

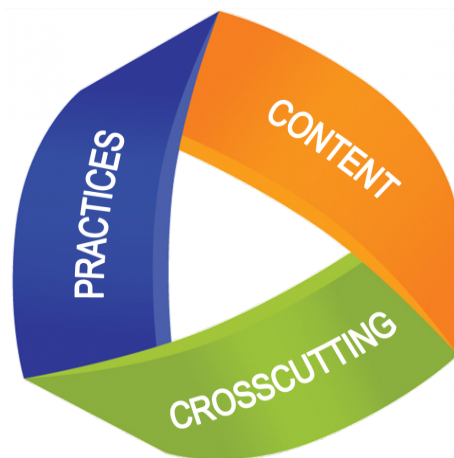


CHESAPEAKE BAY EXECUTIVE ORDER ENVIRONMENTAL LITERACY STRATEGY SUMMARY OVERVIEW

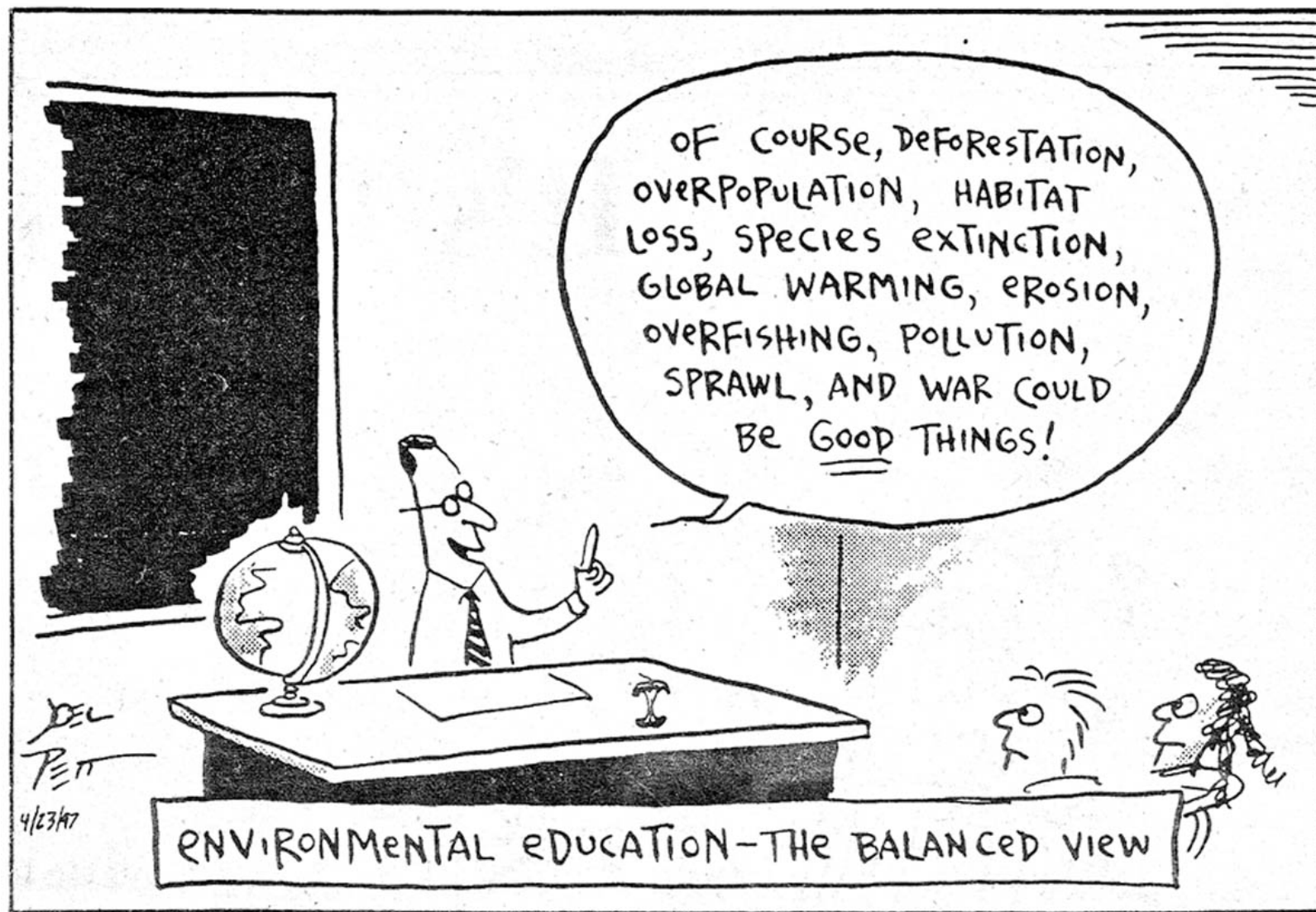
SHANNON SPRAGUE
*CHAIR, CBP EDUCATION WORKGROUP
FOSTERING STEWARDSHIP GOAL TEAM*

