CBP LAND DATA, GIS AND DATA CENTER
2015 WORK PLAN HIGHLIGHTS

Land Data Team Priorities

Land Cover Monitoring Protocol - Developing recommendations for monitoring land cover change at high-resolution (Land Use Metrics Outcome)

Land Change Modeling – (1) Finishing CBLCM v3a and tailoring it to backcast urban land use 2012-1984, and (2) Simulating alternative future scenarios for the Bay watershed.

Watershed Model Support – (1) Developing a 2012-ish land use dataset for Phase 6 representing a quilt of the best available data- everywhere, (2) updated/refined watershed model segmentation for P6 based on actual precipitation data and updated census data, (3) Incorporating fluvial geomorphic metrics into our estimates of sediment delivery factors for Phase 6, and (4) Crediting existing riparian buffers based on intercepted flow-path land use characteristics.

GIS Team Priorities

Management Strategies Support – As yet TBD, but probable areas of focus include (1) cross-outcome geographic priorities, (2) multi-outcome factors affecting goal attainment, and (3) geospatial representation of progress towards Outcomes

Geospatial Tracking and Accountability – Supporting needs of GITs and Status and Trends Workgroup through geospatial representation of indicators and/or Chesapeake Progress

Metadata Development and Maintenance – Developing FGDC metadata records for downloadable data, map services, and static maps

Decision Support Applications – Continue to support geospatial components of (1) BayFAST, (2) Federal Fqcilities editing tool, (3) Public Access editing tool, (4) Land Conservation tracking and prioritization, including continued interaction with LandScope, and (5) land use data viewer

Geospatial Visualization Applications – (1) Identify opportunities to support data visualization needs of STAR workgroups and communication objectives associated with Bay Watershed Agreement, (2) complete atmospheric deposition story map being developed with EPA Region 3, and (3) Chesapeake Progress

Data Center Priorities

Chesapeake Center for Collaborative Computing (C4) - The Data Center is working closely with C4 (through an UMCES grant agreement) to develop a cloud computing strategy for the Chesapeake Bay Program. Currently, the strategy involves four key components: public websites, nonpublic web-based applications, geospatial resources, and the modeling environment. In FY15, it is anticipated that our public web presence will be hosted in a commercial cloud environment. A strategy for moving the CBP

watershed model and Scenario Builder to the cloud will be developed, as well as a vision for a future cloud-based geospatial presence.

Improving data process flows - Over the past few years, working closely with the water quality data manager, the Data Center has worked to improve and streamline the water quality monitoring data reporting process. We've also re-developed the database housing all event-based (monitoring) datasets. In FY15, we will shift that focus to improving the process flows for additional datasets (namely, point source data), as well as identifying ways we can streamline the process for how data moves throughout the program (from reporting to publication – see priority 3, below). Of interest to the Data Center is work that STAR and others are doing to identify data commonalities among factors important to the identification of management strategies and influencing outcomes as they relate to the new Watershed Agreement. Supporting shared access to authoritative datasets supporting the development of management strategies is a key priority.

Data access and publication - The Data Center is in the process of redeveloping the CBP Data Hub Data Download Application, utilizing an API-based architecture. This should be released in a few months, and will improve users' abilities to discover, access, and ultimately utilize CBP data resources. Throughout the remainder of FY15, the Data Center will focus on developing and implementing a comprehensive plan for publication of all CBP data assets (including geospatial assets), which will build upon and tie together a number of past efforts to-date. It is anticipated that this work will extend into FY16.

Data visualization - The Data Center will continue to work closely with the GIS Team Lead to develop and release key visualization products. The first of these will likely be the release of a web-based "story map" describing the process of atmospheric deposition of nitrogen across the watershed, as well as the role that key regulations have had in reducing the contribution of atmospheric nitrogen to the watershed over time. Additionally, as part of the larger data visualization effort, we will work closely with the GIS team to access and procure tools that will facilitate the development of future visualizations.