Earth Gauge
A National Environmental Education Foundation Program

Raising Environmental Awareness Through the Weather Report

Most Americans believe they know more about the environment than they actually do: Just 12 percent can pass a basic quiz on energy awareness; about 80 percent are influenced by incorrect or outdated information; and only 41 percent can correctly define the term "watershed" in a multiple choice format. To bridge this environmental information gap, the National Environmental Education Foundation (NEEF), in partnership with the American Meteorological Society (AMS), is working to convey environmental information to the public through a trusted media source: broadcast meteorologists.

Because there is a natural link between weather and the environment, broadcast meteorologists are uniquely poised to educate the public about key environmental topics in their communities. Earth Gauge® is helping broadcast meteorologists broaden the scope of the weather forecast by:

- Working with AMS to change the role of broadcast meteorologists to "station scientists" who can cover a range of science and environmental topics for their stations;
- Providing a free, weekly e-newsletter to broadcast meteorologists across the U.S. making the link between the local 3-day forecast and environmental impacts; and
- Providing free, online education materials for broadcast meteorologists to broaden their expertise in the environmental sciences.

Making it onto the Airwaves

The Challenge: Breaking through the overwhelmed news agenda of the average TV station to incorporate environmental information into the weathercast.

The Solution: The free Earth Gauge e-newsletter, tied to the 3-day forecast in markets across the U.S., makes clear, causal connections between current weather and environmental topics – water quality, air quality, wildlife, public health, energy efficiency and more. The e-newsletter also includes *Climate Facts* and *Climate in the News*, providing scientific facts about the observed impacts of changing climate and weather patterns in the U.S. and abroad, as well as links to interesting articles and studies.

Currently, Earth Gauge is distributed in 117 media markets around the U.S., to over 215 local broadcast meteorologists, radio broadcasters and newspaper journalists. Local TV markets reach more than 243 million television viewers, and through our partnership with The Weather Channel, we reach 91 million households everyday. Earth Gauge is also distributed to National Weather Service Warning Coordination Meteorologists, educators, non-profit organizations and other interested subscribers across the country.

Not only is Earth Gauge information showing up on TV and radio, it is also being used in newspapers, on station web sites and blogs, on Twitter and in community outreach visits.

"What we really like about the Earth Gauge report is that it engages us to think beyond just basic meteorology in our weather discussions. Indoor pollution, effects on local fisheries, frostbite, pets, etc., are just some of the topics that have made our weather broadcasts more useful to the viewer."

—Tom DiVecchio and Tom Atkins, Meteorologists, WJET-TV, Erie, PA

(View Earth Gauge and Climate Facts examples on the next page.)

Earth Gauge: Oil Slick

About five percent of Americans who change their own motor oil do not dispose of used oil properly. When used oil is dumped outside or in a storm drain, it can be carried directly to local rivers and streams during the next rain. The U.S. EPA estimates that oil dumped from just one change can contaminate one year's supply of drinking water for 50 people – about one million gallons. If just five percent of D.C. do-it-yourselfers recycle their oil instead of dumping it, we can avoid contaminating a year's supply of drinking water for more than 180,000 people!

Viewer Tip: If you change your own oil, collect used oil in a clean container with a lid (such as a tin can), and recycle. Many service stations accept oil for recycling, or you can find an oil collection facility in your neighborhood by visiting www.cleanup.org or calling 1-800-CLEANUP.

Climate Fact: Lilac Blooms

Since the late 1950's, the dates when lilacs bloom have been recorded at various sites throughout the U.S. Blooms begin around early March in the southern states and culminate in the northern states in late May and early June. During the last 50 years, the western region's temperature rose by about two degrees Fahrenheit and, in the vast majority of locations, the average date when lilacs bloom moved to earlier in the year. Today, lilacs bloom an average of 7.5 days earlier than they did in the 1950's.

Beyond the Forecast

Although broadcast meteorologists are experts in the atmospheric sciences and the art of broadcasting, they often have a more limited background in the environmental sciences. In partnership with the Cooperative Program for Operational Meteorology, Education and Training (COMET®), NEEF is developing a set of online courses with a strong relationship to ongoing weather reporting. Courses count for credit under the AMS continuing education program for certified broadcast meteorologists and are housed on COMET's MetEd Website, **www.meted.ucar.edu/bmet_training.php** (free registration required).

Watersheds: Connecting Weather to the Environment provides an understanding of a watershed as the local environment in which people's decisions play against the background of daily and seasonal weather. The course uses simple analogies and easy-to-apply demonstrations to impart the skills needed to easily explain watershed concepts on the air.

Weather and the Built Environment provides an understanding of the characteristics of the built (urban) environment, and how features of the built environment affect the consequences of common and severe weather events.

Weather and Health provides an understanding of the impacts of weather and climate on public health. It also introduces learners to the public health communication system, informing them about reliable public health support services, tools, and resources available.

Climate Change: Fitting the Pieces Together provides a basic overview of climate change science and answers questions about climate change commonly asked by the public. The course discusses human influence on climate, signs of climate change, how scientists study climate, the current thinking on future changes and what can be done to minimize the effects.

Organizational Background

The National Environmental Education Foundation (NEEF) provides knowledge to trusted professionals who, with their credibility, amplify messages to national audiences to solve everyday environmental problems. Together, we generate lasting positive change. NEEF partners with professionals in health, education, media, business and public land management to promote daily actions for helping people protect and enjoy the environment.

The American Meteorological Society is the world's premier scientific and professional organization for weather. With more than 11,000 members, the Society promotes the development and dissemination of information on atmospheric, oceanic and hydrologic sciences. The Society publishes nine well-respected journals, sponsors scientific conferences, and supports public education programs across the country.

Earth Gauge® is funded by the Kendeda Foundation, the Park Foundation and the U.S. EPA Office of Wetlands, Oceans and Watersheds.