***

Under the commission's drought plan, freshwater releases from reservoirs help repel the upstream migration of salty water in the Delaware River. If the salt-laced water migrates too far upstream it can threaten water supplies, cause expensive corrosion problems for riverbank industries, and increase costs for water treatment.

****Commission actions result in a 16 billion-gallon insurance policy for basin utilities.***

In a show of good faith, a consortium of electric utilities in 1987 built a 16 billion-gallon storage reservoir on Merrill Creek, a Delaware River tributary located in New Jersey. The impoundment was constructed at the direction of the commission, which had concluded that supplemental water supply storage was needed if basin utilities were to continue to operate at full capacity during droughts. If not, cutbacks might be necessary during water supply emergencies. During the most

recent drought, over 1.6 billion gallons of water was released from this reservoir to make up for evaporative losses at the utilities' riverbank generating stations between October 2001 and January 2002.

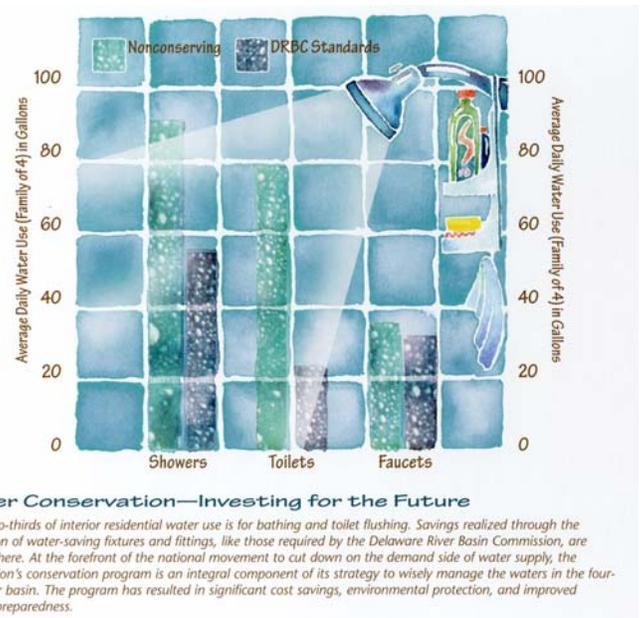
****The commission has adopted regulations that:***

- ❑ require leak detection and control programs for in-basin, public water suppliers in an effort to locate physical water losses estimated at 150 million gallons a day.
- ❑ require the metering of major, in-basin, public water supply systems at the customer end of the pipe with all water bills based on metered usage instead of a flat periodic rate for an unlimited supply.
- ❑ establish water conservation performance standards for such plumbing fixtures and fittings as toilets, lavatory faucets, and shower heads that are installed during new construction or major renovations. Significant basinwide savings are attributable to the use of these water conserving devices and will continue in the future.

The commission also has requirements that encourage water purveyors to adopt water conserving rate structures that provide incentives to customers to reduce average or peak water use, especially during the high-use summer period. And it requires that water conservation plans accompany applications for large water withdrawals – either new or expanded ones.

Over the years the DRBC has sponsored technology transfer sessions, providing industry with an opportunity to exchange ideas and tips on water saving techniques. Representatives from the pulp and paper industries, the chemical and pharmaceutical sectors, and nursery operators have exchanged information on successful water-saving programs at their facilities.

Water conservation not only ensures continued productivity, it can save money by reducing or delaying the need to develop new water supply systems which consist of costly infrastructure like treatment plants, pumping stations, reservoirs, and distribution systems.



Saving water during normal periods as well as droughts extends existing water supplies and thus can delay the need to impose water use restrictions. The lowered demands also reduce the likelihood and severity of droughts. Moreover, conservation reduces the stress imposed by surface and ground water withdrawals on aquatic habitat.

In order to meet the needs of present and future populations and ensure that ecosystems are protected, water must be sustainable and renewable. The DRBC understands that sound water resources management emphasizing efficient use of water is essential to achieve these objectives.

Visit the DRBC web site at www.drbc.net for more information.