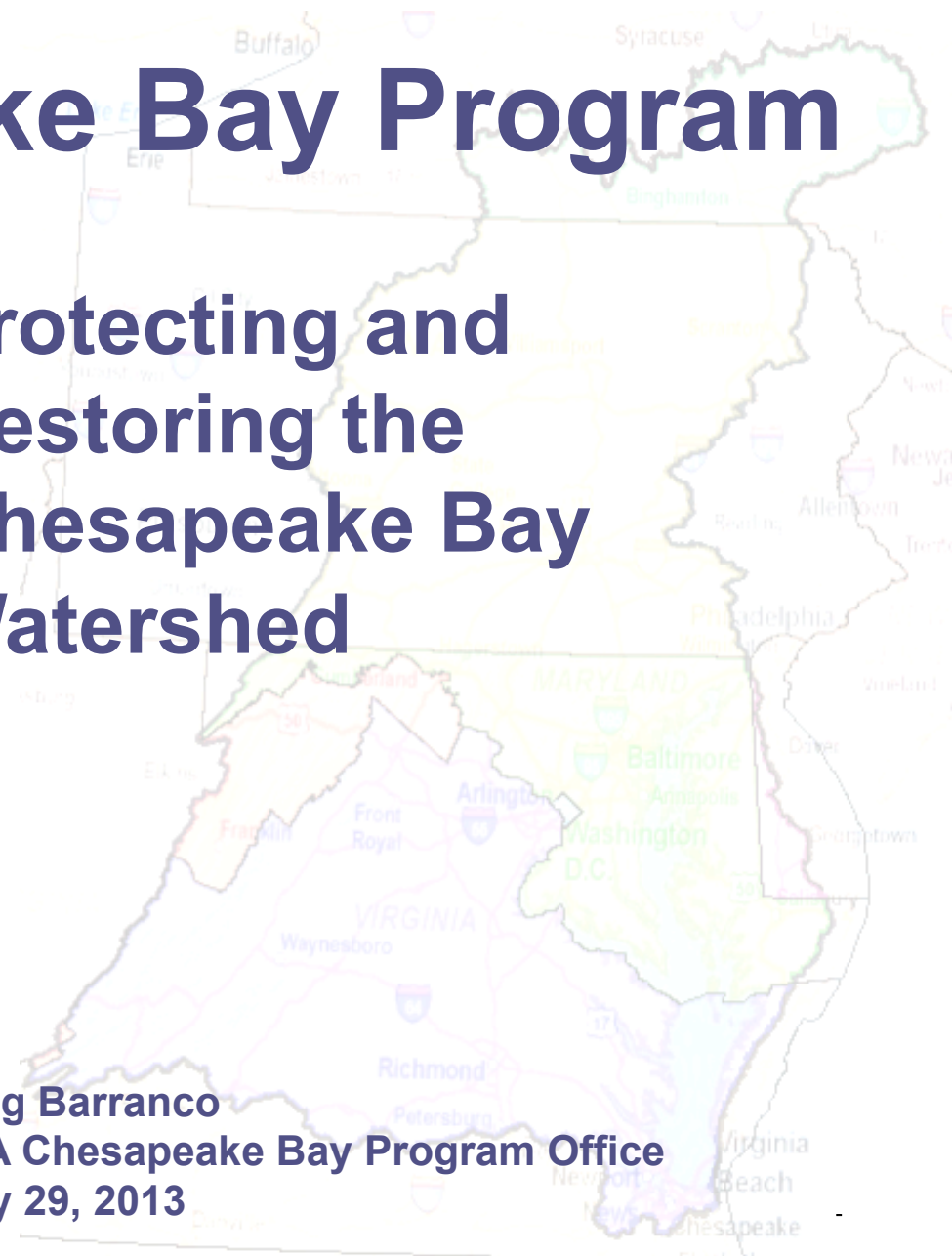


The Chesapeake Bay Program



Protecting and Restoring the Chesapeake Bay Watershed

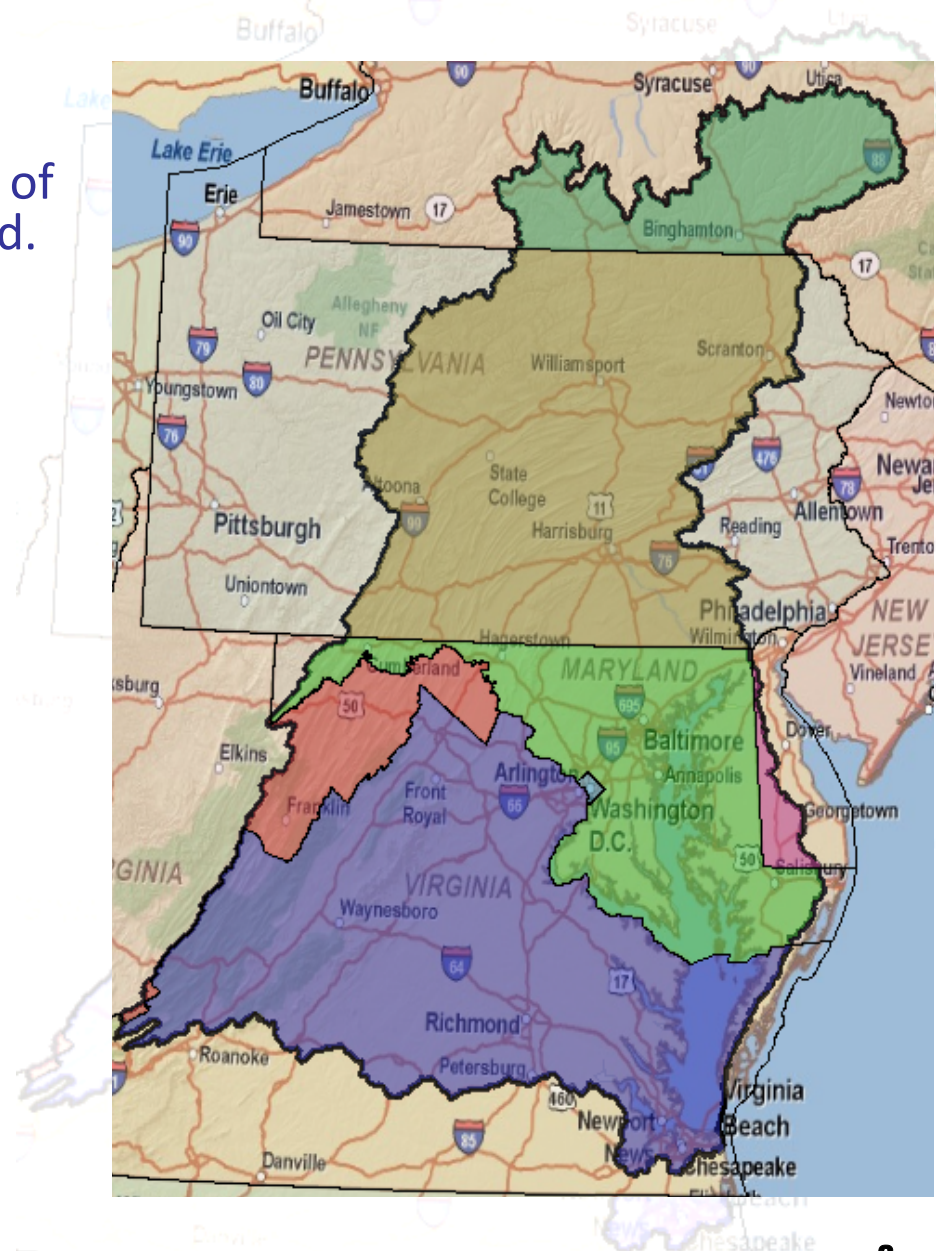
Greg Barranco
EPA Chesapeake Bay Program Office
July 29, 2013



The Chesapeake Bay and Watershed

- Largest estuary in North America
- Land-to-water ratio is 14:1; largest of any coastal water body in the world.
- Home to almost 17 million people; 150,000 new people each year
- 3,600 of fish, wildlife, and plants
- Economic value: approx. \$1 trillion
 - Estimated 77,000 farms
 - Seafood, recreation, tourism
- Six states and District of Columbia; About 1,800 local governments

DNR PHOTO BY
ANGEL BOLINGER



History of the Partnership

