# How can we leverage nutrient and sediment practices to achieve other outcomes?

CBC Meeting, May 6 2022

Approaches and Tools for Targeting
Chesapeake Resources

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science for a changing world

High-Resolution Land Information and Restoration

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Chesapeake

Conservancy

#### Targeting Resources: Benefits to People, Wildlife, and Habitats

#### **Current Approach**

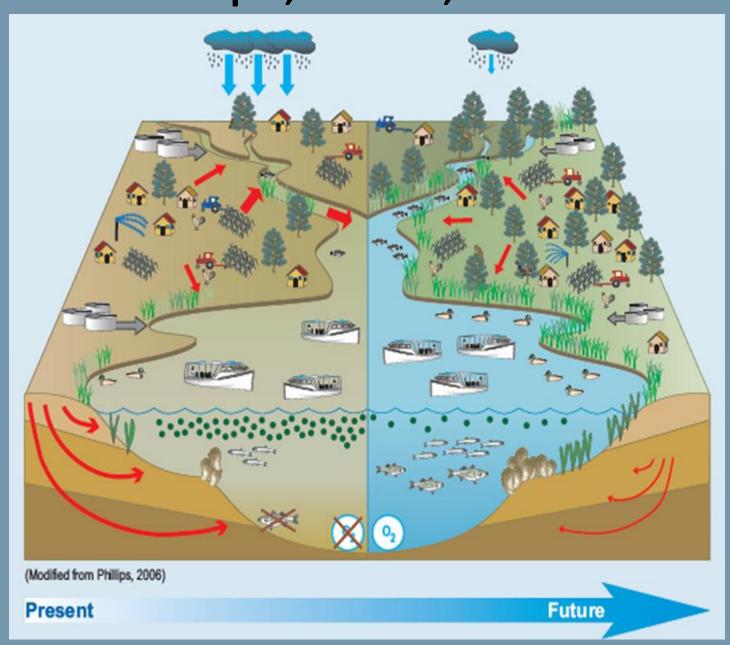
- Nutrient and sediment reduction
- TMDL: behind schedule for 2025
- WQ standards: slow improvements

## Increase emphasis on people, wildlife, and habitats

- More return on WQ investments
- Achieve multiple CBP outcomes
- Promote local benefits

#### **Targeting**

- Places
- Programs
- Web Hub



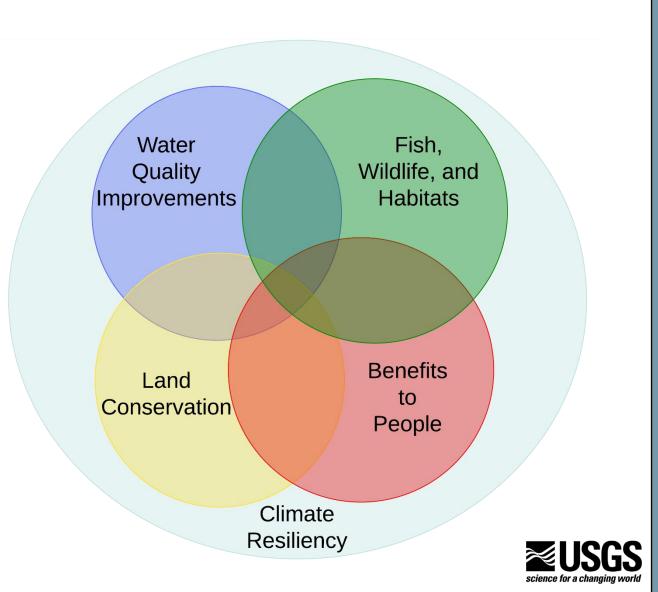
## Now is the Time for Targeting Resources

- Accelerate progress to meet 2025 deadlines:
  - Water-quality practices
  - Lagging CBP outcomes
  - More emphases on climate resiliency and diversity
- Funding Opportunities
  - \$1.2B federal and state funding
  - Infrastructure Law: 5 years of increased federal funding
  - State programs
  - NGOs and private capital
- Growing interest from stakeholders
  - Federal and state agencies, CBC, local governments, NGOs
  - Expand their tools