December 11, 2012

Exciting Time for EE in the Nation!!



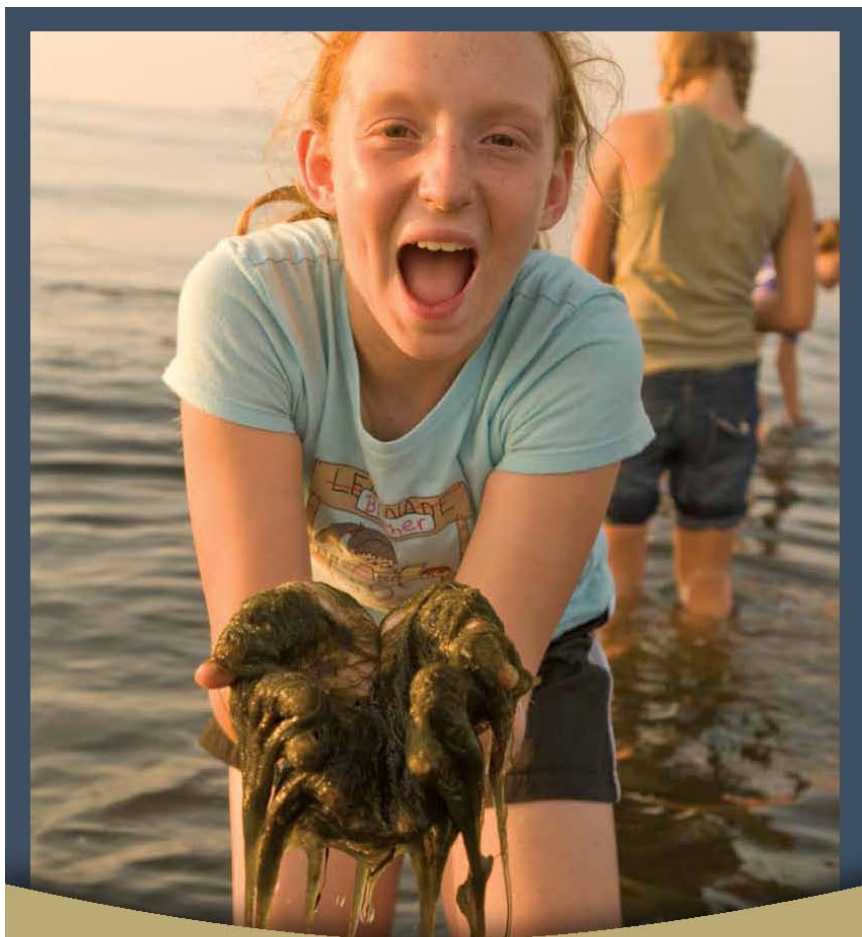




Environmental Issues are Complex and Distributed

“In the coming decades, the public will more frequently be called upon to understand complex environmental issues, assess risk, evaluate proposed environmental plans and understand how individual decisions affect the environment at local and global scales. Creating a scientifically informed citizenry requires a concerted, systematic approach to environmental education.”