CBP Vision Statement: To lead and empower others to protect and restore the Chesapeake Bay ecosystem for future generations.

Original Partners (1983)

- MD, VA, PA, DC, the Chesapeake Bay Commission and EPA (Lead Federal Agency)
- **Headwater States** - Join in 2000 thru MOU: DE, NY, WV (2000-2002)

The Bay Enterprise

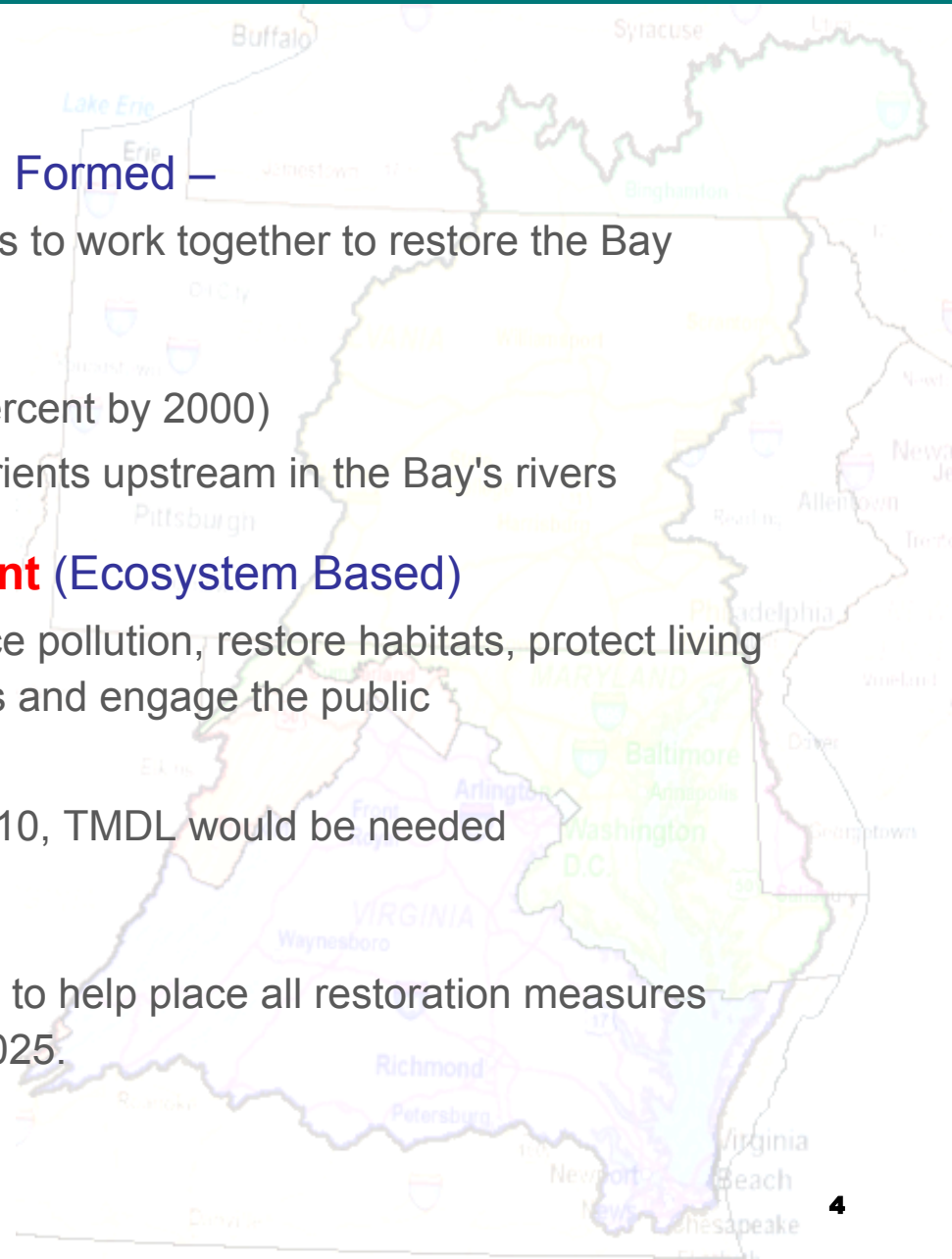
- Principal Partners (Jurisdictions/EPA/CBC), Headwater States, Federal Agencies (EPA, NOAA, USFWS, USDA, NPS, USGS, DOD, others)
- Academic Partners – UMCES, VIMS, U of Delaware, SERC...
- NGOs – CBF, CBT, CCWC, Alliance, NFWF, local watershed groups...
- Local municipalities, commissions
- Environmental Ethic - Watershed Stewards, Annapolis Green, strong community support for Chesapeake Bay



