



A Program to Promote Water Conservation in Our Schools

PROGRAM GUIDE

Table of Contents

Summary of Program.....	3
History of Water Champions in New Jersey.....	4
Introduction to the Current Initiative	5
Seven Key Project Elements	5
Funding and Support.....	6
Water Champions Program Specifications	6
About the Project Partners	7
Resources	9
For More Information	9
Appendix A.....	10

Summary of Program

The demands are increasing every year for clean drinking water, while the resources are becoming more and more limited. Since many consumers are unaware of issues regarding the potable water supply, it is up to more informed individuals and companies to educate consumers. In the simplest terms, water conservation is the planned protection, improvement, and educated use of water resources.

Many schools have also taken action on environmental issues by promoting environmental values, attitudes, knowledge, and skills within the school community; by reducing waste and environmental impacts caused by the school; and by integrating environmental education into the curriculum. According to the United States Census Bureau, 24% of New Jersey's population is comprised of children under the age of 17. Therefore, youth involvement is essential for communicating the importance of preserving and protecting our natural resources, in particular our water resources.

Rutgers Cooperative Extension (RCE) Water Resources Program will be leading the effort to fully implement the United States Environmental Protection Agency (USEPA) Region 2 Water Champions Program in three high schools in New Jersey. The Water Champions Program was designed to recruit high school students to work in their community to provide a local environmentally-oriented learning effort. It is through these efforts that we will be able to create the conditions that allow for behavior changes, such as smarter purchasing decisions and proactive public participation in water conservation.

There are Four Core Objectives of the Water Champions Program. The first objective is to build capacity for secondary school organizations to inform the community about the importance of water conservation and the existence of cost saving/water reducing technologies. The second objective is to recruit regional/local retailers of water-consuming technologies to participate in USEPA's WaterSense[®] Program (for more information on USEPA's WaterSense[®] see Appendix A). The third objective is to gather data on the purchase of water efficient technologies and calculate the reduced volume of water used and cost savings associated with these purchases. The fourth objective is to share project outcomes and look to recruit additional organizations in the area to participate in this service-learning project.

Under the guidance of the RCE Water Resources Program, participating schools will support their project by developing a promotional campaign on water conservation within their local community. The students will first learn how to conduct a water audit in their school. Upon the completion of the school water audit, students will provide a numeric estimate of waste. The students will then work in groups to develop a plan for conserving water at their school. Funding will be provided to implement parts of these plans, and the students will monitor the water savings that are being achieved. Students will have the opportunity to request a school retrofit.

The retrofit will involve removing old plumbing fixtures and replacing them with water saving fixtures. Students will also evaluate the results of the retrofit by conducting a post-audit, providing a numeric estimate of savings. By participating with this task of the project, students will gain the ability to visualize barriers to change, find opportunities to foster change, and achieve measurable results. Students will share their experience by working with their parents to conduct a water conservation audit of their home. The students will be encouraged to implement their plan and evaluate the effectiveness.

Next, the RCE Water Resources Program will work with the students to help promote the results of each of the participating school's project within the community. Upon the completion of the tasks mentioned above, the students will provide leadership throughout the community to implement various water conservation strategies. The students will deliver educational programs to younger students. They will also inform the community about the importance of water conservation and the existence of cost saving/water reducing technologies. The students will then recruit regional/local retailers of water-consuming technologies to participate in USEPA's WaterSense® program. The students will gather the data on the purchase of water-efficient technologies and calculate the reduced volume of water used and cost savings associated with these purchases and share the project outcomes with the community.

History of Water Champions in New Jersey

In 2009, USEPA Region 2 approached New Jersey Water Savers¹ to participate in the Water Champions Program. The Water Champions Program is designed to engage high school students in the promotion of WaterSense® and water efficient products. Students have the opportunity to tailor their program to local community needs to provide an environmentally-oriented community service and learning effort. Rahway High School was chosen to participate because this school is located in a city that is committed to environmental sustainability.

