

QUARTERLY PROGRESS MEETING – February 2021
Chesapeake Bay Program



Land Use Options Evaluation

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Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...

Goal: *Land Conservation*

Outcome: By the end of 2017, with **the direct involvement of local governments or their representatives**, evaluate policy options, incentives and planning tools that could **assist them in continually improving their capacity to reduce the rate of conversion** of agricultural lands, forests and wetlands as well as the rate of changing landscapes from more natural lands that soak up pollutants to those that are paved over, hardscaped or otherwise impervious.

Land Use Options Evaluation - Context

2014 – This outcome was included in the Agreement to provide tools and support to local governments to ensure their capacity to plan for and mitigate land change impact. – source

2014 “Current” condition? – WIP process shed light on the differences between CBP land use and local-scale information

- Why this Outcome? – This outcome responds to public comments related to the need to address the extent and impact of land use change (the Land Use Workgroup and the Water Quality GIT were instrumental in this outcome)

Co-Benefits

Reducing the rate of conversion provides:

- Clean Water
- Resilience (flooding, climate change, invasives)
- Social and economic benefits
- Drinking water sources
- Critical habitat and connectivity
- Recreational opportunities



Cost to Protect

VS.



Cost to Restore



What is our Expected and Actual Progress?

35

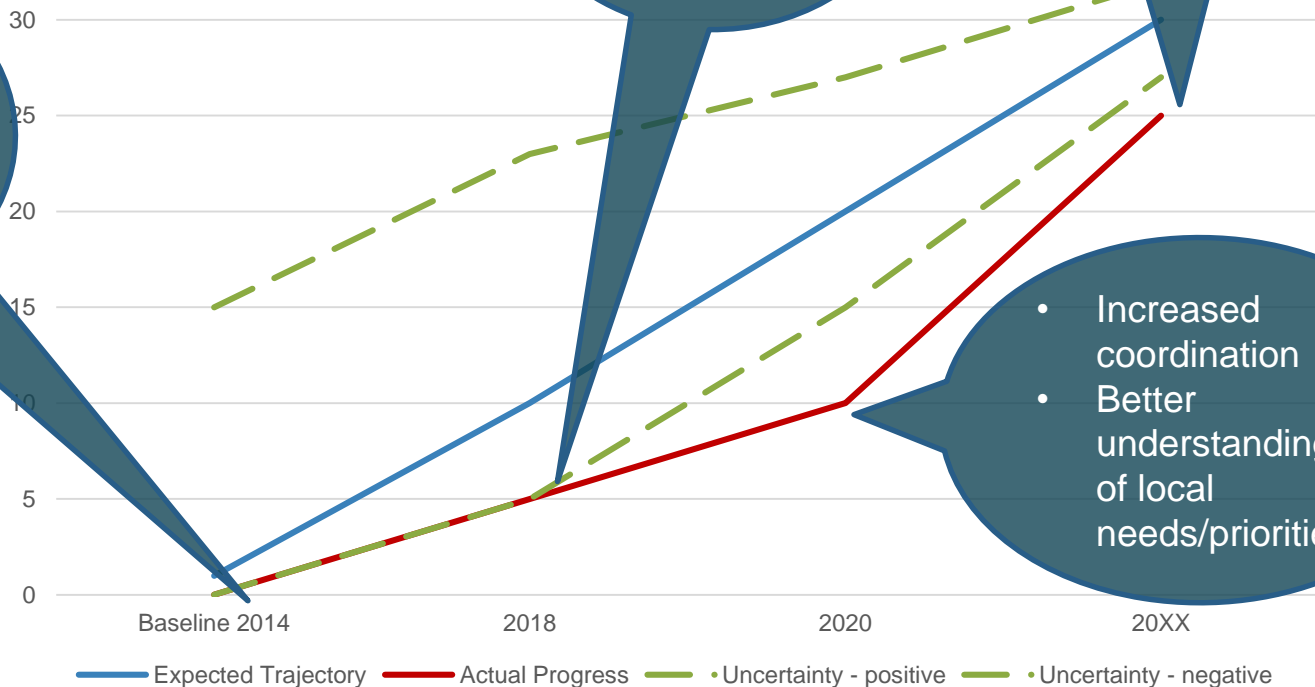
Need:

- Local land use data
- Increase capacity to reduce conversion

- High resolution land use/land cover
- Developed resources

- Tie pieces together
- Did we meet needs??