## Science Approach for Targeting Resources

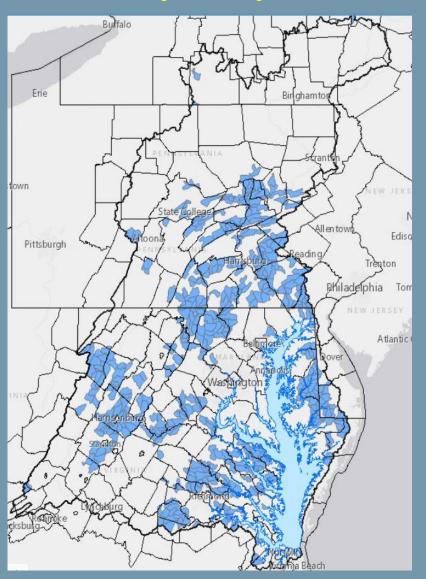


- Organize around topics:
  - Water-quality improvements
  - Fish, wildlife, and habitat
  - Land conservation
  - Benefits to people
  - Improve climate resiliency
- Strive for multiple benefits
- Build from existing tools & stakeholder programs
- USGS, EPA, Chesapeake Conservancy, & NOAA

## Water-Quality Improvements

#### Need

- Accelerate implementation
- Tidal waters improvements
- Local WQ benefits
- Address other CBP outcomes
- Increase climate resiliency and DEIJ



#### **Existing Tools**

- Most effective basins
- Ag priority watersheds
- Watershed dashboard
- CAST

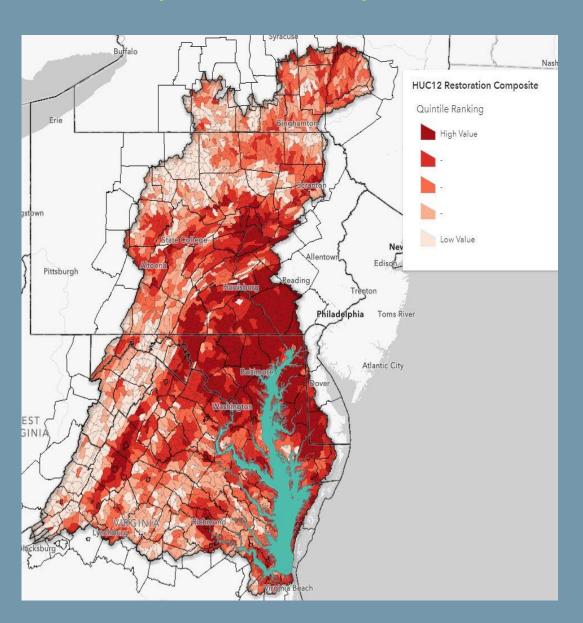
- Local WQ improvement on ag lands
- Tidal waters for fisheries
- Ecosystem services of BMPs
- Benefit other CBP outcomes



## Fish, Wildlife, and Habitat

#### Needs

- Accelerate buffers and wetlands
- Connect WQ, habitat, and fisheries
- More habitat information



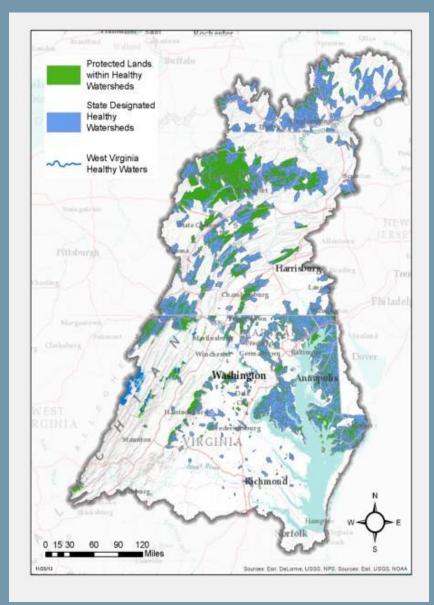
#### **Existing Tools**

- NFWF tools
- Cross-Outcome Mapping

- Enhanced information
  - Watershed conditions
  - Vulnerability of coasts
- Chesapeake WILD and other grant programs



### **Land Conservation**



#### Need

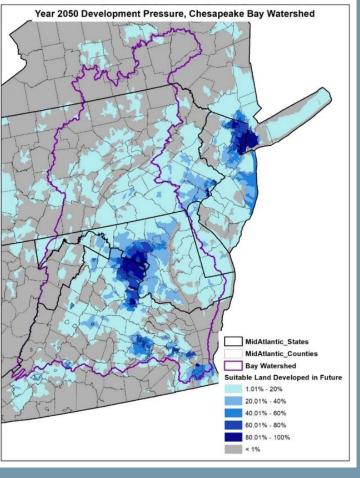
- Increase land protection
- Support local decisions

#### **Existing Tools**

- CCP Conservation Atlas
- Healthy Watershed Assessment
- Land-change model

- High-resolution land data
- Forecast vulnerability to development and climate





## Benefits to People

#### Need

- Increase stewardship & public access
- Focus on underserved communities
- Benefits to local govts