An AmeriCorp Watershed Ambassador, along with New Jersey Water Savers, began working with the Rahway High School Social Action Club. Similar to many city schools in New Jersey, Rahway High School was built in 1941, and many fixtures need to be updated. The students conducted an audit, and they believed that the school could reduce its water use by two thirds (i.e., up to 1.6 million gallons of water and approximately \$6,500 in cost) a year by upgrading the bathrooms with water-saving plumbing fixtures and faucets. Based on the student's initial findings, New Jersey Water Savers provided funding to cover the labor costs to update two bathrooms in the high school with new plumbing fixtures. Two (2) restrooms were retrofitted during the spring of 2010. Piscataway-based American Standard Brands donated the high

¹ In 2007, the Rutgers Cooperative Extension (RCE) Water Resources Program, along with our program partners, the New Jersey Department of Environmental Protection (NJDEP) Division of Water Supply and the United States Environmental Protection Agency (USEPA) Region 2, began developing a drinking water conservation program designed to address the increasing demand on New Jersey's water supply. This partnership became known as New Jersey Water Savers. The partnership seeks to identify best practices in water conservation and to encourage local stakeholders to change their water use behavior.

efficiency faucets, toilets, and urinals to the school. Through New Jersey Water Savers and the support of the AmeriCorps Watershed Ambassador Program, the Rahway Water Champions Project was expanded to include an educational component for the students involved in the Rahway High School Social Action Club. During the summer of 2010, the students presented their initial findings on the Rahway Water Champions Project to American Standard, a Union County Freeholder, and the Rahway Board of Education. The students pitched the idea of retrofitting the entire school, and as a result, American Standard has committed to supplying the products for this effort. Continued retrofitting of the entire school is contingent upon approval from the Rahway Board of Education.

Introduction to the Current Initiative

In 2011, the RCE Water Resources Program received a grant from USEPA Region 2, Pollution Prevention Program to fully implement the Water Champions Program in three (3) high schools in New Jersey. The Water Champions Program will be introduced in the beginning of the school year and will conclude in June. Ideally, the Program will be incorporated into a high school environmental, sustainability, or social action club.

Rahway High School will continue to participate in the program and will be responsible for developing a plan to reach out to the retailers, distributors, and communities to gain promotional partners. Promotional partners are utilities, state and local governments, and other organizations that share information with the program and promote WaterSense[®]. Two new high schools will be recruited this fall to participate in the program. One school will be located in a suburban area, and one will be located in a rural area.

Seven Key Project Elements

The schools selected for the project will be expected to address the following key project elements of the Water Champions Program:

1. Teach communities about responsible water management and WaterSense[®].
2. Recruit retailers to participate in WaterSense[®].
3. Gather data and calculate measurable results.
4. Share project outcomes with project partners and expand recruitment to other groups.
5. Employ an effective local leadership mechanism.
6. Develop and define a plan to foster longevity/sustainability.
7. Create an effective communication/coordination mechanism between the project partners and the group.

Additionally, all three (3) participating schools combined will recruit ten (10) to fifteen (15) retailer and/or professional WaterSense® partners and at a minimum will recruit one (1) to three (3) promotional partners.

Funding and Support

Participation in this program is being funded through a grant to the RCE Water Resources Program from USEPA Region 2 Pollution Prevention Program. Through this grant, funding is available to retrofit existing school bathrooms with WaterSense® products such as low flush toilets. Technical support is provided by the New Jersey Agricultural Experiment Station (NJAES) and the RCE Water Resources Program.

Water Champions Program Specifications

Through the student club process, the students will be educated on the local water shortage problems, as well as those facing our nation and our world. The students will then be instructed on various best management practices to conserve water. The students will then receive instruction on how to complete a water audit for home and the school. A water audit of the school will be conducted by the students with the assistance of the RCE Water Resources Program. Students will also be required to work with their parents to conduct a water audit of their home.

Upon the completion of the water audit for the school, the students will work in groups to develop a plan for conserving water at the school. Funding will be provided to implement parts of these plans, and the students will be responsible for monitoring the savings. Students will have the opportunity to request a school retrofit. The retrofit will involve the removal of old plumbing fixtures and the installation of water-saving (WaterSense®) fixtures. Fixtures that pre-date the National Energy Protection Act of 1994 will be eligible for replacement. Upon the completion of the retrofit, students will conduct another water audit of their school and calculate the savings both in water and money as part of their water conservation plans. The calculation will include gallons of water saved and dollars saved through USEPA Region 2 Pollution Prevention Program efforts. The students will then report their calculations. For the final task of this retrofit project, students will design a water conservation plan for their home, implement the plan, and then evaluate the effectiveness. The partners will be responsible for working with the schools to help present the results to the community. Results will be shared through the local news stations, newspapers, and radio.

