Science-Based Approaches and Tools for Targeting Chesapeake Resources



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Targeting Resources: Benefits to People, Wildlife, and Habitats

Current Approach

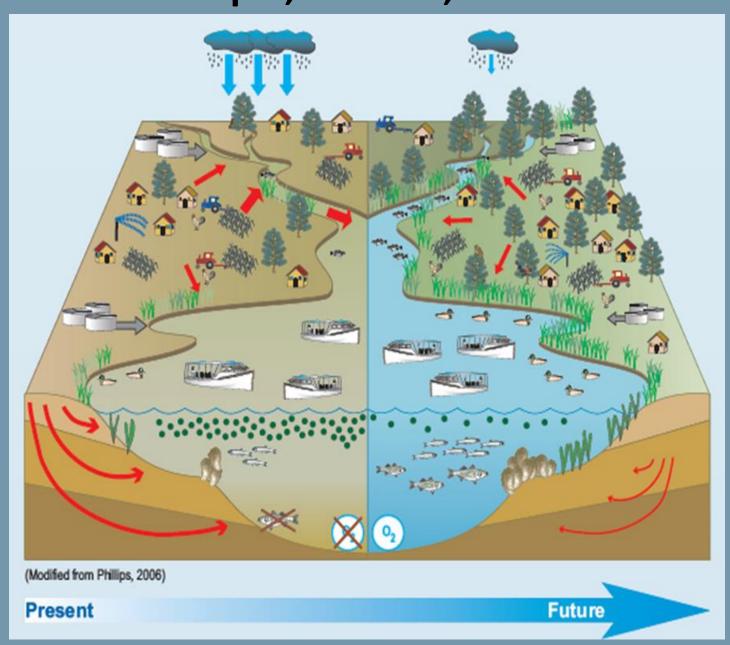
- Nutrient and sediment reduction
- TMDL: behind schedule for 2025
- WQ standards: slow improvements

