BIENNIAL STRATEGY REVIEW SYSTEM
Chesapeake Bay Program

Narrative Analysis

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

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.

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

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 toward the Land Use Options and Evaluation (LUOE) Outcome is in thanks to the many efforts of Chesapeake Bay Program (CBP) partners over the past two years. The 2019-20 LUOE Logic and Action Plan is no longer accurate, as some of the previously identified efforts are now out of date or may no longer be necessary, while others have been completed or are currently underway. What we've taken away from this process over the past two years, is that our efforts to meet the LUOE Outcome is dependent on the participation of related outcomes and their workgroups, which include whatever efforts they employ to meet their own targets.

A major gap that was identified early in the Strategy Review System (SRS) process related to the need for *improved participation across related outcomes and workgroups*. However, this gap has narrowed substantially over the past few years, thanks in part to cross-outcome efforts such as the development of the CBP Local Engagement Strategy and collaborating on several GIT-funding projects.

The CBP Local Engagement Strategy was created by members of the Local Leadership and Communications workgroups in 2019. The strategy was developed to present a road map for partners to better engage with local government leaders. The strategy defines the roles of the

different players involved and articulates a mechanism for the creation and delivery of messages that both meet CBP needs and relate to local government priorities.

Much of the work toward meeting the LUOE Outcome in late 2019 and throughout 2020 was guided by this strategy, helping to expand our *understanding of how to engage with locals as well as local level priorities*. Specifically, the Healthy Watersheds Goal Implementation Team (GIT) sought to meet one of the principles of local engagement outlined in the strategy, which noted the need of local government leaders to receive information in a variety of different ways. Therefore, staff created various opportunities to collaborate with local government officials on land use, including participating in webinars as a subject matter expert, providing input on training and outreach materials, and informing various GIT-funding projects. Some of these actions, tools and technical resources are packaged and published online.

As mentioned above, the coordinated GIT funding projects, listed below, also contributed to closing the gap related to improved participation across related outcomes and workgroups. Additionally, this collaborative work helped with *increasing education, understanding and capacity* of staff in gaining knowledge of innovative conservation financing initiatives.

2020-2021 GIT Funding Projects:

Cross-Outcome Watershed Education Materials for Local Governments

- 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

- Conservation of Working Lands
- Expert Consultants
- Occurred in Quarters 3-4 of 2020.
- In partnership with the Chesapeake Conservation Partnership (responsible for the Protected Lands Outcome), Forestry Workgroup and Land Trust Alliance, the Healthy Watersheds GIT utilized consultant hours for a guided discussion on expanding understanding of the voluntary forest carbon market, which included current policy and program efforts underway throughout the watershed, and 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.
- HW Coordinator serves on steering committee.
- Provided data and assessment input for selection of target areas.
- 2020-2021.

2019-2020 GIT funding Projects:

Targeted Local Outreach for Green Infrastructure in Vulnerable Areas

- Contract awarded to SKEO Solutions, Inc.
- 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

- Held in April 2019.

- The Conservation Finance Network delivered an intensive conservation finance forum to 40 invited Chesapeake practitioners to spur ongoing engagement and communication, as well as to share expertise in support of the CBP land conservation goal.

Like the work outlined in the LUOE Logic and Action Plan, the current factors outlined are broader and do not necessarily align with what's contained in the LUOE Management Strategy. These include *political and educational challenges* regarding the need to reduce land change conversation and how many of these practices can also help in meeting other Chesapeake Bay Total Maximum Daily Load (Bay TMDL), flooding and infrastructure needs; and *sustaining the agricultural and forestry industries* and *engaging local governments in conducting the evaluation* and the *technical challenges* associated with evaluating progress toward this outcome.

It is recommended that the factors, gaps and Management Strategy for the LUEO Outcome be updated after the February 2021 quarterly SRS progress review meeting, due to the substantial period of time that has passed. It is anticipated that the existing Management Strategy will be updated to reflect the adaptive management process to better reflect advances, progress and next steps. As an example, "translating" materials is an emerging factor related to whether resources and data are understandable by the audience it is intended for. Currently, a great deal of information for the LUEO Outcome is not well-documented, in a format that is easily digestible or has not been disseminated through the appropriate trusted sources.