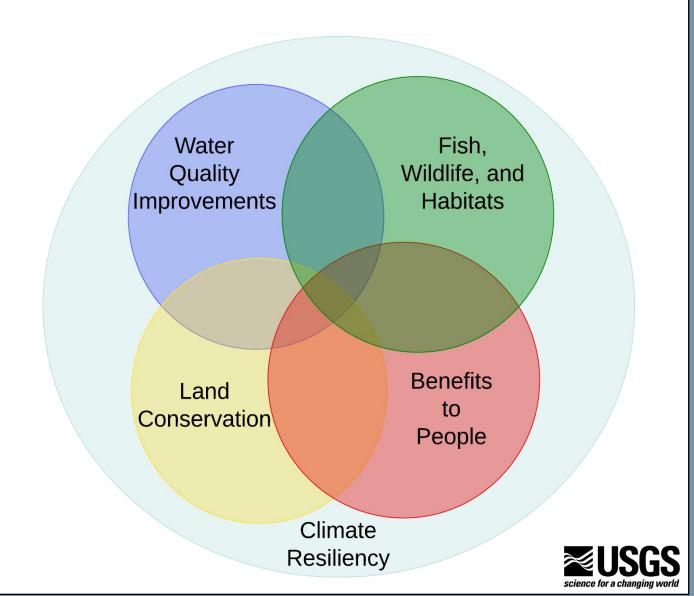
#### **Existing Tools**

- Conservation Atlas
- Chesapeake Diversity Dashboard

- Climate resiliency
- Programs for multiple benefits

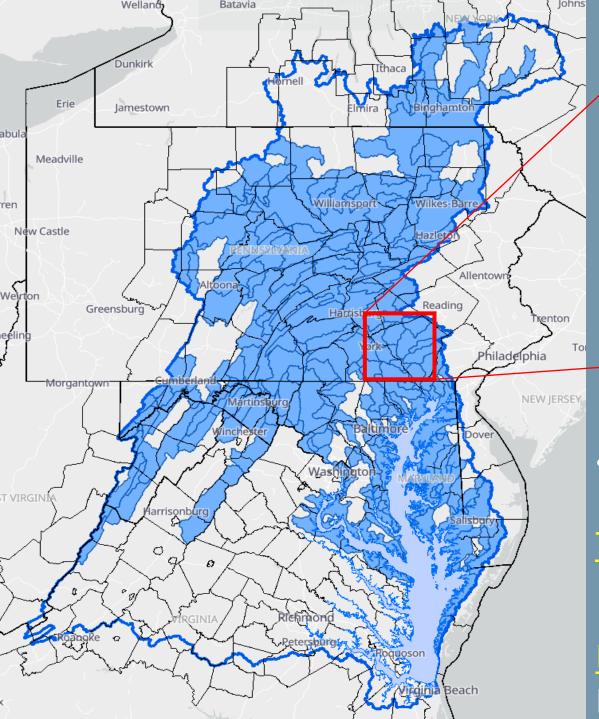


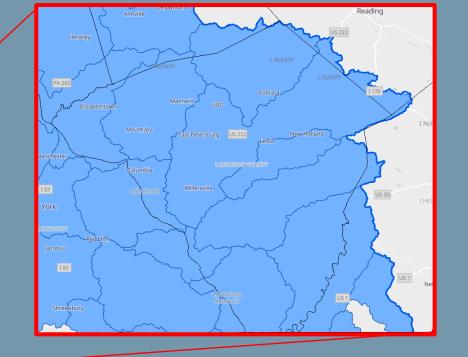
## Example Application: Lancaster County



- Integrating topics:
  - Water-quality improvements
  - Fish, wildlife, and habitat
  - Land conservation
  - Benefits to people
  - Improve climate resiliency

