

**FINAL REPORT**  
**Virginia Department of Environmental Quality**  
**Office of Environmental Education**  
**2006**



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## **Project Summary:**

The [Virginia Office of Environmental Education](#) expands and coordinates state efforts to educate communities, educators, local government staff, and citizens living in Virginia's coastal zone with the goal to affect positive behavior changes toward the environment. This project supports 50% of the program manager and 60% of communications manager (a portion of 2 staff in an office of 3 full-time staff and 3 part-time staff). The major goal of the project is to build capacity in localities to deliver quality environmental education and to leverage state and federal resources.

The Office of Environmental Education helps partners across the Commonwealth work together to provide high quality environmental education to support school and community-based environmental literacy. Programs focus on "train the trainers" and providing support through grants and technical assistance. Major priorities are implementing the education commitments of the Chesapeake Bay 2000 Agreement and supporting Virginia's Coastal Zone Management Program and Virginia's academic standards. The Virginia Department of Education reports that nearly 78% of all Virginia schools were provided some level of watershed education based on the new academic standards in Science. A number of school divisions have begun providing meaningful watershed experiences on Virginia's Chesapeake Bay, tributaries and local streams but less than 25% of students are able to get outdoors consistently. Community education received a boost this year with the addition a new community education coordinator, development of a leadership program for community educators and funding assistance to local education teams through an EPA grant for regional capacity building.

## **FY 2006 Products:**

### ***Virginia Naturally***

In 2007, 138 new partners signed up bringing the total to over 800. Monthly electronic newsletters are sent to over 1,500 educators across Virginia. 50 partners attended partner meeting at NAAEE Conference, Doubletree Hotel, Virginia Beach to receive state updates. Thirteen regional groups/teams/alliances are underway in various areas of the state to bring together educators and resources to build local capacity for EE in Virginia. Training was provided to 586 community educators at 12 professional development workshops. In addition, coordination, public information, and resources were provided to 3,809 people at 28 outreach events. 34 VaNaturally partner organizations received local, state and national awards. Stewardship VA reported 5,621 volunteers received certificates for 167 projects registered during the Spring Campaign and 3,718 volunteers received certificates for 111 registered stewardship projects during the Fall Campaign.

### ***C2K Meaningful Watershed Educational Experiences: MWEEs***

Through a NOAA Chesapeake Bay BWET grant for \$100,000, eight school divisions are working with DEQ and the Virginia Department of Education to develop system-wide plans to integrate meaningful watershed educational experiences (MWEEs) into their curricula. Twenty-five classroom and community educators participated in a two-day training to develop the plans which include professional development, student field investigations and service projects. The grant will continue for another one year of funding and reach 10 more divisions.

### ***Virginia Classroom and Partner Grants***

Last year, with funding from the Virginia Environmental Endowment, Smithfield Foods and DCR's Chesapeake Bay grant, teachers are helping students having meaningful environmental

experiences. Two more rounds of applications have been awarded, distributing \$81,850 to 116 schools. Additional funding from NOAA of \$40,000 expanded support to community, non-formal groups to build capacity in their localities for meaningful youth watershed programs. Two rounds of Partner Grants have been awarded totaling 23 grants for \$32,600.

### ***6<sup>th</sup> Grade Science Standards Institute***

#### ***Air and Water Resources***

The Sixth Grade Science Standards Institutes offered 2 four-day sessions during the Summer 2007 for 24 teachers. Ten additional teachers participated in a condensed version of the training which provides curricula, resources and experience in field techniques bringing this year's total to 34. Funding of \$45,000 for this program which includes micro-grants for participating educators comes from NOAA Chesapeake Bay BWET.

#### ***Project WET***

In 2007, 267 Virginia teachers, non-formal educators and college students participated in 18 workshops for Project WET (Water Education for Teachers) Two new workshop facilitators participated in a mentoring program to bring the total number of active volunteers to approximately 30.