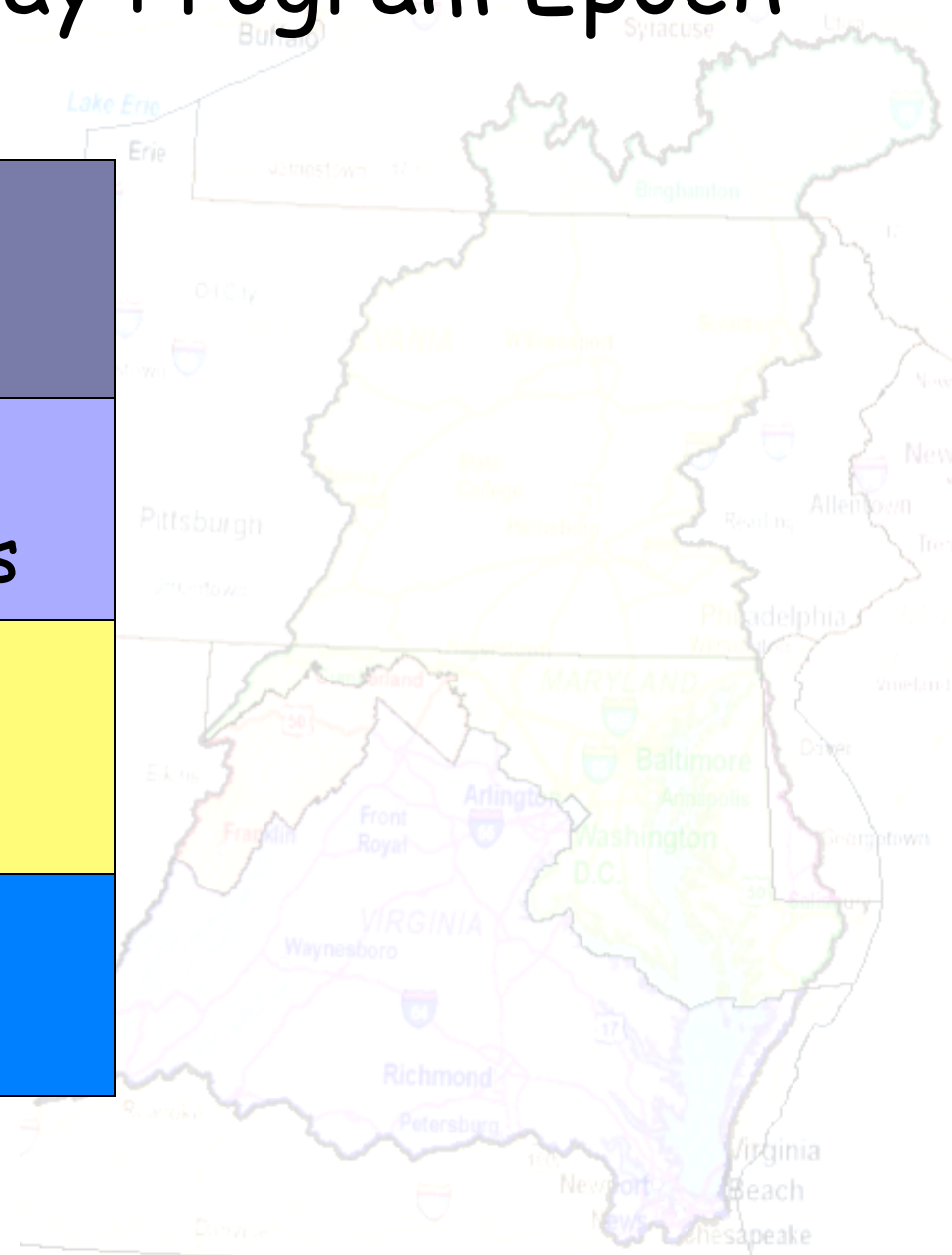
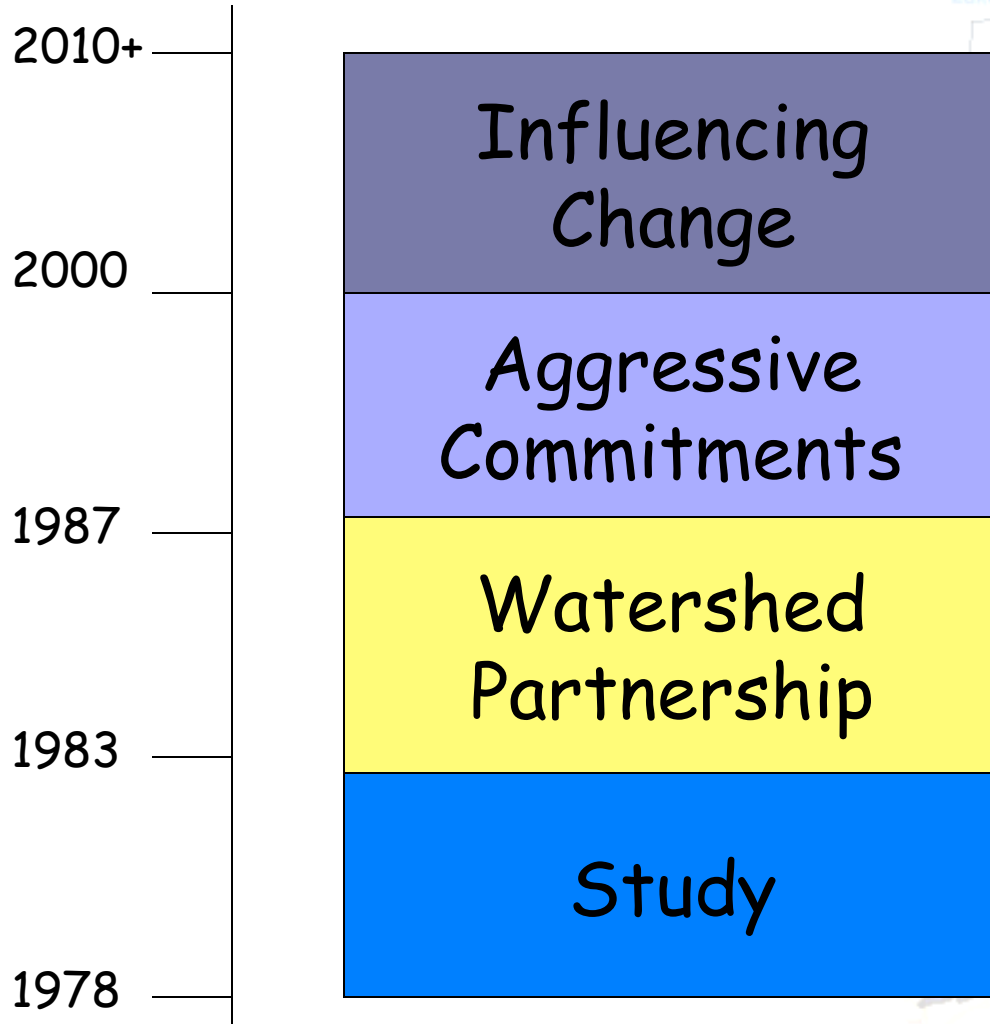
History of the Partnership

