

Earth Gauge™: Conveying Environmental Information through the TV Weather Report



August 15, 2007 Webcast

***Sara Espinoza, National Environmental Education
Foundation***

Joe Witte, ABC 7 WJLA-TV



Webcast sponsored by EPA's Watershed Academy

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Overview

- ✦ Background on NEEF
- ✦ The Weather Report
- ✦ Earth Gauge
- ✦ Environmental Education for Broadcast Meteorologists
- ✦ Joe Witte – WJLA-TV
Working with Broadcast Meteorologists



NEEF

- ✦ Congressionally Chartered
- ✦ Trusted knowledge to live better everyday

Signature Events

Business Managers

Health Professionals

Meteorologists





Environmental Knowledge Gap

NEEF/Roper research shows the public does not understand fundamental environmental concepts or their implications.

- + Only **23%** of Americans know that runoff pollution is the number-one cause of water pollution in the U.S.
- + **80%** of Americans are influenced by outdated or incorrect environmental information.



Terminology Disconnect

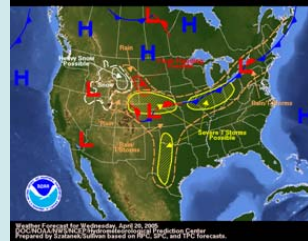
Experts assume that public understands what they consider to be rudimentary concepts.

- + Only **2 out of 5** Americans can select the correct definition of “**watershed**” in a multiple choice format.
- + **14%** of Americans are familiar with the term “**nonpoint source pollution.**”



The Local Weather Report

- ✦ Most Americans receive environmental information from the media
- ✦ #1 reason people watch the news
- ✦ Local weather reports use visuals to present complex science topics
- ✦ Viewers are in a “learning mode”





Weathercast to “Envirocast”

- ✦ Meteorologist as “Station Scientist”
- ✦ Direct delivery of environmental information through the weather report
- ✦ Environmental education and training for broadcast meteorologists



“Station Scientist”

American Meteorological Society

- + 1,500 Broadcast Members
- + New Certification Requirements
- + Committee on the Station Scientist
- + Radio and TV News Directors Association
- + Awards Program





Questions?



Sara Espinoza
Program Manager



Earth Gauge™

- ✦ Weekly e-mail service to help explain the environmental implications of weather events on-air
- ✦ Tailored, science-based information tied to the 3-day forecast
- ✦ Easy viewer action tips



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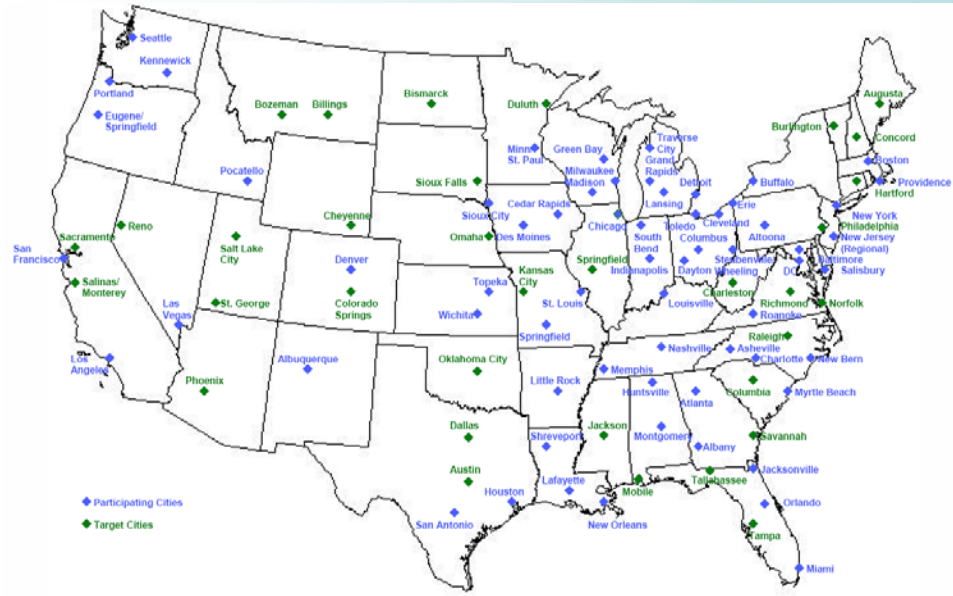
What's Bugging You?