- Multiple outcomes
- Local Benefits
- Programs



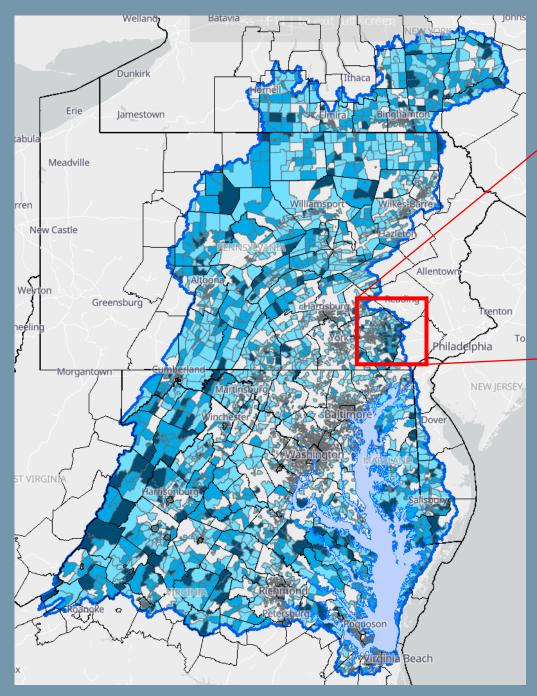


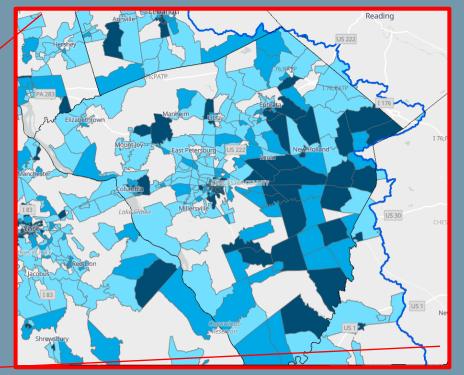
#### **2** CBP Outcomes

Bay TMDL & Standards Attainment

Tool: Most Effective Basin Map

Programs: EPA CBP Grants & State Programs



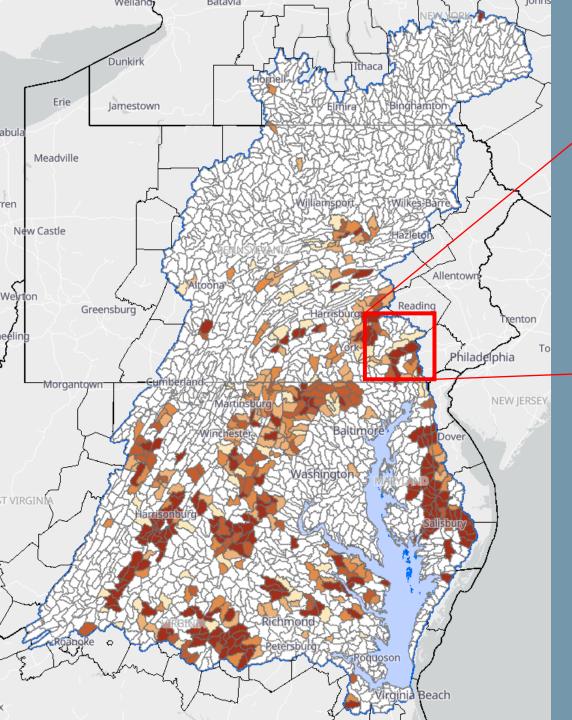


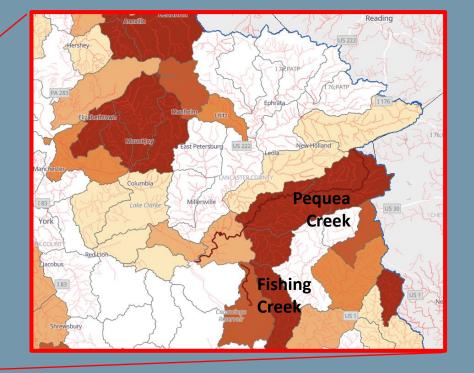
**3** CBP Outcomes

- Bay TMDL & Standards Attainment
- Diversity

Tools: MEB + Disadvantaged communities

<u>Programs</u>: EPA, States, +*EPA Grant for Disadvantaged Communities* 



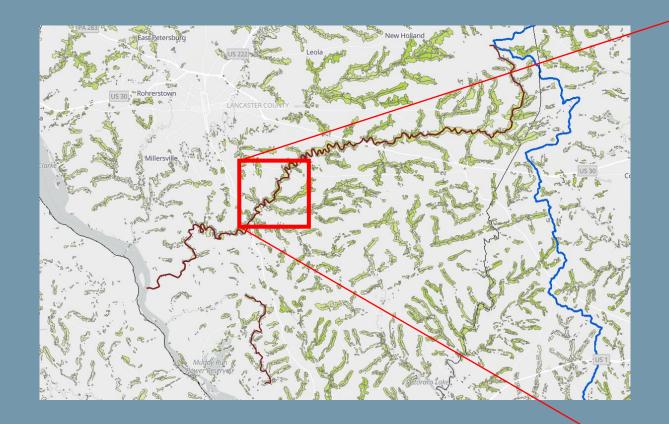


#### **4** CBP Outcomes

- Bay TMDL & Standards Attainment
- Diversity
- Stream condition/local waters

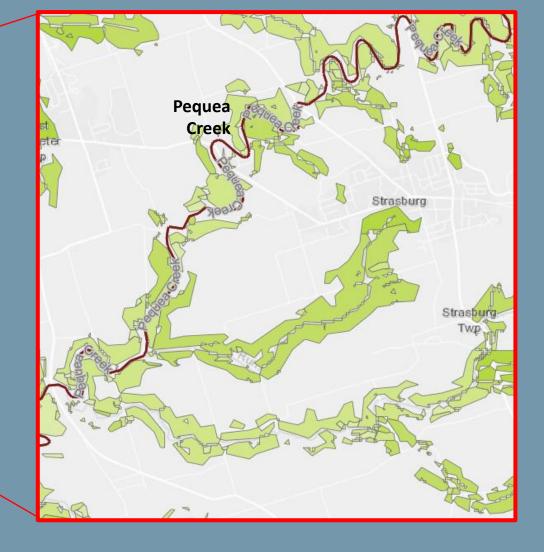
**Tools:** + Ag Priority Watersheds

Programs: - EPA, States +NRCS Programs



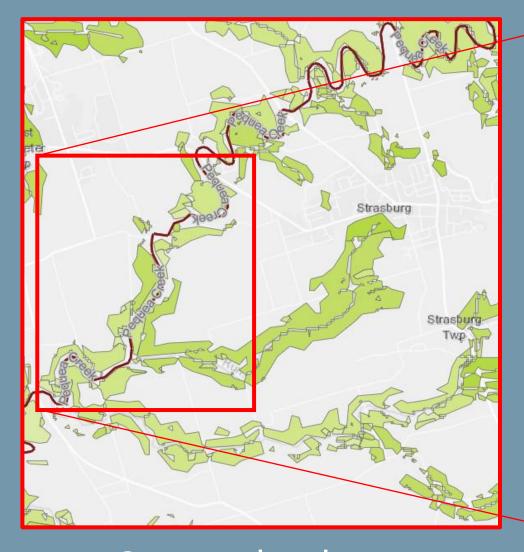
#### **5** CBP Outcomes

- Bay TMDL & Standards Attainment
- Diversity
- Stream condition
- Forest buffers



<u>Tools:</u> + Forest buffers

<u>Program:</u> - EPA, States, NRCS, +local programs



Current land cover: 30 meters



