

EPA report highlights VIMS management tools

(August 3, 2010) A new report by the U.S. Environmental Protection Agency highlights coastal management tools created by wetlands experts at the Virginia Institute of Marine Science.

The tools—developed by researchers in VIMS' Center for Coastal Resources Management (CCRM)—include interactive maps of wetlands within the York River watershed and the Commonwealth of Virginia, and guidance procedures for “living shorelines.”

The EPA report, *Mid-Atlantic Review*, is the first in a planned series of regional reviews of wetland conditions around the nation. The series is part of the EPA's Coastal Wetlands Initiative, begun in 2009 in response to findings by NOAA, the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service that the nation is losing large tracts of coastal wetland—despite the federal policy of “no net loss” of wetlands established in 1989 by President George Bush. The no-net-loss policy is also part of the Chesapeake 2000 agreement between Virginia, Washington, D.C. and other Bay states.

The goal of the EPA report, based on management program reviews and stakeholder meetings at VIMS and in Delaware, is to share successful wetland management tools with other coastal jurisdictions nationwide, so that the nation as a whole can more effectively address its on-going coastal wetlands losses.

According to the report, VIMS provides “scientific support for improved decision-making,” and has “developed strong collaborative relationships as well as valuable coastal wetland resources intended for local, state, and federal agencies to draw upon for priority setting as well as policymaking.”

One of those resource tools, the *York Watershed Tidal Wetlands Viewer*, is an on-line, interactive map that allows users to quickly and accurately view baseline data describing existing wetland resources in the watershed of the York, Mattaponi, and Pamunkey rivers.

CCRM Director Carl Hershner says “These baseline data give resource managers the ability to assess the current state of our wetlands, and thus to gauge the magnitude and rate of changes in wetland status.”

The wetland tools—based on satellite imagery and exhaustive field studies—provide information on in-water features such as oyster reefs, underwater bay grasses, salinity, and water depth; as well as land-



Video clips of related interests are available on the VIMS website.

Find this story and more at:
www.vims.edu/topstories

Virginia Institute of Marine Science
School of Marine Science
College of William and Mary
Gloucester Point, VA 23062
(804) 684-7000

use characteristics in the surrounding watershed: whether barren, cropland, forest, pasture, residential, urban, or wetland.

Also featured in the EPA report is VIMS' success in promoting the use of "living shorelines"—strategic placement of plants, stone, sand, or other structural and organic materials to reduce erosion and enhance wetland habitat. Living shorelines preserve the natural connections between water, shoreline, and uplands, thus providing better habitat for fish and other animals.

CCRM scientists have developed a shoreline-management decision tree that leads users through a series of questions about their shoreline characteristics to a recommendation of the environmentally preferable treatment(s) for the specific shoreline in question—whether a living shoreline, forest stewardship, fiber logs, riparian buffer, rock revetment, or some combination thereof. Due to these efforts, and efforts by scientists with other state and federal agencies, living shorelines are seeing increasing use among waterfront property owners in Chesapeake Bay.

CCRM tools help state and local managers determine the overall quality of Virginia's wetlands, gauge cumulative changes in wetland quality through time, identify problem areas, determine needed levels of protection, and measure the effectiveness of agency programs in meeting the no-net-loss goal.