In the U.S., homeowners apply more pesticides per acre of lawn than farmers do on agricultural land. Of the 36 most common lawn pesticides, many are toxic to birds, fish, and other animals, and research shows that pesticides can be detected in streams and groundwater of many urban and agricultural areas.

Viewer Tip: Spring marks the emergence of many garden pests. Before you apply pesticide in your yard, make sure you know what pests you are fighting, and how to best manage them. If you do decide to apply pesticides, please wait for dry weather - rain water may wash pesticides from your yard, into storm drains, and directly to local rivers and streams, wasting product and putting wildlife and water quality at risk.



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Reaching 159 Million Viewers in 64 Media Markets

Reaching 87 Million Households with TWC

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“First of all, this is long overdue. This service gives us quick, yet valuable information that can be quickly used on the air. We especially like the fact that many of the topics are site specific.” –Tom DiVecchio, WJET-TV



“Earth Gauge has been very proactive in providing data that is user-friendly, easy to understand, and comprehensive. I look forward to the continued expansion of information and cities.”

–Keith Westerlage, The Weather Channel

“Your suggestion to viewers last night to switch from incandescents to CFLs was very welcome. We need prominent members of the community such as yourself to let consumers know – directly or indirectly – we need to reduce energy use and power plant emissions.”

–Viewer Feedback, KOAT-TV

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Earth Gauge™ Dissemination Strategy

TELEVISION

64 Markets

159 Million Viewers

The Weather Channel

AccuWeather



NEWSPAPER

Syndicates

USA Today

Weather Columns



RADIO

The Weather Channel

Satellite

Radio-TV Networks

Env. Radio



INTERNET

The Weather Channel

*TV Station Web sites
Blogs
E-mails*



NATIONAL WEATHER SERVICE

Regional Offices

WCMS



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NBC's "Going Green"



Your Daily Green Tip

Today's Green Tip: Getting ready to mow? Try adjusting your lawn mower to a higher setting. Leaving grass a bit longer will cool the soil, encourage deep root growth, and help to hold moisture in the ground, giving you a healthier lawn that requires less water for maintenance! (Earth Gauge)

Chicago, Dallas, Los Angeles, Hartford, Miami, New York City;
Philadelphia, San Diego, San Jose/San Francisco, and
Washington, DC.



The Cedar Rapids Gazette

ASTRO DATA
Have you ever noticed that the moon seems to rise across the sky lower toward the south in the summer? The opposite is true for the sun: high in the summer and low in the winter. The asteroid belt is closest to Earth today.

THE NATION TODAY
Warmer fronts, pressure patterns and precipitation are in their positions at noon today. Temperature fronts, however, have a more complex pattern.

9 ALERT
KCRG-TV

UPDATES
www.kcrg.com

NATION TODAY
Rain and storms will continue in the East as a cold front slowly pushes out into the Atlantic. Temperatures will be below average in the Midwest. Most of the country will see dry weather related to high pressure.

POLLIN COUNT
Today's allergy season for the Greater Cedar Rapids area includes Ragweed, chamomile and pollen.

PRECIPITATION LEGEND
The National Weather Service's National Weather Service (NWS) at Cedar Rapids, Iowa, is the source of the data.

TRAVELERS' WEATHER
City Today Tomorrow City Today Tomorrow City Today Tomorrow City Today Tomorrow City Today Tomorrow

WORLD WEATHER FORECAST
City Today Tomorrow City Today Tomorrow City Today Tomorrow City Today Tomorrow City Today Tomorrow

WEATHERWISE

Joe Winters
KCRG-TV's First Alert Meteorologist

Earth Gauge Tip
The final days of summer are officially upon us. However, as the forecast indicates, the temperature will be going down, bringing a fall-like feel to the air. By checking home heating equipment and making a few adjustments now, you can increase your home's energy efficiency and be ready for winter chills.

