

# Local Benefits of Chesapeake Bay Watershed Restoration and Conservation

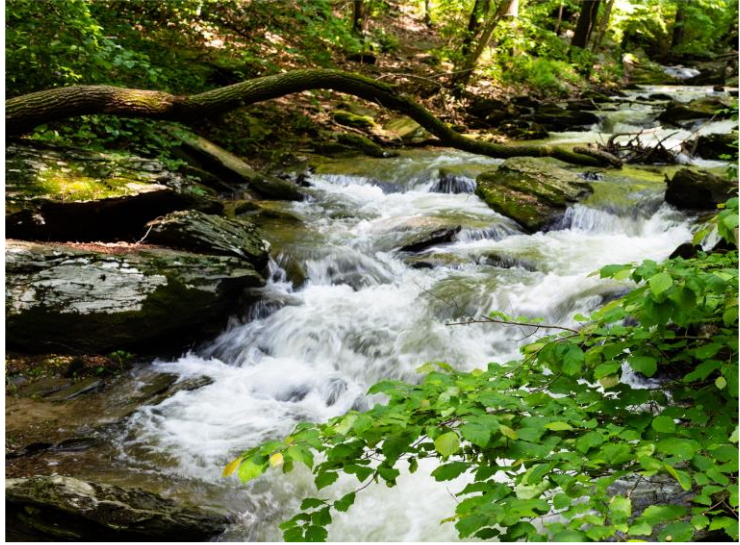
**Emily Trentacoste**  
**US EPA Chesapeake Bay Program Office**

**Local Government Advisory Committee**  
**12/3/2020**



# Chesapeake Bay Program goals

We have a lot of restoration and conservation goals



# Chesapeake Bay Program goals

Progress often depends on implementing practices or policies



# Community goals and priorities

Communities have many of their own priorities



# Aligning with community goals and priorities

We want to identify benefits of restoration and conservation efforts to community priorities

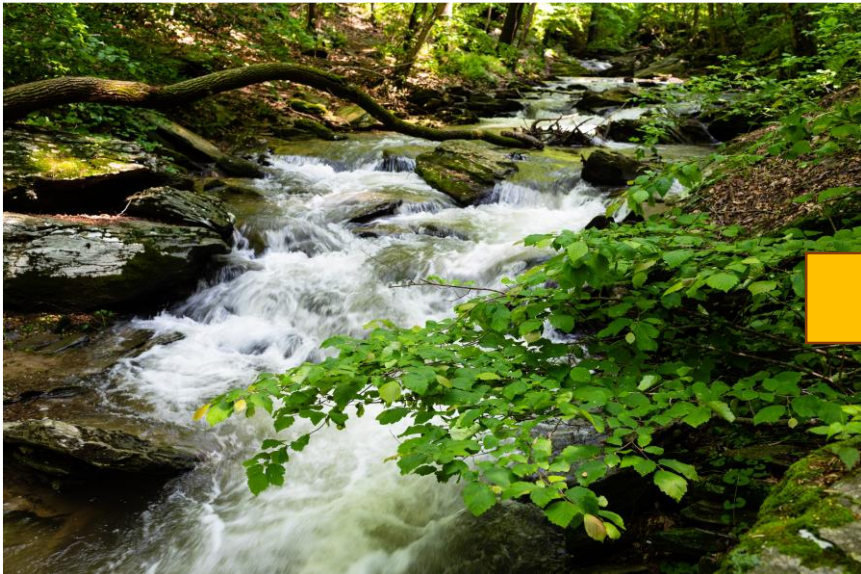


# What are benefits?

You may have heard things like “cobenefits” or “ecosystem services”

We are interested in identifying the **components of nature** associated with restoration and conservation that are **used (or enjoyed, or consumed)** by humans to **yield human well-being**.

Riparian buffers around streams...



...provide better habitat for native brook trout,...



...which are enjoyed by recreational anglers



# Chesapeake Bay Program benefits work

Current and future projects are underway to:

- Identify benefits associated with restoration and conservation that align with local priorities
- Quantify how these benefits change over different levels of implementation, and tradeoffs between them
- Engage stakeholders around the results

## **End goal:**

Local communities, in both coastal and headwater regions, understand how and to what extent restoration and conservation practices can address their local priorities and interests and have the tools they need to use that information for decisions

# Why am I here today?

What are your priorities?