Increase emphasis on people, wildlife, and habitats

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

Targeting

- Places
- Programs
- Web Hub



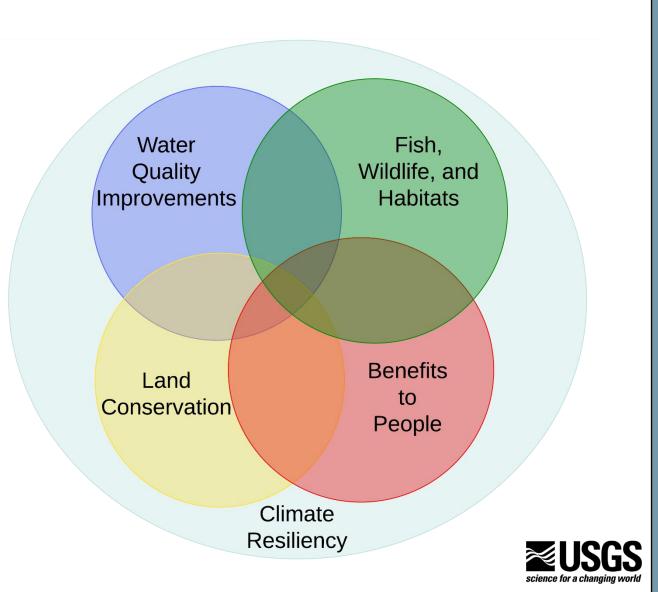
Now is the Time for Targeting Resources

- 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

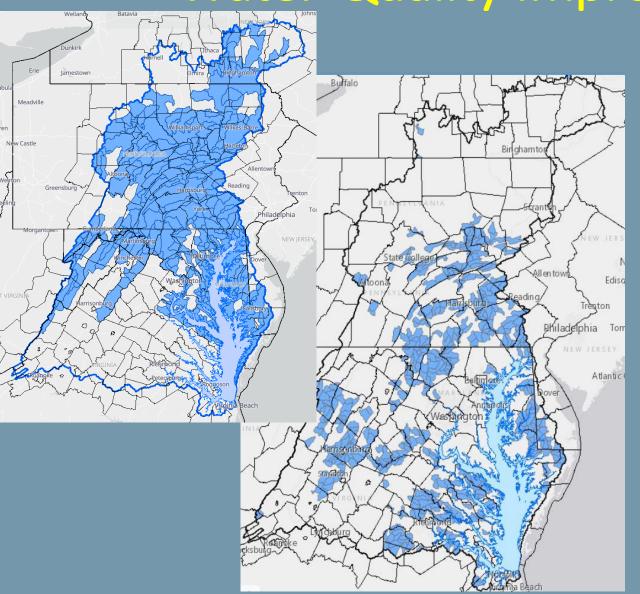


- Organize around topics:
 - Water-quality improvements
 - Fish, wildlife, and habitat
 - Land conservation
 - Benefits to people
 - Improve climate resiliency
- Strive for multiple benefits
- Build from existing tools & stakeholder programs
- USGS, EPA, Chesapeake Conservancy, & NOAA

Need

- Accelerate implementat ion
- Tidal waters improvemen ts
- Local WQ benefits
- Address other CBP outcomes
- Increase climate resiliency and DEIJ

Water-Quality Improvements



Existing Tools

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

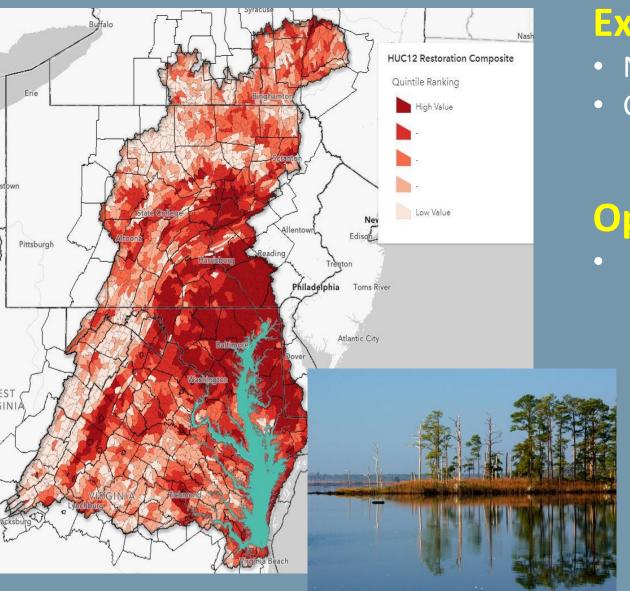
Opportunities

- 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

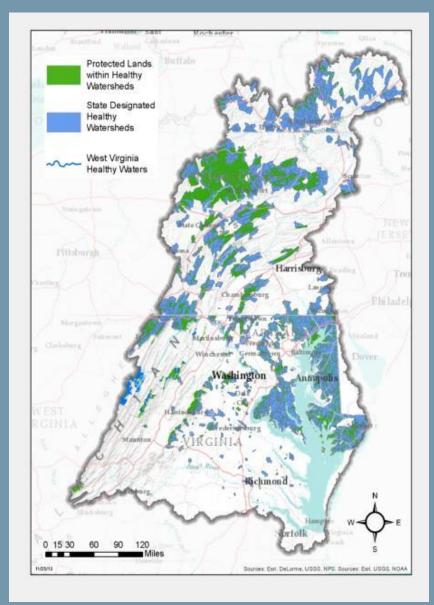
Opportunities

- Enhanced information
 - Watershed conditions
 - Vulnerability of coasts

Chesapeake WILD and other grant programs



Land Conservation



Need

- Increase land protection
- Support local decisions

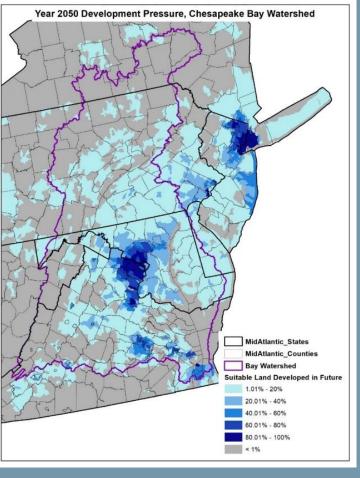
Existing Tools

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

Opportunities

- 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

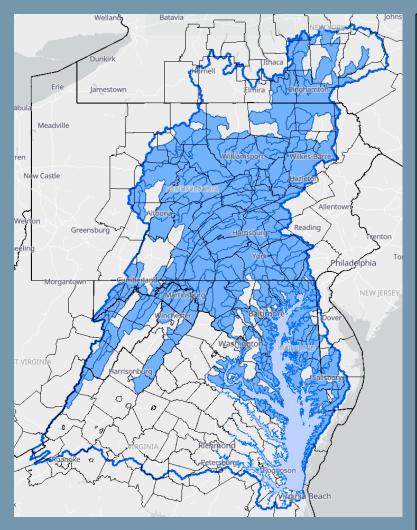
Opportunities

- Climate resiliency
- Programs for multiple benefits



Management Question:

How can additional CBP outcomes for habitats and people be achieved in the Most Effective Basins?

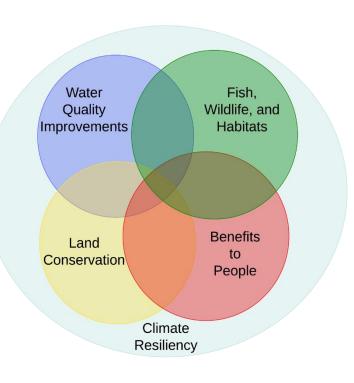


Example Application: Lancaster County

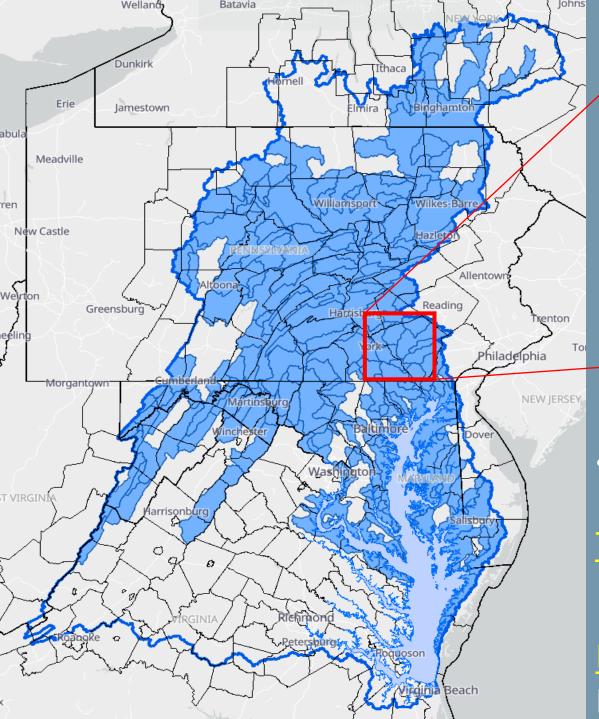
Multiple outcomes

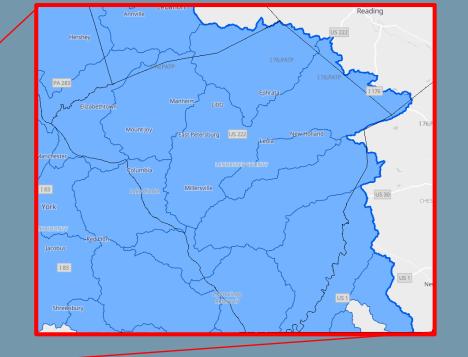
Tools & integrating maps

Programs







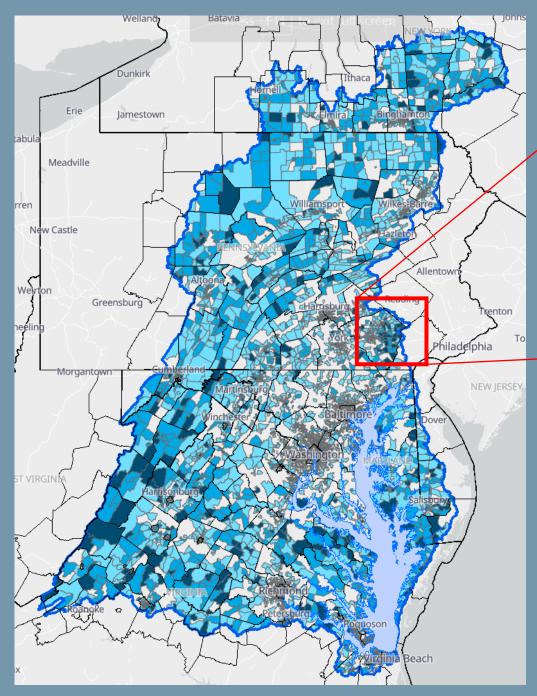


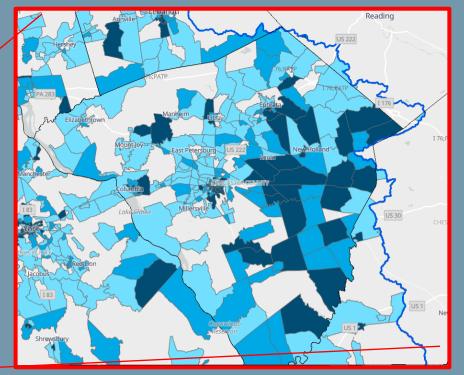
2 CBP Outcomes

Bay TMDL & Standards Attainment

Tool: Most Effective Basin Map

Programs: EPA CBP Grants & State Programs



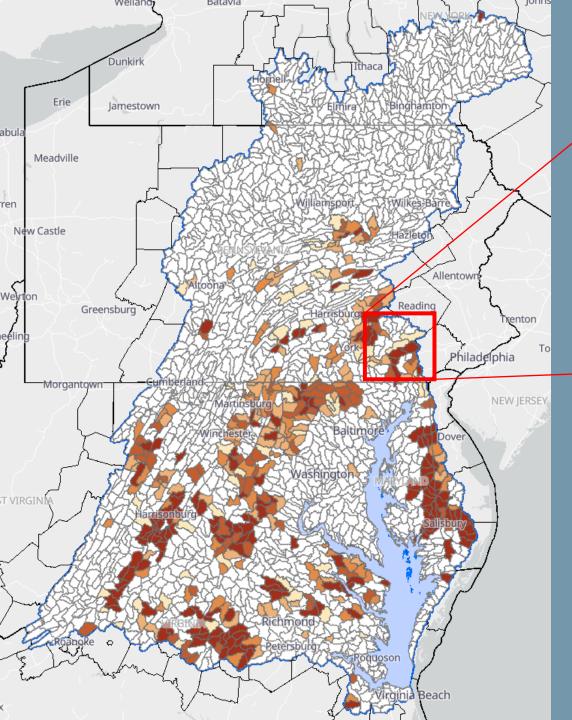


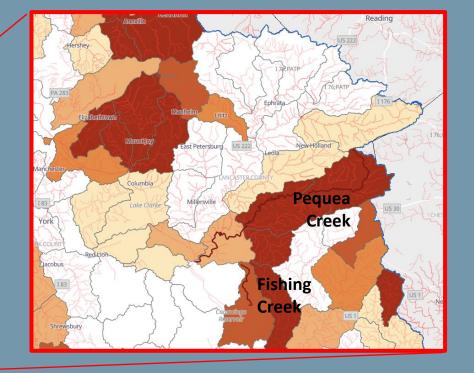
3 CBP Outcomes

- Bay TMDL & Standards Attainment
- Diversity

Tools: MEB + Disadvantaged communities