Key Agreements

- **1983 - Chesapeake Bay Partnership Formed** –
 - A simple, one-page pledge by the partners to work together to restore the Bay
- **1987 - Chesapeake Bay Agreement**
 - First numeric goals (reduce N, P by 40 percent by 2000)
 - 1992 Amendments - agreed to attack nutrients upstream in the Bay's rivers
- **2000 - Chesapeake 2000 Agreement (Ecosystem Based)**
 - Ecosystem approach - 102 goals to reduce pollution, restore habitats, protect living resources, promote sound land use practices and engage the public
 - “Headwater states” join – DE, NY, WV
 - Acknowledged that if goals not met by 2010, TMDL would be needed
- **2009 - Two Year Milestones**
 - EC agreed to short-term restoration goals to help place all restoration measures necessary for a restored Bay no later than 2025.
- **2009 (Executive Order 13508)**

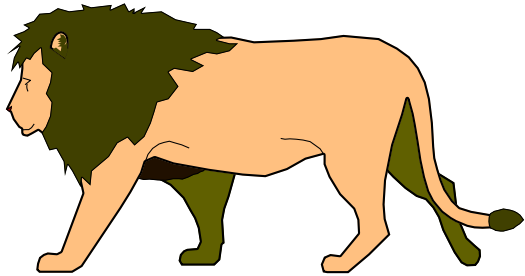


The Chesapeake Bay Program Epoch



Three Key Elements to a Successful Regional Program

■ Top Level Political Involvement



■ Aggressive Science Based Goal Setting



Strong Citizen Support

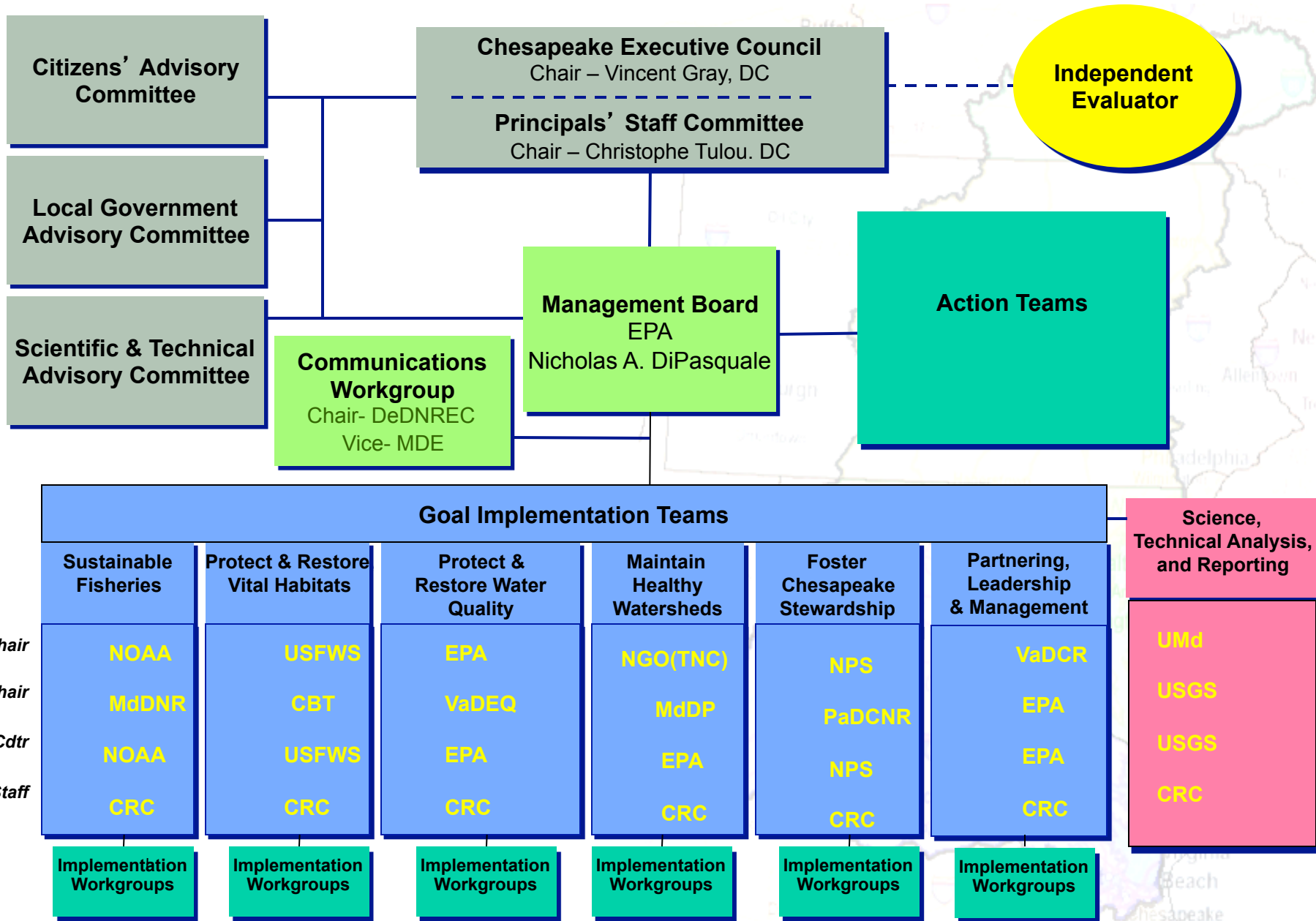


Chesapeake Bay Program – A Watershed Partnership



CBP Organizational Structure and Leadership

6-08-11



Goal Implementation Teams

	Sustainable Fisheries	Protect & Restore Vital Habitats	Protect & Restore Water Quality	Maintain Healthy Watersheds	Foster Chesapeake Stewardship	Partnering, Leadership & Management
<i>Chair</i>	NOAA	USFWS	EPA	NGO(TNC)	NPS	VaDCR
<i>ViceChair</i>	MdDNR	CBT	VaDEQ	MdDP	PaDCNR	EPA
<i>Cdtr</i>	NOAA	USFWS	EPA	EPA	NPS	EPA
<i>Staff</i>	CRC	CRC	CRC	CRC	CRC	CRC

