



## PROMOTING GREEN JOBS FOR THE WATER SECTOR

According to the American Water Works Association (AWWA), more than 50% of the certified drinking water operators will be eligible to retire over the next 5-10 years with New England predicted as the hardest hit region. The predicted shortfall of certified operators who serve a critical public health function has prompted Region 1 to implement a drinking water workforce development strategy. This strategy focuses on promoting opportunities for youth in disadvantaged communities and vocational high schools. Regional efforts promote opportunities for students to learn the drinking water operator trade by developing training tools and supporting educational programs and internships in Environmental Justice communities.

***EPA Teacher's Resource Guide: Environmental Science Curriculum*** – The Teacher's Resource Guide was developed as a quick reference guide for teachers interested in appropriate environmental-related teaching materials on EPA websites. The Resource Guide provides detailed references to specific environmental science and technology items and provides the EPA websites under broad headings. The Guide will be made available to teachers across New England.

***Drinking Water Operator Curriculum*** - Through a contract with the Horsley Witten Group, Region 1 is developing a Drinking Water Operator Curriculum to be used by vocational and technical high schools. Components of the Drinking Water Operator Curriculum include lesson plans, activities, and teaching resources focused on monitoring and evaluating treatment processes, operating and maintaining equipment, complying with drinking water regulations, green infrastructure, and mathematics. The curriculum will include the materials needed to prepare high school students for the Class Level I ABC Water Treatment Operators' Exam. The curriculum is anticipated to be available by early 2011.

***Drinking Water Operator Teacher's Toolkit*** - The toolkit, initiated by Maria Lopez-Carbo of OGWDW, is intended to support and enhance use of the Operator Curriculum detailed above. The toolkit will include resource information (such as EPA published documents and products) that will help students in vocational or technical high schools

better understand the subject matter presented in the Operator course. In addition to the topics covered in the Drinking Water Operators Curriculum, the toolkit will also include additional resource information related to source water and source water protection available for teachers to order for classroom instruction.

**Water Boot Camp** - The Water Boot Camp involved intensive, one week training sessions for vocational high school students in Bridgeport, CT, an urban environmental justice showcase community. With funding from EPA, the Connecticut Section of the American Water Works Association (CT AWWA) partnered with the Water and People program and the Aquarion Water Company, to provide students with knowledge and awareness of careers in the water industry. The activities of the Boot Camp included classroom learning and hands on activities (stenciling, sampling, and safety training). The Camp ran for two sessions with nine students per session during the weeks of July 12<sup>th</sup> and 19<sup>th</sup>.

Click [here](http://ctawwa.org/bootcamp.htm) (<http://ctawwa.org/bootcamp.htm>) for more information about the Water Boot Camp



**Figure 1: Water Boot Camp Display**



**Figure 2: Water Boot Camp Students**

EPA is working with our local and state partners to support additional Water Boot Camps in environmental justice areas throughout New England.

***Environmental Placement Partnership Internship Program*** – The New England Water Works Association (NEWWA), in partnership with the CT AWWA and the Massachusetts Water Works Association (MWWA), is developing internship programs addressing the aging workforce and pending shortage of future water operations professionals. These efforts are intended to provide six to ten internships in the drinking water sector for students in Connecticut’s and Massachusetts’ environmental justice communities. CT AWWA and MWWA will identify interns who have working knowledge or have participated in instructional/certificate programs for drinking water operations. The interns will be matched with public water systems interested in hosting, training, and supervising interns. This program will give interns the opportunity to couple their class room learning with hands on experience and will also train a group that can begin to help offset the pending workforce shortage in public water supply fields.

***Partnerships for Green Jobs for the Water Sector*** – In 2010, EPA New England awarded an Environmental Merit Award to Partners for Green Jobs for the Water Sector. These partnerships included state drinking water programs in Massachusetts and Connecticut, waterworks associations, and local schools. This prestigious award recognized the inspiring work of these organizations to address the pending drinking water operators’ workforce shortage, while fostering a new work force that is trained, energized, and environmentally conscious.

One example of these efforts is the Massachusetts Green Jobs for Water Initiative, whose partners included the Massachusetts Department of Environmental Protection (MassDEP), NEWWA, MWWA, the Minuteman Vocational High School and the Worcester school system. Among other projects, the initiative included detailed and hands-on training for students at the Minuteman Vocational High School. In order to engage adults for possible green jobs in the water sector, a 15-hour classroom course with optional field trips was also offered at the Worcester Public Schools' Night Life Program. Finally, to bridge the gap between training and job placement, the Massachusetts initiative provided critical internships for newly trained students, putting them on a pathway to green jobs. Because of the resource-intensive effort that was needed to implement these innovative programs, including the comprehensive tools and curriculum produced by the partners, the Massachusetts initiative has been hailed as a national model.



**Figure 3: Massachusetts Partners Receive Environmental Merit Award (From left, Jane Downing, EPA Region 1; Raymond Rapos, NEWWA; Curt Spaulding, EPA Region 1 Administrator; Gina McCarthy, Assistant Administrator, EPA Office of Air and Radiation; Jennifer Pederson, MWWA; Yvette dePeiza, MassDEP)**

Click [here](http://www.mass.gov/dep/water/drinking/greenjob.htm) (<http://www.mass.gov/dep/water/drinking/greenjob.htm>) to find out more about MWWA Drinking Water Operator Training Initiative

Like Massachusetts, Connecticut has also led the way to prepare students for fulfilling careers in the water sector. Under the oversight of the Connecticut Department of Public Health (CTDPH), the Connecticut Section of the AWWA designed and funded a pilot program in Portland Connecticut called the Water and People Program. This popular high school course provides hands-on instruction, features trips to water utilities, supports

a local cable show, and prepares students to pass a water operators certification exam. This new program has already shown results. Just last year, two of the Water and People students were hired by a local utility manager, and many others will be pursuing higher learning. Click [here](http://ctawwa.org/Water&People/index.htm) (<http://ctawwa.org/Water&People/index.htm>) for information on the Water and People Program, including on-line access to the course textbook.



**Figure 4: Connecticut Partners Receive Environmental Merit Award (from left, Curt Spaulding; John Herlihy, Aquarion Water Company; Gina McCarthy; Susan Bransfield, Town of Portland Selectwoman; and David Kuzminski, Water and People Program).**