National Science Foundation (2003)



MID-ATLANTIC ELEMENTARY AND SECONDARY
ENVIRONMENTAL LITERACY STRATEGY

Presentation Outline:

- History of K-12 Collaboration
- Overview of Strategy and related partner efforts
- Current projects supporting Strategy

Long History of K-12 Collaboration

1998:
Directive
98-1
Signed by
Governors

2000:
MWEE
Keystone
Commitment
Adopted

2002:
NOAA
B-WET
Created

2005:
Multi-State
MWEE
Tracking
Begins

2010:
Executive
Order Plan
Calls for
Education

2012:
Envi
Literacy
Strategy
Released

Directive 98-1:

Departments of Education become active partners in CBP

Interagency education group required in each jurisdiction

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MWEE Commitment:

Provide every student in the watershed with a meaningful watershed educational experience prior to graduation

Research or inquiry based outdoor experience fully integrated with curriculum that includes preparation, action, and reflection

Identified as one of ten “keystone commitments” essential for long term success

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NOAA B-WET:

Until NOAA B-WET, the MWEE was an unfunded mandate

Historic funding levels between \$1.2M and \$3.5M annually

To further advance MWEE goal, NOAA took on federal leadership role in the Education Workgroup

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MWEE Tracking:

States began reporting progress towards MWEE goal at 2005 Summit

Self-report survey instrument completed by school divisions

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Executive Order Plan:

Executive Order signed in 2009 by President Obama – did not include stewardship element

Implementation Strategy released in 2010 included stewardship in response to public comment

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Environmental Literacy Strategy:

Significantly expands federal support for state environmental literacy efforts in the context of the Chesapeake Bay Program

Better coordinates and applies federal resources, including partners not represented in broader Bay program



Mid Atlantic EL Strategy

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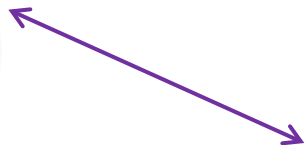
- Called for in Executive Order 13508 Strategy
- Details specific federal strategies to support the shared Goals and Outcomes
- Establishes shared Goals and Outcomes for federal, regional, and state partners of Education Workgroup
- Completed in partnership with state reps, affiliates of the NAAEE, and other nongovernmental partners
- Being implemented by the Mid Atlantic Education Workgroup

Mid Atlantic EL Strategy - Goals

- Goal 1:** Every student in the region graduates with the knowledge and skills to make informed environmental decisions
- Goal 2:** All educators in the region responsible for instruction about or in the environment have access to sustained professional development opportunities, tools, and resources that support their efforts to provide students with high-quality environmental education
- Goal 3:** Every school in the region maintains its buildings, grounds, and operations to support positive environmental and human health outcomes
- Goal 4:** The education community in the region functions in a unified manner and coordinates with key national, regional, and state programs to represent the full suite of information and opportunities available for PK-12 audiences

Working Together Makes Us Stronger

State
Literacy
Plans



Shared Vision for Education Workgroup

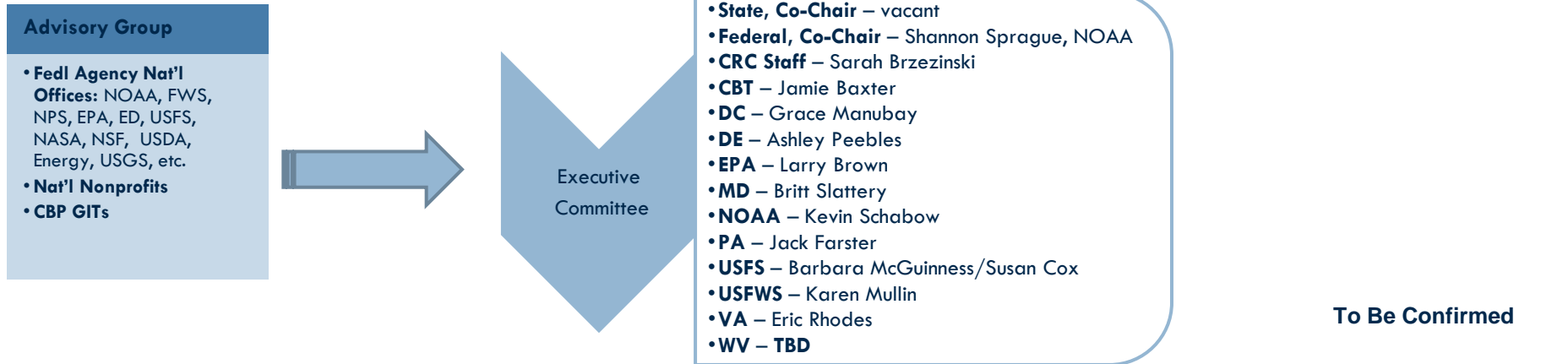
Shared Goals & Outcomes for Education Workgroup

