

## Ohio Environmental Education Fund State Fiscal Year 2011 Agenda

State Fiscal Year 2011 (SFY11) begins July 1, 2010, and ends June 30, 2011. Legislation that created the Ohio Environmental Education Fund (OEEF) requires that an agenda be submitted to the state legislature and the governor by April 1 each year describing the proposed uses of the Fund. This fact sheet summarizes the SFY11 annual plan of the Office of Environmental Education (OEE) at Ohio EPA, which includes all OEEF-funded activities.

The Ohio Environmental Education Fund was created by the Ohio General Assembly in 1990 to enhance public awareness and understanding of issues affecting environmental quality. Funding comes from half the civil penalties collected by Ohio EPA for violations of Ohio's air and water pollution control laws.

On the OEEF Agenda for SFY11 are grant programs, environmental science and engineering initiatives, watershed awareness and water quality monitoring for students and adults, and outreach activities targeting audiences that the OEEF has identified as under-served.

### Grant Programs

The OEEF General Grant Program expects to provide approximately \$700,000 for education projects costing up to \$50,000 each. These projects target three audiences: the regulated community; the general public; and kindergarten through university students and teachers. Grant awards are based on six priorities, as described here.

**Compliance Assistance:** helping regulated entities, and particularly small businesses, understand and comply with Ohio's environmental laws and regulations. Recent grants for this audience have provided seminars for businesses on mandatory greenhouse gas reporting requirements; for local officials on solid waste regulations; and for hospitals on pharmaceutical waste management.



**Community Issues:** designing and implementing model projects to educate the public about technical aspects of environmental issues in their communities, through community-based organizations or through print, film, broadcast or other media.

Issues of current priority to Ohio EPA include storm water management; protection of drinking water supplies; brownfields cleanup and redevelopment; improving air quality in counties not meeting federal Clean Air standards; and education efforts related to endorsed watershed plans.

Recent grants have supported demonstration projects to help homeowners maintain their septic systems, and install rain gardens and other techniques to reduce storm water runoff from their property. Other projects have provided workshops and interpretive signage to help residents identify and protect local wetlands, watersheds and riparian corridors.



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**Environmental Public Health:** educating students, teachers, parents, community leaders, or the public about human health threats from environmental pollution, and how to minimize human exposure to preserve good health.

Issues of current priority to Ohio EPA include reduction of ozone precursors, airborne particulates and toxic chemicals such as mercury in the environment.

Recently funded projects provided mercury thermometer exchange programs; information on proper disposal options for pharmaceutical waste; and tabletop models illustrating aquifers and drinking water treatment processes, to help teams of local educators demonstrate to residents how they can protect underground water supplies.



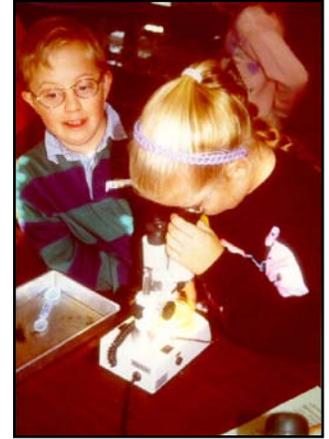
**Standards-Based Education:** utilizing environmental education to improve K-12 student academic achievement, specifically through projects that are aligned with the Ohio Department of Education's Academic Content Standards, published at <http://education.ohio.gov/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=1696&ContentID=72&Content=72519>.

OEEF frequently funds projects to help students and teachers monitor local water quality, and efforts to develop and use outdoor classrooms, gardens and wildlife habitat on school grounds. Many grants provide professional development workshops in environmental science for pre-service and in-service teachers and after-school educators.



**Career Development:** educating students in formal or non-formal settings about what environmental professionals do, to encourage them to enter careers in environmental science and engineering, or related fields.

