

# Conserving Virginia's Healthy Waters

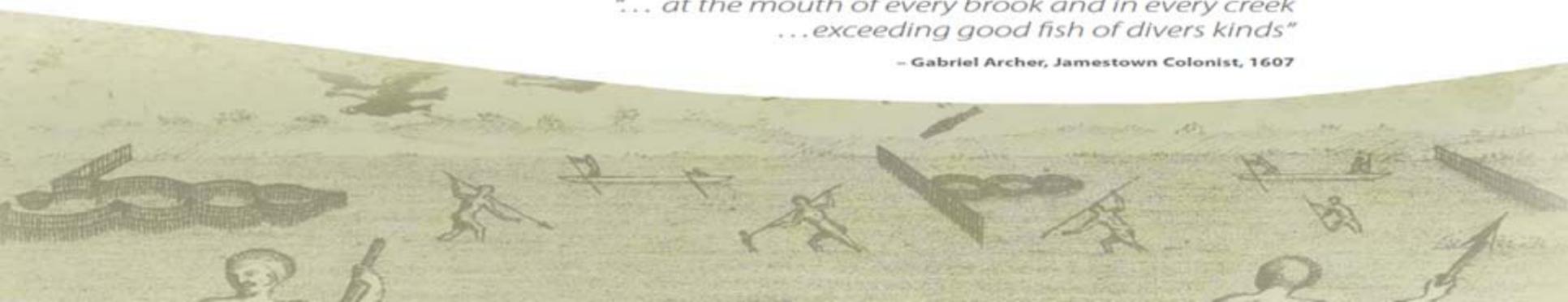
*“it shall be the Commonwealth's policy to protect its atmosphere, lands, and waters from pollution, impairment, or destruction...”*

# What Is Virginia's Healthy Waters Initiative?

- Inter-agency partnership to identify ecologically healthy waters
- It is at the forefront of efforts to conserve ecologically rich rivers and streams in Virginia
- One of the leading efforts in the nation

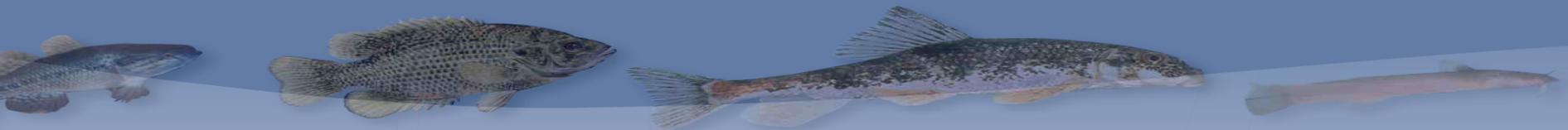
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...exceeding good fish of divers kinds"*

**– Gabriel Archer, Jamestown Colonist, 1607**



# Virginia's Healthy Waters Initiative

- **Began with integration of Natural Heritage Data into Nonpoint Source Assessment Report in the 1990s**
- **Progressed into a pilot study to include available biological data at a watershed scale into the Assessment Report**
- **Advanced to systematic assessment of ecological integrity within the Bay watershed and identification of healthy streams**

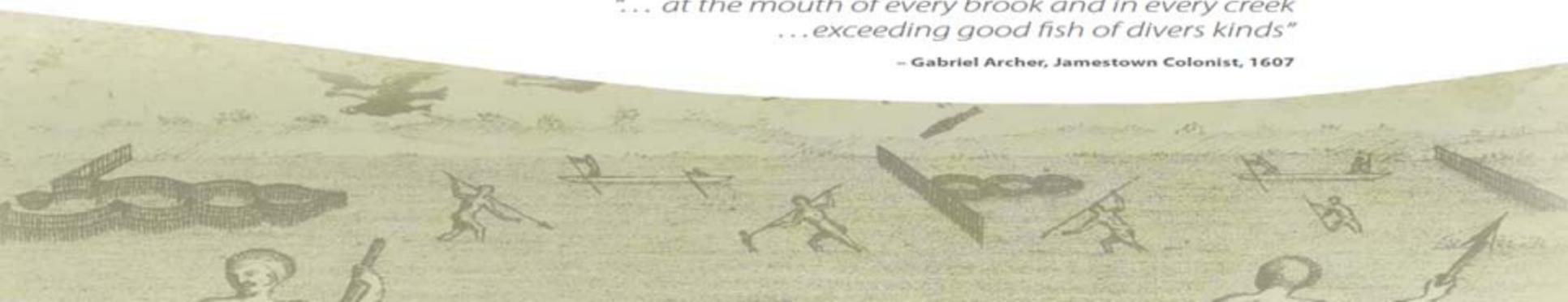


# What Are Healthy Waters?

- Fresh water rivers and streams with high ecological integrity
- Not based on water quality standards
- Streams and rivers that harbor outstanding biological resources