- Increased coordination
- Better understanding of local needs/priorities.



USGS Land Change Monitoring, Assessment, and Projection Data Thirty Years of Change (1985 – 2015)

Increasing knowledge at a scale
that is locally relevant

LCMAP_Reclassified

- No Pattern
- Afforestation
- Deforestation
- Harvest_TC
- Harvest_UTC
- Urbanization
- Crop Rotation
- Wetland Dynamics
- Pre-Development_D
- Pre-Development_UD
- Water
- Not classified
- Midatlantic_Counties
- Chesapeake_Bay
- Chesapeake_Bay

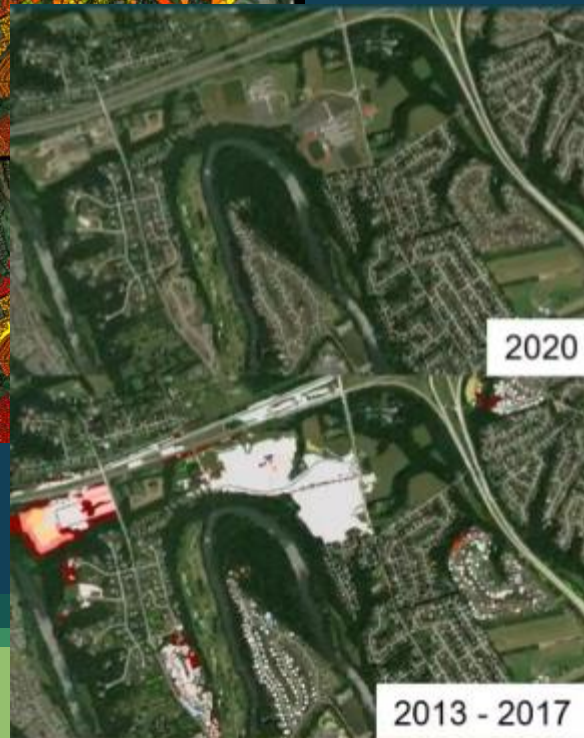
Parcel-Level Deconstruction of Urban Development (1985 – 2017)

Year-Built Attributes
from Tax Records

yearbtl

1985-1989
1990-1994
1995-1999
2000-2004
2005-2009
2010-2014
2015-2017
2015-2017

Year-Built Attributes
from USGS' LCMAP



Rates of conversion:

- Farmland
- Forest
- Wetland
- Impervious Cover

Chesapeake Bay Environmental Justice and Equity Dashboard (DRAFT)