New High-Resolution Land Data (next talk)

## **Next Steps for Targeting Effort**

#### CBP interaction

- GITs: stakeholder interaction
- MB and PSC: Agencies involved in funding and polices
- NGOs and local governments

#### Short-term actions

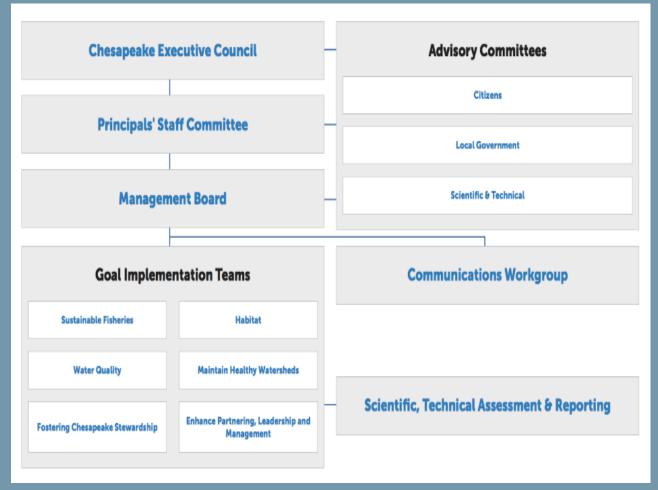
- Web Hub
- Promote use of existing tools
- Ecosystem services for selected BMPs

#### Longer-term action

- Enhance tools with new land use data
- Connections between tools
- Provide stakeholder support
- Would require more resources



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## Contacts and More Information



#### Contacts

**Chesapeake Bay Program** 

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- Ken Hyer, USGS CB Associate Coordinator kenhyer@usgs.gov
- John Wolf, USGS and CBP GIT Leader <a href="mailto:jwolf@chesapeakebay.net">jwolf@chesapeakebay.net</a>
- Targeting Chesapeake Resources to Achieve Multiple Outcomes and Local Benefits
- approaches for targeting cbp resources latest updated april 28 2022.pd f (chesapeakebay.net)
- Web Hub <u>Targeting</u> (chesapeakebay.net)