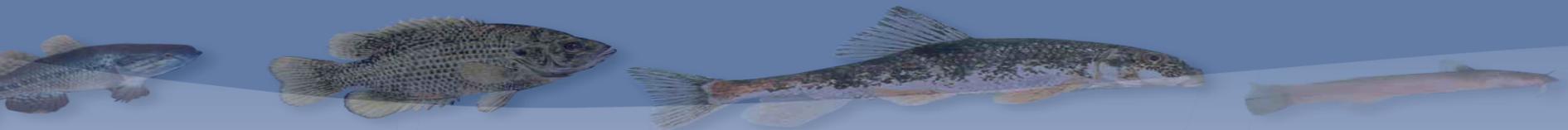
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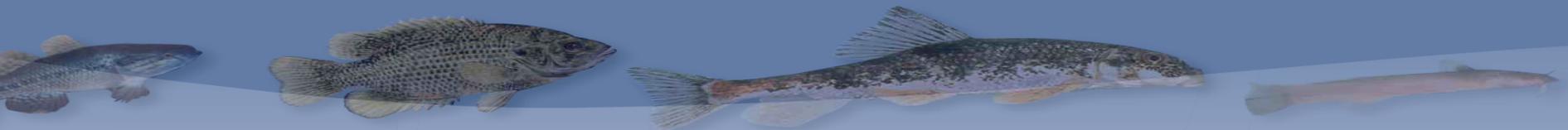
# How Are Healthy Waters Identified?

- A strength of this initiative is that it is based on an innovative and robust river and stream ecological assessment and classification system - **Interactive Stream Assessment Resource (INSTAR)**
- **INSTAR** provides an objective basis for identifying healthy waters and it provides open access to data

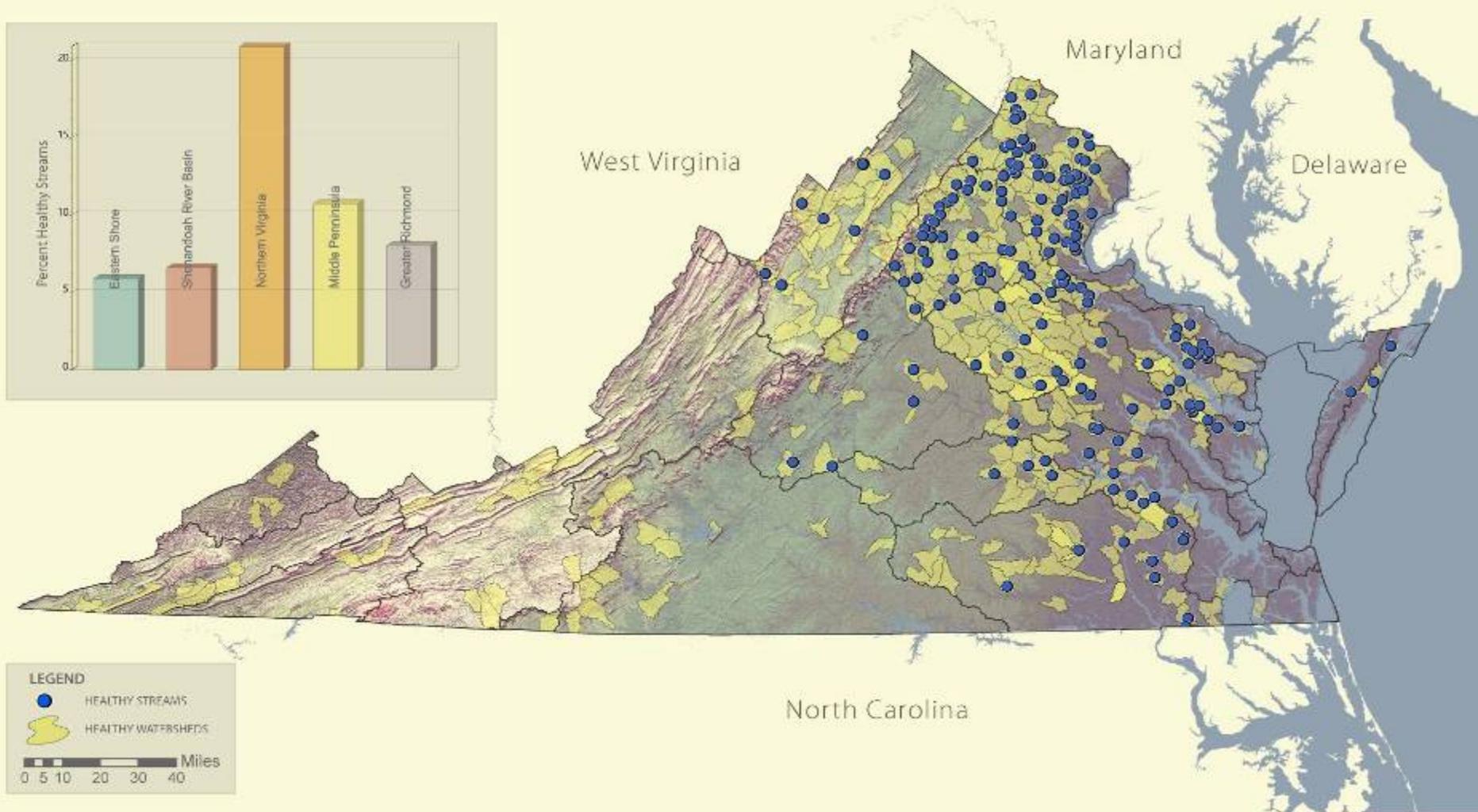
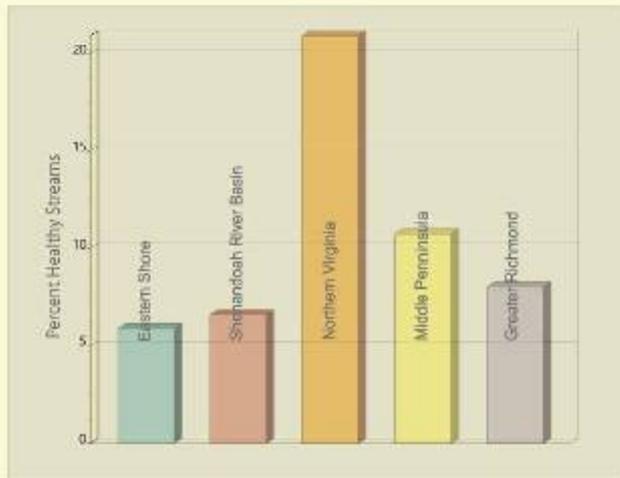


