2014 WATERSHED AGREEMENT: GOAL & OUTCOME LANGUAGE

LAND USE METHODS AND METRICS OUTCOME:

Continually improve our knowledge of land conversion and the associated impacts throughout the watershed. By December 2021, develop a watershed-wide methodology and local-level metrics for characterizing the rate of farmland, forest and wetland conversion, measuring the extent and rate of change in impervious surface coverage and quantifying the potential impacts of land conversion to water quality, healthy watersheds and communities. Launch a public awareness campaign to share this information with local governments, elected officials and stakeholders.

LAND CONSERVATION GOAL:

Conserve treasured landscapes in order to maintain water quality and habitat; sustain working forests, farms and maritime communities; and conserve lands of cultural, indigenous and community value.

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD: RECLASSIFY

Status and Evaluation:

This outcome is specific, measurable, timebound and on course. However, it is an output, not an outcome. It has resulted in the creation of a high-resolution land use change monitoring program for the Chesapeake Bay watershed that is actively used by the CBP Partners, supported financially by the US EPA, and supported technically by the USGS and cooperators. US EPA has committed to continued high-resolution land use change monitoring through 2029.

Why the work associated with this outcome must continue:

Land use change monitoring informs 20 of the 31 outcomes in the 2014 Bay Agreement including: Wetlands, Stream Health, Brook Trout, Forest Buffers, Tree Canopy, Water Quality Standards Attainment and Monitoring, Healthy Watersheds, Protected Lands, and Monitoring & Assessment (climate resiliency). Changes in technology, the needs of the CBP Partners, and emerging phenomena (e.g., data centers, solar fields, marsh migration and dissolution) warrant continued attention and adaptation in the creation and application of land use change data.

Value added contribution of the CBP Partnership:

Land use is typically mapped by counties and varies from county to county. Only Maryland has a consistent state-wide land use map. Spatially, temporally, and categorically consistent land use and land cover maps over are needed for calibrating the Phase 7 Watershed Model, accounting for pollution sources in CAST, assessing rates of land conversion to development, and forecasting future land use change. High-resolution (1-meter cells) land use and land cover mapping is needed to improve the accuracy and transparency of models, inform the implementation of restoration and conservation actions, and to support multiple other outcomes including forest buffers and tree canopy, in particular. Unlike most states and counties, the CBP Partners have the needs and resources to support long-term consistent mapping and monitoring of high-resolution land use and land cover conditions and change.

Recommendations:

- Reclassify the production land use mapping and monitoring activities initiated by this outcome as an output for an updated Land Use Options Evaluation Outcome.
- Support the new CBP Land Use Strategy through the updated Healthy Watersheds outcome and updated Land Use Options Evaluation outcome.
- Formally integrate land use mapping, monitoring, and derived metrics into the management strategies of relevant outcomes: Local Leadership, Healthy Watersheds, Protected Lands, Public Access, Environmental Literacy, Wetlands, Stream Health, Brook Trout, Forest Buffers, Tree Canopy, Water Quality Standards Attainment and Monitoring, Healthy Watersheds, Protected Lands, and Monitoring & Assessment (climate resiliency).