Federal Strategies &
Commitments

Regional Strategies &
Commitments

Shared MWEE Metrics

Education Workgroup Structure & Membership



State Delegations (C2K Commitment)						
Federal/Regional	Delaware	District of Columbia	Maryland	Pennsylvania	Virginia	West Virginia
Federal Agencies • See Executive Committee for more federal reps • NOAA – Bart Merrick • NPS – Abbi Wicklein-Bayne	Tonyea Mead DE DOE	James Rountree DCPS	Gary Hedges MSDE	David Bauman PA DOE	Eric Rhoades VA DOE	Robin Anglin WV DOE
	Matt Ritter DNREC	Grace Manubay DDOE	Britt Slattery MD DNR	Jack Farster PA DEP	Ann Regn VA DEQ	
Non-Profits • CBT – Kacey Wetzel • CBF – Tom Ackerman & Don Baugh • MAMEA – David Christopher • Nat Geo – Elena Takaki • NCLI – Sarah Bodor • NWF – Kim Martinez	Chris Petrone DE Sea Grant		Drew Ferrier Hood College	Ann Faulds PA Sea Grant	Tamara Willis Mary Baldwin College	
	Ashley Peebles DAEE	Ariel Trahan DCEEC	Laura Collard MAEOE	Ruth Roperti PAEE	Barbara Young VRUEC	Frank Rogers WVEEA
LEA Reps • AACPS – Steve Barry	Jennifer Holmes	Rebecca Davis Trihn Doan	Libby Campbell	Estelle Ruppert PA DCNR	Suzie Gilley Bill Portlock Daria Blom Lisa Deaton	Kevin Stitzinger

Depts of Education

Natural Resource Agencies

College or University

NAAEE State Affiliates

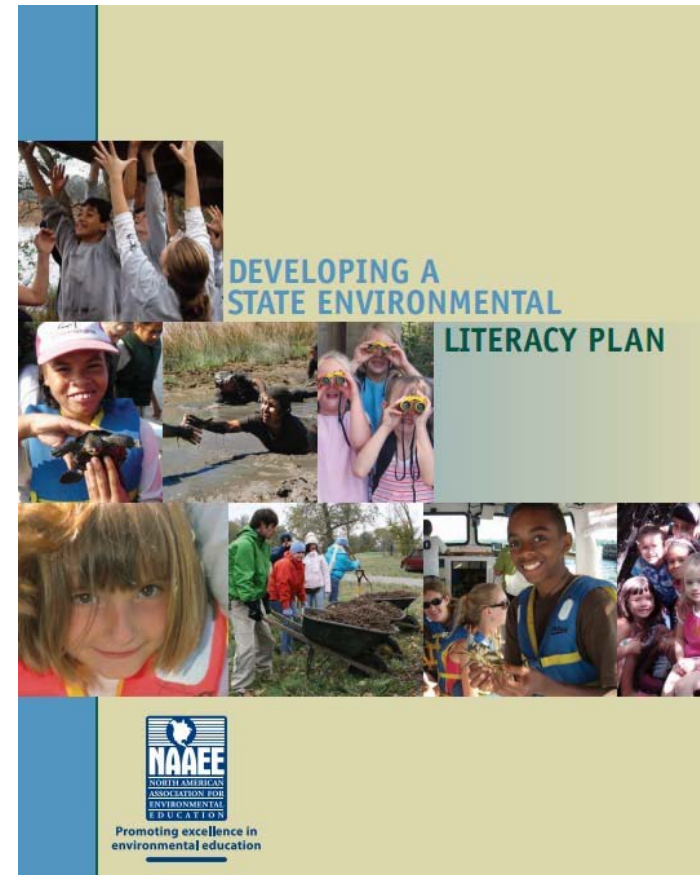
At Large

State Environmental Literacy Plans

- 47 states have or are developing Environmental Literacy Plan
- NAAEE issued guidance document in 2008

State Status

- Maryland: est. April 2009
- District of Columbia: Submitted to DC Council June 2012
- Pennsylvania: draft July 2012
- Delaware: est. Oct 1, 2012
- Virginia: Currently updating EE Business Plan
- West Virginia: In early development