Overview

Demographic Indicators

Cross-Outcome Applications

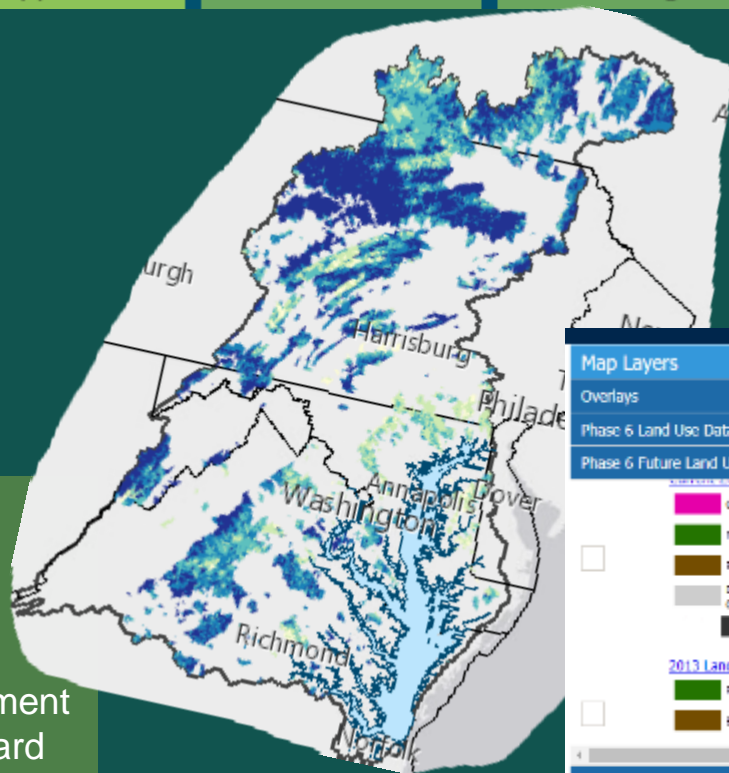
Current Initiatives

Acknowledgements

.."Evaluate policy options, incentives and planning tools that could assist in continually improving capacity.."

Data and Tools

- Hi-res land cover
- Phase 6 Land Use Viewer
- Data Dashboard
- Chesapeake Healthy Watersheds Assessment
- Environmental Justice and Equity Dashboard



Map Layers

Overlays

Phase 6 Land Use Datasets

Phase 6 Future Land Use

[Data from Watersheds Assessment](#)

	Commercial		Residential		Mixed
	Forest		Scrub		Farmland
	Barren		Water		Wetlands
	Developed Open Space		Low-Intensity Developed		Med-Intensity Developed
	High-Intensity Developed		No Data		

[2013 Land Use/Cover Projection Base](#)

	Forest		Scrub		Farmland
	Barren		Water		Wetlands

Base Map

Data and Metadata Download

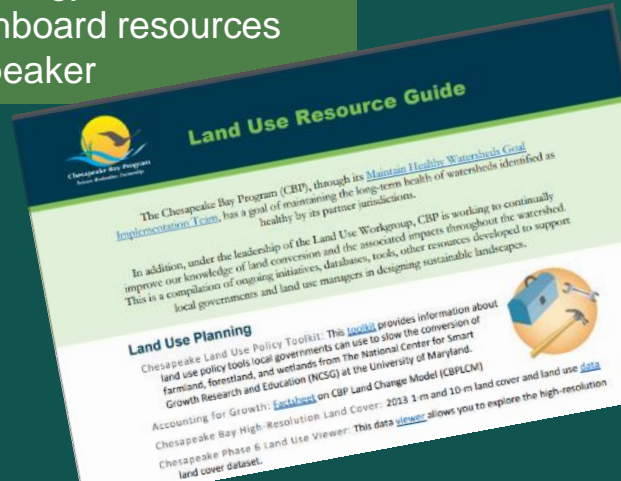
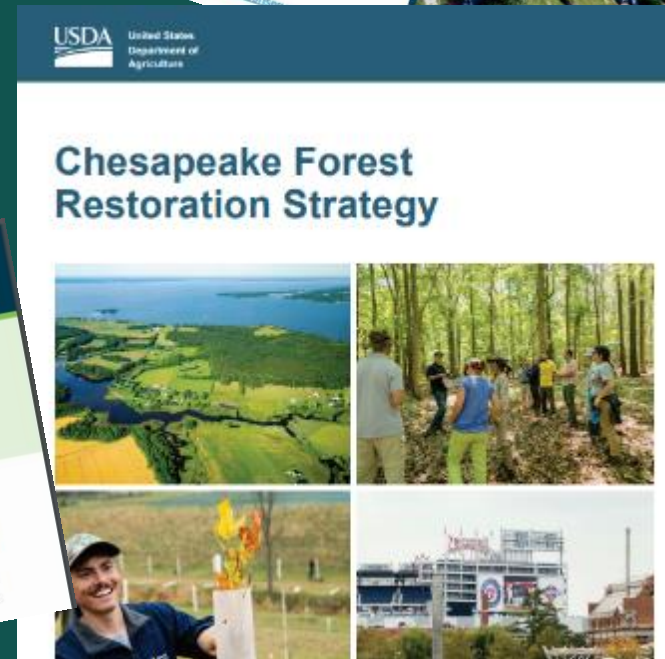
Submit Comments to USGS

