[LAND USE OPTIONS EVALUATION OUTCOME – FEB 11, 2021]

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. Strategies should be developed for supporting local governments' and others' efforts in reducing these rates by 2025 and beyond.

The narrative analysis summarizes the findings of the logic and action plan and serves as the bridge between the logic and action plan and the quarterly progress meeting presentation. Based on what you learned over the past two years from your successes and challenges, you will describe whether the partnership should make adaptations or change course.

Use your completed pre-quarterly logic and action plan to answer the questions below. After the quarterly progress meeting, your responses to these questions will guide your updates to your logic and action plan. Additional guidance can be found on ChesapeakeDecisions.

1. Examine your red/yellow/green analysis of your management actions. What lessons have you learned over the past two years of implementation?

Summarize what you have learned about what worked and what didn't. For example, have you identified additional factors to consider or filled an information gap?

Much of the work completed is the result of many efforts across the Bay program. Progress from 2019-2020 is not completely reflected in the logic and action plan. Some efforts previously identified may be out of date or no longer necessary, while others are completed or just getting underway. In addition, the work completed (both reflected in the logic and action table and not) is the result of many efforts across the bay program partnership. What we've learned is that this work is dependent on the participation of related outcomes and workgroups, as well as their work/products. In 2019 a team of leaders at CBP put together a local engagement strategy that presented a road map for Chesapeake Bay Program (CBP) engagement with local government leaders. The strategy defines the roles of the different players involved and articulates a mechanism for creation and delivery of messages that both meet CBP needs and relate to local government priorities. A great deal of the work towards this outcome in late 2019 and 2020 was guided by this strategy. Specifically, one principle of the local engagement strategy notes that locals need to receive information in different ways. As a result, HWGIT staff worked to create various opportunities to collaborate and inform on land use including, being invited to webinars as a subject matter expert, providing input on training and outreach materials, and informing various GIT funding projects.

Gaps identified early on related to the *need for improved participation across related outcomes and workgroups* has advanced substantially in the last several years. In addition, the local

engagement strategy and other related resources developed by Communications and Local Leadership teams have expanded our *understanding of how to engage locals as well a local level priorities*. Actions, tools, technical resources have been compiled and, in some cases, packaged and placed on websites. Finally, the coordinated GIT funding projects (see below) as well as collaborative work towards *increasing education, understanding and capacity* of staff to gain knowledge of innovative conservation financing initiatives.

The factors identified in the Management Strategy include *political and educational challenges* about the need to reduce land change conversion and how many of these practices can also help with meeting other TMDL, flooding and infrastructure needs; *Sustaining the Agricultural and Forestry Industries* and *Engage Local Governments in Conducting the Evaluation* and the *technical challenges* associated with evaluation of progress toward this outcome. The factors outlined in the current logic and action table outlines broader factors that are not quite aligned with the management strategy. Due to the length of time since the updating of these documents it is recommended that the factors, gaps and management strategies be revisited upon updating the materials for the SRS process. It is anticipated that the Management Strategy will be updated to reflect the adaptive management process and better reflect advances, progress, and next steps. For example, "translation" has emerged as a factor related to whether data and resources are in the correct format for end users. A great deal of the information available is either not well documented, not in a format that is easily digestible, or has not been disseminated through the appropriate trusted sources channels.

Currently, there is no coordinated watershed effort to promote and implement policy options, incentives and planning tools that assist in increasing local government capacity to reduce the rate of land conversion as a means to protect the Bay and natural lands in the watershed. Despite this lack of coordination, reporting and accounting toward this outcome; there have been a great many of newly available data, associated web-based decision support tools, project reports with resources, fact sheets, and webinar content developed with extensive cross Goal Team and CBP partner collaboration.

To provide details on the more recent efforts, a list by category has been compiled of the various efforts undertaken toward this outcome. This is by nature a qualitative outcome and there has been little thought put into how best to understand if the work that is being undertaken is making an impact. That is, is the rate of land conversion reducing as a result of our efforts?

Data, Decision Support and Web Based tools:

Chesapeake Bay High-Resolution Land Cover: 2013 1-m and 10-m land cover and land use data: https://www.chesapeakeconservancy.org/conservation-innovation-center/high-resolution-data/land-use-data-project/

Chesapeake Phase 6 Land Use Viewer: This data viewer allows you to explore the high-resolution land cover dataset.

Chesapeake Bay Watershed Data Dashboard: The Data Dashboard provides information on the economic and community health benefits of pollution reduction and mapped opportunities for land policy, grow management, restoration and conservation practices to help guide watershed planning efforts.

