DRAFT MANAGEMENT STRATEGY LAND USE METHODS AND METRICS

GOAL: Land Conservation

OUTCOME

Continually improve the knowledge of land conversion and the associated impacts throughout the watershed. By 2016, develop a Chesapeake Bay 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 citizens, local governments, elected officials and stakeholders.

CURRENT EFFORTS

- Land cover classifications from aerial and/or satellite spectral imagery collected from passive sensors
- Land cover classifications from imagery collected by active sensors (e.g., LiDAR)
- Counties, States, universities, organizations and the USDA-FSA have acquired high-resolution imagery to inform transportation, public works, and natural resource decisions

GAPS

- Complete or partial land cover information derived from classifying high-resolution imagery is currently available for select counties in the Bay watershed.
- The Management Strategy will require monitoring land change, not just mapping it once. Changes in spectral surface properties over multi-date images can present a challenge when doing high-resolution change analysis.

MANAGEMENT APPROACHES

CBP Partners will coordinate and solicit input on user requirements and technical specifications for this outcome. Potential technical approaches include:

- 1. Coarse, 30 m-resolution wall-to-wall mapping from Landsat satellite imagery
- 2. High-resolution (<5m) wall-to-wall mapping from aerial or satellite imagery
- 3. High-resolution (<5m) stratified random sampling

Local participation will be sought to help identify and describe impacts to communities, to ensure the data are useful for informing local-level decisions and to develop and implement a communication strategy. The Healthy Watersheds Goal Implementation Team, Citizen Advisory Committee and Local Government Advisory Committee will work with the Land Use Workgroup and Communications Office to develop a communication strategy and to identify the specific measures used to assess impacts to communities.



For the full draft management strategy, visit: www.chesapeakebay.net/managementstrategies