Currently, a coordinated watershed effort to promote and implement policy options, incentives and planning tools that assist in increasing the capacity of local governments to reduce the rate of land conversion as a means to protect the Bay, its tributaries and natural lands throughout the watershed, does not exist. However, over the past two years, new data has been made available, along with associated web-based decision support tools, as well as communications products such as fact sheets, webinars and other related resources to better understand cross-GIT and partnership-wide projects.

The below categorized list includes the various efforts that have been undertaken toward meeting the LUEO Outcome over the past two years. As this outcome is qualitative, there has not been a great deal of thought toward how to measure if this work is making an impact. We need to understand if our efforts are helping to reduce the rate of land conversion.

Engagement with the Scientific and Technical Advisory Committee (STAC):

- The Healthy Watersheds GIT Coordinator is on the Steering Committee for a proposed 2021 STAC workshop.
    - The STAC workshop proposal is about a systems approach to the crediting of best management practices (BMPs).
    - The steering committee also contains representatives from the Sustainable Fisheries GIT and the Wetland and Forestry workgroups.
- The Healthy Watersheds GIT Coordinator is also on a STAC workshop steering committee for Rising Watershed and Bay Water Temperatures—Ecological Implications and Management Responses.
    - The steering committee also has representatives from the Habitat GIT, Forestry and Climate Resiliency workgroups and the Scientific, Technical Assessment and Reporting Team.

Data, Decision Support and Web Based tools:

Chesapeake Bay High-Resolution Land Cover

- 2013

- One meter and 10 meter 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.

Chesapeake Healthy Watersheds Assessment (CHWA)
- Completed in December 2020, the CHWA is a web-based tool that allows the Healthy Watersheds GIT to illustrate a framework for understanding the spectrum of health, vulnerability, and potential resiliency across the entire watershed.
- It provides catchment-specific metrics related to landscape, hydrology, geomorphology, habitat, biological condition, water quality, land use change, water use, climate and wildfires that help inform health and vulnerability at a localized level.

DRAFT Chesapeake Bay Environmental Justice and Equity Dashboard
- Provides access to a variety of spatial data layers pertinent to addressing environmental issues in underrepresented communities.
- It reflects demographic data of these underrepresented populations, as well as environmental justice, public health issues, quality of life concerns and other important data.
- The dashboard is important to several outcomes and could help incorporate or address diversity, equity, inclusion and justice (DEIJ) considerations for the LUOE Outcome.

Communication/Presentations:

Chesapeake Bay Watershed Data Dashboard Land Policy and Conservation Resources
- The "land policy and conservation" tab found on the Chesapeake Bay Watershed Data Dashboard provides information relevant to growth and development including current land use (2013 high-resolution) and county-level zoning data (if available).
- It also provides information to help identify opportunities across the watershed for forest and agriculture conservation, and growth management.

Chesapeake Forest Restoration Strategy
- The Forestry Workgroup revised and updated the Chesapeake Forest Restoration Strategy to include a shared stewardship framework that emphasizes the importance of collaboration in reaching restoration goals.
- The strategy lays out broad priorities and actions to guide future forestry partnership efforts, addresses new topics like climate change and identifies additional forest restoration needs to improve ecosystem function and resilience.

Land Use Resources Guide
- The Land Use Resources Guide was developed to compile ongoing initiatives, databases, tools and other resources to support local governments and land use managers in designing sustainable landscapes.
- This guide has since been adopted for other topics within CBP as a great model to showcase these resources.

Various Presentations/Webinars

- The Healthy Watersheds GIT Coordinator was invited and or participated in several webinars and presentations related to CBP land use resources, data and tools.
- Most recently, the Coordinator was invited to present at the March 2021 Local Government Advisory Committee (LGAC) and the Interstate Commission for the Potomac River Basin to conduct a follow-up webinar to one presented in November 2020.

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.*

As success for this outcome is qualitative in nature, it is more difficult to measure whether the intended actions (webinars, data downloads, presentations, targeted outreach, decision support tool hits) are having the desired result, which is reducing the rate of farm, forest and wetland conversion. The LUOE Outcome aims to determine the depth and breadth of resources aimed at reducing those rates of conversion. However, it's closely related to the Land Use Methods and Metrics (LUMM) Outcome, which is quanitative in nature, allowing CBP to track and report the rate of land conversion through time.

Since part of the LUMM Outcome calls for the launch of a public awareness campaign to share information with residents, local governments, elected officials and other stakeholders, both outcomes need to be tightly coordinated in how to engage locals in their needs, and ensure materials and resources are packaged in a manner in which they understand and respond to.