Which decisions can this support?

What benefits are most important and for whom?

How can we engage with you throughout?

What are useful ways to get results to you for your use in decisions?

**We want your feedback!**





# Building off a great foundation

## Local priorities



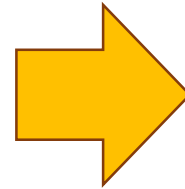
### STRATEGIC OUTREACH EDUCATION PROGRAM FOR LOCAL ELECTED OFFICIALS IN THE CHESAPEAKE BAY WATERSHED



August 2017

By EcoLogix Group

*To encourage local elected officials to take actions contributing to Chesapeake Bay restoration, connect the message to local priorities.*



Economic impact

Public health & safety

Infrastructure

Education

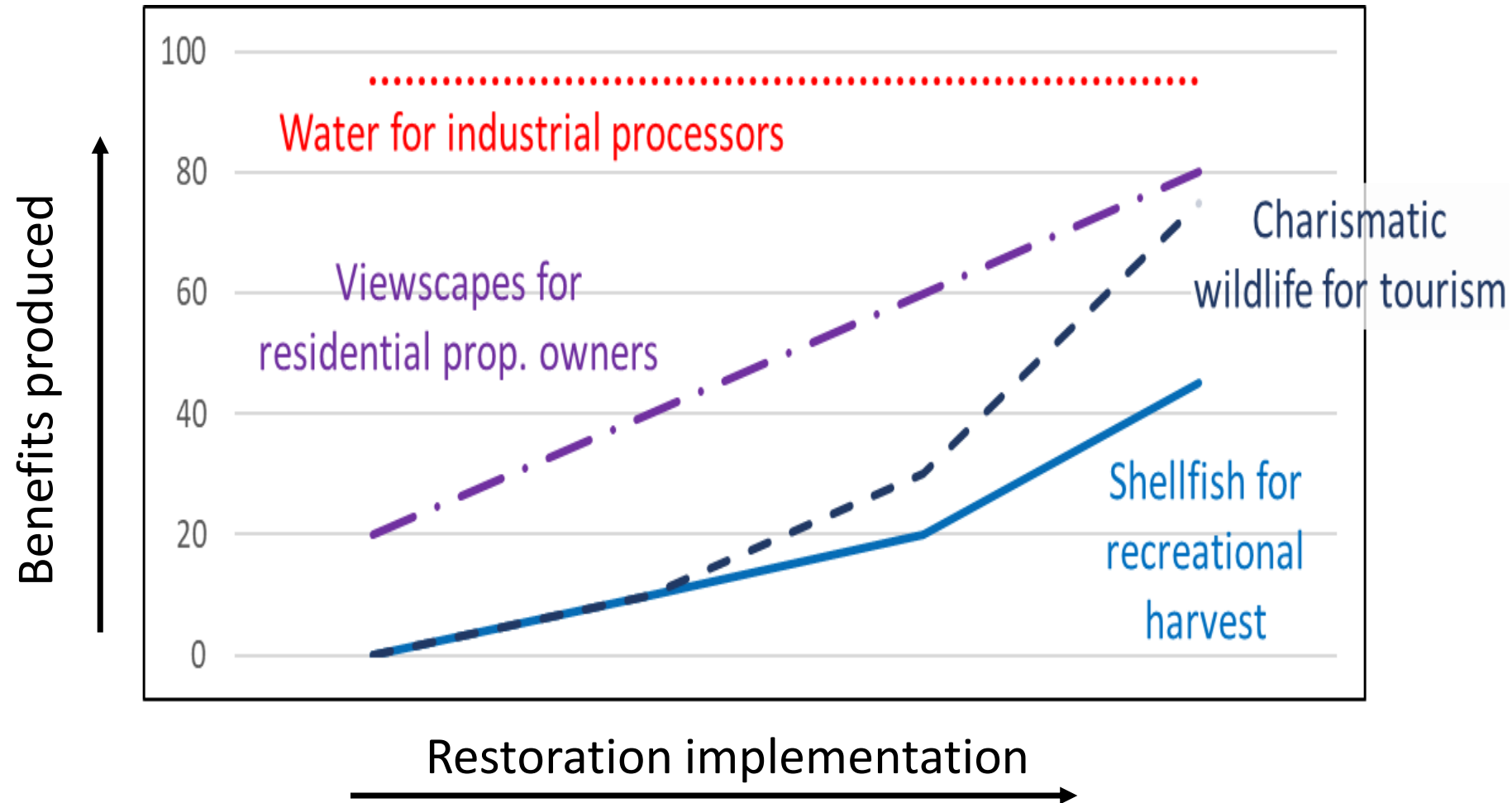
### Identified a need to communicate:

“Environmental, economic and social benefits of healthy watersheds to the region and local community – value of ecosystem services.”

