



Chesapeake Bay Program
Science, Restoration, Partnership



2012
State of the
Program

State of the Program Report

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EPA

** Several changes were made to this presentation in response to EC discussion and are identified by **red text** on slide 7 and 16.

2011-2012 Overview

- Focus on Water Quality Improvements
- Renewed Emphasis on Ecosystem Priorities
- Developed and began implementing an Adaptive Management Decision Framework
- Making Restoration Progress

2011 -2012 Focus on Water Quality

A Time of Transition

- Completed Phase II Watershed Implementation Plans to restore water quality to the Bay
- Developed milestone commitments for 2012 and 2013
- Shifting focus to increase implementation of water quality practices at the local level



2011 -2012 Focus on Water Quality

Working Toward an Integrated Approach

- Reporting and verification of water quality practices on the ground
- Increasing reliance on water quality monitoring
- Identifying monitoring trends in N, P, and Sediments in the watershed
- Attaining dissolved oxygen, chlorophyll-*a* water clarity/SAV standards in tidal waters
- Making needed enhancements to the Watershed monitoring network



Developing an Adaptive Management Decision Framework

- Establishing a common framework for adaptive management used by all the CBP Goal Teams
- Each “Goal Implementation Team” (GIT) has tested the framework on one or more priority areas
- Finding important points of interaction integration among the GITs
- Supporting coordination of individual partner goals as requested by EC, FLC



GITs - Focusing on Ecosystem Priorities

Sustainable Fisheries

Actions

- Developed a scientific quantitative measure for evaluating oyster restoration success
- Adopted invasive catfish policy
- Adopted sex-specific abundance and harvest removal targets for blue crab

Restoration Progress

- Blue crab total population rebounded to 763 million (highest since 1993).



GITs - Focusing on Ecosystem Priorities

Protect and Restore Vital Habitats

Accomplishments

- Brook Trout abundance information collected. Prioritizing streams for restoration
- Proposed STAC workshop on aligning information on carrying capacity for black ducks with coastal habitat restoration targeting



Restoration Progress

- 3,775 acres of wetlands restored in 2011 (*increased*¹)
- 148 miles of fish passage reopened (2,510 miles) (*increased*²; exceeded annual target of 67 stream miles.)
- 240 miles of forest buffers planted (7,479 miles) (*rate of progress declined from 2010*³)

Bay Health

- Bottom Habitat (benthic) at 45% of goal (*decreased* 4%⁴)

For more information see:

1. www.chesapeakebay.net/indicators/indicator/restoring_wetlands

2. www.chesapeakebay.net/indicators/indicator/reopening_fish_passage

3. www.chesapeakebay.net/indicators/indicator/planting_forest_buffers

4. www.chesapeakebay.net/indicators/indicator/bottom_habitat

GITs - Focusing on Ecosystem Priorities

Protect and Restore Water Quality

Accomplishments

- Developed Phase II WIPS and milestone commitments for 2012-2013
- Reviews of existing and proposed BMPs for crediting pollution reduction values.
- Developed new indicator for tracking progress in wastewater facility upgrades.

Restoration Progress

- Nitrogen load – reduced 15.67 million pounds since 2009
- Phosphorus load – reduced 0.9 million from 2009
- Sediment load – reduced 396 million from 2009

Bay Health

- Oxygen at 34% of goal (down 4% from 2010)
- Clarity at 5% or target (down 13% from 2010)



GITs - Focusing on Ecosystem Priorities

Maintain Healthy Watersheds

Accomplishments

- Creating a system for tracking watershed health and protection status
- Working with STAC to examine the scientific basis for providing water quality credit for conserving natural lands

Stream Health

- 43% of streams in the watershed are considered fair (18%), good (12%), or excellent (13%)