This effort also supports the strong career emphasis in the Ohio Department of Education's Academic Content Standards. Recent grants have emphasized careers in forest and watershed management, energy conservation and development of alternative fuels.



**Environmental Sustainability:** education about energy efficiency and conservation, alternative fuels and energy sources, green building principles, sustainable and community-supported agriculture. For example, recent grants have supported programs for public and private sector fleet operators on improving fuel efficiency and reducing emissions; energy conservation programs for schools and congregations; and programs helping high school students measure fuel consumption and carbon monoxide emissions of vehicles using biodiesel and other alternative fuels.



## Mini Grants

The OEEF Mini Grant Program will earmark \$100,000 in SFY11 for small grant projects costing up to \$5,000 each. These education projects target the same three audiences and six priorities as the General Grant Program.

In SFY11, OEEF staff members will continue efforts to market the grant programs to under-served audiences, working with local host organizations to offer grant-writing workshops, and allotting extra points to applications from entities in counties where fewer than two OEEF grants have been awarded.

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## Environmental Science and Engineering Initiatives

Ohio EPA would like more Ohio students to consider careers in environmental science and engineering.

In addition to making this a priority in the grant programs, OEEF is supporting four initiatives at the college, high school and middle school levels to introduce students to the variety of careers available.

OEEF provides \$50,000 annually in scholarship support for environmental science and engineering students at Ohio colleges and universities. The scholarship program is administered through a partnership with the

Ohio Academy of Science, and designed to help students complete their degree programs and begin professional practice in the state. Scholarship applications and recent recipients can be found at [www.ohiosci.org/OESEESCHOLARSHIPS.htm](http://www.ohiosci.org/OESEESCHOLARSHIPS.htm).



OEEF will continue to provide major sponsor support to the Ohio Academy of Science for State Science Day and the Governor's Awards for Excellence in Environmental Protection Research, honoring the best middle and high school student environmental science projects selected in statewide competition. More information is available at [www.ohiosci.org](http://www.ohiosci.org).

OEEF also supports the National Engineers Week Future City Competition™, challenging Ohio middle school students to explore careers in environmental engineering by designing a city of the future.



Ohio EPA judges help evaluate student projects on criteria such as energy efficiency; environmental friendliness; open space preservation; waste minimization; water resource management; and transportation efficiency. OEEF also sponsors a Special Award for the team with the Best Use of Water Resources Engineering. More information about the competition is available at [www.futurecity.org](http://www.futurecity.org).



For high school students, OEEF supports the Ohio Envirothon competition involving about 1500 high school students annually in learning about land use, soil, water quality, wildlife and habitat. More information is available at [www.ohiodnr.com/default/education/envirothon/default/tabid/8652/Default.aspx](http://www.ohiodnr.com/default/education/envirothon/default/tabid/8652/Default.aspx).



Ohio EPA also works with other state and federal agencies in the Ohio Inter-Agency Council for Environmental Education, and with other environmental professionals in the private sector, to introduce Ohio's young people to careers in natural resource conservation and management, regulatory compliance, occupational safety and health, environmental science and engineering.



## Watershed Awareness and Water Quality Monitoring

OEEF supports Ohio EPA's efforts to improve water quality in several ways. Federal storm water regulations require many municipalities to educate their residents about the problems of storm water management and how individuals can help prevent water pollution. OEEF has awarded grants to a number of communities for brochure and outdoor advertising campaigns; storm drain markers; and workshops for developers, engineers, and zoning and code enforcement officials.

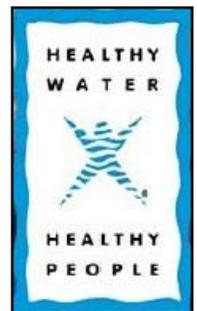
The Clean Water Act requires states to develop plans to reduce the amount of pollution entering rivers and streams that are not meeting water quality standards.

Ohio also has a Credible Data law that spells out how professionals and volunteers can collect and share the results of their water quality monitoring.