# Quantifying benefits in headwater communities

Current project example: identifying and quantifying benefits and tradeoffs associated with restoration and conservation practices for headwater communities

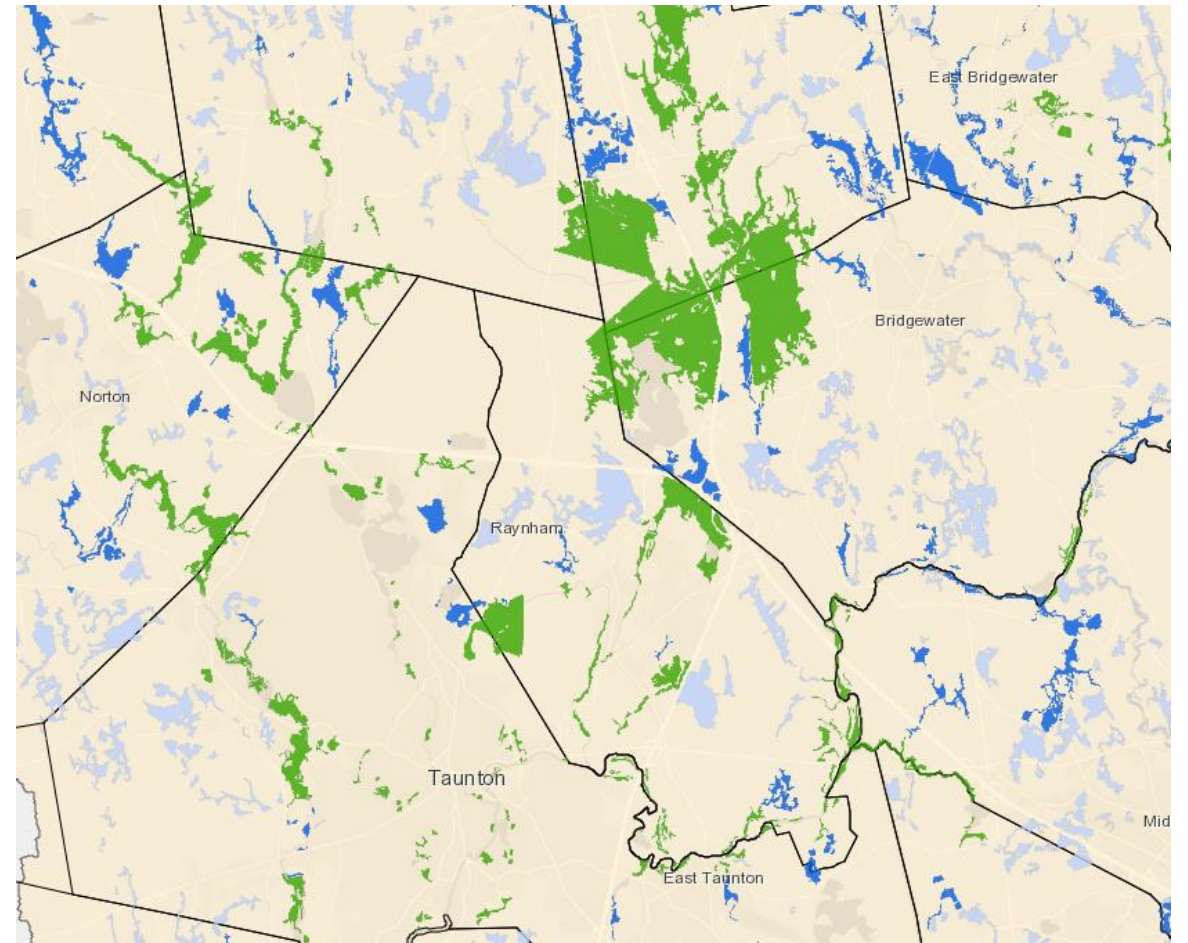
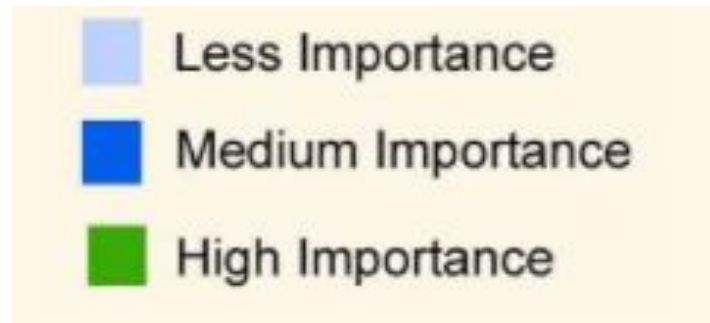
This is a purely hypothetical example graph!