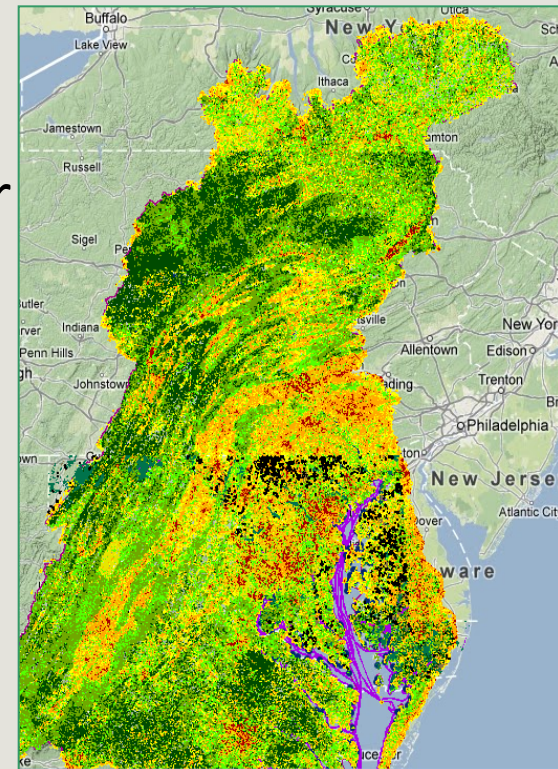


GITs - Focusing on Ecosystem Priorities

Fostering Stewardship

Accomplishments

- Created an initial prototype of a land conservation priority system and began working with Land-Scope America to further its development
- Developed draft of the Chesapeake Bay Watershed Public Access Plan
- Developing criteria for mapping and potentially conserving indigenous cultural landscapes
- Released Mid-Atlantic Elementary and Secondary Environmental Literacy Strategy



Partnership and Leadership

Accomplishments

- Adaptive Management Framework guidance and support for GIT implementation
- ChesapeakeStat realigned to support GIT decisions and useful for Management Board discussions

Progress

- All 6 GITs used the Decision support framework on a total of 10 GIT goals

The screenshot shows the ChesapeakeStat website. At the top is the logo and navigation menu with categories: PARTNER COORDINATION & SUPPORT, FISHERIES, HABITATS, WATER QUALITY, and WATERSHEDS. The main content area features a map titled 'Build Your Own ChesapeakeStat Map' with a 'play' button and page numbers 1, 2, 3. A green callout box says 'We've made some changes... to improve your access to information! Questions? Contact us.' To the right, there is a section for 'Executive Order & 2012' and 'Upcoming Bay Program' with dates: Jul 10 Wastewater Treatment Conference Call, Jul 12 Agriculture Workgroup Meeting, and Jul 12 Habitat Goal Implementation Committee Call. At the bottom, there is a 'More to do in ChesapeakeStat!' section and the BayTAS logo.

Scientific Technical Analysis Reporting

Accomplishments

- Made needed enhancements to watershed monitoring network
- Assistance to Program in establishing priorities, improving indicators, and communicating science, monitoring, analysis, and storm events

Bay Health

- 34% tidal waters met DO standards (down 4% from 2010 assessment)
- 5% of tidal waters met threshold for water clarity for Bay grasses (down 13% from 2010)
- 18% of tidal waters had chlorophyll-a concentrations below threshold concentrations

Watershed Health

- Long term – 2/3 of sites improving trends for N, 70% for P, 30% for sediment
- Short term – 1/2 of sites with improving or no trends for N, 1/3 improving, most no trend for P, 3 sites improving/most no trends for sediment

Communications and Outreach

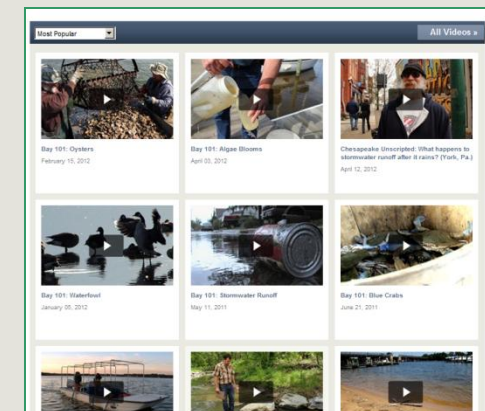
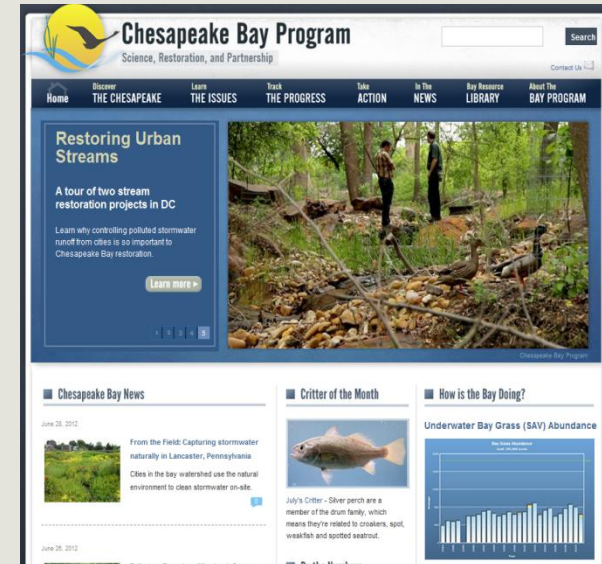
Communications Workgroup