Projects

- Cross-Outcome Watershed Educational Materials
- Conservation of Working Lands-Finance Forum consultants
- Improving Technical Service Delivery for Private Landowners
- Targeted local outreach for green infrastructure in vulnerable areas
- Chesapeake Watershed Finance Intensive Workshop

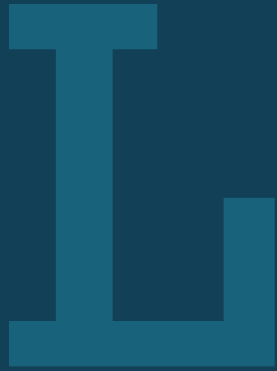
Communications

- Land Use Resources Guide
- Forest Restoration Strategy
- Land Policy Data Dashboard resources
- Presenter, panelist, speaker



Potential Metrics to measure progress

- Land Use Metrics: rate of farm, forest, and wetland conversion through time
- Assess the rate of conversion against key policies (in selected jurisdictions) to determine if the policies, incentives, and planning tools are having the intended effect. (How can the land policy BMPs be utilized?)
- Number of projects, presentations tools – total people reached
- Survey of key audience needs? / Does what we have developed meet their needs?
- Web Analytics: Total downloads, site visits, use of resources, tools and information provided on websites.
- Provide a mechanism for feedback directly on the web support tools (to demonstrate direct involvement)



Learn

What have we learned in the last two years?



Successes and Challenges

What have we learned?

- We are dependent on the participation of related outcomes and workgroups, as well as their work/products
- The importance of champions and relationships



Chesapeake Bay Program Local Engagement Strategy



Local Priorities

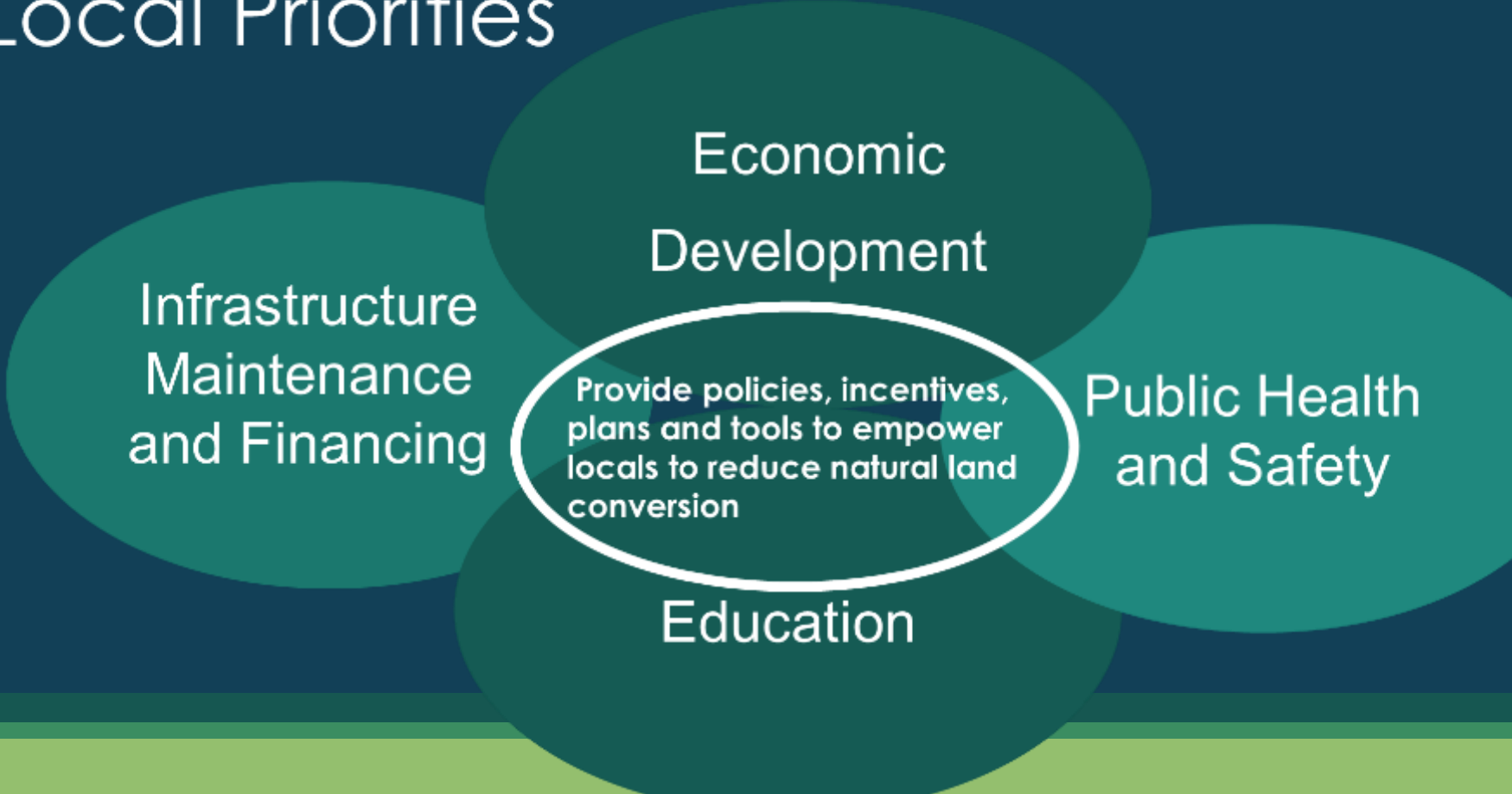
Infrastructure
Maintenance
and Financing