Science, Technical Analysis, and Reporting

UMd
USGS
USGS
CRC

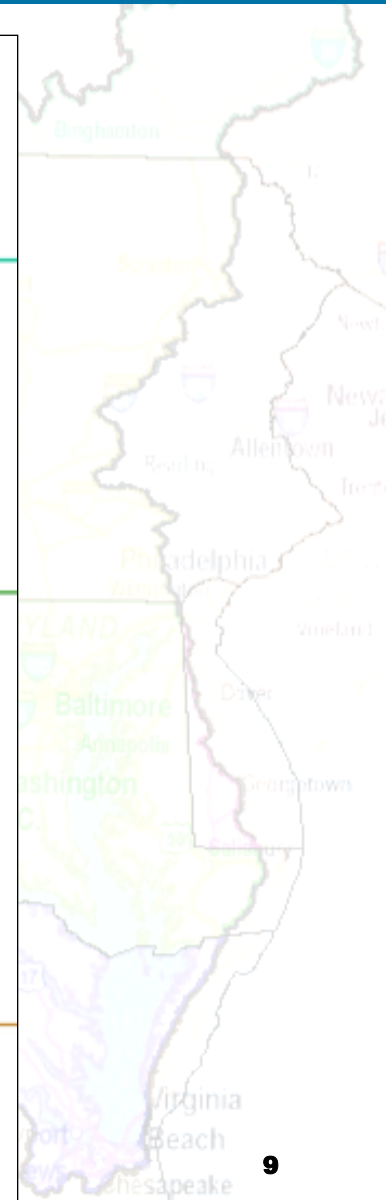
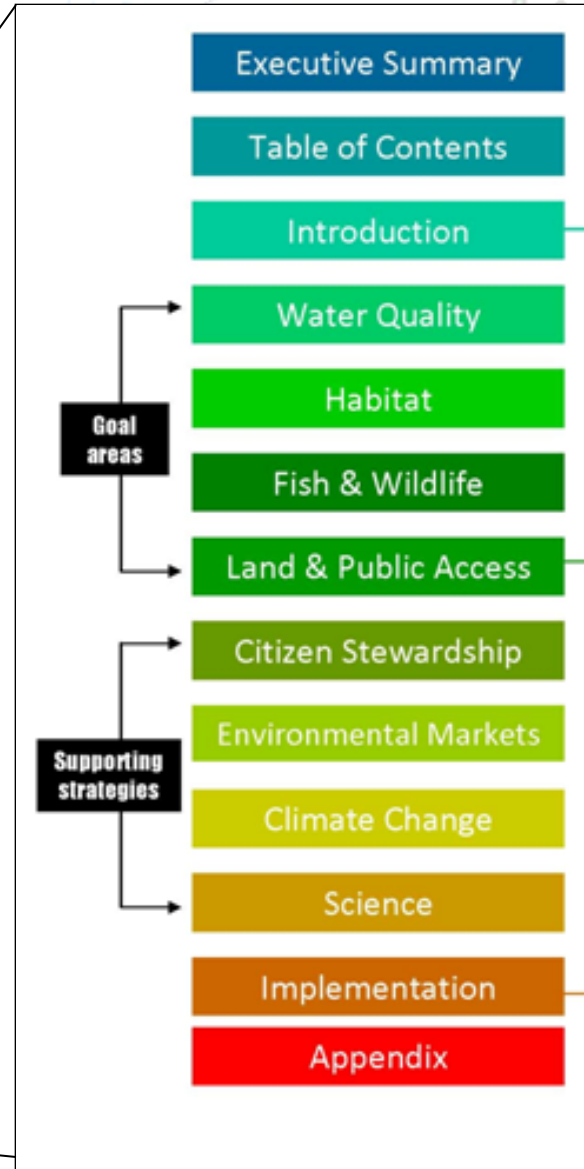
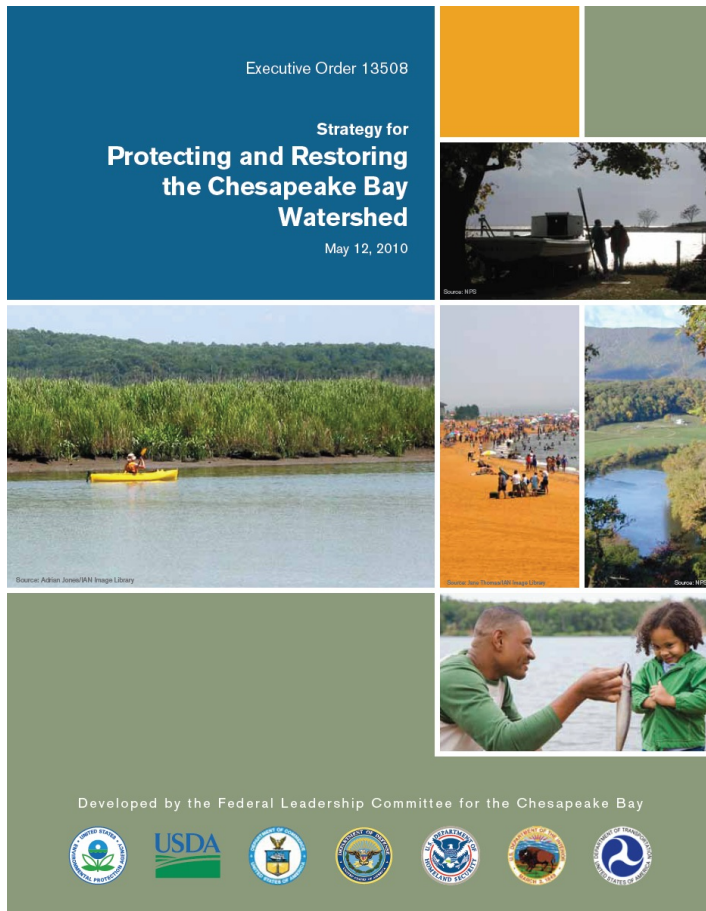
Implementation Workgroups

Recent Bay Program “Drivers”

- **Government Accountability Office Report – Oct 2005**
 - Develop a coordinated implementation strategy that unifies the program’s planning documents
- **Chesapeake Bay Foundation Settlement Agreement with EPA – May 10, 2010**
- **Executive Order Strategy – May 12, 2010**
 - New goals and outcomes; topically aligns with C2K goals and commitments; includes targets into 2025.
- **Bay TMDL (Total Maximum Daily Load) – December 29, 2010**
 - CBP Jurisdictions participating, but changes nature of the relationship between the EPA and the jurisdictions

EO 13508 Chesapeake Bay Strategy

May 12, 2010



EO Strategy Goals and Outcomes

RESTORE CLEAN WATER GOAL:

Reduce nitrogen, phosphorus, sediment and other pollutants to meet Bay water quality goals for dissolved oxygen, clarity and chlorophyll-a and toxic contaminants.

WATER QUALITY OUTCOME: Meet water quality standards for dissolved oxygen, clarity/underwater grasses and chlorophyll-a in the Bay and tidal tributaries by implementing 100 percent of pollution reduction actions for nitrogen, phosphorus and sediment no later than 2025, with 60 percent of segments attaining standards by 2025.

STREAM RESTORATION OUTCOME: Improve the health of streams so that 70 percent of sampled streams throughout the Chesapeake watershed rate three, four, or five (corresponding to fair, good or excellent) as measured by the Index of Biotic Integrity, by 2025.

AGRICULTURAL CONSERVATION OUTCOME: Work with producers to apply new conservation practices on 4 million acres of agricultural working lands in high-priority watersheds by 2025 to improve water quality in the Chesapeake Bay and its tributaries.