The Chesapeake Healthy Watersheds Assessment (CHWA) is a recently completed (Dec 2020) web-based tool that allows the Healthy Watershed GIT to illustrate a framework for understanding the spectrum of health, vulnerability, and potential resiliency across the entire bay watershed. The CHWA to provide local level, catchment specific metrics related to landscape, hydrology,

geomorphology, habitat, biological condition, water quality, land use change, water use, climate and wildfire can help inform health and vulnerability at a localized level.

The DRAFT Chesapeake Bay Environmental Justice and Equity [Dashboard](#) provides access to a variety of spatial data layers pertinent to addressing environmental issues in areas with populations of underrepresented communities. These data reflect demographic data of underrepresented populations, environmental justice and public health issues, quality of life concerns, and other data important for other Outcomes. This dashboard could help to incorporate or address DEIJ considerations of this outcome.

Communication/Presentations:

Resources added to the "land policy and conservation" tab of the Chesapeake Bay Watersheds Data Dashboard: https://gis.chesapeakebay.net/wip/dashboard/ Provides information relevant to growth and development including current land use (2013 high-resolution) and current county-level zoning data (if available). Provides information to help identify opportunities across the watershed for Forest Conservation, Agriculture Conservation, and Growth Management.

Chesapeake Forest Restoration Strategy: The Forestry Workgroup revised and updated the [Chesapeake Forest Restoration Strategy](#) with a shared stewardship framework to emphasize the importance of collaboration/partnerships . The strategy lays out broad priorities and actions to guide future forestry partnerships efforts, addressing new topics like climate change and identifying additional forest restoration needs to improve ecosystem function and resilience.

Land Use Resources Guide: Developed [Land Use Resources Guide](#) for specific webinars. This guide has been adopted by others within CBP as a great model for other topics as well.

Presentations/Webinars: HW GIT coordinator, Renee Thompson was invited and or participated in several webinars and presentations related to CBP land use resources, data and tools. Most recently Renee has been invited to present at the LGAC meeting in the Spring and the Interstate Commission the Potomac River Basin invited Renee back for a follow-up webinar after she presented on various CBP decision support tools in November 2020.

Projects:

2020-2021 GIT funding Projects:
Cross-Outcome Watershed Education Materials for Local Governments – 2021
Work with Local Leadership workgroup and Green Fin studio to provide input on a land conservation and land use module. (2021)

SRS Finance Forum – Conservation of Working Lands- Expert Consultants – Q3,4 2020
Partnered with Land Conservation work group (Chesapeake Conservation Partnership, Forestry workgroup (leadership), Healthy Watersheds GIT, and Land Trust Alliance to utilize consultant hours to provide webinar/training sessions related to conservation finance, to expand understanding of the voluntary forest carbon market, current policy and program efforts underway in the Bay watershed, potential mechanisms for funding carbon sequestration on public and private lands   (2020 – 2021)

Improving Technical Service Delivery for Private Landowners (in partnership with Habitat GIT) (2020-2021)
- HW Coordinator serves on steering committee
- Provided data and assessment input for selection of target areas

2019-2020 GIT funding Projects:
Green Fin Studio: for scope 12: for cross-outcome watershed educational materials for local governments. $49,503.
- HW Coordinator worked with scope developers to assure a land use and land conservation module will be one of the first developed.
- Working closely with project leads and contractors to get "our resources" into the communication materials.

SKEO Solutions, Inc.: for scope 7: targeted local outreach for green infrastructure in vulnerable areas
- HW Coordinator serves on steering committee
- Provided data and assessment input for selection of target areas

2018-2019 GIT funding Projects:
- Chesapeake Watershed Finance Intensive Workshop – April 2019
- The Conservation Finance Network delivered an intensive conservation [finance forum](#) to 40 invited Chesapeake practitioners to spur ongoing engagement, communication and share expertise in support of the CBP land conservation goal.

2021:
- Steering Committee for proposed STAC workshops, HW GIT Coordinator
- STAC workshop proposal regarding a systems approach to BMP crediting. (Wetland, Forestry, Fisheries)
- STAC workshop steering committee for Rising Watershed and Bay Water Temperatures—Ecological Implications and Management Responses (Forestry, Climate, STAR, Habitat)