Have a professional check your heating system to make sure things are running properly. You should take the time to find and seal leaks around the house—sealing holes around pipes, vents, and attic hatches, and adding weatherstripping around leaky doors and windows. This helps reduce the amount of heat escaping from your home this winter.



Climate Facts

- † Launched January 2007
 - † Provide science-based information about **observed changes** in climate and weather patterns
 - † Show implications of those changes on a local/regional level

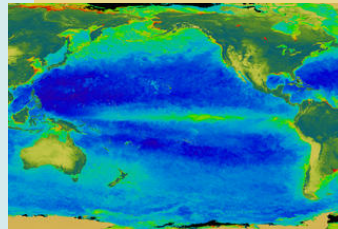


Image Courtesy of NASA



Climate Facts

Range Change

Data collected by the National Audubon Society shows that many bird species found in the Eastern United States have been steadily moving their wintering grounds further north. These species include the American Robin, Eastern Bluebird, Tufted Titmouse, Red-bellied Woodpecker and the Northern Cardinal. The Northern Cardinal has been moving its range particularly fast: In the 1860's the species was only occasionally found north of the Ohio River while today, the bird is routinely spotted as far north as Nova Scotia.

(McLaughlin, JB et al. "Outbreak of *Vibrio parahaemolyticus* Gastroenteritis Associated with Alaskan Oysters." *New England Journal of Medicine* 353:1463-1470 (2006) and Centers for Disease Control and Prevention: Division of Bacterial and Mycotic Diseases. *Vibrio parahaemolyticus*. Accessed Online 27 April 2007 <http://www.cdc.gov/dpdx/vibrio/vibrio-parahaemolyticus-01.html>)



TWC Climate Programming

forecast EARTH
Your daily source for news, science and debate.

HOME VIDEO BLOG NEWS FORECAST EARTH ON TV RESOURCES OUR MISSION

Monday, May 14, 2007

Featured links

videos

- [Like some free hot water?](#)
- [Stretching a salmon at sea](#)
- [Who says it can't be fixed?](#)

Spice the inside scoop

- [Some rough & tumble tactics](#)
- [The U.S. the asside](#)
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ethanol debate

- [A comparison with aviation](#)
- [Environmental impacts](#)
- [We don't need it, we need it](#)

new directions

- [Quest for a new fuel](#)
- [Quest for a new fuel](#)
- [Quest for a new fuel](#)

tell us what you think

FEATURED

Save money with these GREEN TIPS for your business. Presented by

today's videos

Don't Eat Me!

Hot + Dry = Fire

They're At It Again!

Beautiful Island, Rare Creatures.
Development is leading to devastation of Madagascar's flora and fauna. 90% of which is found nowhere else on Earth, but people are trying to save the island from itself.

Wide-eyed weather across the U.S.
A wildfire on Catalina Island forces 100's of residents out of their homes, while flooding in the central U.S. continues.

Golden gate to greenery
From carbon to religion, here's the green scoop on a city that's always been "green" out.

[View All Videos](#)

news headlines

TOP STORY

Bird migration patterns shifting, an early warning of climate change...
[read more](#)

China's Yangtze river at risk of "disastrous" bank collapses ... [read more](#)

Hundreds of Florida wildfire evacuees still waiting to go home ... [read more](#)

Car demand leads Midwest states to limit the take of an ancient fish ... [read more](#)

Ex-Pres. Clinton, Mayor Bloomberg to host international climate summit this week in NYC ... [read more](#)

Best of the Web: Websites and articles relating to climate change and global warming ... [read more](#)

EVERY SUNDAY
@ 5:00 PM ET

forecast EARTH

weather.com/forecastearth

FEATURED

Dr. Heidi Cullen Blog
When models underestimate... the case of arctic sea ice... [read more](#)

GUEST BLOGGERS

Andrew Freedman Blog
Take back the weather... [read more](#)

Karl Rupprecht, Biomera
Feeling, Building, and Participating in Community... [read more](#)

BREAKING NEWS

Breaking news on climate change
The latest news stories from around the world concerning global warming and climate change.