As part of this effort, local agencies and community organizations are teaching residents to identify their local watersheds and understand how we all contribute to pollution and can all help reduce it. OEEF is continuing to fund programs to help citizen groups and school classes learn to monitor the health of local streams by kick-seining for macro-invertebrates, testing the chemistry of the water column, and understanding how physical features such as overhanging trees, riffles, and vegetation on banks improve water quality.

OEEF funding enables OEE to provide statewide coordination of Healthy Water, Healthy People (HWHP).

This curriculum from Project WET is designed to help secondary school students and citizens understand testing procedures for various parameters, as well as threats to water quality.



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OEEF funding provides educators' guides and technical manuals, as well as water quality testing kits and training on how to use them.

During SFY11, OEE will conduct at least two statewide facilitator trainings, and support educator workshops offered by trained facilitators across the state. Ohio EPA uses the HWHP program to certify Level One data collectors for educational purposes under the state Credible Data program.

The Office of Environmental Education is also helping train teachers statewide in the WOW! The Wonders of Wetlands curriculum in wetland ecology endorsed by the National Science Teachers Association and the North American Association for Environmental Education.

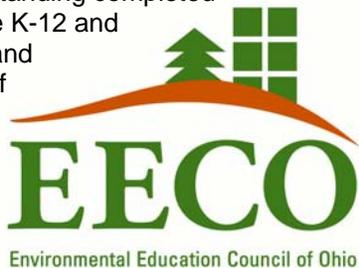


## Other Outreach

OEEF funding also supports a 17-year partnership between OEE and the Environmental Education Council of Ohio (EECO) to provide high-quality professional development opportunities for teachers and non-formal environmental educators across the state.

The SFY11 partnership will work to expand an existing network of more than 2,000 school contacts, and local educator workshops. Partnership funds also support one statewide and three regional conferences for educators, a directory of environmental education teaching resources, and special outreach initiatives for the following targeted audiences: urban/minority; social studies; language arts; high school; early childhood; pre-service teachers; and the adult general public.

EECO helps select outstanding completed OEEF grant projects for the K-12 and general public audiences, and publicize these examples of effective environmental education to educators and prospective applicants.



Ohio EPA will continue to partner with EECO to implement Ohio EE 2010, the statewide strategic plan for environmental education that was developed with broad-based participation from other organizations and educational institutions.

EECO and OEE are currently partnering with the Ohio Parks and Recreation Association, Ohio Department of Education, Ohio Department of Natural Resources, and a statewide coalition of local Leave No Child Inside collaborative organizations to draft a State Environmental Literacy Plan and support outdoor learning opportunities in formal and informal settings.

## Clean School Buses

The Ohio Clean Diesel School Bus Fund is designed to reduce children's exposure to diesel exhaust from school buses. Children are especially sensitive to air pollution because their respiratory systems are still developing and



they have a faster breathing rate than adults. The Ohio Department of Education estimates that 1.3 million Ohio children ride school buses to and from school every day.

The Ohio General Assembly has authorized Ohio EPA to help school districts and county developmental disability programs retrofit their diesel buses with pollution control equipment. These grants are funded from a portion of the penalties that Ohio EPA collects for violations of the state's environmental laws, though not from the OEEF.

The Office of Environmental Education is partnering with Ohio EPA's Division of Air Pollution Control to administer the grant program.

Since the program began in 2006, Ohio EPA has awarded more than \$5 million in grants to 78 school districts. These grants made it possible to install pollution control equipment onto 1,633 school buses and eliminate more than 25 tons of pollution from the air.

This grant program also provided the state match to leverage an additional \$600,000 in federal funds for Ohio school bus retrofits during 2009 and 2010.

Applications are accepted in March and September each year, and may be found at [www.epa.ohio.gov/oeef/schoolbus.aspx](http://www.epa.ohio.gov/oeef/schoolbus.aspx).

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