Next, the students will be responsible for developing an approach with specific actions to reach out to the retailers/distributors, communities, and promotional partners. For example, students will contact their water purveyor for the municipality and request a list of businesses with the highest water use. Students will also be encouraged to work with the local Chamber of

Commerce and recruit them to help with making connections with local businesses. The students will be responsible for designing an approach on how to educate business owners/managers on water savings and will design a presentation that will be delivered. Students will be responsible for recruiting an audience of local distributors who may be able to sell/provide the water efficient products. Once the students deliver the presentation, they will then be following up with the businesses that attended and report the results. The students will be responsible for developing one promotional item which will be approved by the project partners and ultimately shared with the community. At a minimum, all three schools combined will need to recruit ten to fifteen retailer and/or professional WaterSense® partners and a minimum commitment of recruiting one to three promotional partners.

Throughout the school year, students will be encouraged to use the Internet to help market their efforts. Once the students obtain written permission from the school's administration, students will be encouraged to utilize social networks such as Twitter and Facebook to generate support for the water conservation efforts of their school within their community. The students will also provide quarterly updates to project partners through a password protected website managed by the RCE Water Resources Program.

Upon the conclusion of the program, the students will receive a Certificate of Achievement from Rutgers University. This will be presented at a formal ceremony at the participating high schools.

About the Project Partners

RCE Water Resources Program

The Water Resources Program is one of many specialty programs under RCE. The goal of the Water Resources Program is to provide solutions for many of the water quality and quantity issues facing New Jersey. This is accomplished through research, project development, assessment and extension. In addition to preparing and distributing Fact Sheets, we provide educational programming in the form of lectures, seminars, and workshops as part of our outreach to citizens. With New Jersey Agriculture Experiment Station funding and other State and Federal sources, we conduct research that will ultimately be used by stakeholders to improve water resources in New Jersey.

Elaine Rossi-Griffin (Program Coordinator) of the RCE Water Resources Program will serve as the Stewardship Coordinator. Ms. Griffin is a 2001 graduate of Rutgers, The State University of New Jersey and is certified to teach K-12 in New Jersey. She has an extensive background in higher education program/project management and is an experienced grant writer. She is continuing her education and is enrolled in the Rutgers University Graduate School of Education

on a part-time basis. Her research interests are community, organizational and societal behavior change and transformation. Ms. Griffin will be responsible for fostering the ethics and practice relevant to the Water Champions service learning community. Ms. Griffin will teach students about acceptance of personal responsibility for using water resources in an efficient manner. She will also teach students about the importance of sustaining water resources for future generations and help the students gain respect for the inherent values of healthy natural systems for the community. Ms. Griffin will motivate the students to enhance community-wide awareness about responsible management practices of water resources. She will teach the students about smart purchasing decisions for responsible use of water resources and empower the students to share the message with their community. She will provide guidance to the students on how to build a local service learning community of stakeholders. She will help the students determine how to gather data, calculate results, and measure the progress around the water conservation efforts. She will work with students to develop and implement a strategy that will encourage other partners to invest in a secure water future. Ms. Griffin will work with the Stewardship Coordinator Federal Contact to coordinate and discuss the local Stewardship Conservation Plan's progress and status for each of the participating schools. Ms. Griffin will work with the NJDEP Division of Water Supply as a promotional partner to obtain access to the promotional materials needed to carry out this project.

Sara Mellor (Program Associate) of RCE Water Resources Program, graduated in May 2010 from Rutgers, the State University of New Jersey, with a B.S. in Environmental Policy, Institutions, and Behaviors. Ms. Mellor will provide technical assistance to help establish partnerships with the two new schools. She will also help develop presentations and handouts that will be distributed throughout the school district to let other schools know about the Water Champions program. She will help train students on how to conduct a water audit, ensure that the students conduct audits thoroughly, and she will maintain the data files. She will also guide students on how to develop a water conservation plan for their school. She will work with the School Administration to prepare the necessary paperwork to complete the bathroom retrofit projects. Ms. Mellor will empower students to prepare informational materials that can be used to promote water conservation throughout the community. These materials may include: brochures, fact sheets, press releases, and/or YouTube videos. She will also work with students to identify and recruit local business owners/managers who will become a professional WaterSense[®] partner as well as businesses that will become promotional partners. She will also contribute to the Final Report.

EPA Region 2 P2

The EPA Pollution Prevention (P2) grant program supports state and tribal technical assistance programs which help businesses identify better environmental strategies and solutions for reducing or eliminating waste at the source by providing direct technical assistance, economic assistance, partnership building, as well as outreach and education.