# Mapping benefits in coastal communities

Current project example: developing ways for communities to weight their benefit priorities and mapping the best restoration or conservation locations

*Example: Which wetlands do we protect to help mitigate the impacts of flooding?*



# What decisions can we help support?

We want your input to make sure we are providing information that **helps communities in their decisions**

- Land use planning
  - Where to develop vs. where to conserve
  - Zoning decisions
  - Land acquisition and easements
  - Comprehensive plan development
- Infrastructure
  - Where it could be protected
  - Decisions on grey vs. green
- Restoration
  - Where to put best management practices
  - Developing incentives for landowners
- Floodplain issues
  - Protecting natural functions
  - Acquisition, demolition, or easements
- Nearshore/shoreline
  - Living vs. hardened shorelines
  - Wetland and shoreline permitting
- Tradeoffs
  - Identify tradeoffs between impacts and benefits
- Vulnerable populations
  - Identify and protect vulnerable populations
- Funding
  - Applying for funding for projects
  - Funding for easements or land conservation

# What benefits are important?

Benefit category	Specific examples	Local priorities addressed
Flood protection/hazard mitigation	Decreased/avoided damages from inland flooding during storms, coastal storm surges, or blue-sky/king tides	Infrastructure Public health & safety
Improved water quality	Less treatment of nitrates at utilities Less health impacts from nitrates in private wells Less pathogens impacting the ability to recreate and public health Protection from saltwater intrusion of agricultural lands	Public health & safety Economic impact
Improved air quality	Less impacts from air pollution on health Carbon sequestration to mitigate climate change	Public health & safety
Decreased urban air temperatures	Less health risk due to urban heat islands Decreased energy costs due to heat reduction	Public health & safety Economic impact

# What benefits are important?

Benefit category	Specific examples	Local priorities addressed
Space to recreate	Green spaces and protected areas for recreational use	Economic impact Education
Presence of important plants & animals	Presence of brook trout or deer for recreational fishers or hunters Presence of blue crab, striped bass, or oysters for harvest Presence of bird diversity for bird-watchers	Economic impact Education
Aesthetic enjoyment	Scenic views for property owners or tourists Personal value tied to existence of ecosystem	Economic impact
High quality soil	Improved crop yields and quality for farmers	Economic impact

# What benefits are important?

## Benefit categories

Flood protection/hazard mitigation

Improved water quality

Improved air quality

Decreased urban air temperatures

Space to recreate

Presence of important plants & animals

Aesthetic enjoyment

High quality soil

## Other factors

**Vulnerable populations**

**Reliability/resiliency**

# Who benefits?

We want your input to make sure we are focusing on the right **people who benefit**

- Residential property owners
- Public sector property owners
- Farmers
- Landowners
- Watermen
- Recreational hunters and anglers
- Other recreators
- Utilities
- Educators and students





# How to engage on and communicate results?

We want your input to make sure we are developing results and information in a way **that will be usable and useful**

## **Possible end products:**

- Fact sheets, maps, presentations, or other communication materials
- Decision-support systems or tools that let users input their priorities
- Data integrated into current Bay Program tools like CAST

# Thank you!!

**Emily Trentacoste**  
**US EPA Chesapeake Bay Program Office**

**trentacoste.emily@epa.gov**

**410-267-5797**

