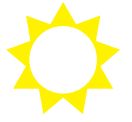


DOWNSTREAM



Number 11 Fall 2004

A Newsletter Provided by DCR
Division of Water Supply Protection,
Office of Watershed Management

Environmental Education: A DCR Public Offering

The primary mission of the DCR Office of Watershed Management is the preservation of water quality through responsible land management practices. Some of our tasks, such as land acquisition are more obvious, but there is much more that we do to fully realize this goal. Public education about the natural and man-made conditions that relate to the environment around us is another activity that provides benefits to all. This issue of *Downstream* touches upon several different educational resources offered by the DCR. Some integrate into local school systems and others represent fun, family-oriented events and activities geared to peak everyone's interest.



Jim Lafley, DCR Education Coordinator, leads an elementary class on an environmental learning adventure.

Wachusett Watershed Education Project

Last spring the education staff collaborated with members of DCR's Division of State Parks and Recreation, Massachusetts Audubon Society, Wachusett Regional School District, Massachusetts Division of Fisheries and Wildlife, Friends of Wachusett Watershed and the Holden Historical Society to develop an education program focused on the Wachusett Reservoir Watershed. This pilot program was designed for 4th grade students of the regional school district.

The Wachusett Regional School District curriculum guidelines and the Massachusetts Curriculum Frameworks were used in creating the program. The topics included watersheds, water supply, local history, and forests. The lessons, activities and field trip incorporated science, math, social studies, and English language arts.

The first step in the pilot program was conducting a teacher workshop. The teachers were introduced to the

program model and trained in the various lessons needed to teach the students. They were provided with the materials to teach each lesson and given a month to conduct the lessons in the classroom.

Next, DCR staff offered 3 different programs at the school to the students. The DCR Watershed Rangers presented a slide program on the history of the Wachusett Reservoir. Tim Rayworth, a DCR State Parks employee, conducted a forest awareness session using literature and visual aids. The third activity lead by Jim Lafley, of DCR Water Supply Protection utilized maps of the watershed and focused on the flow of water from the school to the ocean

The culminating activity of the project was a day-long field trip following the watershed from Wachusett Mountain to the Stillwater Farm and completing the trip at the Old Stone Church on the shore of Wachusett Reservoir. Additional lessons and activities were conducted throughout the day and they connected to the ones the students had received in school.

The teachers involved with the project were pleasantly surprised by the interdisciplinary aspects of the lessons and field trip. They had expected an environmental program to include science, but not as much literature, math and social studies.

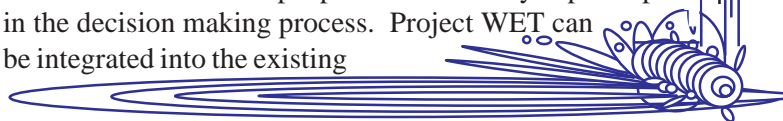
Two books used throughout the project were *A River Ran Wild* by Lynne Cherry and *How the Forest Grew* by William Jasperson. Cherry's book focuses on the environmental history and development of the Nashua River Valley. Jasperson's book follows the succession of a hardwood forest in Massachusetts. Both books are appropriate for the students and the school's curriculum.

DCR hopes to continue offering this program and in the future expand it to include other grade levels.

Project WET

Project WET (Water Education for Teachers) is a national education program that is coordinated in Massachusetts by the DCR Office of Watershed Management in West Boylston.

This interdisciplinary, hands-on program for formal and non-formal educators of K-12 students is grounded in the belief that informed people are more likely to participate in the decision making process. Project WET can be integrated into the existing



curricula of schools, museums, universities and community organizations. The activities are correlated to the Massachusetts Curriculum Frameworks for math, science, technology, social studies, history and English language arts.

The goal of Project WET is to facilitate and promote awareness, appreciation, knowledge and stewardship of water resources through the development and dissemination of classroom-ready teaching material and through the establishment of a network of trained facilitators in Massachusetts. Since 1997, 155 educators have been trained as workshop facilitators and they have provided approximately 25 workshops each year to hundreds of teachers throughout the state. Workshops have also been provided to over 250 EOEAs employees who expressed an interest in learning about water education.

If you are interested in water education and would like to know more about Project WET please contact Jim Lafley, Education Coordinator, DCR – Office of Watershed Management, 180 Beaman St., West Boylston, MA 01583, Jim.Lafley@state.ma.us, 508-792-7423 x 231.



A Watershed Ranger leads a student field trip at the Wachusett Reservoir.