CLIMATE CHANGE WARNING



Leveraging Partnerships

+ National Agencies and Organizations

- + NOAA, EPA**

- + The National Arbor Day Foundation**

+ Regional/Local

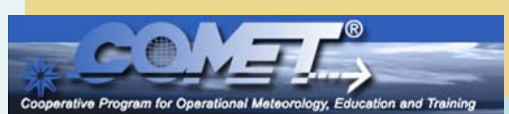
- + Iowa Stormwater Partnership**

- + The Georgia Conservancy**



Educate Meteorologists

- + Enable meteorologists to communicate environmental science that impacts people's lives
- + Add environmental science topics to professional development curricula
- + Incorporate content into college and university curricula.



WATERSHEDS

Connecting Weather to the Environment

Produced by the COMET® Program in partnership with
the National Environmental Education & Training Foundation

About

Summary

Watersheds

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Resources

Tech Notes

User Survey

Contributors

Watershed
Systems

Water
Sources

Water
Quality

Storms &
Floods

Weather
Topics

Photo by Joe Lamos

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Watersheds

- + Locate watersheds in your area.
- + Describe interconnectedness of watershed systems.
- + Know how water is distributed in a system and find water sources for your area.
- + Understand runoff pollution and connections to wet weather.
- + Know how changes in a watershed affect the location and severity of flooding events.
- + Understand the impact of drought on a watershed.



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www.meted.ucar.edu/loginForm.php?urlPath=broadcastmet/watershed

Weather, Watersheds, and the Built Environment

Produced by the COMET® Program in partnership with the National Environmental Education & Training Foundation



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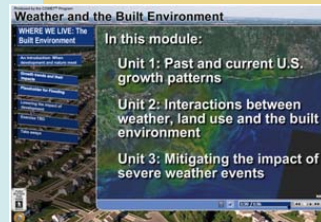
[Contributors](#)

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The Built Environment

- + Understand past and current U.S. growth patterns.
- + Understand interactions between everyday weather – rain, heat, wind – and the built environment.
- + Understand interactions between extreme weather – heat islands, blizzards, flooding – and the built environment.

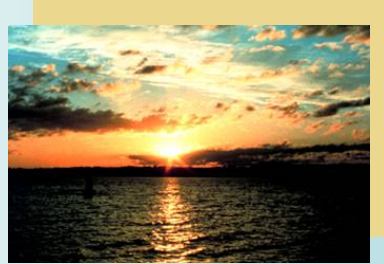


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New Courses

- + Weather and Public Health
- + Climate Change
- + Oceans and Coasts





Going International



UN Agency operating 26 training centers, affiliated with government agencies and universities

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Getting Involved

- ✦ Promote your organization and reinforce community campaigns:
 - ✦ Provide seasonal information
 - ✦ Stats and facts
 - ✦ Local events and campaigns
 - ✦ Web sites and resources
 - ✦ earthgauge@neefusa.org





Engage Your Local Meteorologist

- + Invite them to attend a local event as an emcee, speaker, panel member, or activity participant.
- + Do you have an interesting backdrop?
Invite the meteorologist to broadcast from your nature center, park, or other area.
- + Ask a local meteorologist to serve on an advisory committee for your organization.

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Earth Gauge


National Environmental Education Foundation

[Who We Are](#)
[The Service](#)
[Browse by Location](#)
[Meteorologists](#)
[Resources](#)

Earth Gauge™ is a free environmental information service for broadcast meteorologists in major US media markets, based on the 3-5 day forecast. The service is designed to make it easy to talk about the links between weather and the environment on-air with simple "factoids" and viewer action tips.

- View an Earth Gauge™ Example
- What Meteorologists Have to Say
- Subscribe Now
- Learn More About Our RSS Feeds

Search the Tips Library

Search our [index of Earth Gauge™ information](#) distributed to broadcast meteorologists. Select a region on the map below to browse by geographic location, or select from the list of topics below. This information is updated often - so check back soon!