Several metrics could be developed to track actions undertaken and measured against land use change over time. Some would be more resource intensive, daunting and/or unfeasible. It is critical to understand if the collection of diverse activities is having the intended impact in reducing the rate of land change conversion. The existing Management Strategy and Logic and Action Plan will be updated after the February 2021 quarterly SRS meeting to best reflect what success means for this outcome.

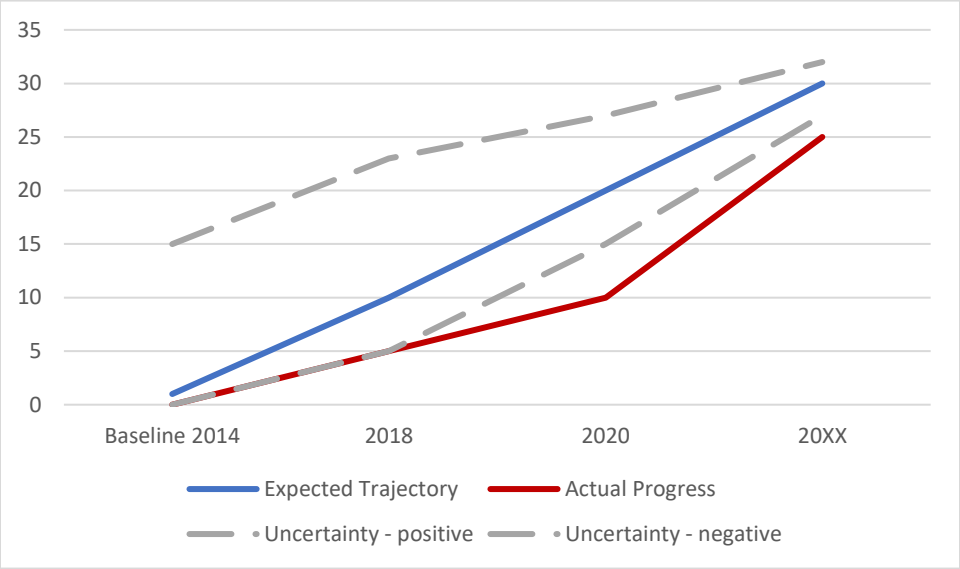
Potential Measures of Success:
As the outcome calls for the *involvement* of locals in *evaluating* policies, incentives and tools aimed at *increasing capacity* to develop *strategies to reduce conversion*, there does exist a variety of quantitative and qualitative metrics that can be developed. These include, but are not limited to:

- Land Use Metrics: The rate of farm, forest, and wetland conversion through time.
    a. Assesses the rate of conversion against key policies in place in selected jurisdictions to determine if the policies, incentives and planning tools are having the intended effect. For example, how has Maryland's Forest Conservation Act changed the rate of forest conversation since it was implemented in 1990?

- Total number of people reached through communications products and tools: Number of participants attending webinars, presentations or other outreach mechanisms.
    a. Potential survey of key audience needs to determine if what we have developed has met their needs.

- Web Analytics: Total data or resource downloads, number of site visits, and diversity of tools and information provided on websites.
    a. Develop mechanism for public feedback to be directly received on 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 one meter and 10-meter Chesapeake Bay watershed land use and land cover dataset developed in 2013 offered the opportunity to measure progress toward the LUOE Outcome. This dataset was updated in 2017 and will be available for use by the public in 2022. The CBP delivered its promise to provide local level land use data, a need that was explicitly requested via public comment early in the process of writing the most recent *Chesapeake Bay Watershed Agreement*.

Additionally, while national, the U.S. Geological Survey's Land Change Monitoring, Assessment and Projection initiative can be analyzed to provide local level information and data. However, a plan is not currently in place to analyze this information directly to assess its ability to help inform the LUOE Outcome.

DEIJ and Climate:

Diversity, Equity, Inclusion and Justice (DEIJ) and climate considerations are not well accounted for in the LUOE Outcome. The way land is utilized for recreation, housing, infrastructure or industrial purposes can have a profound effect on the residents that make up a community. While resources related to policies, incentives and planning tools to reduce land conversion have been compiled, there have not been any assessments completed to determine how underserved communities would be helped or hindered. It is vital that any policies, incentives or planning tools related to land conversion also support healthy communities in an equitable way. For example, "redlining" policies implemented by federal, state and local governments in the early 20th century continue to impact underserved communities to this day.