Resources

- Water efficiency and conservation programs: www.epa.gov/watersense/where.htm
- WaterSense® labeled products: www.epa.gov/watersense/pp/index.htm
- Water Conservation tips: www.epa.gov/watersense/tips/cons.htm

For More Information

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Appendix A

USEPA's WaterSense® Program

Before You Start Marketing the WaterSense® Program

As we build a Water Champions Community, it is necessary that participating schools use the Water Champions and WaterSense® logos, messages, and outreach materials in a manner consistent with the program's guidelines. Prior to starting your promotional campaign, each school is required to complete and submit Water Champions Promotional Plan request form located www.water.rutgers.edu. Upon reviewing this completed form, Ms. Rossi-Griffin will send the Stewardship Facilitator and the Student Contact an e-mail with regard to the status of your review and/or the conditions of your request.

What is WaterSense®?

WaterSense® is a voluntary public-private partnership program sponsored by the EPA. Its mission is to protect the future of our nation's water supply by promoting and enhancing the market for water-efficient products and services.

What does WaterSense® do?

WaterSense® is a symbol for water-efficient products, programs, and practices. By setting performance and water use specifications, WaterSense® helps customers identify products that meet EPA criteria for efficiency and performance.

Program Goals for WaterSense®

Reduce water and wastewater infrastructure costs and conserve water resources for future generations.

Program Objectives for WaterSense®

- Raise awareness about the importance of water efficiency.
- Ensure product performance.
- Help consumers differentiate among products and services.
- Promote innovation in product development.
- Support state and local water efficiency efforts.

Who are the target audiences and what action do we want them to take?

Primary Audiences

- **Consumers:** Seek out the label when choosing products that use water.
- **Commercial, industrial, and institutional purchasers:** Seek out the label and/or certification when purchasing products and services that use water. Use the label as a procurement specification.

Strategic Partners

- **Manufacturers:** Make products that qualify for the label. Place label prominently on products and packaging.
- **Retailers:** Stock products, identify products through in-store signage, and promote products in marketing efforts.
- **Utilities:** Adopt program as part of a broader water efficiency strategy to help reduce the need for infrastructure investment, support sustainable infrastructure, and promote the label to customer base.

Which benefits will most likely motivate consumers to change behavior?

- Protection of the environment
- Cost savings
- No sacrifice in product performance

Why is WaterSense® unique in the marketplace? What are the points of difference?

- The brand will be national in scope.
- Partnerships with retailers, manufacturers, and utilities will help promote the label to the public.
- The brand is credible—; it is backed by the EPA.

What does WaterSense® want to have happen as a result of their communications efforts?

Purchasers of water-using products and services will:

- Understand that water is a valuable resource that should never be wasted.
- Be aware that there is a label that identifies products that use less water.
- Seek and try products and services with the label.

What key insight should be the focus of the WaterSense® brand?

Water is a precious resource that should never be wasted. To create long-term market transformation, we need to change the way people think and feel about water. If consumers understand the value of water while also learning that they can experience the same performance with products that use less water, they will prefer the water-efficient choice. This receptivity combined with successful product trials by the consumer will lead to long-term behavior change.

Key Messages of WaterSense®

- WaterSense® labeled products use about 20% less water and perform as well as or better than their less efficient counterparts.
- Protecting and preserving the nation's water supply is critical to our economic future and human health.
- Purchasing WaterSense® labeled products can help you protect the environment and help you save money on your utility bills.

Are there any prerequisites for using the WaterSense® logo?

WaterSense® promotional partners, including communities, states, utilities, retailers, distributors, and non-governmental organizations willing to promote the benefits are eligible to use the logo.

Where can I use the WaterSense® partner logo?

WaterSense® partners may use the program logo in the following ways:

- As a visual identifier in educational campaigns that demonstrate the benefits of water-efficient products, practices, and/or services, in accordance with WaterSense® goals and objectives.

- Program brochures, fact sheets, and other printed materials and promotional items, containing messages about the WaterSense[®] program or messages consistent with the WaterSense[®] brand.
- Web sites of partners that promote WaterSense[®] labeled products and water-efficient practices.
- Public service announcements and advertisements that promote WaterSense[®]-approved messages.
- Press materials and other items that support WaterSense[®] campaigns.

Is there anywhere I may **NOT** use the WaterSense[®] program logo?

The WaterSense[®] program logo may not be used to imply EPA endorsement of an organization, company, product, or professional program. The logo may be disparaged WaterSense[®] or EPA or any other government body. The logo may never be associated with products or services that do not meet the criteria of the WaterSense[®] program.

The program logo should not be used to imply that a product or service is water-efficient or meets the criteria set forth by EPA's WaterSense[®] program. Instead, where appropriate use the WaterSense[®] label.