2. Regardless of how successful your short-term progress has been over the past two years, indicate whether we are making progress at a rate that is necessary to achieve the outcome you are working toward. The example graph below illustrates this concept.
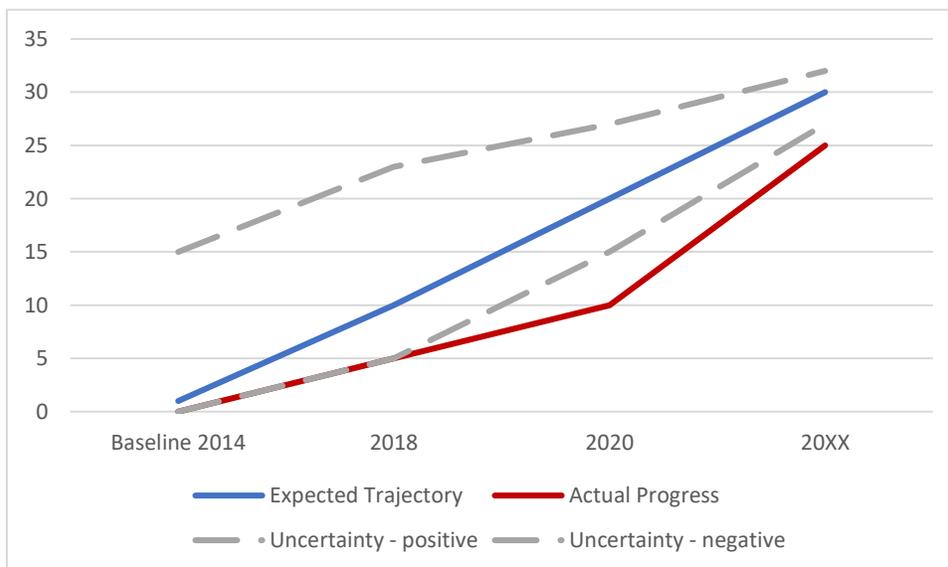
The nature of this outcome is qualitative. The Land Use Methods and Metrics outcome is the quantitative data that can allow CBP to track and report the rate of land conversion through time. The Land Use Options Evaluations outcome aims to determine depth and breadth of resources aimed at reducing those rates of conversion. The last part of the Land Use Methods and Metrics outcome calls for the launch of a public awareness campaign to share this information with citizens, local governments, elected officials and stakeholders. Therefore, the outcomes should have a more tightly woven connection related to how to engage locals in their needs, package materials and resources to meet their needs and communicate to relevant audiences. The ultimate question, however, is not how many webinars, presentation, decision support tool hits, data downloads or citizens reached through targeted outreach, but rather are these actions having the intended outcome of reducing the rate of farm, forest and wetland conversion.

Several metrics could be developed to track actions undertaken and measure against land use change over time. Some metrics would be more resource intensive, daunting and/or unfeasible. The importance of the individual actions becomes less of a measure than whether the collection of diverse activities is indeed reducing land change conversion. It will be important for the post MB assessment to assure that the updated management documents reflect how to best reflect what success means for this outcome. Are the collective, synthesized actions reflect that they are having the intended effect.

Measures of success:

The outcome calls to *involve* locals in *evaluating* policies, incentives and tools aimed at *increasing capacity* to develop *strategies to reduce conversion.* There are a variety of quantitive and qualitative metrics that could be developed, including but not limited to:

1. Land Use Metrics: rate of farm, forest, and wetland conversion through time.
    a. Assess the rate of conversion against key policies (in selected jurisdictions) to determine if the policies, incentives, planning and tools are having the intended effect.
        i. e.g., the Forest Conservation Act in Maryland was implemented in 1990. How has the rate of forest conversion changed since 1990 in Maryland?

2. Number of projects, presentations tools – total people reached
    a. Survey of key audience needs?
    b. Does what we have developed meet their needs?

3. Web Analytics: Total downloads, site visits, use of resources, tools and information provided on websites.
    a. Provide a mechanism for feedback directly on the web support tools

*Use the **editable** graph below (or your own chart) to illustrate your progress. Explain any gap(s) between our actual progress and our anticipated trajectory.*

1. By 2017, evaluate policy options, incentives and planning tools that could assist local governments in improving their capacity to reduce the rate of natural land conversion to impervious land covers.
2. By 2025, develop strategies for supporting local governments and others to reduce these rates.

3. What scientific, fiscal and policy-related developments will influence your work over the next two years?

This may include information learned at the previous biennial SRS meeting or more specific information about your outcome such as an increase or decrease in funding, new programs that address gaps, and new scientific data or research. Describe how these developments are likely to impact your recommended measure(s) of progress, the factors you believe impact your ability to succeed, and newly created or filled gaps. These changes should be reflected in the first three columns of your revised logic and action plan after your quarterly progress meeting.