Economic
Development

Public Health
and Safety

Education

Provide policies, incentives,
plans and tools to empower
locals to reduce natural land
conversion



Audience



Trusted Sources



Translators



Subject Matter
Experts



What **ACTION** needs to happen at the local level to further this outcome?



Slide courtesy of CBP Local Engagement Team

Factors Influencing

Management Strategy

- Political and Education Challenges (*legislative engagement*)
- Sustaining the Ag and Forestry Industries (*funding and finances*)
- Ability to Engage Local Governments in Conducting the Evaluation (*education and outreach*)
- Technical Challenges

Current Logic and Action table (STAC factors)

- Partner Coordination
- Technical understanding
- Education and outreach
- Local engagement
- Legislative engagement / political challenges.



On the Horizon

**Scientific, Fiscal and Policy-related
developments**

Scientific:

- ☐ High resolution land cover and related metrics (1m, 10m)
- ☐ LCMAP – Analysis and distillation by Sarah MacDonald, USGS CBP
- ☐ No communication/outreach plan

Policy and other developments

Policy:

- ❑ Better incorporate DEL and other considerations.
- ❑ Integrate climate and DEL

Communication, Translation and Engagement

- ❑ Translate, format, package and flow information through to trusted sources.
- ❑ How to effectively engage locals directly

COVID (future impacts on land use?)

A large, stylized, blue letter 'A' is positioned on the left side of the slide. It is set against a dark blue background that occupies the left half of the slide. The letter is composed of solid blue shapes, with a horizontal bar across the middle and two vertical strokes that flare out at the top and bottom.

Adapt

How does all of this impact our work?



Based on what we learned, we plan to ...

**Engagement,
Coordination and
Accounting.**

- ❑ Continue to build relationships, share resources and knowledge to meet evolving needs.
- ❑ Expand connections beyond CBP internal teams.
 - Engage states and regional planning organizations and incorporate resources into land policy BMPs
- ❑ What does success mean?



Help

*How can the Management Board
lead the Program to adapt?*



How You Can Help

- ❑ Renewed engagement land use related outcomes (and Healthy Watersheds GIT)
 - Formation of land use action team/work group.
 - Resources related to “translation” of CBP resources pursuant to the Local Engagement Strategy.
 - Guidance and feedback on how resources will be utilized at the local level.

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Discussion