RECOVER HABITAT GOAL:

Restore a network of land and water habitats to support priority species and to afford other public benefits, including water quality, recreational uses and scenic value across the watershed.

WETLAND RESTORATION OUTCOME: Restore 30,000 acres of tidal and non-tidal wetlands and enhance the function of an additional 150,000 acres of degraded wetlands by 2025.

FOREST BUFFER OUTCOME: Restore riparian forest buffers to 63 percent, or 181,440 miles, of the total riparian miles (stream bank and shoreline miles) in the Bay watershed by 2025.

FISH PASSAGE OUTCOME: Restore historical fish migratory routes by opening 1,000 additional stream miles by 2025, with restoration success indicated by the presence of river herring, American shad and/or American eel.

SUSTAIN FISH & WILDLIFE GOAL:

Sustain healthy populations of fish and wildlife, which contribute to a resilient ecosystem and vibrant economy.

OYSTER OUTCOME: Restore native oyster habitat and populations in 20 tributaries out of 35 to 40 candidate tributaries by 2025.

BLUE CRAB OUTCOME: Maintain sustainable blue crab interim population target of 200 million adults (1+ years old) in 2011 and develop a new population rebuilding target for 2012-2025.

BROOK TROUT OUTCOME: Restore naturally reproducing brook trout populations in headwater streams by improving 58 sub-watersheds from 'reduced' classification (10-50 percent of habitat lost) to 'healthy' (less than 10 percent of habitat lost) by 2025.

BLACK DUCK OUTCOME: Restore a three-year average wintering black duck population in the Chesapeake Bay watershed of 100,000 birds by 2025.

CONSERVE LAND AND INCREASE PUBLIC ACCESS

Conserve landscapes to maintain water quality, habitat, sustainable working forests, farms and maritime communities; and cultural, community and indigenous values. It will also expand public access to the Bay and its tributaries through existing and new federal, state, and local parks, refuges, reserves, trails and partner sites.

LAND CONSERVATION OUTCOME: Protect an additional 2 million acres of lands throughout the watershed currently identified as high conservation priorities at the federal, state or local level by 2025, including 695,000 acres of forest land of highest value for maintaining water quality.

PUBLIC ACCESS OUTCOME: Increase public access to the Bay and its tributaries by adding 300 new public access sites by 2025.



Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment

Established by the U.S. Environmental Protection Agency



Shawn M. Garvin, Regional Administrator
U.S. Environmental Protection Agency
Region 3

Judith A. Enck, Regional Administrator
U.S. Environmental Protection Agency
Region 2