# Interactive Stream Assessment Resource

- Scientific basis for identifying ecologically healthy waters
- Multi-metric ecological assessment - physical condition of streams, habitat, fish and macro invertebrate assemblages
- It uses high quality archival and lots of field data collected through probabilistic sampling
- Thousands of rivers and streams have been assessed
- Assessment completed through an interagency partnership
- All data and the assessment methodology is available on an interactive, searchable website housed by VCU:  
<http://instar.vcu.edu/>
- To date, approximately 200 waters have been identified as having high ecological integrity (healthy)



# STATUS OF HEALTHY WATERS IN VIRGINIA

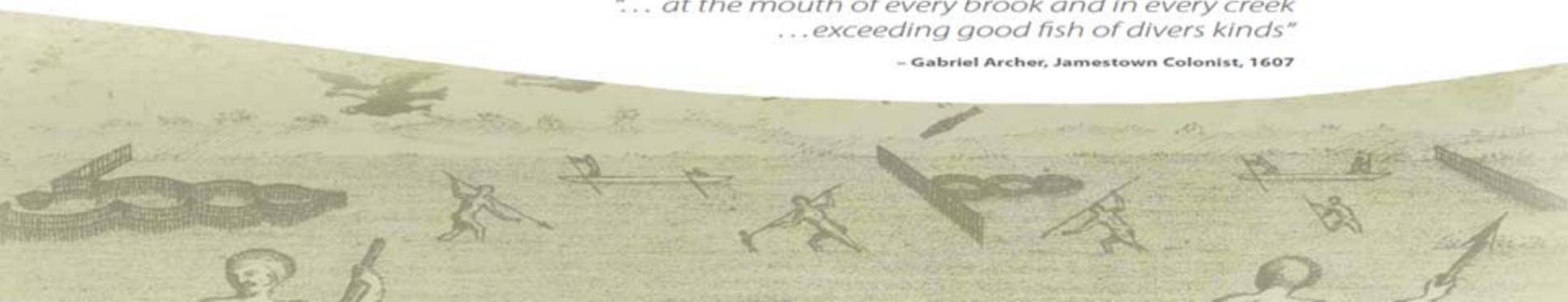


# Why Healthy Waters?

- Thousands of known impairments
- Daunting restoration challenge
- Declining ecological health
- Healthy Waters = Healthy Bay
- We need to conserve what we have left!

