



Sustainability

RISD Facilities and Environmental Health and Safety Spring 2011

The Bottled Water Conundrum:

Why RISD is working to do away with the bottle

Bottled water is regulated by the FDA to a lesser standard than tap water and EPA regulates the quality of tap water to a much stricter standard than bottled water. Which would you want to drink? What follows is the carbon footprint of a 5-gallon water bottle:

- Empty bottle picked up in the delivery sequence at your office.
- Returned to distribution warehouse via diesel route truck. Separated and assembled via forklift.
- Returned via tractor-trailer to bottling plant 800 per truck, average trip length 50-250 miles.
- Unloaded via fork lift, inspected, loaded into bottle washer, 120-140 degrees hot water, 10 minute wash, rinse, filled, capped and moved around warehouse by fork lift.
- Water Treatment - Spring or natural water is transported via tractor-trailer in 5,000-gallon tanker. Average trip 50-250 miles, two-way trip, empty to spring, full back to bottling plant.
- Full bottles shipped back to distribution warehouse via tractor-trailer, 800 bottles at a time, 50-250 mile return trip.
- Full bottles moved out of tractor-trailer via forklift, loaded by rack via forklift into diesel route trucks for delivery. Diesel route truck delivers full 5-gallon bottle to your office.
- Five-gallon PET or polycarbonate bottles have an average life of 15 to 30 trips before being disposed of in trash and replaced in the bottler's bottle float. (Information courtesy of Atlas Watersystems.)



Beginning in 2009, RISD Facilities, Dining and Catering and the EHS Department, in conjunction with several student-led groups, began to work on reducing the amount of disposable plastic water bottles on campus.

Facilities installed six filtered water stations at convenient locations throughout the campus, replacing 5-gallon bottled water coolers. Dining Services distributed hundreds of reusable water bottles and provided paper cups as an alternative. Word went out that RISD was taking a stand and the community responded. The amount of bottles of water sold on campus was dramatically reduced. In 2008 (academic year July 1-June 30) 222,000 bottles of water were sold on campus, this year 2011's total figure is currently 22,000.



For the fifth consecutive year, RISD participated in **RecycleMania**, a friendly competition among 630 colleges and universities across the nation, designed to increase awareness about recycling paper, cardboard, bottles and cans and compostable materials. RISD placed second in the bottles and cans recycling category, falling to Franklin W. Olin College of Engineering, who claimed first prize.

In only eight weeks of work, college students from 76 New England schools recovered 8.9 million pounds of recyclables and organics. Of the colleges and universities that participated in this year's competition, RISD and four other New England institutions received national awards for their accomplishments. This program encourages students and staff to focus on recycling issues that pay long term dividends in improvements to all recycling efforts. Contact the EHS Department at extension 6780 if you have ideas about how to improve recycling on RISD's campus.

Saving Energy on Campus

RISD continues to focus on energy cost stabilization and energy and resource conservation projects. The Facilities department is currently exploring performance-contracting opportunities across the entire campus. Focus is currently on the central power plant and all buildings that are supplied utilities from the plant. The expectation is to aggressively pursue reductions in utility costs while improving reliability of systems and environment for art work, students and staff.

In addition, numerous conservation projects have been completed, including heating boiler replacements with new high-efficiency gas boilers in Barstow and Larned Houses. Benson Hall’s heating, ventilation and air conditioning system was upgraded with digital controls this past winter. Energy savings is projected to be 58,000 kilowatt hours a year. VFDs (variable frequency drives) were installed in 15 West and 20 Washington Place for a combined savings of 150,000 kWh each year. For large-building ventilation systems, variable frequency motors on fans save energy by allowing the volume of air moved to match the system demand. These projects have reduced carbon emissions of almost 100 tons a year. Kilowatt hours saved also translates to cost savings. RISD is looking for a projected energy cost savings of \$24,000 just on the projects listed above. Water and lighting conservation projects continue across the campus.



RISD Facilities
454-6484
Environmental
Health+Safety
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Supporting the A-R-T-S

Active commitment to compliance and continual improvement in our environmental program

Reduction of pollution through waste minimization, lowered materials consumption, and energy conservation

Training and educating faculty, students, and staff about the environmental and safety considerations of their activities, projects and products

Stewardship in enhancing the quality of life for our students, faculty, employees and neighboring community

Tillinghast Farm 231 Nayatt Road, Barrington

Originally known as the Watson Plantation, the farm dates back to the 1700s.

James Tillinghast (1828-1914) bequeathed the estate to daughter Charlotte Tillinghast, who in 1929 left the farm to family members and others who set up the Nayatt Folk School, a charitable corporation headed by her brother James A. Tillinghast. Charlotte was a graduate of Brown University (1896) and the New York School of Philanthropy. She spent her life in Rhode Island working on social issues, particularly those associated with children. Charlotte left her farm to friends with instruction to use it for philanthropic purposes. The Nayatt Folk School, through James A. Tillinghast, deeded the farm to the Rhode Island School of Design in 1948. The final decree conveyed the land to RISD “to be held in perpetuity for recreational, recuperative, educational, inspirational or charitable activities.” (Information courtesy of RISD Archives.)