Scientific Developments:

The 1m and 10m Chesapeake Bay land use land cover change dataset for 2013 and the subsequent 2017 dataset that will be available in 2022 present an opportunity to measure progress toward this outcome. CBP delivered on providing local level land use data, a need that was explicitly requested via public comment early in the watershed agreement development process.

The USGS national Land Change Monitoring, Assessment, and Projection (LCMAP) can be analyzed to provide local level information. While this data is available, there is not currently a plan in place to analyze the information directly to assess if it could help inform this outcome.

DEIJ and Climate:

Diversity, Equity, Inclusion and Justice (DEIJ) and Climate considerations are well not accounted for in this outcome. The way land is utilized for recreational, housing, infrastructure, resilience, or industrial purposes can have profound effect on the residents that make up a community. While resources have been compiled related to the policies, incentives, and planning tools to reduce land conversion, there has not been an assessment how those policies may also serve or hinder underserved communities. It is also important that any policies, incentives, or planning tools also help support healthy communities in an equitable way. For example, "redlining" policies implemented by federal programs in the 1930s and beyond continue to have lingering discriminator effects on minority populations. Land use also can plan an important role in protecting resilient or vulnerable due to climate change. In addition, rising temperatures as a result of climate change may disproportionately effect underserved urban areas lacking natural capital and tree cover. The CBP GIS Team has developed a great deal of GIS mapping and decision support tools. Many of these resources can help inform these issues. The recently completed DEIJ Strategy can also be a resource moving forward. Renee Thompson serves on the CBP DEIJ Action Team (2020-2021) and can help demonstrate implementation of specific recommended actions related to DEIJ considerations in workplan development as well as communication and outreach materials.

Communication, Translation and Engagement:

There remain obstacles in effectively communicating and illustrating the application of resources. Communication and outreach materials developed for the targeted audience (local level land use managers) are needed. Management materials need to be updated. Clear ownership, home in the CBP organizational structure, and path forward is needed. While staff have been able to manage and champion land use resources, tools and information, a more coordinated effort is needed. As illustrated in the accompanying presentation, there is an overall strategy for engaging with locals. The key components representing the chain of interaction runs from subject matter experts to translators, trusted sources to audience. While we have a great deal of "expert" subject matter, it is not in the format that is needed to effective reach the audience. There remains a need to translate, format, package and flow information through to trusted sources.

4. Based on your response to the questions above, how will your work change over the next two years?

Describe the adaptations that will be necessary to more efficiently achieve your outcome and explain how these changes will lead you to adjust your management strategy or the actions described in column four of your logic and action plan. Changes that the workgroup, GIT or Management Board consider significant should be reflected in your management strategy.

The portion of the outcome that outlines the need for "direct involvement from local governments" or their representatives remains a very informal partnership. Interaction with locals is through a variety of different pathways such as webinars, technical resource guide materials, training materials, as well as though the members of the local leadership and local government advisory groups at CBP. In addition, some local leaders serve on the land use work group. There remains a need to obtain input and develop a sustained pathway of mutual listening and learning.

This outcome would benefit from a more formalized organization and leadership from the CBP community. Due to lack of resources, staff capacity and shifting priorities this outcome is getting lost in terms of accounting. The Management Strategy and most recent Logic and Action plan are both out of sync and out of date. The key factors listed in the Management Strategy

There is a lot of work to do between Feb and May 2021 to get the documents up to date. Support from management and a formalized workgroup or action team with Healthy Watsheds GIT, Land Use workgroup, Local Leadership, Land Conservation, Forestry, Agricultural, Communications, land use professional, Diversity, Climate and NGO representation would be useful to assist in charting the course for achieving this outcome. This group would work to develop a strategy to involve locals and provide data, resources an information related to land use change more effectively.

There is gap in knowledge related to the connection to the land use planning process and how it works at the local level.

5. What, if any, actions can the Management Board take to help ensure success in achieving your outcome?

Please be as specific as possible. Do you need direct action by the Management Board? Or can the Management Board direct or facilitate action through other groups? Can you describe efforts the workgroup has already taken to address this issue? If this need is not met, how will progress toward your outcome be affected? This assistance may include support from within a Management Board member's jurisdiction or agency.

This outcome is missing a formalized organizational structure and leadership. This is not due to the lack of importance but a systemic capacity issue across the partnership.

Local engagement is a key piece of this outcome and a plethora of reports, best practices, decision support tools have been created, we are the missing "translation" piece outlined in the CBP local engagement strategy. Resources are needed by professional science communicators with special knowledge of local governments to assist in the distillation, packaging and dissemination of the plethora of resources that have been developed. There is also a need to a more formalized relationship with local decision makers. How do we involve them directly in our process?