The DCR Wachusett Watershed Ranger Program

The Watershed Rangers offer a number of educational services to the local community. Presentations in schools and at area events have reached out to over 6,700 children since the beginning of 2003. Subjects include Wachusett Reservoir history, local wildlife, the natural process and function of a watershed, the water cycle and the duties of a watershed ranger. While on patrol, a ranger will provide assistance and interpretive information to the casual visitor. On some occasions a ranger may give a brief on-site presentation about the Stone Church, Clinton Dam, or general information about observed wildlife. This informal contact gives the rangers the opportunity to provide personalized educational service as well as advise visitors of agency policies and the need to be mindful of the water supply.

Wachusett Ranger staff also represent the agency at community events. Since 2003 rangers have presented talks on environmental and reservoir issues and activities to over 2,500 area residents. Rangers have taken part in

Holden Public Safety Day, Wachusett Mountain Kidsfest, the Clinton 150th Celebration, Biodiversity Days, Cub Scouts Chuck Wagon Derby, the Nashua River Waterfest, and Celebrity Reading Day events.

Rangers are responsible for public outreach through the upkeep of informational kiosks and bulletin boards found around the reservoir. Subject matter such as drinking water security, emergency response, water quality and other pertinent environmental issues are updated on a regular basis. When invited, and as time allows, rangers will speak at Boy and Girl Scout meetings, local sportsmen’s clubs, recreational department events and area school science clubs.



Located near the center of the Wachusett Reservoir watershed, Stillwater Farm is being fitted to serve as a location for educational programs. More public information will be available in the months to come as this site evolves.

Springdale Mill Historic Site

A group of local citizens approached the former MDC’s Division of Watershed Management in 2000, proposing to create an educational display at the remains of the old Springdale Mill on the Quinapoxet River. A committee of interested parties cooperated on the development of the site. The Wachusett Greenways, MDC, Holden Historical Society, Kaplan Foundation and local individuals and abutters began meeting to generate ideas for this project.

The 19th century, small textile mill was razed in the early 1900s by the MDC to protect the water quality of the Wachusett Reservoir. The initial plan was to clear the mill site along the Oakdale section of the Massachusetts Central Rail Trail to attract some of the trail’s 230,000 annual users and to erect interpretive signs throughout the site. The signs would educate visitors about the flow of water and goods through the various buildings.

Most of the signs are currently in place and the trail meanders from the rail trail and along the site from the dam to the mill and on up to the village where the workers lived. Visitors can access the Springdale Mill Historic Site from either the Oakdale entrance of the rail trail or the River Road entrance.

Quabbin Visitors Center

As a response to growing interest in Quabbin Reservoir and to increasing public visitation, the Metropolitan

District Commission Water Division (predecessor to the DCR Office of Water Supply Protection) established in 1984, the Quabbin Visitor Center in the Administration Building at Winsor Dam in Belchertown. The Center was created in order to provide visitor information for the general public and to offer programs for groups of visitors.

The Quabbin Visitor Center is the largest and most visible part of the Interpretive Services duties. The Center is open seven days a week, approximately 350 days a year between the hours of 9:00 AM and 4:30 PM. Displays provide information on a variety of subjects from water quality to the DCR/MWRA water system, watershed management programs, wildlife, Swift River Valley history, and public access and recreational activities. Informational pamphlets are available and visitors can purchase books, maps and other Quabbin related items.

Educational programs are another major component of Interpretive Services work. Programs are offered to visiting groups, ranging from a general orientation and overview of Quabbin, to in-depth slide presentations on water quality, Quabbin history, watershed management and wildlife. Additionally, Interpretive Services staff works with local watershed community and water user schools to provide in-school presentations and field trips.

The Visitor Center also hosts "Tuesday Tea," a gathering of former residents of the Swift River Valley who meet on the first Tuesday of the month to share stories, photographs and memories of the valley before the construction of the reservoir. Vital Records from the disincorporated Quabbin towns of Dana, Enfield, Greenwich and Prescott are available at the Center for individuals conducting genealogical research.

The Quabbin Visitor Center is located at the west end of Winsor Dam off Route 9 between Belchertown and Ware. For further details about programs, public access or general information please call the Center at (413) 323-7221.

Massachusetts Envirothon

The Massachusetts Envirothon is a natural resource based environmental education program for high school students. Teams of five students represent their school or organization in statewide competition, testing knowledge of: water, forests, soils, wildlife, and current environmental issues. The Envirothon stresses the interdependence of natural resources, emphasizes hands-on, team-oriented problem solving, and community involvement.

Teams are comprised of high school aged students representing a school or group. A year-long preparation culminates in the Envirothon Event in late April/early May where teams are tested on their knowledge at a series of Eco-Station and make a presentation on the current environmental issues identified each year.