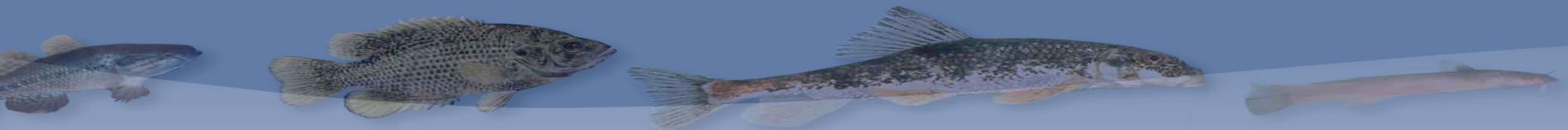
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# Growing National Priority

- **Conserving Healthy Waters is becoming a priority for at the National, Regional, and Bay Program levels of EPA**
- **Moreover, conservation of water resources is firmly established in the antidegradation provisions of the Clean Water Act**

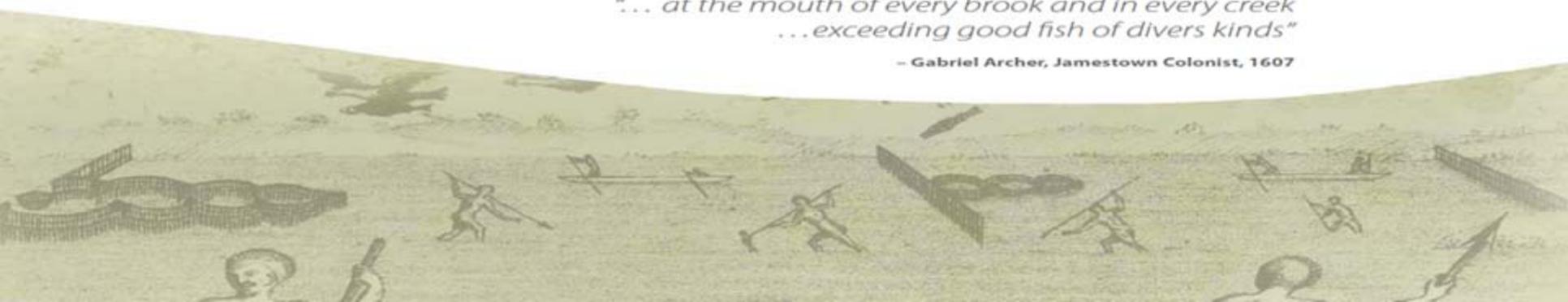


# Benefits Of Conservation

- Its positive
- Its proactive
- Its effective and cost effective
- It is the only way to ensure the long term ecological health of stream, rivers and the Bay...

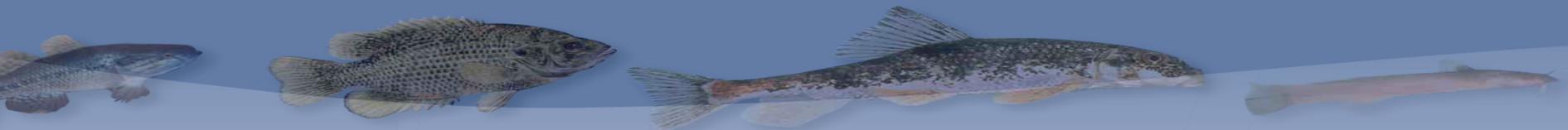
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# Challenges

- **Failure to recognize the extent of the conservation challenge is a major impediment**
- **Despite continuing water quality degradation, and perhaps accelerating ecological degradation, conservation continues to take a back seat to restoration**
- **While the Clean Water Act clearly mandates anti-degradation, funding and measureable improvements remain focused on cleanup of impaired waters**

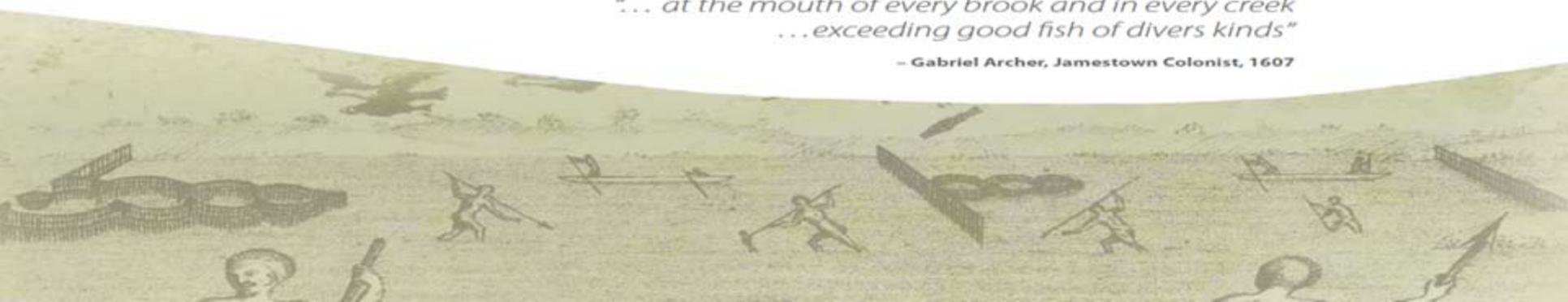


# What Is Being Done?

- Expanding and maintaining INSTAR
- Leveraging and coordinating natural resources management programs
- Integrating conservation messages into existing programs
- Conservation based planning assistance to local governments