#### ***Healthy Water, Healthy People and Wonders of Wetlands***

Five additional workshops introducing Project WET's new water quality curriculum and test manual were conducted for 63 educators. The materials have been well-received and the web site, [www.healthywater.org](http://www.healthywater.org), is a terrific resource linking classroom activities to field activities and water quality parameters. Demand for these resources is growing as the new SOLs are being implemented. Virginia versions of two of the lessons (using DEQ's water quality data base) were developed and distributed at the workshops.

#### ***Ground Water Festival/Water Monitoring Day/Oyster Festivals and other youth events***

With assistance from DEQ's Regional Offices and other agencies, 1,200 students participated in field days featuring different air, water and waste activities. Student journals and teacher preparation helped make the experience meaningful. This program is funded primarily through a \$1500 grant from Nestle's Waters.

#### ***Love-A-Tree***

Each year International Paper's Franklin plant provides \$15,000 to support curriculum materials. This year's The kit's Teacher's Guide contains lessons that focus on 3 main concepts-- why land conservation is important, what threats exist to the protection of open space (or the protection of our land base) and how land is managed to address the needs of a variety of stakeholders. As additional reference materials, we have included a land conservation poster from the Virginia Department of Conservation and Recreation, a list of related websites, a Virginia State Parks brochure and a specially created clue cards and physiographic province map to use in conjunction with the lesson on public lands.

#### ***Clean Air Champions***

This statewide campaign completed the third year in an effort to teach motorists, especially new drivers, about the benefits of improving air quality by reducing fuel consumption and ozone generation through tire pressure and engine maintenance. In cooperation with American Lung Association, James Madison University, and the ShenAir program the campaign launched the ozone season in April at Earth Day Celebrations along the I-81 corridor. A Mobile unit was set up at several locations for drivers to test their vehicle emissions. Radio ads featuring Virginia NASCAR driver Ward Burton aired at targeted radio stations, and results of focus groups with

high school and college students were covered in on-air broadcast interviews. CAC logo tire pressure gauges and car window clings reminded drivers to check tire pressure. Clean air pledge cards were again used to reach over 2,000 young drivers in six pilot high school locations throughout the early action compact areas in the Roanoke and Shenandoah Valleys. An educational exhibit reached over 3,000 people at the State Fair of Virginia and at the Energy Expo in Roanoke. The CAC curriculum, developed for high school aged drivers, was adopted by the Virginia Department of Education for use in the driver education program, promising to reach about 80,000 students and 600 teachers per year across the state. This program has been made possible through an EPA air grant of \$100,000. James Madison University and American Lung Association will provide leadership for the project in the future.

### ***Community Involvement***

Educating and encouraging Virginians to participate more effectively in environmental actions is the goal of DEQ's community involvement program. DEQ is helping to involve the public early and often in significant environmental activities. DEQ regional offices have convened over 300 participatory events involving hundreds of individuals, businesses, governing bodies and organizations across the state. Regional open meetings and events provided opportunities for stakeholders to become more informed and engaged in the public environmental decision making process. DEQ staff focused on improving communication, sponsoring community meetings, and increasing stakeholder participation in the Biosolids, TMDL and Water Supply Planning programs. A compilation of best practices was developed featuring examples submitted by staff from DEQ's Central Office and all 7 Regional offices.

## Environmental Education and VaNaturally Website Stats

**\* October 2006 - September 2007**

Virginia Naturally provides citizens with “one-stop” shopping to information and environmental programs and educational services offered by more than 800 state, federal and local programs.

Hundreds of updates are posted to the site on a weekly basis. These updates include new resources; new training opportunities; regional networks news and events; monthly newsletter; volunteer and stewardship opportunities and Success Stories (from schools; communities and businesses).

From October 2006 until September 2007 over 25,000 visits were documented to the [www.vanaturally.com](http://www.vanaturally.com). Monthly statistics are compiled to see which pages are most popular and the least popular. On an average month 2,119 (hits) visits are recorded. The top five pages visited include: the homepage, the partner page of over 800 organizations, the grants and funding page with a complete list of grants as well as information on outdoor classroom and Virginia’s Natural Resource Guide. The guide has lessons for teachers on natural resource issues. The statistics show the pages visited, the numbers of visits and the most popular pages. In addition, statistics are kept on the number of resources downloaded. The subject matter searched and downloaded help keep the VA Office of EE staff informed on subject matter and materials being used.