DATE

12/29/10



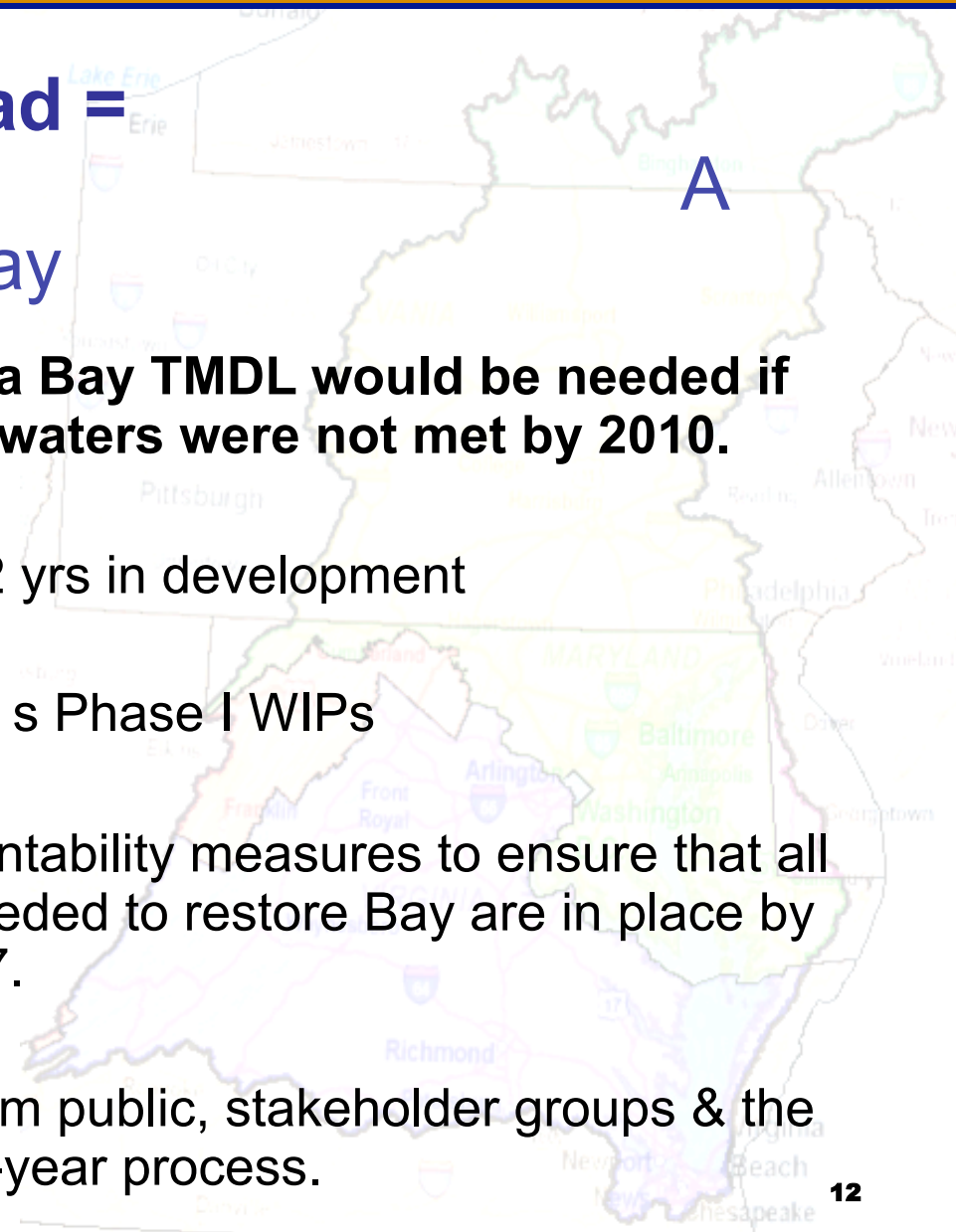
Chesapeake Bay TMDL

Chesapeake Bay TMDL

Total Maximum Daily Load =

Pollution Diet for the Bay

- Partners recognized in 2000 that a **Bay TMDL would be needed if water quality standards in tidal waters were not met by 2010.**
- Issued December 29, 2010 after 2 yrs in development
 - Largely based on Jurisdiction's Phase I WIPs
 - Designed with rigorous accountability measures to ensure that all pollution control measures needed to restore Bay are in place by 2025, with 60 percent by 2017.
 - Shaped by extensive input from public, stakeholder groups & the jurisdictions throughout a two-year process.



Chesapeake Bay TMDL Updates

A New Way to Hold Jurisdictions Accountable

- **TMDL**: Set “pollution diet” or limits for sources of nitrogen, phosphorus and sediment to the Bay to meet water quality standards (up to 92 impaired segments)