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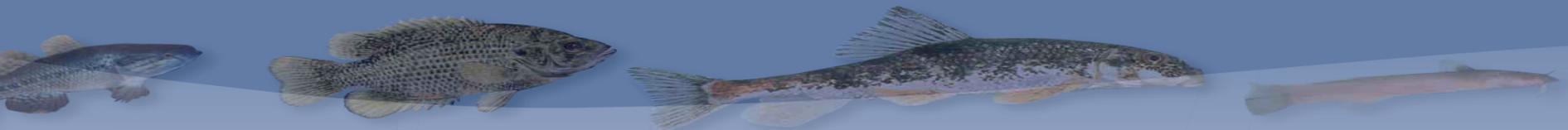


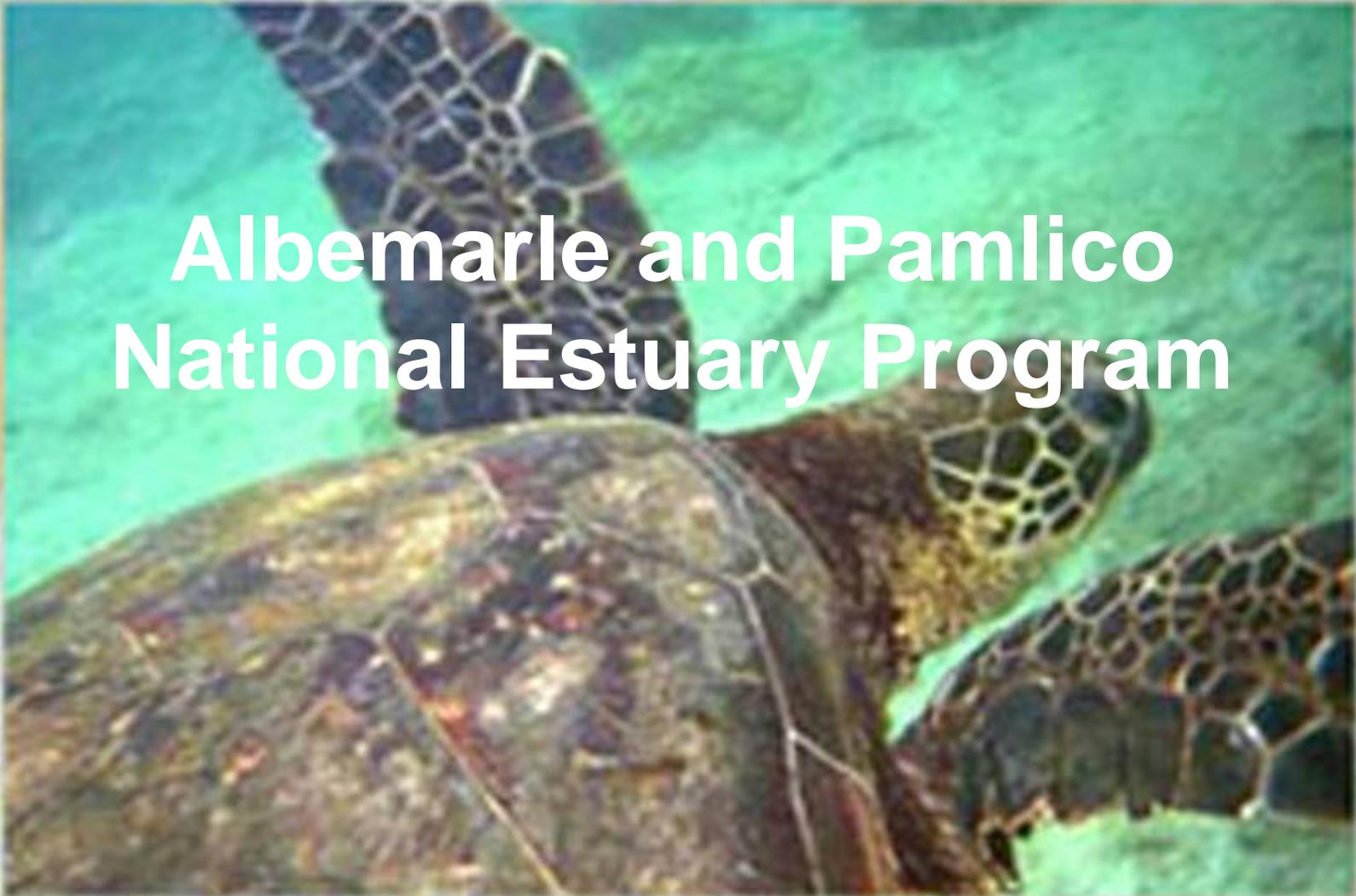
An aerial photograph of the Chesapeake Bay watershed. The image shows a dense network of green, forested hills and valleys on the left, leading to a large, dark, branching waterway system on the right. The waterway is the Chesapeake Bay, which is filled with water and surrounded by a dark, forested shoreline. The text "Chesapeake Bay Program" is overlaid in white, bold, sans-serif font in the center of the image.

