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science for a changing world

Selected Accomplishments in FY2007 for USGS Chesapeake Bay Studies

The restoration of the Chesapeake Bay, the Nation's largest estuary, is continually challenged by the population increase in its 64,000 square mile watershed. Since the mid-1980s, the Chesapeake Bay Program (CBP), a multi-agency partnership has worked to improve water quality, increase habitat, and restore living resources in the Bay. However, the lack of significant improvement in the Bay ecosystem and the discovery of “intersex” characteristics in fish within the Bay watershed illustrates that more effective implementation and assessment of ecosystem management actions are needed. The USGS has implemented a new science plan in consultation with the CBP, Interior, and academic partners to provide integrated science for effective ecosystem conservation and restoration during 2007-2012.

Selected accomplishments in FY 2007 include:

- The USGS developed a decision-support tool that provided modeling and monitoring results to help resource managers better target and assess water-quality management actions. US EPA and other CBP partners want USGS to expand the application into the Chesapeake Online Assessment Tool (COAST) to include other partner’s information.
- The USGS led a more comprehensive approach by the EPA, FWS, NPS, NOAA, and NRCS to identify geographic areas to focus implementation of management actions to improve water quality, habitat and living resources. A scientific approach for will be summarized in FY2008.
- The USGS, working with FWS and four states, conducted sampling of fish populations and emerging contaminants to begin to assess the factors affecting health of populations in the watershed including problems related to intersex characteristics. The initial results are expected in FY2008.
- The USGS completed a synthesis of Chesapeake Bay science and its implications for ecosystem management that will be released in early 2008.

In FY 2008-2010, the USGS is planning to conduct field investigations that are needed to better define the factors affecting the transport and change of nutrients and sediment in the watershed, and the factors affecting fish health, to improve the approaches to more effectively implement and assess ecosystem management actions.