Other communities can learn from Jamestown’s experience with water

By Abby Anthony

A recent Providence Sunday Journal headline announced that Kent County is running out of drinking water. Development pressure is so overwhelming that the county’s water supply and the county water authority has estimated that within five years daily water demand will reach levels projected for 2025.

The water authority is receiving criticism from all sides. Residents are unhappy with a recent 25 percent rate increase and restrictions on outdoor water use in the summer. Local officials fear that the restrictions will threaten commercial growth, and a developer claims that the water authority sabotaged his residential building projects.

It is time for all Rhode Islanders to adjust expectations regarding water.

We think of fresh water as an entitlement and that we are entitled to an unlimited amount of fresh water. This attitude leads to many of the problems facing water districts in the state. Consider the comparison between oil and water. Oil and water are both essential to our welfare, but the price of oil, unlike the price of water, is determined by supply and demand.

The price of water does not reflect market forces. Water is more precious than diamonds, but because it is not traded in the marketplace, it is relatively cheap. These pricing structures dictate our consumption of each. We brace for high oil prices by turning down the thermostat and bundling up, purchasing fuel-efficient cars, and developing new technology that will make us less dependent on oil. We are far less conscientious in our water consumption. We expect to take long showers, water our lawns and gardens, and wash our boats.
Other communities can learn from Jamestown’s experience with water conservation. Without the “sticker-shock” effect, it is much harder to change our behavior.

Facing unique water problems, Jamestown set a model for water conservation that can serve as an example for other communities. In 1999, in response to a series of droughts, the most severe of which occurred during the summer of 1993, town officials enacted water regulations designed to prevent water shortages in the summer.

In a short time, per capita water consumption in Jamestown has decreased significantly and, equally important, people have been awakened to the real scarcity of this resource.

As an island ecosystem, Jamestown depends on a limited supply of fresh water replenished only by rainfall. The north end of the island is not served by the municipal system and depends on wells. Islanders living on the southern end of Conanicut Island are served by the municipal water supply, which comes from two surface reservoirs named North Pond and South Pond. The capacity of the system is strictly limited by the small size of the watersheds, and a watershed cannot be enlarged.

In the early ‘90s, the Town Council recognized that Jamestown’s water system had reached or exceeded its maximum safe yield and took a first step in developing a utility-based policy for the allocation of water.

The Town Council divided the town into two water districts, urban and rural, and allocated water very differently in the two districts. The urban water district comprised the middle of the island, while the north and south ends of the island were considered rural. The Town Council promoted growth in the urban district, where municipal water facilities already existed, by making it easier to obtain water, while prohibiting extensions of the water system into rural districts.

Despite this effort, during the summer of 1993 North Pond was depleted and the municipal water supply could not meet public demand. Water had to be brought to the island in National Guard tank trucks that summer, and the island continued to have water shortages during the summers of 1994 and 1995.

After this series of droughts, it became apparent that more had to be done. In 1999 the town council adopted strict water regulations, including the installation of lowflow toilets upon sale of property,
mandatory installation of lowflow toilets, faucets, and showerheads by May 2004 regardless of sale, installation of water-saving clothes washers by May 2009, and elimination of all outdoor water uses in the summer if the reservoirs reach stipulated levels.

Limiting outdoor water use is especially important because outdoor demand tends to peak at the same time that the water supply is the most limited. Droughts most often commonly occur during the summer, and any rain that does fall is more likely to evaporate.

These water conservation measures have significantly reduced the amount of water Jamestown residents consume. Jamestown Public Works Director Steve Goslee reported that prior to 1999 Jamestown residents used roughly 75 gallons of water per person per day, while today daily consumption is only 53 gallons per person.

Equally important is the mentality of conservation and code of conduct that has developed in Jamestown. Instead of competing for the “Fenway Park Look-alike” lawn award, Jamestowners take pride in their brown grass, and dusty cars signal community spirit.

It is worth considering how water regulations contributed to developing a culture of conservation in Jamestown, and how other communities might benefit from Jamestown’s experience.