# Chesapeake Bay Program

# Phase II Watershed Implementation Plan

- **The Chesapeake Bay Program, has, as one of its core focal areas, conservation of Healthy Watersheds**
- **Phase II of the Bay TMDL watershed planning process will directly engage local governments in Bay restoration efforts**
- **This planning process presents an unprecedented opportunity to engage local governments in resource conservation**
- **This process offers an opportunity to promote conservation of healthy waters and it will provide a positive and constructive basis for local engagement**

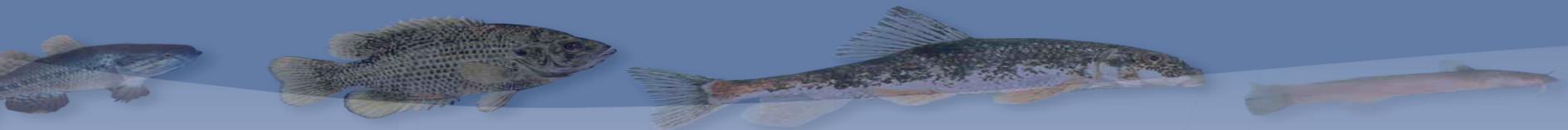




# Albemarle and Pamlico National Estuary Program

# Albemarle and Pamlico NEP (APNEP)

- APNEP has as its mission “to identify, restore, and protect the significant resources of the Albemarle-Pamlico estuarine system” - this mission is perfectly aligned with conservation of healthy watersheds
- Virginia and North Carolina are working cooperatively to advance conservation of the outstanding aquatic resources in the basins of the Albemarle and Pamlico Sounds
- The healthy waters approach will compliment and expand the Comprehensive Conservation and Management Plan being developed for APNEP

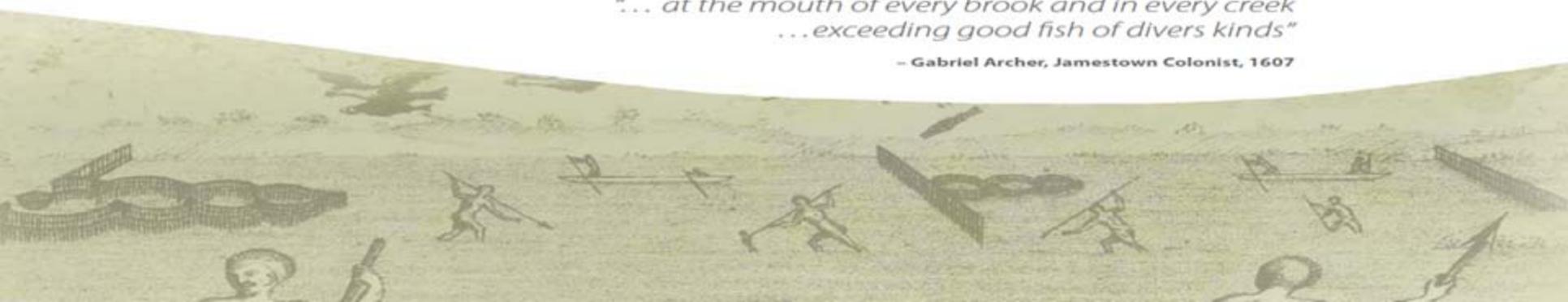


# Program Coordination

- Land Conservation
- Agricultural Incentive Programs
- Stormwater Management
- Chesapeake Bay Preservation Act
- Natural Heritage Programs
- Technical Assistance

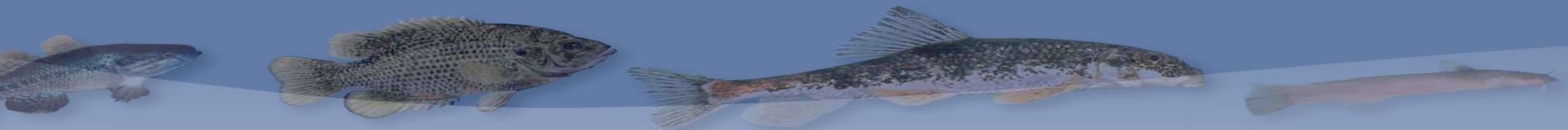
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# Land Conservation

