

# Retrofits to Public Schools

## Situation



A Rahway High School Student notices that one of the school's faucets uses 2.22 gallons of water per minute.

Schools use a tremendous amount of water everyday. Similar to other public buildings, they require water for their heating and cooling systems, restrooms, water fountains, locker rooms, cafeterias, laboratories, and outdoor playing fields and lawns.

In 1994 the Energy Policy Act established water conserving guidelines for all plumbing fixtures and appliances to be sold in the United States. Over time, this has helped reduce the overall amount of water used indoors in the typical American house. However, there are still many outdated fixtures and

appliances in our public buildings.

## Action

To help determine the water and money savings that could actually be achieved in New Jersey's public buildings and the costs that would ultimately be associated with these updates, New Jersey Water Savers partnered with American Standard, a New Jersey based company, to retrofit public buildings in our pilot communities. The retrofit involved the removal of old plumbing fixtures with water-saving ones. Fixtures that pre-date the National Energy Protection Act of 1994 were eligible for replacement.

American Standard has donated over \$100,000 worth of product to the program thus far. Donations of 1.28 gallon per flush toilets, pint flush urinals, and 1.5 gallon per minute faucets have been installed in Livingston's Monmouth Court Alternative High School and Community Center, Belmar Elementary School, and the Jeffrey Clark Elementary School in East Greenwich Township. During the Summer of 2010, Rahway High School was retrofitted. During the Winter of 2011 the Egg Harbor Township High School will be retrofitted.

To measure the success of the retrofits, pre-audits were conducted prior to the installation, and post-audits will be conducted after installation. In addition, New Jersey Water Savers will perform a cost/benefit analysis on the retrofit projects.



Tolin Hessel, RCE Water Resources Program, conducts a water audit at the Jeffrey Clark School.

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### Impact

As New Jersey's population continues to grow and water sources are further constrained, more must be done to safeguard a sustainable water supply. In addition to saving money on utility bills, water conservation helps prevent water pollution in nearby lakes, rivers, and local watersheds. Conservation can also save water utilities and the state considerable capital expenditures over the long term by delaying or even eliminating the need to develop new or expanded water supply systems and wastewater treatment plants.

In an effort to help reduce the cost of a retrofit project in your town, consider utilizing a partnership model that involves cost-sharing or corporate sponsors. The benefits of cost-sharing or working with a corporate sponsor may result in having a portion of your project subsidized by a grant or a donation.

### New Jersey Water Savers Partnership

New Jersey Water Savers is a partnership between the Rutgers Cooperative Extension Water Resources Program, the New Jersey Department of Environmental Protection, and the United States Environmental Protection Agency. This partnership was created to provide leadership to promote water conservation throughout New Jersey. For more information on our partnership efforts, visit us at [www.water.rutgers.edu](http://www.water.rutgers.edu).