NAAEE Mid-Atlantic Affiliate Strategy

- Federal strategy corresponds with new era of non-profit collaboration
- MAEOE, VRUEC, DCEEC, PAEE, WVVEEA, and DAEE
- Shared strategy finalized Summer 2012
- Focuses largely on improvement of program development and implementation:
 - *Outdoor Student Programs*
 - *Teacher Professional Development (and certification requirements)*
 - *School Greening Projects*
- EPA award to CBT focuses on capacity building in support of affiliate priorities

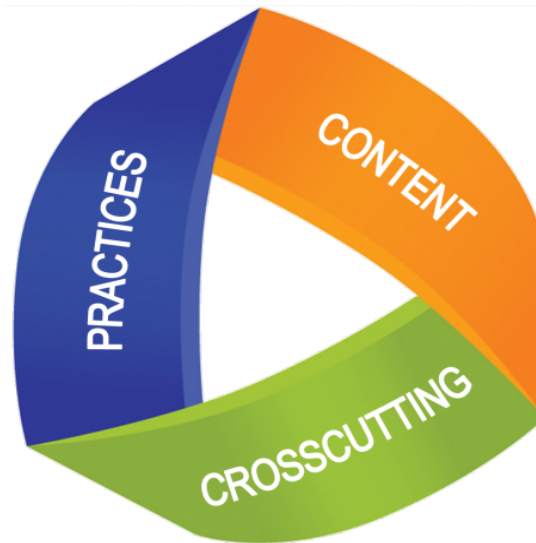
Implementation: Policy & Capacity Building

- **Revised MWEE Metric in development**
 - STAC “Best Practices” Workshop: August 27-28
 - CBT Metrics Workshop: November 14-15
 - Draft metrics: Spring 2013
 - Pilot: 2013/2014 Academic Year
- **Green School Certification**
 - Convening inter-jurisdictional team to discuss alignment
- **Capacity Building**
 - EPA grant to Chesapeake Bay Trust to support affiliate priorities through mini grants
 - NOAA evaluation workshops for EE organizations
 - NOAA funding for priority capacity building initiatives (with CBT)

Next Generation Science Standards

- Based on the *Framework for K–12 Science Education* developed by the National Research Council
- Will be completed in March of 2013
- 26 states leading development

Replaces “skills”. Better explains “inquiry” in science and the range of cognitive, social, and physical practices that it requires.



Physical sciences; Life sciences; Earth and space sciences; and engineering, technology and applications of science

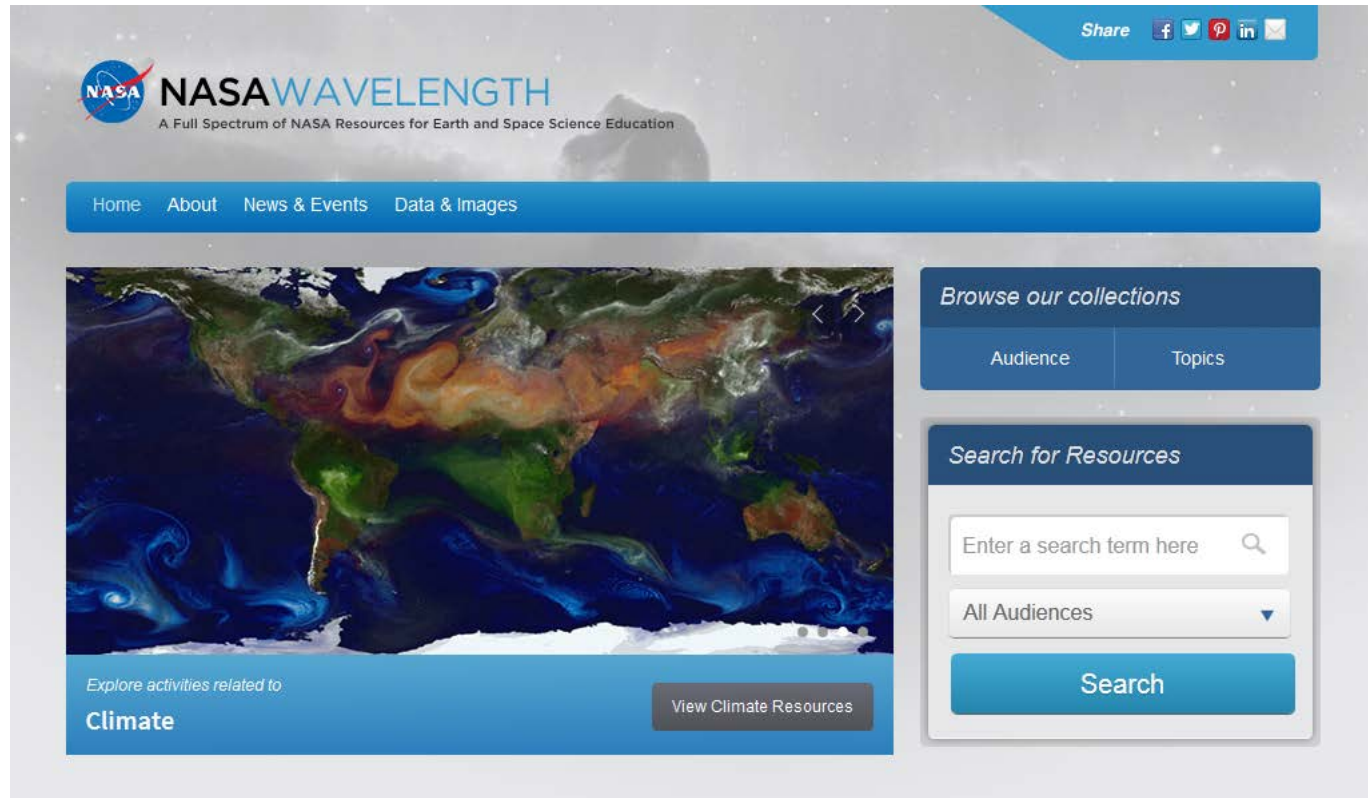
Application across all domains of science. They include: Patterns, similarity, and diversity; Cause and effect; Scale, proportion and quantity; Systems and system models; Energy and matter; Structure and function; Stability and change.