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



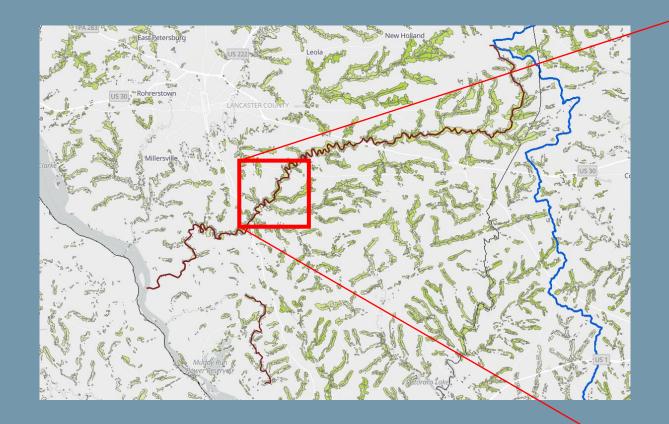


4 CBP Outcomes

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

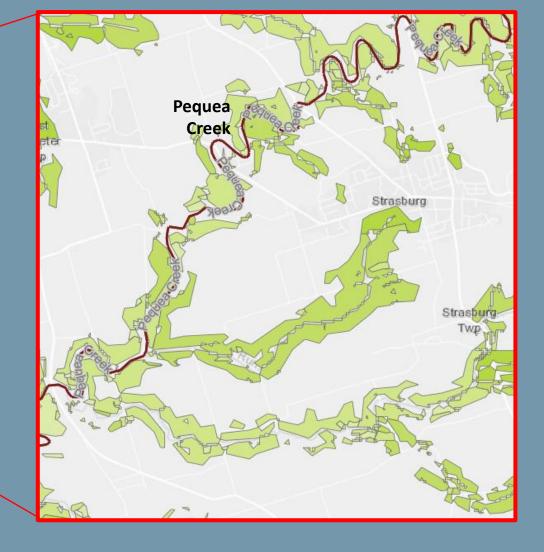
Tools: + Ag Priority Watersheds

Programs: - EPA, States +NRCS Programs



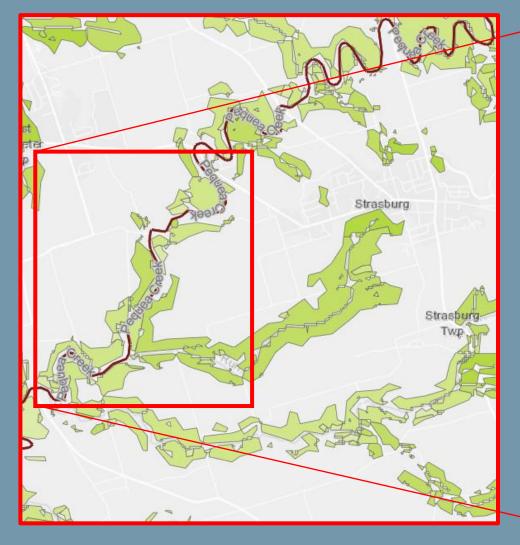
5 CBP Outcomes

- 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

Lancaster Opportunities

CBP Outcomes: Multiple benefits for WQ, Habitat, and People

Opportunities

Demonstrate how resources can be targeted through multiple programs

- What other outcomes would you like considered?
- What other Programs could be included?
- What other information would help?

Next Steps for Targeting Effort and Discussion