- Environmental Topics
- Weather Type
- Life Topics
- Climate

"Earth Gauge™ is a fantastic service because not only do they come up with vital environmental issues, but they offer suggestions on what viewers can do" *more...*
 — Joe R. Diaz, Chief Meteorologist, KOAT-TV, Albuquerque

What's New

Earth Gauge is distributed to meteorologists in 64 cities, reaching more than 159 million viewers. [Find out who is participating, and view examples of Earth Gauge usage.](#)

Educational Tools

Find free, online environmental education courses developed by NEEF and COMET. PowerPoint presentations for community outreach, and links to other educational resources.

www.earthgauge.net

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Questions?



Sara Espinoza
Program Manager

**Join Us for Our September 26th Webcast on:
Wetlands Restoration**



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Joe Witte – WJLA-TV



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**Three words to
remember:**

**Local
Local
Local**

Environmental Stories on TV

PULLING (searching) A STORY

newspaper article

web news source

RSS feed from news source

AMS web site listings: 3 dozen

(time?)

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EARTH GAUGE

a PUSH process

short and simple summaries
this is local TV, not ...

How much air time?

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TO DO A STORY:

sell eco-story to News Director

calls to experts for interviews

arrange for a crew

come in early next day with crew

drive to site

interview and shoot video

drive back

preview the video for images and sound bites



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Write a rough script
(create a graphic to include)
arrange for an editor
(maybe the next morning, early)
sit with editor in edit room
look for file footage
ask producer for a slot in news
breaking news bumps your story
to next day?

Frank Luntz

“Words that Work”

**It's not what you say
It's what people hear**

(or what they see on TV)

Story Challenge:

**Recast information
in a
meaningful way
to LOCAL audience**

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“Framing” Matt Nesbit/Chris Mooney

YALE FORESTRY Media OUTREACH

INFLUENCE: SCIENCE & PRACTICE
Robert Cialdini

**Richard Louv: “... Saving our
Children from Nature Deficit order”**

Use LOCAL experts

Use VIDEO to grab attention

**Engage local gate keepers:
news editors, producers**

How to get beyond the news peg?

AND USE A PEG

**Other TV news programs:
weekend mornings**



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GRAPHICS



Square TV



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TV



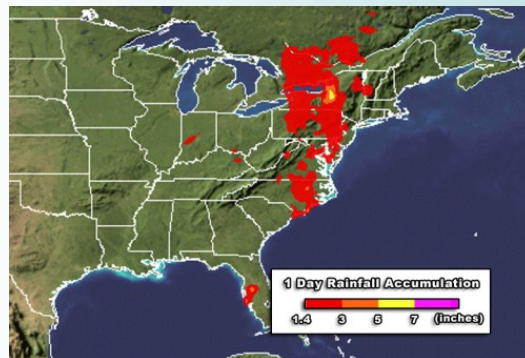
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TV GRAPHICS
3 x4
pixel size:640x480

HIGH DEFINITION
720x480

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Rainfall = Flooding



courtesy: StormCenter

**** Image Resources
Page**

**on Earth Gauge's new
Web site**

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**Local Audience
(viewer's backyard)**

TV video & graphics

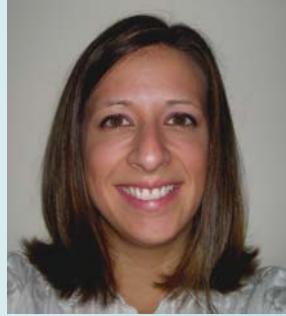
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Questions?



Joe Witte
Meteorologist, WJLA-TV



Sara Espinoza
Program Manager

**Aching to Know More? Check Out These
Additional Resources...**

<http://www.clu-in.org/conf/tio/owegtv/resource.cfm>

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**Let Us Know Your Thoughts with the
Evaluation Form!**

<http://www.clu-in.org/conf/tio/owegtv/feedback.cfm>