- **Healthy waters data can inform land conservation decision making**
- **It can strengthen the case for conservation – not just land resources but aquatic resources**
- **It can expand the base for conservation because clean water is a priority for everyone**
- **Land conservation has broad support and is an administration priority – our challenge is to harness that support for conservation of healthy waters**



# Agricultural Cost-Share Program

- For the first time Virginia has made conservation healthy waters a priority consideration for cost-share funding allocation decisions
- Although it is not a primary driver, impaired waters are still a funding priority - opening the door for conservation is a major step forward
- By demonstrating the benefits of healthy streams for Bay restoration, we should be able to leverage additional funding in the future



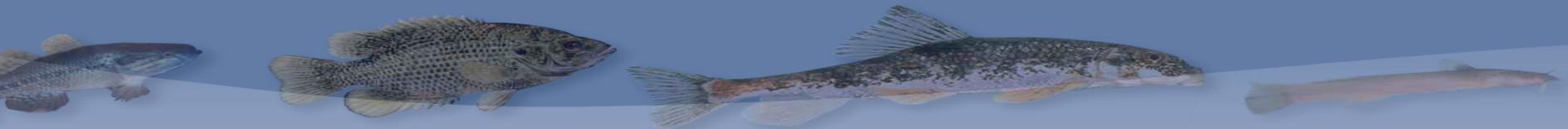
# Stormwater Management

- **Healthy waters data could inform implementation priorities**
- **It could be used by local governments to go beyond the minimum erosion and sediment control requirements**
- **Developing a technical guidance regarding practices that would help avoid or minimize stormwater impacts on healthy waters is a priority task**



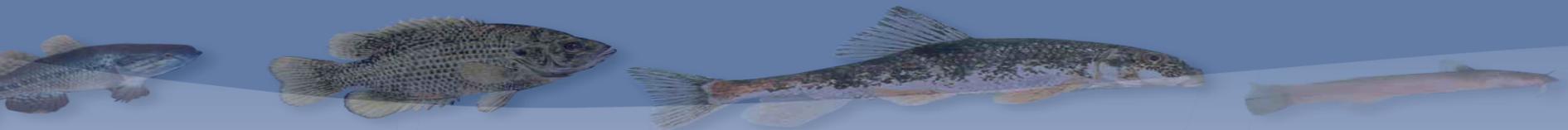
# Natural Heritage Data

- **DCR is in the process of incorporating exceptionally healthy waters reaches into Virginia's Natural Heritage Biotics database as Aquatic Community Element Occurrences (EOs)**
- **This accomplishment will ensure that healthy waters data is considered in permit and environmental impact review**



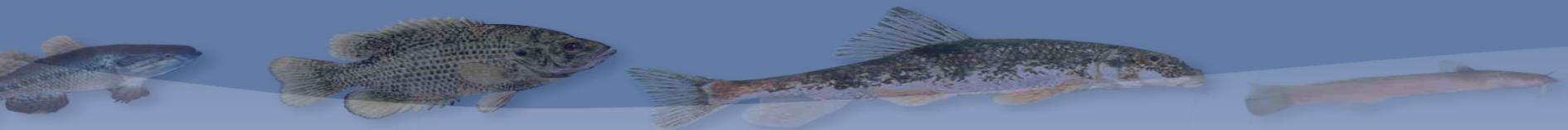
# Chesapeake Bay Preservation Act

- **Section 10.1-2107 of the Code of Virginia directs the Chesapeake Bay Local Assistance Board to adopt criteria that shall encourage and promote: (i) protection of existing high quality state waters...**
- **This section of code creates a clear nexus between the Bay Act and Healthy Waters**
- **Healthy Waters can help inform the next phase of Bay Act implementation**



