AM & DECISION SUPPORT

|  |  |
| --- | --- |
| Provide Decision Support Tools | |
| The U.S. Geological Survey (USGS) is developing decision-support tools to help Chesapeake Bay Program (CBP) partners improve efficiency and accountability when applying practices and policies to achieve their goals and carry out the President’s Executive Order 13508—Strategy for Protecting and Restoring the Chesapeake Bay Watershed.  The decision tools will help partners focus on actions that will provide the greatest benefit for water quality, habitat restoration, and land protection. The tools listed below compliment the CBP Chesapeake*Stat site*, which aids partners in carrying out an adaptive management decision framework. USGS tools being developed include:  **Nontidal water-quality loads and trends**  The Nontidal Network Web sites provide access to information on nutrient and sediment loads and trends at sites in the Chesapeake nontidal water-quality monitoring network, including the river-input monitoring (RIM) sites. You can use the data to help assess the water-quality change in selected watersheds.  **Water-quality mapper with USGS SPARROW information**  The Watershed Contribution Mapper helps users select areas in which to enhance water-quality actions based on the major sources (source sectors) of nutrients and sediment affecting the Chesapeake Bay. The data used for selecting areas in the Watershed Contribution Mapper are primarily based on [**SPARROW**](http://pubs.usgs.gov/fs/2009/3019/) (**SPA**tially **R**eferenced **R**egressions **O**n **W**atershed attributes) model results. The mapper contains additional information on local water-quality conditions and the amount of surface water and groundwater in different areas (the base-flow index) that affect the movement of nutrients evaluated by the Watershed Contribution Mapper. For national SPARROW Results including the 2002 NHDplus Chesapeake Bay Models go to the [National Sparrow Decision Support Tool](http://cida.usgs.gov/sparrow/), which also allows a user to run scenarios for nutrient reductions.  **Forest conservation mapper**  The Forested Land Management Mapper provides access to information about important resource lands in the Chesapeake Bay watershed. It allows users to rank important environmental indicator datasets to create their own priority maps.  **High-Resolution Landcover Mapper (H-R LCM)**  The High-Resolution Landcover Mapper is a downloadable tool that tracks watershed land-cover conditions. The tool can be used to classify riparian forest buffer conditions and calculate statistics.  **Land conservation priority mapper**  The Land Conservation Priority Mapper is a pilot project that is part of the National Park Service-U.S. Geological Survey collaborative LandScope project. The mapper allows users to select the highest priority areas for conservation. Eventually this functionality will be included in the LandScope decision support tool being developed with NatureServe.  Related USGS tasks include improving information management and access to Chesapeake Bay watershed data. As part of the USGS’s Core Science Systems activities, we are working to populate the agency wide ScienceBase data catalog with published USGS Chesapeake Bay Activities datasets. A data catalog is an online searchable collection of metadata and data. The USGS Chesapeake Bay Activities group is also working with CBP partners to establish a data enterprise solution for water-quality data. The data enterprise will more easily allow access and sharing of information among partner agencies.   |  | | --- | | Read more: Links to USGS Decision Support Tools   * [Nontidal water-quality loads and trends](http://md.water.usgs.gov/gis/trends/) * [Water-quality mapper with Chesapeake Bay SPARROW information](http://lcat.usgs.gov/coast/watershed_mapper/) * [National Sparrow Decision Support Tool](http://cida.usgs.gov/sparrow/) * [Forest conservation mapper](http://lcat.usgs.gov/coast/cbflm/) * [Land conservation priority mapper](http://lcat.usgs.gov/coast/clcps/) * [High-Resolution Landcover Mapper](http://gdacorp.web5.hubspot.com/rb-mapper/)   USGS Chesapeake Bay Data <http://chesapeake.usgs.gov/data.html> | |  |

**Learn More from the USGS**

USGS Core Science Systems and information management <http://www.usgs.gov/core_science_systems/>

**CBP Partner Information**

-Chesapeake*Stat*

<http://stat.chesapeakebay.net/>

Executive Order Strategy—(see “Strengthen Science” on page 108)

<http://executiveorder.chesapeakebay.net/file.axd?file=2010%2f9%2fChesapeake+EO+Action+Plan+FY2011.pdf>