**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.

**Status**

This outcome is focused on developing and implementing strategies to increase the capacity of local governments and others to reduce land conversion of natural land cover types to impervious surfaces. The completion of a 1-meter resolution, 54-class land use/land cover (LULC) dataset for all counties within and adjacentto the Chesapeake Bay watershed for 2013/14 and 2017/18, working with relevant CBP groups to provide input and help to create a Local Government Engagement Strategy, an upcoming GIT funding project to help make land use and land use change data actionable and operational at the community level in areas vulnerable to habitat loss, and engagement with local and state organizations will all help with progress and success of this outcome. With this qualitative outcome, there are challenges in assessing the degree to which efforts are helping to reduce the rate of land conversion, but the development of a local government engagement strategy and the communication of available land use data and tools are expected to lead toward meeting the outcome. The Land Use Options Evaluation Outcome is on course and will be met by 2025.

**What has helped achieve success since 2014?**

*Mention key successes from 2014 to 2023. No more than three-five bullet points.*

* Collaboration with related workgroups and outcomes, as well as their work/products.
* The number of non-governmental organizations that are focused on future land changes.
* Development of high-resolution land use / land cover and change products help to characterize the extent and rate of land use change.
* Existing policy drivers, such as the [Bay TMDL](https://www.chesapeakebay.net/what/programs/total-maximum-daily-load) and [Executive Order 13508 Chesapeake Bay Protection and Restoration](https://www.federalregister.gov/documents/2010/05/11/2010-11143/executive-order-13508-chesapeake-bay-protection-and-restoration-section-203-final-coordinated).

**What challenges have hindered progress?**

*Mention key impediments to achieving the outcome by 2025.*

* Lack of coordination and clear communication at the CBP partnership level to convey the need and purpose for local planners.
* The need to continue to work professional communicators and subject matter experts to translate data and analysis into materials and resources for those to utilize at the local and jurisdictional level to influence the rate of land conversion to development, especially considering population and land use change trends.
* Efforts to minimize future land change impacts are sometimes neglected given the need to reduce effects from existing land conversion.
* The need for better information on the benefits of land conservation and smart growth in language that is compelling for local governments and outlines the positive impacts on communities.
* Competition with economic development objectives.
* Local government’s need for technical assistance.
* Insufficient funding to complete the evaluation component of this outcome.

**If on course, what is needed to continue current trajectory? If off course, what is needed to accelerate progress? If uncertain, what would need to be done before 2025 to classify as on course/off course and can this be done in that timeframe?**

*No more than three-five, succinct bullet points.*

* 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, there is more need to communicate how planning for and protecting stable hydrology will reduce erosion and its associated sediment and nutrients to downstream areas including the Bay, while also reducing local flooding and improving drinking water quality and quantity. A more coordinated effort is needed, including:
  + A quantified cost analysis of the long-term economic effects of property damage from flooding along with increased drinking water treatment costs from altered hydrology due to land use change is needed so that people can get an idea of why this is important, and
  + A benefit analysis of the preservation and restoration of green infrastructure such as floodplain connectivity and wetlands as well as recharge areas that protect and maintain stable hydrology and clean, full aquifers through time. Ultimately, our goal should be to inform land use planning and conservation decisions with information that will engender more sustainable decisions.

Communication, Translation and Engagement:

* Translate, format, package and flow information through to trusted sources.
* Determine how to effectively engage locals directly.
* Improve how Diversity, Equity, Inclusion and Justice (DEIJ) and climate considerations are accounted for in the LUOE Outcome.