U.S. Department of Education

- 78 schools received recognition in 2011-2012 inaugural year
- Kick started and strengthened state programs around the country, including in West Virginia
- Green Strides seminars:
 - Dec. 12, 2012, 4-5 p.m. **Solar Energy: Power for Earth, the ISS, and Exploring Other Worlds! (NASA)**
 - Dec. 19, 2012, 4-5 p.m. and 7-8 p.m. **Chipmunk Cheeks and Chicken Legs: Body Systems and Life in Space (NASA)**
 - Jan. 3 2013, 3-4 p.m. **Reducing Environmental Impact and Costs with Portfolio Manager (EPA)**

NASA Wavelength website launched: NASA education resources online; ties to AAAS benchmarks





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Find a Teaching Resource!

Learn some creative ways to integrate the Chesapeake Bay and environmental issues into your classroom lessons. Search through the Bay Backpack's books, multimedia, curriculum guides, individual lesson plans and online data sources about the subjects you are teaching in class.

Check back often for new and innovative resources to help you teach environmental topics.

Learn More ▶

Find GREAT Teaching Resources



Learn About
EXCITING Field Studies



Get Up To SPEED
With Training



Read About AWESOME
Funding Opportunities



NOAA Programs

B-WET FY 2012: 26 awards;
FY 2013: 48 pre-proposals;
full proposal deadline
December 19th

ESTC: Weather Ready
Chesapeake & Restoration
Science

\$1M to National Geographic
for Geography Alliance/Fieldscope





NSF Climate Change Education Partnership

MADE CLEAR: Maryland and Delaware Climate Change Education, Assessment and Research

- ✔ UMCES, UMD, UD
- ✔ To embed climate science across the K-16 curriculum
- ✔ To build institutional capacity and prepare K-12 educators & faculty for teaching about climate and climate change
- ✔ Leverages Race-to-the Top funding in MD & DE
- ✔ Integrates with Next Generation Science Standards and state environmental literacy requirements

Climate and Urban Systems Partnership (CUSP)

- ✔ Franklin Institute, U of Pittsburgh, Columbia
- ✔ To increase urban residents' understanding of and engagement with climate change through networked community organizations that deliver coordinated, city-wide programming [NYC, Philadelphia, Pittsburg, Washington, DC]



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Contact Information

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**[http://www.chesapeakebay.net/
publications/title/mid_atlantic_
elementary_and_secondary_
environmental_literacy_strategy](http://www.chesapeakebay.net/publications/title/mid_atlantic_elementary_and_secondary_environmental_literacy_strategy)**