Our Education pages offer a wealth of resources for both the formal and non-formal environmental educator. This site had over 27,000 (hits) visits. In an average month almost 3,000 visits have been calculated. The resources are continually downloaded.

*\*\* Actual counts are higher. DEQ went to a new server in May 2007 and statistics for VaNaturally website reflect data only being captured by internal hits. The Education pages reflect internal and use by the General Public. DEQ did not record stats for the month of December 2006.*

### Virginia Naturally Web Pages:

**Total Hits:** 25,438 visits

**Total downloads:** 4,734 downloads

#### Top 5 most popular pages (most visited) include:

- VaNaturally main page [www.vanaturally.com](http://www.vanaturally.com)
- Partners [www.vanaturally.com/vanaturally/partners.html](http://www.vanaturally.com/vanaturally/partners.html)
- Grants [www.vanaturally.com/vanaturally/grants.html](http://www.vanaturally.com/vanaturally/grants.html)
- Outdoor Classrooms  
[www.vanaturally.com/vanaturally/outdoorclassrooms/homepage.html](http://www.vanaturally.com/vanaturally/outdoorclassrooms/homepage.html)
- Natural Resource Guide [www.vanaturally.com/vanaturally/guide/homepage.html](http://www.vanaturally.com/vanaturally/guide/homepage.html)

#### Top 5 most popular downloads (most visited) include:

- Natural Resource Guide- Chapter 1  
[www.vanaturally.com/vanaturally/guide/agriculture.html](http://www.vanaturally.com/vanaturally/guide/agriculture.html)
- Natural Resource Guide- Chapter 2 [www.vanaturally.com/vanaturally/guide/air.html](http://www.vanaturally.com/vanaturally/guide/air.html)
- Natural Resource Guide- Chapter 5  
[www.vanaturally.com/vanaturally/guide/mineralsandenergy.html](http://www.vanaturally.com/vanaturally/guide/mineralsandenergy.html)
- Natural Resource Guide- Chapter 10 [www.vanaturally.com/vanaturally/guide/water.html](http://www.vanaturally.com/vanaturally/guide/water.html)
- Grant Applications

## **VOEE Education Web Pages:**

**Total hits:** 27,040 visits

**Total downloads:** 9,546 downloads

### **Top 5 Most popular pages (most visited) include:**

- Education Main page [www.deq.virginia.gov/education/homepage.html](http://www.deq.virginia.gov/education/homepage.html)
- Love-a-Tree [www.deq.virginia.gov/education/loveatree.html](http://www.deq.virginia.gov/education/loveatree.html)
- Ecology [www.deq.virginia.gov/education/ecology.html](http://www.deq.virginia.gov/education/ecology.html)
- WET [www.deq.virginia.gov/education/wet.html](http://www.deq.virginia.gov/education/wet.html)
- Resources [www.deq.virginia.gov/education/resources.html](http://www.deq.virginia.gov/education/resources.html)

### **Most popular downloads**

- Pollution Solutions (all activities) [www.deq.virginia.gov/education/polsol.html](http://www.deq.virginia.gov/education/polsol.html)
- Love-a-Tree Kits [www.deq.virginia.gov/education/loveatree.html](http://www.deq.virginia.gov/education/loveatree.html)
- Air Quality Power Point [www.deq.virginia.gov/export/sites/default/education/airquality.ppt](http://www.deq.virginia.gov/export/sites/default/education/airquality.ppt)
- Journey [www.deq.virginia.gov/education/pdf/journey.pdf](http://www.deq.virginia.gov/education/pdf/journey.pdf)
- WET Sols [www.deq.virginia.gov/export/sites/default/education/pdf/wetsols.pdf](http://www.deq.virginia.gov/export/sites/default/education/pdf/wetsols.pdf)