- **Watershed Implementation Plans (WIPs)**: States/DC describe what amount, how, where, and when.
- **2-Year Milestones**: States and DC, working with local partners, implement actions to reduce loads
- **Consequences**: EPA evaluates plans and milestones and adopts as necessary

www.epa.gov/chesapeakebaytmdl

www.chesapeakebay.net



Chesapeake Bay TMDL

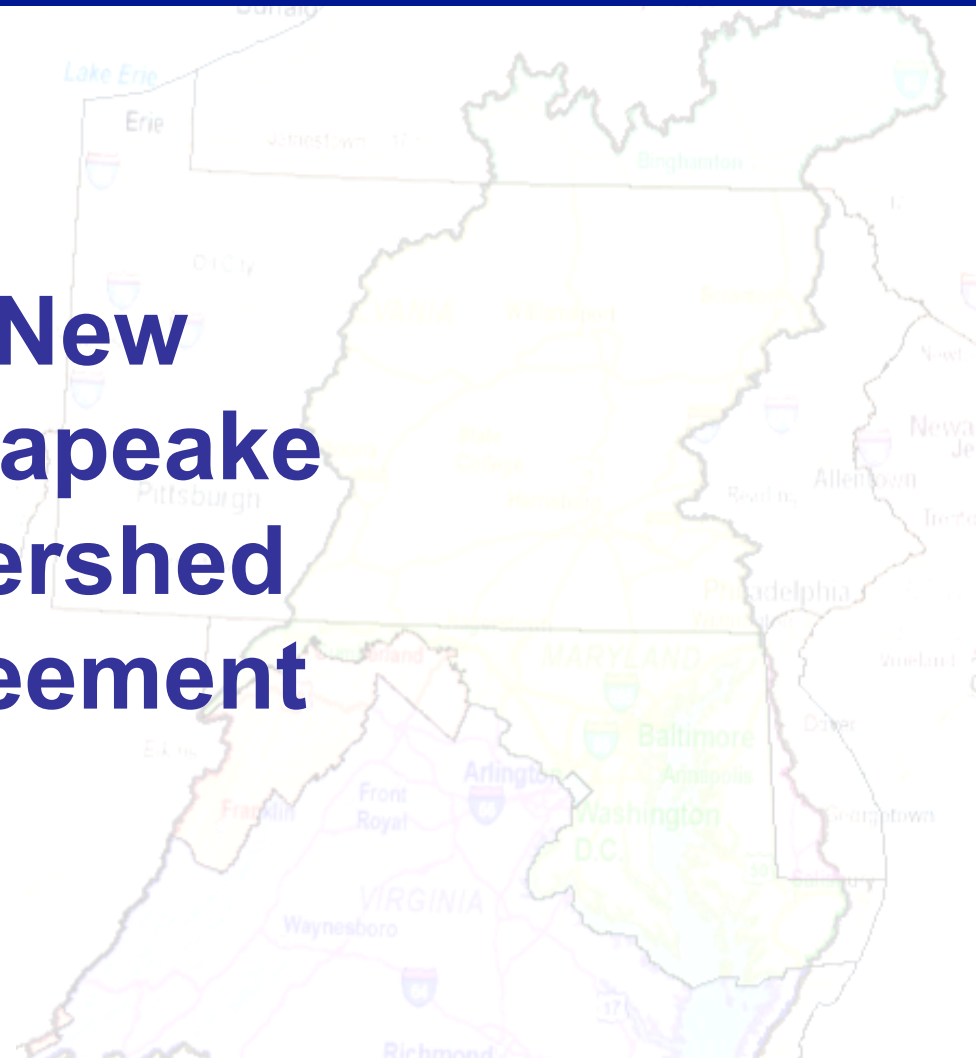
Watershed Implementation Plans

- Science tells us how big the pie is
- States, D.C. say how to slice it up in their Watershed Implementation Plans (WIPs)
- WIPs also include strategies, schedules and contingencies to achieve pollutant reductions



■ Agriculture ■ Urban runoff ■ Wastewater ■ Septic ■ Forest

A New Chesapeake Watershed Agreement



QUESTIONS?



For more information, please visit:
www.chesapeakebay.net