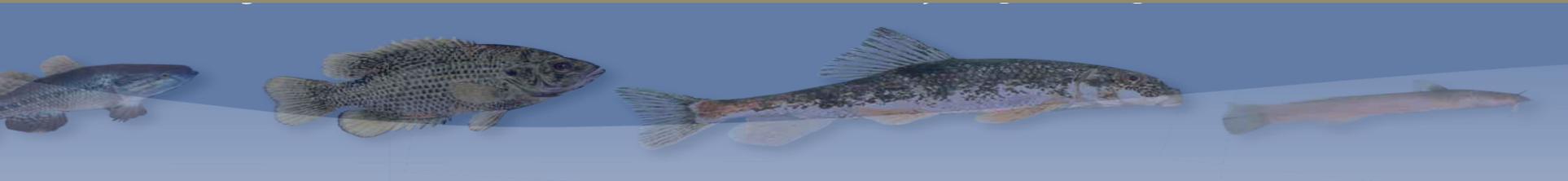
# Locality Assistance Network

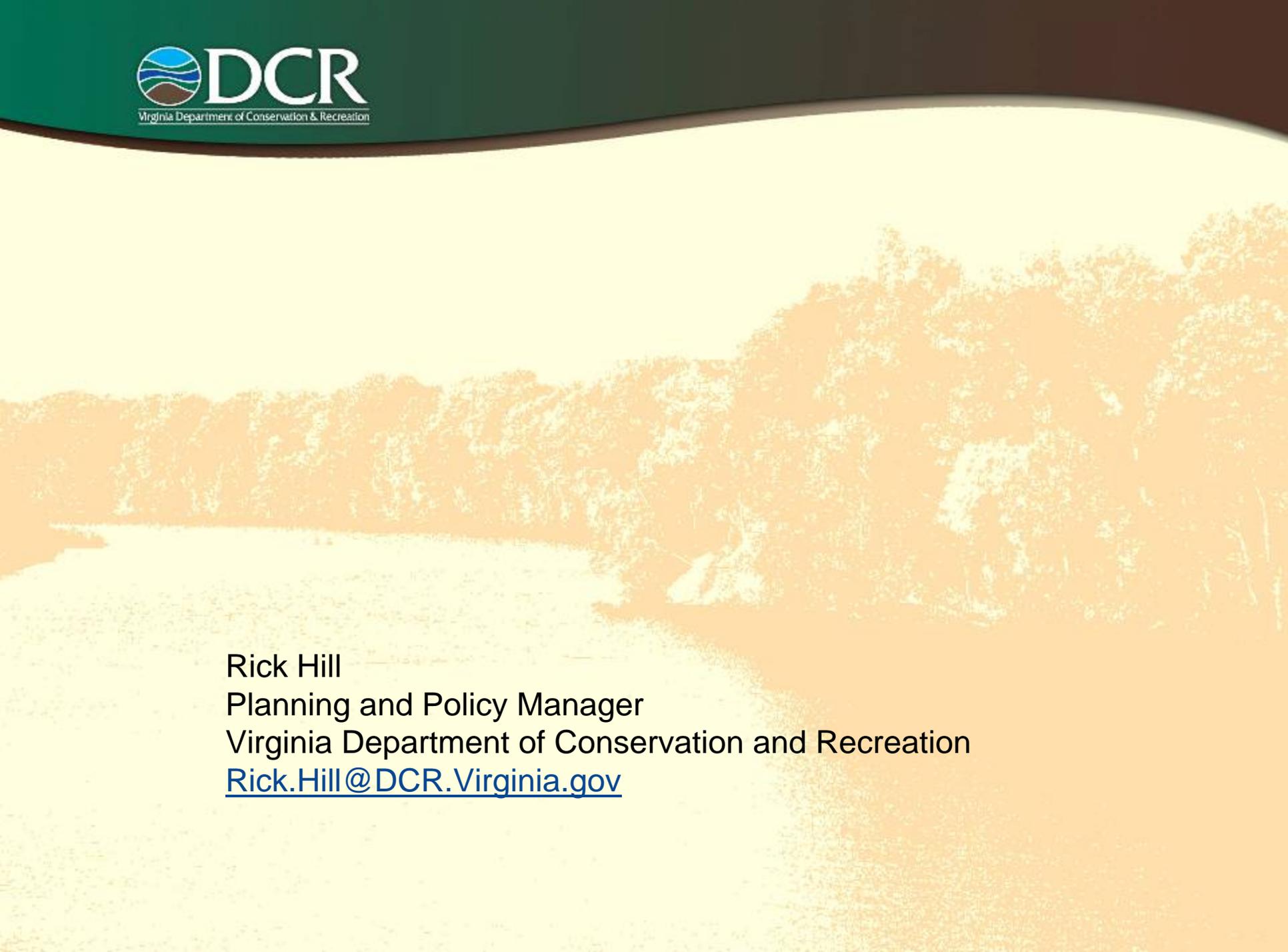
- DCR engages local governments on a wide range of programmatic and regulatory issues
- To improve program coordination, DCR has initiated a Locality Assistance Network
- This network will seek to better coordinate and utilize data and decision support tools such as the VCLNA and INSTAR and the PCA to inform technical assistance and locality engagement



# Going Forward

- **Long term: work to identify and conserve healthy water resources across the state**
- **Mid term: complete assessment of streams within the Bay watershed and work with state and federal agencies and local governments to conserve these resources**
- **Short term: integrate conservation of healthy waters into existing programs**





Rick Hill  
Planning and Policy Manager  
Virginia Department of Conservation and Recreation  
[Rick.Hill@DCR.Virginia.gov](mailto:Rick.Hill@DCR.Virginia.gov)