Land use can also play an important role in protecting vulnerable populations and/or lands due to climate change. For example, rising temperatures that result from climate change can disproportionately affect underserved populations in urban neighborhoods that lack natural capital and tree cover. The CBP GIS Team has developed several GIS mapping and decision support tools to help identify these areas and inform solutions for these issues. Additionally, the recently completed Restoration from the Inside Out: A Diversity, Equity, Inclusion and Justice Strategy for the Chesapeake Bay Program is a helpful resource in moving forward to address these issues. The Healthy Watersheds GIT Coordinator serves on the CBP DEIJ Action Team (2020-2021) and can demonstrate implementation of specific recommended actions related to DEIJ considerations in workplan development and communications and outreach materials.

Communication, Translation and Engagement:

Several obstacles remain in effectively communicating and illustrating the application of resources. While staff have been able to manage and champion land use resources, tools and information, a more coordinated effort is needed. There needs to be clear ownership over the LUOE Outcome, a home for it within the CBP organizational structure and a path forward determined on how to achieve its goal. Communications and outreach materials need to be developed for the target audience (local level land use managers), and materials for CBP management need to be updated. The Local Engagement Strategy presents a road map for engaging with locals by defining the roles of each messenger and articulating how messages should be created and delivered depending on each trusted source. While the LUOE Outcome has many subject matter experts and related materials, it is lacking the translation, formatting, packaging and information flow to reach the target audience.

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 LUOE Outcome that outlines the need for "direct involvement from local governments or their representatives" continues to remain a very informal partnership. Our current interaction with locals is through a variety of different pathways such as webinars, technical resource guides and training materials, as well as through members of the Local Leadership Workgroup, LGAC and the few local leaders that serve on the Land Use Workgroup. There remains a need to obtain input and develop a sustained pathway of mutual listening and learning between subject matter experts and local leaders.

There is also a need to initiate discussions among state agencies and regional planning organizations to discuss how state-level and regional-level policies, incentives and technical assistance programs could be revised to achieve a reduction in the rate of land conversion at the local level. The above policies, incentives and technical assistance programs can be captured, for example, in the Land Policy BMP scenarios that each state develops, and the CBPC model can forecast how those programs can prevent land conversion. States and regional planning organizations could benefit from these types of discussions and potentially could result in helpful modifications of existing state-level and regional-level programs and policies affecting local land conversion.

The LUOE Outcome would benefit from a more formalized organization and leadership from the partnership. Due to lack of resources, staff capacity and shifting priorities, this outcome is getting lost in terms of its 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 need to be updated to reflect how this outcome has evolved.

There is a lot of work to do between February and May 2021 to get these documents up to date. Support from the Management Board and the creation of a formalized workgroup or action team within the Healthy Watersheds GIT, that has representation from the Land Use Workgroup, Local Leadership Workgroup, Chesapeake Conservation Partnership, Forestry Workgroup, Agriculture Workgroup, Communications Workgroup, Diversity Workgroup, Climate Resiliency Workgroup, land use professionals 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, using the existing Local Engagement Strategy for guidance, so they may be provided data, resources and information related to land use change in a more efficient and effective manner.

Ultimately, our goal should be to inform land use planning and conservation decisions with information that will engender more sustainable decisions. What does success look like? Would it be to have our metrics and materials referenced in policies and legislation? Proof that those who make such decisions are considering the data and info we produce? Or is it reducing the rate of conversion of farm, forest and wetlands? How do we know if our work is contributing?

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.

The LUOE Outcome is missing a formalized organizational structure and leadership. This is not due to a lack of importance but a systemic capacity issue across the partnership. The formation of a land use action team, workgroup, or direct relationship with an entity like the internal local engagement team at CBP. This will allow key entities meeting on a frequent basis so we can accelerate progress on these outcomes.

Local engagement is a key piece of this outcome and while a plethora of reports, best practices and decision support tools have been created, we are the missing "translation" piece as outlined in the Local Engagement Strategy. Professional science communicators with special knowledge of local

governments are needed to assist in the distillation, packaging and dissemination of the plethora of resources that have been developed for this outcome. This will help close gap related to the land-use planning process and how it works at the local level, and for them to use the tools that already exist.

The Management board could also assist in conversations among state agencies and regional planning organizations to discuss how state-level and regional-level policies, incentives and technical assistance programs could be revised to achieve a reduction in the rate of land conversion at the local level.