CBP interaction

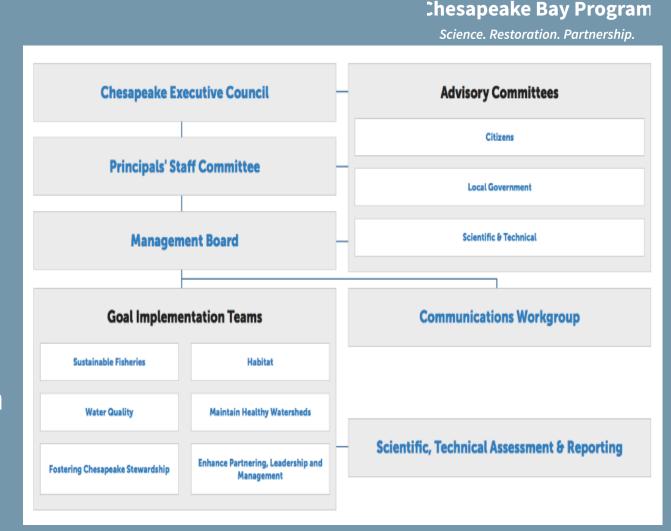
- GITs: stakeholder interaction
- MB and PSC: Agencies involved in funding and polices
- NGOs and local governments

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





Contacts and More Information



Chesapeake Bay Program

Science. Restoration. Partnership.



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- Scott Phillips, USGS Chesapeake Bay Coordinator swphilli@usgs.gov
- Ken Hyer, USGS CB Associate Coordinator kenhyer@usgs.gov
- Targeting Chesapeake Resources to Achieve Multiple Outcomes and Local Benefits

approaches for targeting cbp resources latest updated april 2 8 2022.pdf (chesapeakebay.net)

Web Hub <u>Targeting</u> (chesapeakebay.net)