This community investigation approach challenges students to research a local issue, collect data, and make recommendations. Teams are encouraged to interview regional, state and federal natural resource agencies, town officials, private groups and local residents. Presentations are then given to a panel of judges at the Envirothon event. Past issues have included Open Space, Introduced Species, Wetlands and Watershed Management.

The winning team from each state or province serves as the representative at the Canon North American Envirothon competition. Envirothon programs exist in 48 states, 8 Canadian provinces and Guam. Massachusetts has hosted the North American competition in 1989 and 2002.

In 2004, over 70 teams participated in the Mass. Envirothon. The winning team, Acton-Boxborough Regional High School, competed at the Canon International Envirothon in West Virginia.

DCR is a proud sponsor the Envirothon. The agency has hosted the event, provided resources and volunteers, and has staff on the Envirothon Steering Committee. Information is available at: www.maenvirothon.org or by contacting Massachusetts Envirothon Coordinator Debi Hogan at dchogan@sprynet.com.

Visit the DCR online at: www.mass.gov/dcr

And Another Thing...

by J. Taylor



"So maybe THIS is a Watershed."

Downstream is produced twice a year by the Massachusetts Department of Conservation and Recreation/Office of Watershed Management. It includes articles of interest to residents of the watershed system communities. Our goal is to inform the public about Watershed Protection issues and activities, provide a conduit for public input, and promote environmentally responsible land management practices.

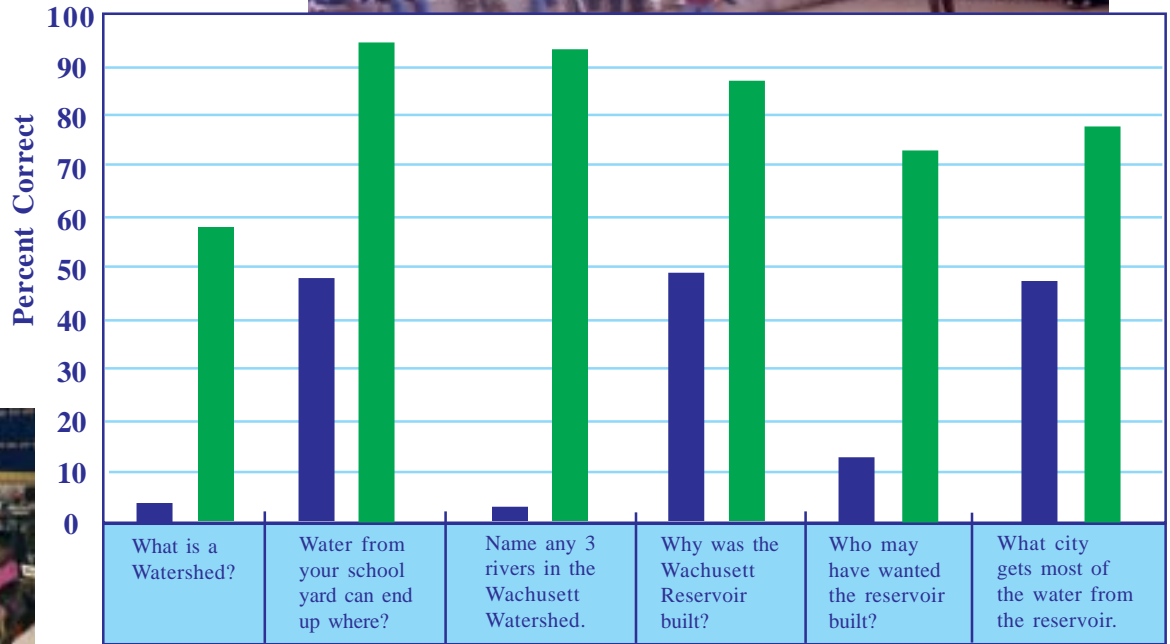
- Governor: Mitt Romney
- Lieutenant Governor: Kerry Healey
- EOEA Secretary: Ellen Roy Herzfelder
- DCR Commissioner: Katherine F. Abbott
- DWSP Director: Joseph M. McGinn, Esq.
- Contributors: Jim Lafley, Rick Mathews
Clif Read, James E. Taylor

Findings of a Watershed Pop Quiz



This graph shows a quiz taken by local elementary students who took part in a DCR in-school environmental program.

The quiz was administered at the beginning (results shown in blue) and the end (results shown in green) of each program. The results demonstrate the increase in student watershed awareness.



We value the contribution your well cared-for land provides and welcome the opportunity to work with you. Please feel free to send us questions and comments about this newsletter, or contact us if you wish to learn more about programs and assistance available to help landowners. Our address and contact phone number is shown below.

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