Accomplishments

- Developed more relevant and public-friendly schedule for communicating CBPs scientific information
- Redesigned and launched the CBP Website, chesapeakebay.net
- Integrated photos and videos, enhanced the video collection, and improved access of information to the public through video topics

Progress

- News Stories – More than 200
- Web visits – more than 10,000 per day
- Video views – around 15,000



Jurisdiction Highlights

- **Delaware** - Phase II WIP calls for pollution reductions beyond TMDL goals; Revised DE CAFO Regulations and recently approved CAFO Program; Working with local governments to develop master plans to help meet WIP goals.
- **District of Columbia** - More than 2,400 homes audited through the RiverSmart Homes Program (residential stormwater program); Successful public outreach/education campaign; Installation of 800,000 square feet of green roofs; 1.3 million sq. ft. more approved for construction through spring 2012.
- **Maryland** - In 2011, 1,585 farmers planted 429,818 acres of cover crops, exceeding second 2-year milestone goal of 355,000 acres; New law will enable exchange of nutrient-reduction credits with monetary value; More than 3,000 septic system replacements/upgrades in Critical Areas.

Jurisdiction Highlights

- **New York** - Completed development of Susquehanna-Chemung Action Plan, an ecosystem-based management plan for the Chemung and Susquehanna River basins.
- **Pennsylvania** - Published the Manure Management Manual; Completed the draft Model Agricultural Compliance Policy; Approved PAG-13 (MS4 Stormwater permit) including the Chesapeake Reduction Plan; Committed to having 40 WWTPs operating under reduced nutrient limit permits by June 2011.
- **Virginia** – \$88 million contribution to Water Quality Improvement Fund for sewage treatment plant upgrades and \$5 million for agricultural best management practices; New law that expands and improves nutrient credit trading and offset programs; developing voluntary program for development and implementation of Resource Management plans; Wastewater facilities collectively exceed the initial two-year milestone for nitrogen by over 2000%.

Jurisdiction Highlights

- **West Virginia** - Increased its Nutrient Management Planning activities and staff; held two day stormwater/sediment and erosion workshop; installed two rain gardens at DOH facilities; Frankfort Public Service District (PSD) wastewater treatment plant constructed to replace 9 smaller plants and meet Bay TMDL wasteload allocation; 444 trees planted through Project CommuniTree.
- **Chesapeake Bay Commission** – Introduced legislation in member states to limit application of nitrogen and phosphorus to lawns and require professional certification of lawn professionals (adopted in Maryland and Virginia, pending in Pennsylvania); Co-hosted a Manure-to-Energy Summit in September 2011 and issued a policy report: *Manure to Energy: Sustainable Solutions for the Chesapeake Bay Region*; Successfully pursued enactment of a thermal energy tax credit in Maryland and convened a multi-sector Manure to Energy Working Group in Pennsylvania; and Completed a comprehensive research project on potential cost savings from nutrient credit trading.

Other Federal Agency Actions

- NRCS treated more than 650,000 acres of agricultural working lands in priority watersheds
- NOAA helped establish a new adult, female-specific, blue crab abundance target of 215 million female crabs
- FWS Coastal Program initiated brook trout restoration projects
- FWS, USGS, federal, state and nongovernmental partners initiated work to improve a regional black duck habitat model
- NPS-led team identified and mapped approximately 1,100 existing public access sites throughout the watershed and developed a web-based mapping tool to identify public access gaps and opportunities
- DOD conducting facility-level assessments to identify opportunities to contribute to jurisdictions WIPs and milestones

Priorities for 2012-2013

- Continue to implement adaptive management through the decision support framework and working to align goals of the partnership
- Continue oyster reef restoration in Harris Creek, Md.
- Improve targeting of habitat restoration for black ducks and brook trout
- Implement WIPs and achieving Milestone commitments

Priorities for 2012-2013

- Support pollution reductions implementation efforts through
 - BMP verification and validation
 - Improved watershed monitoring
 - Funding for local assistance and implementation
 - Complete economic study to better understand the costs and benefits of water quality improvements
- Complete report on toxic contaminants in the Bay and watershed
- Complete development of system for tracking watershed health and protection status
- Follow up on STAC workshops on crediting land conservation
- Implement trading and offsets workplan actions, including technical memoranda on key issues

Up Next

- **More about progress on reducing pollution and restoring water quality**
- **Hear reports from the advisory committees representing citizens, scientists, and local governments**
- **Local success stories in the lightning talk presentations**